Study Title

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS

SPONSOR'S STUDY NUMBER: T-6889.6

Data Requirement

U.S. Environmental Protection Agency (1998). Health Effects Test Guidelines; Reproduction and Fertility Effects. Office of Prevention, Pesticides and Toxic Substances (OPPTS) 870.3800, August, 1998.

U.S. Environmental Protection Agency (1997). Toxic Substances Control Act (TSCA) Test Guidelines; Final Rule. Reproduction and Fertility Effects, 799.9380 (cross-referenced to OPPTS 870.3800). *Federal Register*, August 15, 1997.

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(Final Report)

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Argus Research Protocol Number: 418-020

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GOOD LABORATORY PRACTICE STATEMENT

This study was conducted according to U.S. Environmental Protection Agency (EPA FIFRA/TSCA) "Good Laboratory Practice Standards; Final Rule" (40 CFR Part 160/792) and the Organisation for Economic Co-operation and Development (OECD) "Principles of Good Laboratory Practice", with the exceptions in bulleted list below.

Exceptions to GLP compliance:

The Argus Study protocol 418-020, was approved by the Sponsor and signed by the Argus Study Director prior to the initiation of any work performed for this study. The Sponsor's analytical group developed a separate protocol [3M FACT-TCX-164] and assigned a Study Director for the work conducted at their site and viewed the analytical portion as a separate study. The Sponsor issued a report for this segment of the study (presented in Appendix I of this report) which addresses the following areas of non-compliance:

- The analytical protocol identified a second Study Director rather than a Principal Investigator.
- The dose confirmation and stability analyses were conducted by the Sponsor prior to protocol 3M FACT-TCX-164 being approved and issued.
- The purity and stability of the surrogate THPFOS standard is not included in the full study report, as it is not known at this time.

Submitter:

Study Director: 26 MAR 2002

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Sponsor: 2 April, 2002

3M Corporate Toxicology Date

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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS

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TITLE: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS

ARGUS RESEARCH
PROTOCOL NUMBER: 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

I. SUMMARY AND CONCLUSION

A. Methods[a]

Crl:CD®(SD)IGS BR VAF/Plus® rats were used. The P generation consisted of 150 rats per sex assigned to five dosage groups (Groups I through V), 30 rats per sex per dosage group. Two F1 generation pups per sex per litter per group (60 male and 60 female pups per group) were selected for continued evaluation, resulting in 300 rats per sex assigned to five dosage groups (Groups I through V). Solutions of ammonium perfluorooctanoate (APFO) in reverse osmosis membrane processed deionized water were administered to the P generation male and female rats, beginning at approximately six weeks of age and continuing until the day before sacrifice, at dosages of 0, 1, 3, 10 and 30 mg/kg/day. The dosage volume was 5 mL/kg, adjusted daily on the basis of the most recently recorded body weight. The F1 generation rats were given the same dosage level of the test substance as their respective P generation sires and dams. Dosages were given once daily, beginning at weaning and continuing until the day before sacrifice. Dosages were adjusted at least weekly for body weight changes and given at approximately the same time each day. F1 and F2 generation pups may have been exposed to the test substance during the maternal gestation (*in utero* exposure) or via maternal milk during the postpartum period.

The P and F1 generation rats were observed for viability at least twice each day. The rats were also examined for clinical observations of effects of the test substance, abortions, premature deliveries and deaths before dosage and 60 ± 10 minutes after dosage during the dosage period. Body weights of the P generation male rats were recorded weekly during the dosage periods and on the day of sacrifice. Body weights of the F1 generation male rats were recorded weekly during the postweaning period and on the day of sacrifice. Body weights of the P generation female rats were recorded weekly during the

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a. Detailed descriptions of all procedures used in the conduct of this study are provided in the appropriate sections of this report and in APPENDIX F (PROTOCOL AND AMENDMENTS).

precohabitation and cohabitation periods and on days of gestation (DGs) 0, 7, 10, 14, 18, 21 and 25 (if necessary) and on DLs 1, 5, 8, 11, 15 and 22 (terminal body weight). Body weights of the F1 generation female rats were recorded weekly during the postweaning period to cohabitation, and on DGs 0, 7, 10, 14, 18, 21 and 25 (if necessary) and on DLs 1, 5, 8, 11, 15 and 22. Feed consumption values for the P and F1 generation male rats were recorded weekly during the dosage period. Feed consumption values for the P generation female rats were recorded weekly during the precohabitation period, on DGs 0, 7, 10, 14, 18, 21 and 25 and on DLs 1, 5, 8, 11 and 15. Feed consumption values for the F1 generation female rats were recorded weekly during the postweaning period to cohabitation, on DGs 0, 7, 10, 14, 18, 21 and 25 and on DLs 1, 5, 8, 11 and 15. During cohabitation, when two rats occupied the same cage with one feed jar, individual values were not recorded or tabulated. Because pups begin to consume maternal feed on or about DL 15, feed consumption values were not tabulated after DL 15.

F1 generation female rats were examined for age of vaginal patency, beginning on day 28 postpartum. F1 generation male rats were evaluated for age of preputial separation, beginning on day 39 postpartum. Body weights were recorded when rats reached sexual maturation.

Estrous cycling was evaluated daily by examination of vaginal cytology beginning 21 days before the scheduled cohabitation period and continuing until spermatozoa were observed in a smear of the vaginal contents and/or a copulatory plug was observed *in situ* during the cohabitation period. On the day of scheduled sacrifice, an examination of vaginal cytology was performed to determine the stage of estrous cycle. Within each dosage group, consecutive order was use to assign P generation rats to cohabitation, one male rat per female rat. A table of random units was used to assign F1 generation rats to cohabitation, one male rat per female rat. If random assignment to cohabitation resulted in the pairing of F1 generation siblings, an alternate assignment was made. The cohabitation period consisted of a maximum of 14 days.

The P and F1 generation female rats were evaluated for duration of gestation, fertility index, gestation index, number and sex of offspring per litter, number of implantation sites, general condition of the dam and litter during the postpartum period, litter size and viability, viability index, lactation index and percent survival and sex ratio. Maternal behavior of the dams was recorded on DLs 1, 5, 8, 15 and 22.

Litters were examined after delivery to identify the number and sex of pups, stillbirths, liver births and gross alterations. Each litter was evaluated for viability at least twice each day of the 22-day postpartum period. The F1 and F2 generation pups in each litter were counted once daily. Physical signs were recorded for the pups each day. Pup body weights were recorded on DLs 1, 5, 8, 15 and 22. On DL 12 all F1 generation male pups were examined for the presence of nipples. Anogenital distance was measured for all live F2 generation pups on DLs 1 and 22.

P and F1generation rats were sacrificed necropsied and examined for gross lesions. Gross lesions were examined histologically. Tissue trimming and histopathology was performed under the supervision of or by a Board Certified Veterinary Pathologist. At

scheduled sacrifice, after completion of the cohabitation period (male rats) and on DL 22 (female rats), blood samples were collected and centrifuged. The resulting serum was shipped to the Sponsor for analysis. The liver was excised, weighed, and a sample section shipped to the Sponsor for analysis.

The following organs were individually weighed and organ-to-body weight and organ-to-brain weight ratios were calculated: brain, kidneys, spleen, ovaries, testes, thymus, liver, adrenal glands, pituitary, uterus with oviducts and cervix, left epididymis (whole and cauda), right epididymis, prostate and seminal vesicles (with coagulating glands and with and without fluid). The following tissues were retained for possible histological evaluation: pituitary, adrenal glands, vagina, uterus with oviducts, cervix and ovaries, right testis, seminal vesicles (with coagulating gland), right epididymis and prostate. Histological examination was performed on tissues from 10 randomly selected rats per sex from the control and high dosage groups. All gross lesions were examined histologically. Reproductive organs of the low and intermediate dosage group rats suspected of reduced fertility were subjected to histological evaluation.

Male rats were sacrificed after completion of the cohabitation period. A portion of the left cauda epididymis was used for evaluation of cauda epididymal sperm concentration and motility. The remaining left cauda epididymis was used to manually evaluate sperm morphology and to prepare a homogenate to determine sperm concentration. The left testis was used for evaluation of testicular spermatid concentration.

Female rats were sacrificed on day of day 22 of lactation (DL 22). The number and distribution of implantation sites were recorded. Pups that died before examination of the litter for pup viability on DL 1 were evaluated for vital status at birth. Pups found dead on DLs 2 to 22 were examined for gross lesions and for the cause of death.

All pups culled on DL 22 were sacrificed. Three pups per sex per litter were examined for gross lesions. Necropsy included a single cross-section of the head at the level of the frontal-parietal suture and examination of the cross-sectioned brain for apparent hydrocephaly. The brain, spleen and thymus from one of the three selected pups per sex per litter were weighed and the brain, spleen and thymus from the three selected pups per sex per litter were retained for possible histological evaluation. All remaining pups were discarded without further examination.

All F1 generation rats were weaned on DL 22 based on observed growth and viability of these pups. At weaning, two F1 generation pups per sex per litter per group (60 male and 60 female pups per group), resulting in a total of 600 rats (300 rats per sex) were chosen for continued evaluation. At least two male pups and two female pups per litter, when possible, were selected. F1 generation pups not selected for continued observation for sexual maturation were sacrificed and a limited necropsy was performed. The thoracic, abdominal and pelvic cavities were examined for gross lesions. Gross lesions were preserved; all other tissues and the carcasses were discarded.

B. Results

B.1. P Generation Male Rats

One P generation male rat in the 30 mg/kg/day dosage group was moribund sacrificed on day 45 of the study (DS 45). The moribund condition was considered possibly related to the test substance because it occurred in the highest dosage group and this rat exhibited adverse clinical observations considered related to the test substance.

Statistically significant increases in the incidences of dehydration, urine-stained abdominal fur and ungroomed coat occurred in the 30 mg/kg/day dosage group. The number of male rats with chromorhinorrhea was increased in the 3 mg/kg/day and higher dosage groups; however these increases were not statistically significant; all other clinical observations were considered unrelated to the test substance.

Body weight gains for the entire dosage period before cohabitation were significantly reduced in the 3, 10 and 30 mg/kg/day dosage groups. As a result, body weight gains for the entire dosage period were significantly reduced in the 3, 10 and 30 mg/kg/day dosage groups. Body weights were significantly reduced in the 30 mg/kg/day dosage group on DS 8 through termination, in the 10 mg/kg/day dosage group on DS 15 through termination and in the 3 mg/kg/day dosage group on DS 50 through termination.

Absolute feed consumption values were significantly reduced in the 30 mg/kg/day dosage group for the entire dosage period before cohabitation and the entire study period and at most tabulated intervals within these periods. Relative feed consumption values were significantly increased in the 3, 10 and 30 mg/kg/day dosage groups for the entire dosage period before cohabitation and the entire study.

All mating and fertility parameters were unaffected by dosages of the test substance as high as 30 mg/kg/day.

All necropsy observations were considered unrelated to the test substance. Terminal body weights were significantly reduced in the 3, 10 and 30 mg/kg/day dosage groups. Absolute weights of the epididymides, left cauda epididymis, seminal vesicles, prostate, pituitary, adrenals, spleen and thymus were significantly reduced in the 30 mg/kg/day dosage group. The absolute weight of the liver was significantly increased in the 1, 3, 10 and 30 mg/kg/day dosage groups. Weights of the kidneys were significantly increased in the 1, 3 and 10 mg/kg/day dosage groups, while these weights were significantly reduced in the 30 mg/kg/day dosage group.

The ratios of the organ weight to the terminal body weight were significantly increased in the 10 and 30 mg/kg/day dosage groups for the epididymides, left cauda epididymis (30 mg/kg/day only), testes and seminal vesicles. The ratio of the brain weight to the terminal body weight was significantly increased in the 3, 10 and 30 mg/kg/day dosage groups. The ratios of the liver and left and right kidney weights to the terminal body weight were significantly increased in the 1, 3, 10 and 30 mg/kg/day dosage groups. The

ratio of the left adrenal weight to the terminal body weight was significantly increased in the 30 mg/kg/day dosage group.

Ratios of the organ weight to the brain weight were significantly reduced in the 30 mg/kg/day dosage group for the epididymides, cauda epididymis, prostate, pituitary, spleen and thymus. The ratios of the liver weight to the brain weight were significantly increased in the 1, 3, 10 and 30 mg/kg/day dosage groups. The ratios of the kidneys weights to the brain weight were significantly increased in the 1, 3 and 10 mg/kg/day dosage groups while the ratio of the left kidney weight to the brain weight was significantly reduced in the 30 mg/kg/day dosage group.

All sperm parameters evaluated were unaffected by dosages of the test substance as high as 30 mg/kg/day.

No treatment-related microscopic changes were observed in the reproductive organs of any of the male rats in the P generation. A treatment-related microscopic change was observed in the adrenal glands of the P generation male rats of the 10 and 30 mg/kg/day dosage groups. This change was characterized by hypertrophy and vacuolation of the cells of the zona glomerulosa of the adrenal cortex. All other microscopic changes observed in the various organs and tissues were considered to have occurred spontaneously and to be incidental and unrelated to treatment.

B.2. P Generation Female Rats

There were no P generation female rat deaths attributed to the test substance. All clinical observations during the precohabitation, gestation and lactation periods were considered unrelated to the test substance.

Body weights and body weight gains during the precohabitation, gestation and lactation periods were unaffected by dosages of the test substance as high as 30 mg/kg/day. Absolute and relative feed consumption values during the precohabitation, gestation and lactation periods were unaffected by dosages of the test substance as high as 30 mg/kg/day.

The average numbers of estrous stages per 21 days were comparable among the five dosage groups and did not significantly differ. Evaluation of estrous stages at sacrifice did not reveal any differences among the five dosage groups. All mating and fertility parameters were unaffected by dosages of the test substance as high as 30 mg/kg/day.

All necropsy observations were considered unrelated to the test substance. Terminal body weights of the P generation female rats were comparable among the five dosage groups and did not significantly differ. The weights of the kidneys, the ratios of this organ weight to the terminal body weight and the ratio of the left kidney weight to the brain weight were significantly reduced in the 30 mg/kg/day dosage group.

Pregnancy occurred in 27 to 29 rats in each dosage group. Natural delivery observations were unaffected by dosages of the test substance as high as 30 mg/kg/day.

No clinical or necropsy observations were attributable to dosages of the test substance as high as 30 mg/kg/day. Terminal body weights of the F1 generation pups were comparable among the five dosage groups and did not significantly differ. The weights of the brain, spleen and thymus and the ratios of these organ weights to the terminal body weight and brain weight were unaffected by dosages of the test substance as high as 30 mg/kg/day.

No treatment-related microscopic changes were observed in the reproductive organs of any of the female rats in the P generation. All microscopic changes observed in the various organs and tissues were considered to have occurred spontaneously and to be incidental and unrelated to treatment.

B.3. F1 Generation Male Rats

Three, three, three, two and seven F1 generation male rats in the 0, 1, 3, 10 and 30 mg/kg/day dosage groups were moribund sacrificed or found dead. The increased incidence of mortality in the 30 mg/kg/day dosage group was considered treatment-related. Most deaths appeared to be related to a failure of the pups to thrive within a few days of weaning. This failure to thrive is common in this strain of rat when the weaning rats are small for weaning.

The incidences of annular constriction of the tail of male F1 generation rats were increased in the 1, 3, 10 and 30 mg/kg/day dosage groups, reaching statistical significance in the 1, 10 and 30 mg/kg/day dosage groups. The number of male rats observed to be emaciated was significantly increased in the 10 and 30 mg/kg/day dosage groups, and the numbers of male rats with urine-stained abdominal fur, decreased motor activity and abdominal distention were significantly increased in the 30 mg/kg/day dosage group. The incidence of the observation of cold to touch was increased, albeit not significantly, in the 30 mg/kg/day dosage group.

Body weights and body weight gains were reduced in a dosage-dependent pattern for the F1 generation male rats before and after the cohabitation period at the 1, 3, 10 and/or 30 mg/kg/day dosages of the test substance, as compared to the control group.

Absolute feed consumption values for the F1 generation male rats were significantly reduced and relative feed consumption values were significantly increased for the entire precohabitation period by dosages of APFO of 10 and 30 mg/kg/day.

Preputial separation of F1 generation male rats was slightly delayed in the 30 mg/kg/day dosage group and above the Testing Facility historical control average and range for this parameter (see APPENDIX L). When this observation in the 30 mg/kg/day dosage group was covaried with the significantly reduced ($p \leq 0.01$) body weight at time of acquisition to determine if the significantly reduced body weights were a factor, the difference was still significant, but at the $p \leq 0.05$ level. When this observation in the 30 mg/kg/day dosage group was covaried with gestational age (calculated from the day of mating to the day of acquisition) at time of acquisition to determine if this group was younger and more immature than the control group, there was no significant difference in sexual maturation.

Dosages of the test substance as high as 30 mg/kg/day did not affect any mating and fertility parameters evaluated in the F1 generation male rats, of the male rats assigned to cohabitation, 93.3%, 96.6%, 93.3%, 93.3% and 96.7% impregnated the cohort female rat in the five dosage groups, respectively.

Tan areas occurred in the left lateral and/or median lobes of the liver in 6, 10 and 9 male rats in the 3, 10 and 30 mg/kg/day dosage groups, respectively. One of these rats in the 30 mg/kg/day dosage group also had a small spleen. One 30 mg/kg/day dosage group rat had an enlarged liver. Moderate to slight dilation of the pelvis of one or both kidneys occurred in 4 and 1 rats in the 10 and 30 mg/kg/day dosage groups, respectively. A tan area in the parenchyma of the spleen occurred in one 10 mg/kg/day dosage group rat.

Terminal body weights of the F1 generation male rats were significantly reduced in a dosage-dependent manner in the 1, 3, 10 and 30 mg/kg/day dosage groups. The absolute weights of the liver were significantly increased and the absolute weights of the spleen were significantly decreased in the 1 mg/kg/day and higher dosage groups, compared to the control group values. The absolute weights of the left and/or right kidneys were significantly increased in the 1 and 3 mg/kg/day dosage groups and significantly decreased in the 30 mg/kg/day dosage group, compared to control group values. The absolute weight of the thymus was also significantly decreased in the 10 and 30 mg/kg/day dosage groups. The absolute weight of the prostate, brain and left adrenal gland were significantly decreased in the 30 mg/kg/day dosage group.

The ratios of the weights of the seminal vesicles, with and without fluid, liver and left and right kidneys to the terminal body weights were significantly increased in the 1 mg/kg/day and higher dosage groups, compared to the control group values. The ratios of the weights of the left testis, with and without the tunica albuginea and the right testis to the terminal body weight, were significantly increased in the 3 mg/kg/day and higher dosage groups. The ratios of the weights of the left epididymis, left cauda epididymis, right epididymis and brain to the terminal body weight were significantly increased in the 10 mg/kg/day and higher dosage groups.

The ratios of the weight of the seminal vesicles with fluid to the brain weight were increased in the 1 mg/kg/day and higher dosage groups, compared to the control group values. These ratios were significantly increased in the 1 and 10 mg/kg/day dosage groups. The ratios of the liver weight to the brain weight were significantly increased in the 1 mg/kg/day and higher dosage groups, and the ratios of the left and right kidney

weights to the brain weight were significantly increased in the 1, 3 and 10 mg/kg/day dosage groups. The ratios of the spleen weight to the brain weight were significantly decreased in the 1 mg/kg/day and higher dosage groups, and the ratios of the thymus weight to the brain weight were significantly decreased in the 10 and 30 mg/kg/day dosage groups. The ratios of the left and right testes weight to the brain weight were increased in the 3 mg/kg/day and higher dosage groups. These ratios were significantly increased in the 10 mg/kg/day (right testis only) and 30 mg/kg/day dosage groups.

No treatment-related microscopic changes were observed in the reproductive organs of any of the male rats in the F1 generation. A treatment-related microscopic change was observed in the adrenal glands of the F1 generation male rats of the 30 mg/kg/day dosage groups. This change was characterized by hypertrophy and vacuolation of the cells of the zona glomerulosa of the adrenal cortex. Microscopic examination of liver sections of the F1 generation male rats which were observed grossly to be enlarged or have tan areas in the liver lobes showed up to marked diffuse hepatocellular hypertrophy. Single or lower incidences of hepatocellular necrosis also were observed in the male rats of these groups. All other microscopic changes observed in the various organs and tissues were considered to have occurred spontaneously and to be incidental and unrelated to treatment.

No statistically significant or dosage-dependent differences occurred in the numbers of motile sperm, percentage of motile sperm, static count (nonmotile sperm), total count, sperm density, spermatid count or density. Sperm morphology was unaffected by dosages of the test substance as high as 30 mg/kg/day.

B.4. F1 Generation Female Rats

Two, one, one and six F1 generation female rats in the 1, 3, 10 and 30 mg/kg/day dosage groups were found dead. The increased incidence of mortality in the 30 mg/kg/day dosage group was considered treatment-related. Most deaths appeared to be related to a failure of the pups to thrive within a few days of weaning. This failure to thrive is common in this strain of rat when the weaning rats are small for weaning.

All clinical observations during the precohabitation, gestation and lactation periods were considered unrelated to the test substance. Body weights and body weight gains during the precohabitation period were significantly reduced by 30 mg/kg/day dosages of the test substance. Body weight gain for the entire precohabitation period was significantly reduced. Body weights during the gestation and lactation periods were significantly reduced in the 30 mg/kg/day dosage.

Absolute feed consumption values were significantly reduced in the 30 mg/kg/day dosage group on DPs 1 to 8, 8 to 15 and 15 to 22 during the precohabitation period, on DGs 7 to 10 during the gestation period and on DLs 1 to 15 during the lactation period. Relative feed consumption values were comparable among the 0, 1, 3, 10 and 30 mg/kg/day dosage groups for the precohabitation, gestation and lactation periods and did not differ statistically.

The 30 mg/kg/day dosage group F1 generation female rats had a small (approximately 1.7 days increase), but statistically significant delay in vaginal patency. The average day when vaginal patency was evident in the 30 mg/kg/day dosage group (36.6 days of age) significantly differed from the control group value (34.9 days of age) was above the Testing Facility historical control average and range for this parameter. When this observation in the 30 mg/kg/day dosage group was covaried with the significantly reduced ($p \leq 0.01$) body weight at time of acquisition, to determine if the significantly reduced body weights were a factor, the difference was still significant, but at the $p \leq 0.05$ level. When this observation in the 30 mg/kg/day dosage group was covaried with gestational age at time of acquisition, to determine if this group was younger and more immature than the control group, there was no significant difference in sexual maturation.

The average numbers of estrous stages per 21 days were significantly increased in the 30 mg/kg/day dosage group. The Testing Facility historical control average and range for this parameter is 5.0 stages and 4.8 to 5.2 stages, respectively. When this observation was covaried with the day 64 body weight or age, the difference was still significant, but at the $p \leq 0.05$ level. Evaluation of estrous stages at sacrifice did not reveal any differences among the five dosage groups. All mating and fertility parameters were unaffected by dosages of the test substance as high as 30 mg/kg/day. All necropsy observations for the F1 generation female rats were considered unrelated to the test substance.

Terminal body weights of the F1 generation female rats were comparable among the five dosage groups and did not differ significantly. The absolute weights of the pituitary and the ratios of the pituitary weight to the terminal body weight and to the brain weight were significantly decreased in the 3 mg/kg/day and higher dosage groups, as compared to the control group values.

No treatment-related microscopic changes were observed in the reproductive organs of any of the female rats in the F1 generation. All microscopic changes observed in the various organs and tissues were considered to have occurred spontaneously and to be incidental and unrelated to treatment.

Pregnancy occurred in 28 to 29 rats in each dosage group. Natural delivery observations including viability and lactation indices were unaffected by dosages of the test substance as high as 30 mg/kg/day. Anogenital distances measured for male and female pups on DLs 1 and 22 were comparable among the five dosage groups and did not significantly differ. No clinical or necropsy observations were attributable to maternal dosages of the test substance as high as 30 mg/kg/day.

F2 generation rats had comparable terminal body weights on DL 22; the values did not significantly differ from the control group values. Absolute weights of the brain, spleen and thymus and ratios of these organ weights to terminal body weight and to brain weight were comparable among the five dosage groups and did not significantly differ.

C. Conclusion

On the basis of these data, the P generation paternal no-observable-adverse-effect-level (NOAEL) for ammonium perfluorooctanoate is less than 1 mg/kg/day (the 1 mg/kg/day dosage caused significant increases in the liver and kidney weights to terminal body weight and to brain weight ratios). The maternal NOAEL is 10 mg/kg/day (the 30 mg/kg/day dosage significantly reduced kidney weight and kidney weight to terminal body weight and to brain weight ratios). The reproductive NOAEL in the males and female P generation rats is greater than 30 mg/kg/day (the 30 mg/kg/day dosage had no effect on mating, fertility or maternal delivery parameters).

The F1 generation paternal no-observable-adverse-effect-level (NOAEL) for ammonium perfluorooctanoate is less than 1 mg/kg/day (the 1 mg/kg/day and higher dosages caused significant decreases in body weights and body weight gain and changes in organ weights and ratios to terminal body and brain weights and the 30 mg/kg/day dosage delayed sexual maturation possibly due to decreased gestational age at acquisition). The F1 generation maternal NOAEL is 10 mg/kg/day (the 30 mg/kg/day dosage increased postweaning mortality, decreased postweaning body weight, body weight gain and feed consumption, increased the number of estrous cycles per 21 days and delayed sexual maturation possibly due to decreased gestational age at acquisition). The reproductive NOAEL in the males and female F1 generation rats is greater than 30 mg/kg/day (the 30 mg/kg/day dosage had no effect on mating, fertility or maternal delivery parameters). The F2 generation terminal body weights and organ weights did not differ among the groups.

Alan M. Hoberman Ph.D., DABT Date
Director of Research

Raymond G. York, Ph.D., DABT Date
Associate Director of Research
and Study Director

II. DESCRIPTION OF TEST PROCEDURES

A. Conduct of Study

A.1. Sponsor

3M Corporate Toxicology, 3M Center, Building 220-2E-02, St. Paul, Minnesota 55144-1000

A.2. Testing Facility

Argus Research, 905 Sheehy Drive, Building A, Horsham, Pennsylvania 19044-1297

A.3. Study Number

418-020

A.4. Sponsor's Study Number

T-6889.6

A.5. Purpose of the Study

The purpose of this study was to provide information concerning the effects of Ammonium Perfluorooctanoate (APFO) on the male and female reproductive systems in Crl:CD®(SD)IGS BR VAF/Plus® rats, including gonadal function, estrous cycles, mating behavior, conception, parturition, lactation, weaning and the growth and development of offspring. This study was also designed to provide information about effects on neonatal morbidity, mortality and preliminary data on potential prenatal developmental toxicity, as well as to serve as a guide for use in the design of subsequent tests.

A.6. Study Design

The requirements of the U.S. Environmental Protection Agency (EPA)[1,2] were used as the basis for study design.

A.7. Regulatory Compliance

The study was conducted in compliance with the Good Laboratory Practice (GLP) regulations of the U.S. Environmental Protection Agency (EPA)[3] and the Organisation for Economic Co-operation and Development (OECD)[4]. There were no deviations from the GLP regulations that affected the quality or integrity of the study. Quality Assurance Unit findings derived from the inspections during the conduct of this study are documented and have been provided to the Study Director and the Testing Facility Management.

A.8. Ownership of the Study

The Sponsor owns the study. All raw data, analyses, reports and preserved tissues are the property of the Sponsor.

A.9. Study Monitor

John Butenhoff, Ph.D., DABT, CIH (3M Corporate Toxicology, St. Paul, Minnesota 55144)

A.10. Study Director

Raymond G. York, Ph.D., DABT (Associate Director of Research, Argus Research, Horsham, Pennsylvania 19044)

A.11. Technical Performance

John F. Barnett, B.S. (Director of Laboratory Operations)
Russell A. Gazzara, Ph.D. (Senior Research Associate)
Joseph W. Lech, B.S. (Senior Research Associate)
Alaine L. Casey, A.S. (Scheduling Coordinator/Blood Collection Coordinator)
Allyson B. Hansell, B.S. (Laboratory Technician)
Brian K. Kelsch (Necropsy Team Leader)
Christopher K. Ruppert, B.S. (Formulation Laboratory Technician)

A.12. Report Preparation

Raymond G. York, Ph.D., DABT
Valerie A. Sharper, M.S. (Director of Study Management)
Jo Ann Frazee, M.S. (Study Coordinator)
Elizabeth M. Wiley, B.S. (Data Management Specialist)
JoAnne M. Conklin, B.S. (Data Management Specialist)
Cristina Petrescu (Report Administrator)

A.13. Report Review

Alan M. Hoberman, Ph.D., DABT (Director of Research)
Valerie A. Sharper, M.S. (Director of Study Management)

A.14. Date Protocol Signed

7 November 2000

A.15. Dates of Technical Performance

A.15.a. P Generation Male Rats

Rat Arrival	07 NOV 00
Test Substance Dosage Period	13 NOV 00 - 01 MAR 01
Male Rats Sacrificed	26 FEB 01 - 02 MAR 01

A.15.b. P Generation Female Rats

Rat Arrival	07 NOV 00
Test Substance Dosage Period	13 NOV 00 - 18 MAR 01
Precohabitation Estrous Cycle Evaluation	01 JAN 01 - 21 JAN 01
Cohabitation Period	21 JAN 01 PM - 04 FEB 01 AM
Day 0 of Presumed Gestation[a] (DG 0)	22 JAN 01 - 04 FEB 01
Delivery Period[b] (Day 1 of lactation)	12 FEB 01 - 26 FEB 01
DG 25 Sacrifice (Rats that did not deliver a litter)	16 FEB 01 - 18 FEB 01
DL[c] 22 Sacrifice (P generation dams and F1 generation litters not selected for continued observation)	05 MAR 01 - 19 MAR 01

A.15.c. F1 Generation Male Rats

Test Substance Dosage Period	06 MAR 01 - 05 JUL 01
Male Rats Sacrificed - Interim (Rats not selected for continued observations following observations for sexual maturation)	13 APR 01 and 04 MAY 01
Male Rats Sacrificed - Scheduled	02 JUL 01 - 06 JUL 01

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a. Gestation day 0 is defined as the day spermatozoa are observed in a smear of the vaginal contents and/or a copulatory plug observed *in situ*.

b. The day of birth is designated postnatal day 0 (day 0 of lactation) in Addendum 10 to the Pesticide Assessment Guidelines of the U.S. Environmental Protection Agency (EPA). This same day is designated day 1 postpartum (day 1 of lactation) in the Standard Operating Procedures of the Testing Facility. Throughout this protocol, the day of birth will be designated day 1 postpartum (day 1 of lactation) and all subsequent ages of the F1 generation rats and days of the lactation period will be determined and cited accordingly.

c. DL is an abbreviation used for day of lactation/postpartum.

A.15.d. F1 Generation Female Rats

Test Substance Dosage Period	06 MAR 01 - 15 JUL 01
Precohabitation Estrous Cycle Evaluation	08 MAY 01 - 28 MAY 01
Cohabitation Period	28 MAY 01 PM - 11 JUN 01 AM
Female Rats Sacrificed - Interim (Rats not selected for continued observation following observations for sexual maturation)	06 APR 01
DG 0	29 MAY 01 - 04 JUN 01
DL 1	19 JUN 01 - 25 JUN 01
DG 25 Sacrifice (Rats that did not deliver a litter)	23 JUN 01 - 29 JUN 01
DL 22 Sacrifice (F1 generation dams and F2 generation pups)	10 JUL 01 - 16 JUL 01

A.16. Records Maintained

The original report, raw data and reserve samples of the test substance and vehicle are retained in the archives of Argus Research. Any preserved tissues are retained in the archives of the Testing Facility for one year after the mailing of the draft final report, after which time the Sponsor will decide their final disposition. All unused prepared formulations were discarded at the Testing Facility. Unused bulk test substance was returned to the Sponsor.

B. Test Substance Information

B.1. Description

Ammonium Perfluorooctanoate (APFO) - white powder

B.2. Lot Number

332

B.3. Date Received and Storage Conditions

The test substance was received on 7 November 2000 and stored at room temperature.

B.4. Special Handling Instructions

Standard safety precautions (use of protective clothing, gloves, dust-mist/HEPA-filtered mask, safety goggles or safety glasses and a face-shield) were taken when handling the prepared solutions. Tyvek® sleeves and a half-face respirator were worn when using the bulk test substance and preparation was conducted under a chemical fume hood.

B.5. Analysis of Purity

Information to document or certify the identity, composition, method of synthesis, strength and purity of the test substance was provided by the Sponsor to the Testing Facility. A Certificate of Analysis is available in APPENDIX H.

C. Vehicle Information

C.1. Description

Reverse Osmosis Membrane Processed Deionized Water (R.O. deionized water).

C.2. Storage Conditions

R.O. deionized water is available from a continuous source at the Testing Facility and was maintained at room temperature.

C.3. Special Handling Instructions

Standard safety precautions (use of protective clothing, gloves, dust-mist/HEPA-filtered mask, safety goggles or safety glasses and a face-shield) were taken when handling the vehicle.

C.4. Analysis of Purity

Neither the Sponsor nor the Study Director was aware of any potential contaminants likely to have been present in the vehicle that would have interfered with the results of this study.

D. Test Substance Preparation and Storage Conditions

Solutions of the test substance were prepared weekly at the Testing Facility. Prepared formulations were stored refrigerated, protected from light.

D.1. Sample Information

Sample Type	Size	Date Retained	Storage/Shipping Conditions	Shipped To	Date Shipped
Bulk Test Substance	1 g	15 JUL 01	Room temperature	Sponsor	16 JUL 01
Concentration (all levels)[a]	2 mL	10 NOV 00 12 JUL 01	Refrigerated, protected from light	Sponsor	13 NOV 00 12 JUL 01
Stability (all levels)[b]	2 mL	10 NOV 00	Refrigerated, protected from light	Sponsor	13 NOV 00
Bulk Test Substance Reserve	1 g	10 NOV 00	Room temperature	Testing Facility Archives	13 DEC 00
Vehicle Reserve	5 mL	10 NOV 00	Room temperature	Testing Facility Archives	13 DEC 00

a. Duplicate samples were taken on the first and last days of preparation. One sample of each duplicate set was shipped for analysis. The remaining samples were retained at the Testing Facility as backup samples.

b. Two sets of duplicate samples were taken on the first day of preparation. One sample of each duplicate set was shipped for analysis on the day of preparation. Samples were analyzed as soon as possible and 10 days after the first analysis. The remaining samples were retained at the Testing Facility as backup samples.

D.2. Analytical Results

The analytical results are available in APPENDIX I.

E. Test System

E.1. Species

Rat

E.2. Strain

Crl:CD®(SD)IGS BR VAF/Plus®

E.3. Supplier (Source)

Charles River Laboratories, Inc., Kingston, New York (male rats) and Raleigh, North Carolina (female rats)

Offspring were delivered at the Testing Facility by the pregnant P or F1 generation dams in this study.

E.4. Sex

Male and Female rats

E.5. Rationale for Test System

The Crl:CD®(SD)IGS BR VAF/Plus® rat was selected as the Test System because: 1) this strain of rat has been demonstrated to be sensitive to reproductive and developmental toxins and has been widely used throughout industry for reproductive and developmental toxicity evaluations and 2) historical data and experience exist at the Testing Facility[5-7].

E.6. Test System Data

	Male Rats	Female Rats
Number of Rats	165	165
Approximate Date of Birth	02 OCT 00	01 OCT 00
Approximate Age at Arrival	37 days	38 days
Weight (g) on Day after Arrival	100 - 143	88 - 132
Weight (g) at Study Assignment	140 - 164	120 - 144

E.7. Method of Randomization

E.7.a. P Generation Rats

Upon arrival, P generation rats were assigned to individual housing on the basis of computer-generated random units. After acclimation, rats were selected for study on the basis of physical appearance and body weight. Rats were assigned to five dosage groups (Groups I through V), 30 rats per sex per dosage group, using a computer-generated (weight-ordered) randomization procedure.

E.7.b. F1 Generation Pups/Rats

Litters were not culled during the lactation period, because random selection of pups for culling could have resulted in potential biases in pup viabilities and body weight gains during this period.

All F1 generation rats were weaned on DL 22 based on observed growth and viability of these pups. At weaning, a table of random units was used to select two F1 generation pups per sex per litter per group (60 male and 60 female pups per group), resulting in a total of 600 rats (300 rats per sex) chosen for continued evaluation. At least two male pups and two female pups per litter, when possible, were selected.

Following sexual maturation, a table of random units was used to select one male and one female F1 generation rat per litter per group when possible for continuation through mating to produce the F2 generation.

E.8. System of Identification

E.8.a. P Generation Rats

Male and female rats were assigned temporary numbers at receipt and given unique permanent identification numbers when assigned to the study before administration of the first dosage of the test substance or vehicle. Rats were permanently identified using Monel® self-piercing ear tags (Gey Band and Tag Co., Inc., No. MSPT 20101) inscribed with the rat's designated unique permanent number. Cage tags were marked with the study number, permanent rat number, sex, test substance identification, generation and dosage level.

E.8.b. F1 Generation Pups/Rats

Pups were not individually identified during the postpartum period; all parameters were evaluated in terms of the litter. At weaning, each F1 generation rat selected for continued observation was identified with a Monel® self-piercing ear tag.

E.8.c. F2 Generation Pups

Pups were not individually identified during the postpartum period; all parameters were evaluated in terms of the litter.

F. Husbandry

F.1. Research Facility Registration

USDA Registration No. 14-R-0122 under the Animal Welfare Act, 7 U.S.C. 2131 *et seq.*

F.2. Study Rooms

The study rooms were maintained under conditions of positive airflow relative to a hallway and independently supplied with a minimum of ten changes per hour of 100% fresh air that had been passed through 99.97% HEPA filters. Room temperature and humidity were monitored constantly throughout the study. Room temperature was targeted at 64°F to 79°F (18°C to 26°C); relative humidity was targeted at 30% to 70%[a].

F.3. Housing

All cage sizes and housing conditions were in compliance with the *Guide for the Care and Use of Laboratory Animals*[8].

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a. See APPENDIX J (ENVIRONMENTAL AND HUSBANDRY REPORTS).

F.3.a. P Generation Rats/F1 Generation Litters

P generation rats were individually housed in stainless steel, wire-bottomed cages except during the cohabitation and postpartum periods. During cohabitation, each pair of rats was housed in the male rat's cage. Beginning no later than DG 20, female rats were individually housed in nesting boxes. Each dam and delivered litter was housed in a common nesting box during the postpartum period.

F.3.b. F1 Generation Rats/F2 Generation Litters

After weaning, the F1 generation rats were individually housed before cohabitation, housed in pairs (one male rat per female rat) during cohabitation, and individually housed after cohabitation. The same type of caging was used as described for the P generation rats. Beginning no later than DG 20, female rats were individually housed in nesting boxes. Each dam and delivered litter was housed in a common nesting box during the postpartum period.

F.4. Lighting

An automatically-controlled fluorescent light cycle was maintained at 12-hours light: 12-hours dark, with each dark period beginning at 1900 hours EST. The lights were turned on one hour early on 13 April 2001 in order to accommodate the necropsy schedule.

F.5. Sanitization

Cage pan liners were changed a minimum of three times weekly. Cages were changed approximately every other week. Bedding was changed as often as necessary to keep the rats dry and clean.

F.6. Feed

Rats were given *ad libitum* access to Certified Rodent Diet® #5002 (PMI Nutrition International, St. Louis, Missouri) in individual feeders.

F.7. Feed Analysis

Analyses were routinely performed by the feed supplier. No contaminants at levels exceeding the maximum concentration limits for certified feed or deviations from expected nutritional requirements were detected by these analyses. Copies of the results of the feed analyses are available in the raw data and in APPENDIX J.

Neither the Sponsor nor the Study Director was aware of any potential contaminants likely to have been present in the feed that would have interfered with the results of this study.

F.8. Water

Local water that had been processed by passage through a reverse osmosis membrane (R.O. water) was available to the rats *ad libitum* from individual bottles attached to the cages and/or from an automatic watering access system. Chlorine was added to the processed water as a bacteriostat.

F.9. Water Analysis

The processed water is analyzed twice annually for possible chemical contamination (Lancaster Laboratories, Lancaster, Pennsylvania) and monthly for possible bacterial contamination (Analytical Laboratories, Inc., Chalfont, Pennsylvania). Copies of the results of the water analyses are available in the raw data and in APPENDIX J.

Neither the Sponsor nor the Study Director was aware of any potential contaminants likely to have been present in the water that would have interfered with the results of this study.

F.10. Bedding Material

Bed-o'cobs® bedding (The Anderson's Industrial Products Group, Maumee, Ohio) was used as the nesting material.

F.11. Bedding Analysis

Analyses for possible contamination are conducted semi-annually. Copies of the results of the bedding analyses are available in the raw data and in APPENDIX J.

Neither the Sponsor nor the Study Director was aware of any potential contaminants likely to have been present in the bedding that would have interfered with the results of this study.

G. Methods

G.1. Dosage Administration

G.1.a. P Generation Rats

Dosage Group	Dosage (mg/kg/day)	Concentration[a] (mg/mL)	Dosage Volume (mL/kg)	Number of Rats per Sex	Assigned Rat Numbers	
					Male Rats	Female Rats
I	0	0	5	30	13601-13630	13801-13830
II	1	0.2	5	30	13631-13660	13831-13860
III	3	0.6	5	30	13661-13690	13861-13890
IV	10	2	5	30	13691-13720	13891-13920
V	30	6	5	30	13721-13750	13921-13950

a. The test substance was considered 100% pure for the purpose of dosage calculations.

G.1.b. F1 Generation Rats

Dosage Group	Dosage (mg/kg/day)	Concentration[a] (mg/mL)	Dosage Volume (mL/kg)	Number of Rats per Sex[b]	Assigned Rat Numbers	
					Male Rats	Female Rats
I	0	0	5	60	1001 - 1017, 6553 - 6555[c], 1021 - 1060	1301 - 1318, 19779[d], 19780[d], 1321- 1360
II	1	0.2	5	60	1061 - 1120	1361 - 1420
III	3	0.6	5	60	1121 - 1180	1421 - 1480
IV	10	2	5	60	1181 - 1240	1481 - 1540
V	30	6	5	60	1241 - 1300	1541 - 1600

a. The test substance was considered 100% pure for the purpose of dosage calculations.
b. Sixty rats per sex were dosed until the time of interim sacrifice and 30 rats per sex were dosed after the interim sacrifice.
c. Male rats 1018 - 1020 were moribund sacrificed and replaced by male rats 6553 - 6555, respectively.
d. Female rats 1319 and 1320 were moribund sacrificed and replaced by female rats 19779 and 19780, respectively.

G.2. Rationale for Dosage Selection

Dosages were selected on the basis of prior dietary and gavage studies in rats performed by the Sponsor.

The highest dosage was expected to produce some toxicity. The intermediate dosage levels were expected to produce minimal observable toxic effects, while the lowest dosage level was expected to produce no evidence of either systemic or reproductive toxicity [no-observable-adverse-effect level (NOAEL)].

G.3. Route of Administration and Rationale for Route of Administration

The oral (gavage) route was selected for use because: 1) in comparison with the dietary route, the exact dosage can be accurately administered; and 2) it is one possible route of human exposure.

G.4. Frequency of Administration

G.4.a. P Generation Rats

Male and female rats were given the test substance or vehicle once daily, beginning at approximately six weeks of age (at least 70 days before cohabitation) and continuing until the day before sacrifice. The dosage volume was adjusted daily on the basis of the most recently recorded body weight[a] and given at approximately the same time each day[b].

Dams in the process of delivering pups were not intubated until completion of parturition, in order to preclude possible disruption of maternal behavior and/or cannibalization of the pups. Consequently, some dams were not administered one daily dosage during the delivery period. No dam missed more than one daily intubation.

G.4.b. F1 Generation Rats

F1 generation pups may have been exposed to the test substance during maternal gestation (*in utero* exposure) or via maternal milk during the postpartum period. F1 generation rats were given the same dosage level of the test substance as their respective P generation sires and dams. Dosages were given once daily, beginning at weaning (approximately 70 days before cohabitation) and continuing until the day before sacrifice[c]. Dosages were adjusted at least weekly for body weight changes and given at approximately the same time each day[d].

G.4.c. F2 Generation Pups

F2 generation pups may have been exposed to the test substance during maternal gestation (*in utero* exposure) or via maternal milk during the postpartum period.

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a. See APPENDIX G (DEVIATIONS FROM THE PROTOCOL AND THE STANDARD OPERATING PROCEDURES OF THE TESTING FACILITY), item 1.
b. See APPENDIX G, item 2.
c. See APPENDIX G, item 3.
d. See APPENDIX G, items 4 and 5.

G.5. Method of Study Performance

G.5.a. P Generation Rats

The P generation rats were observed for viability at least twice each day of the study and for general appearance weekly during the acclimation period. The rats were also examined for clinical observations of effects of the test substance, abortions, premature deliveries and deaths before and 60 ± 10 minutes after dosage during the dosage period[a]. Body weights of the male rats were recorded weekly during the acclimation and dosage periods and on the day of sacrifice. Body weights of the female rats were recorded weekly during the acclimation, precohabitation and cohabitation periods and on DGs 0, 7, 10, 14, 18, 21 and 25 (if necessary) and on DLs 1, 5, 8, 11, 15 and 22 (terminal body weight). Feed consumption values for the male rats were recorded weekly during the dosage period. Feed consumption values for the female rats were recorded weekly during the precohabitation period, on DGs 0, 7, 10, 14, 18, 21 and 25 (if necessary) and on DLs 1, 5, 8, 11 and 15. Because pups begin to consume maternal feed on or about DL 15, feed consumption values were not tabulated after DL 15. During cohabitation, when two rats occupied the same cage with one feed jar, replenishment of the feed jars was documented but individual values were not recorded or tabulated.

Estrous cycling was evaluated daily by examination of vaginal cytology beginning 21 days before the scheduled cohabitation period and continuing until spermatozoa were observed in a smear of the vaginal contents and/or a copulatory plug was observed *in situ* during the cohabitation period[b]. On the day of scheduled sacrifice, an examination of vaginal cytology was performed to determine the stage of estrous cycle. Within each dosage group, consecutive order was used to assign P generation rats to cohabitation, one male rat per female rat. The cohabitation period consisted of a maximum of 14 days. Female rats with spermatozoa observed in a smear of the vaginal contents and/or a copulatory plug *in situ* were considered to be at DG 0 and assigned to individual housing. If a female rat had not been mated after two weeks, the pair of rats was separated without further opportunity for mating.

The P generation female rats were evaluated for duration of gestation (DG 0 to the day the first pup was observed), fertility index (percentage of matings that result in pregnancy), gestation index (percentage of pregnancies that result in birth of live litters), number and sex of offspring per litter (live and dead pups), number of implantation sites, general condition of the dam and litter during the postpartum period, litter size and viability (tabulated on DLs 1, 5, 8, 15 and 22), viability indices (percentages of pups born that survive to DLs 1 and 5), lactation index (percentage of pups that survive from DLs 5 to 22) and percent survival and sex ratio (tabulated on DLs 1, 5, 8, 15 and 22). Maternal behavior of the P generation dams was recorded on DLs 1, 5, 8, 15 and 22[c].

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a. See APPENDIX G, items 6 and 7.
b. See APPENDIX G, item 8.
c. See APPENDIX G, item 9.

Deviations from expected maternal behavior were recorded, if and when observed, on all other days of the postpartum period.

G.5.b. F1 Generation Pups/Litters

Litters were examined after delivery to identify the number and sex of pups, stillbirths, live births and gross alterations. Day 1 of lactation [(postpartum), DL 1] was defined as the day of birth and was also the first day on which all pups in a litter were individually weighed (pup body weights were recorded after all pups in a litter were delivered and groomed by the dam).

Each litter was evaluated for viability at least twice each day of the 22-day postpartum period. Dead pups observed at these times were removed from the nesting box. The F1 generation pups in each litter were counted once daily. Physical signs (including variations from expected lactation behavior and gross external physical anomalies) were recorded for the pups each day[a]. Pup body weights were recorded on DLs 1, 5, 8, 15 and 22. On DL 12, all male pups were examined for the presence of nipples. The criterion of passing was met when no nipples were present.

G.5.c. F1 Generation Rats

The F1 generation rats were observed for viability at least twice each day of the study. The rats were also examined for clinical observations of effects of the test substance, abortions, premature deliveries and deaths before and 60 ± 10 minutes after dosage during the dosage period[b]. Body weights of the male rats were recorded weekly during the postweaning period and on the day of sacrifice. Body weights of the female rats were recorded weekly during the postweaning period to cohabitation, and on DGs 0, 7, 10, 14, 18, 21 and 25 (if necessary) and on DLs 1, 5, 8, 11, 15 and 22 (terminal body weight)[c]. Feed consumption values for the male rats were recorded weekly during the dosage period. Feed consumption values for the female rats were recorded weekly during the postweaning period to cohabitation, on DGs 0, 7, 10, 14, 18, 21 and 25 (if necessary) and on DLs 1, 5, 8, 11 and 15[d]. Because pups begin to consume maternal feed on or about DL 15, feed consumption values were not tabulated after DL 15. During cohabitation, when two rats occupied the same cage with one feed jar, replenishment of the feed jars was documented but individual values were not recorded or tabulated.

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a. See APPENDIX G, item 10.
b. See APPENDIX G, items 6, 7, 11 and 12.
c. See APPENDIX G, item 13.
d. See APPENDIX G, items 14 and 15.

Female rats were examined for age of vaginal patency, beginning on day 28 postpartum[a]. Male rats were evaluated for age of preputial separation, beginning on day 39 postpartum[b]. Body weights were recorded when rats reached sexual maturation.

Estrous cycling was evaluated daily by examination of vaginal cytology beginning 21 days before the scheduled cohabitation period and continuing until spermatozoa were observed in a smear of the vaginal contents and/or a copulatory plug was observed *in situ* during the cohabitation period. On the day of scheduled sacrifice, an examination of vaginal cytology was performed to determine the stage of estrous cycle. A table of random units was used to assign F1 generation rats to cohabitation, one male rat per female rat. If random assignment to cohabitation resulted in the pairing of F1 generation siblings, an alternate assignment was made. The cohabitation period consisted of a maximum of 14 days. Female rats with spermatozoa observed in a smear of the vaginal contents and/or a copulatory plug *in situ* were considered to be at DG 0 and assigned to individual housing. If a female rat had not been mated after two weeks, the pair of rats was separated without further opportunity for mating.

The F1 generation female rats were evaluated for duration of gestation (DG 0 to the day the first pup was observed), fertility index (percentage of matings that result in pregnancy), gestation index (percentage of pregnancies that result in birth of live litters), number and sex of offspring per litter (live and dead pups), number of implantation sites, general condition of the dam and litter during the postpartum period, litter size and viability (tabulated on DLs 1, 5, 8, 15 and 22), viability indices (percentages of pups born that survive to DLs 1 and 5), lactation index (percentage of pups that survive from DLs 5 to 22) and percent survival and sex ratio (tabulated on DLs 1, 5, 8, 15 and 22). Maternal behavior of the F1 generation dams was recorded on DLs 1, 5, 8, 15 and 22[c]. Deviations from expected maternal behavior were recorded, if and when observed, on all other days of the postpartum period.

G.5.d. F2 Generation Pups

Litters were examined after delivery to identify the number and sex of pups, stillbirths, live births and gross alterations. Each litter was evaluated for viability at least twice each day of the 22-day postpartum period. Dead pups observed at these times were removed from the nesting box. The F1 generation pups in each litter were counted once daily. Physical signs (including variations from expected lactation behavior and gross external physical anomalies) were recorded for the pups each day[d]. Pup body weights were recorded on DLs 1, 5, 8, 15 and 22. Anogenital distance was measured for all live F2 generation pups on DLs 1 and 22[e].

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a. See APPENDIX G, item 16.
b. See APPENDIX G, items 17 and 18.
c. See APPENDIX G, item 19.
d. See APPENDIX G, item 20.
e. See APPENDIX G, item 21.

G.6. Gross Necropsy

G.6.a. P and F1 Generation Rats

P and F1 generation rats were sacrificed by carbon dioxide asphyxiation, necropsied and examined for gross lesions. Representative photographs of paternal and maternal gross lesions are available in the raw data. Gross lesions were retained in neutral buffered 10% formalin and examined histologically. Tissue trimming and histopathology were performed under the supervision of or by a Board Certified Veterinary Pathologist.

At scheduled sacrifice, after completion of the cohabitation period (male rats) and on DL 22 (female rats), blood samples (approximately 4 mL per rat) were collected from the inferior vena cava into serum separator tubes and centrifuged[a]. The resulting serum was immediately frozen on dry ice and maintained frozen (≤-70°C) until shipment to the Sponsor for analysis. The liver was excised, weighed, and a sample section (lateral lobe) frozen and retained at ≤-70°C until shipment to the Sponsor for analysis.

Gross necropsy included an initial physical examination of external surfaces and all orifices, as well as an internal examination of tissues and organs *in situ*. The following were examined: external and internal portions of all hollow organs; the external surfaces of the brain and spinal column, the nasal cavity and neck with associated organs and tissues; the thoracic, abdominal and pelvic cavities with associated organs and tissues; and the musculo/skeletal carcass[b]. The lungs of the F1 generation male and female rats assigned to scheduled sacrifice were perfused with neutral buffered 10% formalin. The urinary bladder of F1 generation rats was perfused with neutral buffered 10% formalin.

The following organs were individually weighed and organ-to-body weight and organ-to-brain weight ratios were calculated: brain, kidneys, spleen, ovaries, testes, thymus, liver, adrenal glands, pituitary, uterus with oviducts and cervix, left epididymis (whole and cauda), right epididymis, prostate and seminal vesicles (with coagulating glands and with and without fluid). The following tissues were retained in neutral buffered 10% formalin for possible histological evaluation: pituitary, adrenal glands, vagina, uterus with oviducts, cervix and ovaries, right testis (initially fixed in Bouin's solution for 48 to 96 hours), seminal vesicles (with coagulating gland), right epididymis and prostate[c].

Histological examination was performed on tissues from 10 randomly selected rats per sex from the control and high dosage groups. All gross lesions were examined histologically. In addition to gross lesions such as atrophy or tumors, testicular histopathological examination was conducted to identify treatment-related effects such as retained spermatids, missing germ cell layers or types, multinucleated giant cells or sloughing of spermatogenic cells into the lumen. Examination of the intact epididymis included the caput, corpus and cauda (accomplished by evaluation of a longitudinal

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a. See APPENDIX G, item 22.
b. See APPENDIX G, item 23.
c. See APPENDIX G, items 24, 25 and 26.

section) and conducted in order to identify such lesions as sperm granulomas, leukocytic infiltration (inflammation), aberrant cell types within the lumen, or the absence of clear cells in the cauda epididymal epithelium.

Reproductive organs of the low and intermediate dosage group rats suspected of reduced fertility (e.g., those rats that failed to mate, conceive, sire or deliver healthy offspring, or for which estrous cyclicity or sperm number, motility or morphology were affected) were subjected to histological evaluation[a].

Rats that died or were sacrificed because of moribund condition were examined for the cause of death or moribund condition on the day the observation was made. The rats were examined for gross lesions. Representative photographs of gross lesions are available in the raw data. Tissues of the P generation rats were weighed and retained and examined histologically as described for male rats sacrificed at the completion of the cohabitation period and female rats sacrificed on DL 22.

G.6.a.1. Male Rats

Male rats were sacrificed after completion of the cohabitation period [days of study (DSs) 106 to 110 and 109 to 120 for the P and F1 generation rats, respectively]. A portion of the left cauda epididymis was used for evaluation of cauda epididymal sperm concentration and motility using computer assisted sperm analysis (CASA). Motility was evaluated by the Hamilton Thorne IVOS by collection of a sample from the left cauda epididymis. The remaining left cauda epididymis was used to manually evaluate sperm morphology and to prepare a homogenate to be evaluated by the Hamilton Thorne IVOS for a determination of sperm concentration (sperm per gram of tissue weight). Sperm morphology evaluations included the following: 1) determination of the percentage of normal sperm in a sample of at least 200; and 2) qualitative evaluation of abnormal sperm, including such categories as abnormal head, abnormal tail, and abnormal head and tail. The left testis was used for evaluation of testicular spermatid concentration using computer-assisted sperm analysis (CASA). The left testis was weighed (both before and after removal of the tunica albuginea) and then homogenized. A sample from the resulting homogenate was stained with an IDENT Stain Kit from Hamilton Thorne Research and a slide was prepared for analysis by the Hamilton Thorne IVOS. Ten fields were analyzed to determine testicular spermatid concentration (spermatids per gram of tissue weight). All images produced during analysis were retained as raw data.

G.6.a.2. Female Rats

P generation female rat 13822 in the vehicle control group was sacrificed on DL 8 and dam 13852 in the 1 mg/kg/day dosage group was sacrificed on DL 11. The litters from these two dams were inadvertently mixed together. Both dams and litters were sacrificed because it was not possible to identify to which litter the pups belonged.

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a. See APPENDIX G, item 27.

All surviving P and F1 generation female rats were sacrificed on DL 22. The number and distribution of implantation sites were recorded. Rats that did not deliver a litter were sacrificed on DG 25 and examined for pregnancy status. Uteri of apparently nonpregnant rats were examined while being pressed between glass plates to confirm the absence of implantation sites. A gross necropsy of the thoracic, abdominal and pelvic viscera was performed. Female rats without a confirmed mating date that did not deliver a litter were sacrificed on an estimated DG 25. The P generation dam with no surviving pups was sacrificed after the last pup was found dead. A gross necropsy of the thoracic, abdominal and pelvic viscera was performed.

G.6.b. F1 and F2 Generation Pups

Pups that died before examination of the litter for pup viability on DL 1 were evaluated for vital status at birth. The lungs were removed and immersed in water. Pups with lungs that sank were identified as stillborn; pups with lungs that floated were identified as liveborn, and to have died shortly after birth. When postmortem autolysis precluded these evaluations, it was noted in the necropsy data.

Pups found dead on DLs 2 to 22 were examined for gross lesions and for the cause of death. When postmortem autolysis precluded these evaluations, it was noted in the necropsy data.

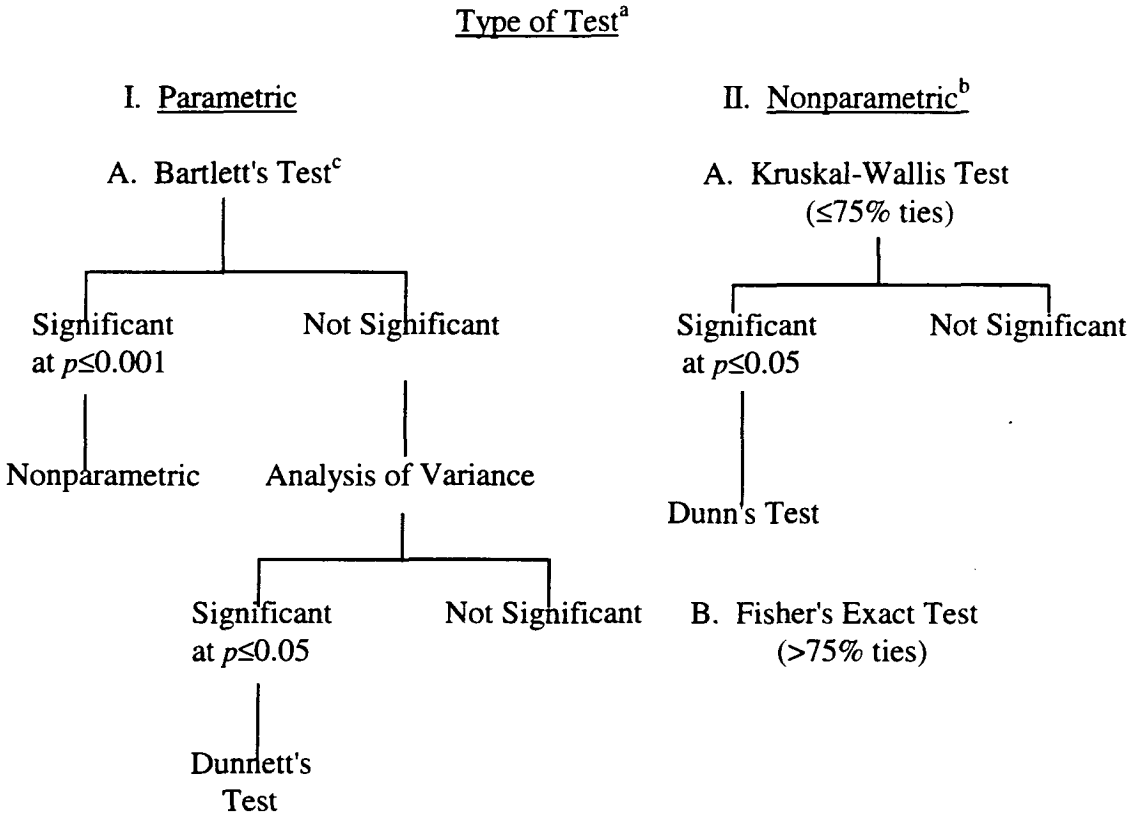
All pups culled on DL 22 were sacrificed by carbon dioxide asphyxiation. Three pups per sex per litter, when possible, were randomly selected and examined for gross lesions. Necropsy included a single cross-section of the head at the level of the frontal-parietal suture and examination of the cross-sectioned brain for apparent hydrocephaly. The brain, spleen and thymus from one of the three selected pups per sex per litter were weighed and the brain, spleen and thymus from the three selected pups per sex per litter were retained in neutral buffered 10% formalin. Gross lesions from the three selected pups per sex per litter were retained in neutral buffered 10% formalin. Representative photographs of gross lesions are available in the raw data. All remaining pups were discarded without further examination.

F1 generation pups not selected for continued observation following continued observations for sexual maturation were sacrificed by carbon dioxide asphyxiation and a limited necropsy was performed. The thoracic, abdominal and pelvic cavities were examined for gross lesions. Gross lesions were preserved in neutral buffered 10% formalin. Representative photographs of gross lesions are available in the raw data. All other tissues and carcasses were discarded.

G.7. Data Collection and Statistical Analyses

Data generated during the course of this study were recorded either by hand or using the *Argus Automated Data Collection and Management System*, the *Vivarium Temperature and Relative Humidity Monitoring System* and the *Hamilton Thorne IVOS*. All data were tabulated, summarized and/or statistically analyzed using the *Argus Automated Data Collection and Management System*, the *Vivarium Temperature and Relative Humidity Monitoring System, Microsoft Excel* [part of Microsoft Office 97 (version SR-2)] and/or *The SAS System* (version 6.12).

The following schematic represents the statistical analyses of the data:



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a. Statistically significant probabilities are reported as either $p \leq 0.05$ or $p \leq 0.01$.
b. Proportion data are not included in this category.
c. Test for homogeneity of variance.

All adult and pup incidence data were analyzed using the Variance Test for Homogeneity of the Binomial Distribution[9].

Body weights, body weight changes, feed consumption data, durations of gestation and delivery, litter averages for pup body weights and percent male fetuses or pups and mortality, cumulative survival and parameters involving continuous data were analyzed using Bartlett's Test of Homogeneity of Variances[10] and the Analysis of Variance[11], when appropriate [i.e., Bartlett's Test was not significant ($p>0.001$]. If the Analysis of Variance was significant ($p\leq0.05$), Dunnett's Test[12] was used to identify the statistical significance of the individual groups. If the Analysis of Variance was not appropriate [i.e., Bartlett's Test was significant ($p\leq0.001$)], the Kruskal-Wallis Test[13] was used, when 75% or fewer ties were present; when more than 75% ties were present; Fisher's Exact Test[14] was used. In cases where the Kruskal-Wallis Test was statistically significant ($p\leq0.05$), Dunn's Method of Multiple Comparisons[15] was used to identify the statistical significance of the individual groups.

All other natural delivery data involving discrete data were evaluated using the Kruskal-Wallis Test[13] procedures previously described.

III. RESULTS - P GENERATION RATS

A. P Generation Male Rats

A.1. Mortality and Clinical Observations - P Generation Male Rats (Summary - Table B1; Individual Data - Table B13)

A.1.a. Mortality

One P generation male rat in the 30 mg/kg/day dosage group was moribund sacrificed on day 45 of the study (DS 45). The moribund condition was considered possibly related to the test substance because it occurred in the highest dosage group and this rat exhibited adverse clinical observations considered related to the test substance. Observations in this rat are described below. All other P generation male rats survived to scheduled sacrifice.

Male rat 13732 in the 30 mg/kg/day dosage group was moribund sacrificed on DS 45. This rat was administered 44 daily dosages of the test substance. Adverse clinical observations before sacrifice included dehydration on DSs 8 and 9, emaciation on DSs 18 to 34 and 41 to 45, cold to touch and urine-stained abdominal fur on DSs 44 and 45 and decreased motor activity on DS 45. This rat lost weight on DSs 1 to 8, 15 to 22 and 36 to 43 and feed consumption values were reduced on DSs 1 to 8, 15 to 22 and 36 to 43, compared to other rats in the dosage group. All lobes of the liver were pale and tan and both testes were red at necropsy; all other tissues examined appeared normal.

A.1.b. Clinical Observations

Statistically significant increases ($p \leq 0.01$) in the incidences of dehydration, urine-stained abdominal fur and ungroomed coat occurred in the 30 mg/kg/day dosage group. The number of male rats with chromorhinorrhea was increased in the 3 mg/kg/day and higher dosage groups; however these increases were not statistically significant.

All other clinical observations were considered unrelated to the test substance because: 1) the incidences were not dosage-dependent; and/or 2) the observation occurred in only one or two male rats in any dosage group. These observations included soft or liquid feces, emaciation, dried red or red perinasal substance, cold to touch, missing/broken and/or misaligned incisors, chromodacryorrhea, decreased motor activity, pale extremities, dried red substance on fur, no feces, scant feces, rales, swollen ears, abrasion on a limb, red substance on the penis and vocalization. The significant increases ($p \leq 0.05$ or $p \leq 0.01$) in the incidences of scabbing in the 1 and 3 mg/kg/day dosage groups were considered unrelated to the test substance because they were not dosage dependent. The significantly reduced ($p \leq 0.01$) incidences of localized alopecia (total and limbs) in the 1, 3, 10 and 30 mg/kg/day dosage groups were related to the increased incidence of this observation in the vehicle control group and were not test substance related.

A.2. Body Weights and Body Weight Changes - P Generation Male Rats (Figure 1; Summaries - Tables B2 and B3; Individual Data - Table B14)

Body weight gains for the entire dosage period before cohabitation (DSs 1 to 70) were significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) in the 3, 10 and 30 mg/kg/day dosage groups. Within this period, body weight gains were significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) in the 30 mg/kg/day dosage group at almost all tabulated intervals before the cohabitation period, in the 10 mg/kg/day dosage group on DSs 8 to15, 29 to 36, 43 to 50 and 57 to 64, and in the 3 mg/kg/day dosage group on DSs 29 to 36 and 43 to 50. As a result, body weight gains for the entire dosage period (DSs 1 to 106 and DS 1 to termination) were significantly reduced ($p \leq 0.01$) in the 3, 10 and 30 mg/kg/day dosage groups. Body weight gain was significantly reduced ($p \leq 0.05$) in the 3 mg/kg/day dosage group on DSs 85 to 92.

Body weights were significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) in the 30 mg/kg/day dosage group on DS 8 through termination, in the 10 mg/kg/day dosage group on DS 15 through termination and in the 3 mg/kg/day dosage group on DS 50 through termination. Body weight gain was significantly increased ($p \leq 0.05$) in the 3 mg/kg/day dosage group on DSs 1 to 8 but this increase was considered unrelated to the test substance because it did not persist.

Body weights and body weight gains were unaffected by the 1 mg/kg/day dosage of the test substance.

A.3. Absolute (g/day) and Relative (g/kg/day) Feed Consumption - P Generation Male Rats (Summaries - Tables B4 and B5; Individual Data - Table B15)

Absolute (g/day) feed consumption values were significantly reduced ($p \leq 0.01$) in the 30 mg/kg/day dosage group for the entire dosage period before cohabitation (DSs 1 to 70) and the entire study period (DSs 1 to 106) and at most tabulated intervals within these periods. Relative (g/kg/day) feed consumption values were significantly increased ($p \leq 0.05$ or $p \leq 0.01$) in the 3, 10 and 30 mg/kg/day dosage groups for the entire dosage period before cohabitation (DSs 1 to 70) and the entire study period (DSs 1 to 106). Within these periods, relative (g/kg/day) feed consumption values were significantly increased ($p \leq 0.05$ or $p \leq 0.01$) in the 30 mg/kg/day dosage group at all tabulated intervals after DS 8, in the 10 mg/kg/day dosage group at all tabulated intervals after DS 15 and in the 3 mg/kg/day dosage group on DSs 29 to 36 and all tabulated intervals after DS 50. The relative (g/kg/day) feed consumption value was significantly reduced ($p \leq 0.01$) on DSs 1 to 8 in the 30 mg/kg/day dosage group.

Absolute and relative feed consumption were unaffected by the 1 mg/kg/day dosage of the test substance.

A.4. Mating and Fertility - P Generation Male Rats (Summary - Table B6; Individual Data - Table B16)

All mating and fertility parameters (numbers of days to inseminate, rats that mated, fertility index, rats with confirmed mating dates during the first and second week of cohabitation and rats pregnant per rats in cohabitation) were unaffected by dosages of the test substance as high as 30 mg/kg/day. The significant reduction ($p \leq 0.05$) in the number of days in cohabitation in the 1 mg/kg/day dosage group was considered unrelated to the test substance because it was not dosage dependent.

A.5. Necropsy and Histopathology Observations - P Generation Male Rats (Summary - Table B7; Individual Data - Table B17; Histopathology APPENDIX K)

All necropsy observations were considered unrelated to the test substance because: 1) the incidences were not dosage-dependent and/or 2) the observation occurred in only one or two male rats in any dosage group. These observations included small and flaccid testes and/or epididymides, large or red testes, slight or moderate dilation of the renal pelvis, dark red areas on the lung lobes and pale and tan areas on the liver. All male rats with gross lesions of the testes and/or epididymides impregnated the cohort female.

No treatment-related microscopic changes were observed in the reproductive organs of any of the 10 male rats in the P generation selected for histopathologic evaluation that had been given up to 30 mg/kg/day of the test substance. A treatment-related microscopic change was observed in the adrenal glands of 2/10 and 7/10 male rats of the 10 and 30 mg/kg/day dosage groups. This change consisted of increased thickness and prominence of the zona glomerulosa due to cytoplasmic hypertrophy and vacuolation of the cells of the adrenal cortex. All other microscopic changes observed in the various organs and tissues were considered to have occurred spontaneously and to be incidental and unrelated to treatment. There were a few microscopic changes observed in rats designated as "reduced fertility", but these changes occurred spontaneously and were of the type that occur spontaneously in male rats of the age and strain and were not compound-related.

A.6. Terminal Body Weights and Organ Weights and Ratios (%) of Organ Weight to Terminal Body Weight and Brain Weight - P Generation Male Rats (Summaries - Tables B8 through B10; Individual Data - Tables B18 and B19)

Terminal body weights were significantly reduced ($p \leq 0.01$) in the 3, 10 and 30 mg/kg/day dosage groups. Absolute weights of the left epididymis, left cauda epididymis, seminal vesicles with and without fluid, right epididymis, prostate, pituitary, left and right adrenals, spleen and thymus were significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) in the 30 mg/kg/day dosage group. The absolute weight of the seminal vesicles without fluid was significantly reduced ($p \leq 0.05$) in the 10 mg/kg/day dosage group. The absolute weight of the liver was significantly increased ($p \leq 0.01$) in the 1, 3, 10 and 30 mg/kg/day

dosage groups. Weights of the left and right kidneys were significantly increased ($p \leq 0.05$ or $p \leq 0.01$) in the 1, 3 and 10 mg/kg/day dosage groups, while these weights were significantly reduced ($p \leq 0.5$ or $p \leq 0.01$) in the 30 mg/kg/day dosage group. The weight of the pituitary was significantly reduced ($p \leq 0.05$) in the 3 mg/kg/day dosage group but this reduction was not considered related to the test substance because the reduction was not dosage dependent.

The ratios of the organ weight to the terminal body weight were significantly increased ($p \leq 0.01$) in the 10 and 30 mg/kg/day dosage groups for the left epididymis, left cauda epididymis (30 mg/kg/day only), left testis, left testis minus tunica albuginea, seminal vesicles with and without fluid, right epididymis and right testis. The ratio of the seminal vesicles with fluid to the terminal body weight was also significantly increased ($p \leq 0.05$) in the 3 mg/kg/day dosage group. The ratio of the brain weight to the terminal body weight was significantly increased ($p \leq 0.05$ or $p \leq 0.01$) in the 3, 10 and 30 mg/kg/day dosage groups. The ratios of the liver and left and right kidney weights to the terminal body weight were significantly increased ($p \leq 0.01$) in the 1, 3, 10 and 30 mg/kg/day dosage groups. The ratio of the left adrenal weight to the terminal body weight was significantly increased ($p \leq 0.05$) in the 30 mg/kg/day dosage group.

Ratios of the organ weight to the brain weight were significantly reduced ($p \leq 0.01$) in the 30 mg/kg/day dosage group for the left epididymis, left cauda epididymis, right epididymis, prostate, pituitary, spleen and thymus. The ratio of the pituitary weight to the brain weight was significantly reduced ($p \leq 0.05$) in the 3 mg/kg/day dosage group. The ratios of the liver weight to the brain weight were significantly increased ($p \leq 0.01$) in the 1, 3, 10 and 30 mg/kg/day dosage groups. The ratios of the left and right kidney weights to the brain weight were significantly increased ($p \leq 0.05$ or $p \leq 0.01$) in the 1, 3 and 10 mg/kg/day dosage groups while the ratio of the left kidney weight to the brain weight was significantly reduced ($p \leq 0.05$) in the 30 mg/kg/day dosage group.

A.7. Sperm Evaluation (Summaries - Tables B11 and B12; Individual Data - Tables B20 and B21)

All sperm parameters evaluated were unaffected by dosages of the test substance as high as 30 mg/kg/day. Values for percent motile sperm, sperm density and spermatid density were comparable among the five dosage groups and did not significantly differ. The significant reduction ($p \leq 0.05$) in the number of nonmotile sperm in the 10 mg/kg/day dosage group was considered unrelated to the test substance because it was not dosage dependent. The numbers of sperm with normal morphology and the percentages of sperm with abnormal morphology were comparable among the five dosage groups.

B. P Generation Female Rats

B.1. Mortality and Clinical Observations - P Generation Female Rats (Summary - Table C1; Individual Data - Table C24)

B.1.a. Mortality

No deaths related to the test substance occurred.

One P generation female rat in each of the 0 and 1 mg/kg/day dosage groups were moribund sacrificed. The moribund conditions of these rats were attributed to accidents resulting in a broken palate or a fractured limb, respectively. Observations in these rats are described below. All other P generation female rats survived to scheduled sacrifice.

P generation female rat 13804 in the vehicle control group was moribund sacrificed on DS 68. This rat was administered 67 daily dosages of the vehicle. Adverse clinical observations before sacrifice included chromorhinorrhea, chromodacryorrhea, swollen snout, misaligned upper incisors and broken palate on DS 68. This rat gained weight from DSs 1 to 64 and feed consumption values were unremarkable. Necropsy confirmed the clinical signs. All other tissues examined appeared normal at necropsy.

P generation female rat 13836 in the 1 mg/kg/day dosage group was moribund sacrificed on DS 59. This rat was administered 59 daily dosages of the test substance. Adverse clinical observations before sacrifice included a swollen left forelimb and paw on DSs 57 to 59 and fractured left forelimb on DS 59. This rat gained weight from DSs 1 to 57 and feed consumption values were unremarkable. Necropsy revealed a broken radius and ulna in the left forelimb. All other tissues examined appeared normal at necropsy.

P generation female rat 13822 in the vehicle control group was sacrificed on DL 8 and dam 13852 in the 1 mg/kg/day dosage group was sacrificed on DL 11. The litters from these two dams were inadvertently mixed together. Both dams and litters were sacrificed because it was not possible to identify to which litter the pups belonged.

P generation female rat 13822 in the vehicle control group was sacrificed on DL 8. This rat was administered 101 daily dosages of the vehicle. Adverse clinical observations before sacrifice included a scab on a forelimb on DSs 15, 16 and 22 to 26. Body weight gains and feed consumption values throughout the precohabitation, gestation and lactation periods were unremarkable. All tissues examined appeared normal at necropsy. This dam delivered 12 normal pups that appeared normal at necropsy.

P generation female rat 13852 in the 1 mg/kg/day dosage group was sacrificed on DL 11. This rat was administered 102 daily dosages of the test substance. There were no adverse clinical observations before death. Body weight gains and feed consumption values throughout the precohabitation, gestation and lactation periods were unremarkable. All tissues examined appeared normal at necropsy. This dam delivered 12 pups, one pup had a mass on the forelimb on DLs 5 to 6. All pups appeared normal at necropsy.

B.1.b. Clinical Observations

All clinical observations during the precohabitation, gestation and lactation periods were considered unrelated to the test substance because: 1) the incidences were not dosage-dependent; and/or 2) the observation occurred in only one or two female rats in any dosage group. These observations included missing/broken and/or misaligned incisors, chromorhinorrhea, ungroomed coat, scabbing, chromodacryorrhea, localized alopecia (limbs, underside and head), swollen forelimb and paw, soft or liquid feces, fractured forelimb, broken palate, swollen snout, swollen ears, mass on the head or the axilla, dried red perinasal substance, dried red substance on paws, abrasion on the paw, traumatized cornea and swollen paw, eye or ear.

B.2. Body Weights and Body Weight Changes - P Generation Female Rats (Figure 2; Summaries - Tables C2 through C7; Individual Data - Tables C25 through C27)

Body weights and body weight gains during the precohabitation, gestation and lactation periods were unaffected by dosages of the test substance as high as 30 mg/kg/day. Body weight gain was significantly reduced ($p \leq 0.05$) during the precohabitation period on days 29 to 36 of study, and body weights were significantly reduced ($p \leq 0.05$) on days 7 and 14 of gestation in the 30 mg/kg/day dosage group but these significant reductions were not considered toxicologically important because they did not persist.

B.3. Absolute (g/day) and Relative (g/kg/day) Feed Consumption - P Generation Female Rats (Summaries - Tables C8 through C13; Individual Data - Tables C28 through C30)

Absolute (g/day) and relative (g/kg/day) feed consumption values during the precohabitation, gestation and lactation periods were unaffected by dosages of the test substance as high as 30 mg/kg/day. Absolute feed consumption values were significantly reduced ($p \leq 0.05$) during the precohabitation period on days 57 to 64 of study, and during the gestation period on days 10 to 14 and 0 to 21 in the 30 mg/kg/day dosage group but these significant reductions were not considered toxicologically important because they did not persist. The significant reduction ($p \leq 0.05$) in the absolute feed consumption value on gestation days 10 to 14 in the 1 mg/kg/day dosage group was considered unrelated to the test substance because it was not dosage dependent.

B.4. Estrous Cycling, Mating and Fertility - P Generation Female Rats (Summary - Table C14; Individual Data - Table C31)

The average numbers of estrous stages per 21 days were comparable among the five dosage groups and did not significantly differ. Evaluation of estrous stages at sacrifice did not reveal any differences among the five dosage groups.

All mating and fertility parameters (numbers of days in cohabitation, rats that mated, fertility index, rats with confirmed mating dates during the first and second week of

cohabitation and rats pregnant per rats in cohabitation) were unaffected by dosages of the test substance as high as 30 mg/kg/day. The significant reduction ($p \leq 0.05$) in the number of days in cohabitation in the 1 mg/kg/day dosage group was considered unrelated to the test substance because it was not dosage dependent.

B.5. Necropsy and Histopathology Observations - P Generation Female Rats (Summary - Table C15; Individual Data - Table C32; Histopathology - APPENDIX K)

All necropsy observations were considered unrelated to the test substance because: 1) the incidences were not dosage-dependent; and 2) the observation occurred in only one female rat in any dosage group. These observations included marked dilation of the renal pelvis and a broken ulna and radius.

No treatment-related microscopic changes were observed in the reproductive organs of any of the 10 female rats in the P generation selected for histopathologic evaluation that had been given up to 30 mg/kg/day of the test substance. All microscopic changes observed in the various organs and tissues were considered to have occurred spontaneously and to be incidental and unrelated to treatment. There were a few microscopic changes observed in rats designated as "reduced fertility", but these changes occurred spontaneously and were of the type that occur spontaneously in female rats of the age and strain and were not compound-related.

B.6. Terminal Body Weights, Organ Weights and Ratios (%) of Organ Weight to Terminal Body Weight and Brain Weight - P Generation Female Rats (Summaries - Tables C16 through C18; Individual Data - Tables C33 and C34)

Terminal body weights of the P generation female rats were comparable among the five dosage groups and did not significantly differ. The weights of the left and right kidney, the ratios of these organ weights to the terminal body weight and the ratio of the left kidney weight to the brain weight were significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) in the 30 mg/kg/day dosage group. The ratios of the liver weight to the terminal body weight were significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) in the 3 and 10 mg/kg/day dosage groups.

All other organ weights (pituitary, brain, left and right adrenals, spleen, cervix, left and right ovary and uterus) and the ratios of these organ weights to the terminal body weight and the brain weight were unaffected by dosages of the test substance as high as 30 mg/kg/day.

B.7. Natural Delivery and Litter Data - P Generation Female Rats (Summaries - Tables C19 and C20; Individual Data - Tables C35 through C38)

Pregnancy occurred in 27 to 29 rats in each dosage group. One pregnant dam (13862) in the 3 mg/kg/day dosage group did not deliver a litter by day 25 of presumed gestation. The litter consisted of one implantation site (identified at necropsy on day 25 of

gestation). Such events are relatively common in rats, and this nondosage-dependent event was unrelated to the test substance. One or more liveborn pups were delivered by every other pregnant dam assigned to natural delivery (there were 27 to 29 litters delivered in each dosage group).

Natural delivery observations were unaffected by dosages of the test substance as high as 30 mg/kg/day. Values for the numbers of dams delivering litters, the duration of gestation, averages for implantation sites per delivered litter, the gestation index (number of dams with one or more liveborn pups/number of pregnant rats), the numbers of dams with stillborn pups, dams with all pups dying, liveborn and stillborn pups, viability index, pup sex ratios and body weights were comparable among the five dosage groups and did not significantly differ.

The lactation index was 98.1% and 96.3% in the 3 and 30 mg/kg/day dosage groups, respectively. These values were significantly reduced ($p \leq 0.05$ and $p \leq 0.01$, respectively) from the control group value of 99.7%. The Testing Facility historical control average and range for this parameter is 98.8% and 94.4% to 100.0%, respectively (77 studies; 1995 to 2000). The reductions in the lactation index in the 3 and 30 mg/kg/day dosage groups were not considered treatment-related because: 1) the reduction in the 3 mg/kg/day was not dosage-dependent; 2) this effect did not occur during lactation in the F2 pups; and 3) the reduction in the 30 mg/kg/day was within the historical control range for this facility. One dam in the 30 mg/kg/day dosage group delivered one pup that died on day 1 of lactation (DL 1). The numbers of pups found dead or presumed cannibalized were significantly increased in the 3 and 30 mg/kg/day dosage groups on days 6 to 8 of lactation. These increases were not considered related to the test substance because they did not affect any other measures of pup viability (surviving pups per litter, live litter size at weighing).

Pup body weight per litter was significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) in the 1 mg/kg/day dosage group on DL 1 and in the 30 mg/kg/day dosage group on DLs 1, 5 and 8. The pup body weight reduction in the 1 mg/kg/day dosage group on DL 1, however, was not considered treatment-related because it was not dosage-dependent.

B.8. Clinical and Necropsy Observations - F1 Generation Litters (Summaries - Tables C21 and C22; Individual Data - Tables C39 and C40)

No clinical or necropsy observations were attributable to dosages of the test substance as high as 30 mg/kg/day because: 1) the incidences were not dosage-dependent; and 2) the observation occurred in only one or two litters. These clinical observations included cold to touch, no milk in stomach, umbilical hernia, pale, mass on limb or mouth, not nesting, scab on the back, red perianal substance, not nursing, missing or black tip of tail, traumatized cornea, rotated hindlimbs and absent tail. All male pups met the criterion (no nipples present) at nipple examination on DL 12. Necropsy observations included no milk in stomach and moderate dilation of the renal pelvis.

B.9. Terminal Body Weights, Organ Weights and Ratios (%) of Organ Weight to Terminal Body Weight and Brain Weight - F1 Generation Litters (Summary - Table C23; Individual Data - Table C41)

Terminal body weights of the F1 generation pups were comparable among the five dosage groups and did not significantly differ. The weights of the brain, spleen and thymus and the ratios of these organ weights to the terminal body weight and brain weight were unaffected by dosages of the test substance as high as 30 mg/kg/day. The significant reduction ($p \leq 0.05$) in the ratio of the thymus weight to the terminal body weight in the 3 mg/kg/day dosage group was unrelated to the test substance because the value was not dosage dependent.

B.10. PFOA Serum Levels (ug/mL) Data Summary (APPENDIX I)

	Gender/ Timepoint	PFOA Concentration Average ± SD
Group 1 0 mg/kg/day	Female Lactation Day 22	Less than LOQ (0.00528) N = 3
Group 1 0 mg/kg/day	Male End of Cohabitation	0.0344 ± 0.0148 N = 3
Group 4 10 mg/kg/day	Female Lactation Day 22	0.37 ± 0.0805 N = 10
Group 4 10 mg/kg/day	Male End of Cohabitation	51.1 ± 9.30 N = 10
Group 5 30 mg/kg/day	Female Lactation Day 22	1.02 ± 0.425 N = 10
Group 5 30 mg/kg/day	Male End of Cohabitation	45.3 ± 12.6 N = 10

LOQ = Limit of Quantitation

Low levels of PFOA were detected in the sera of the control male rats. In general, PFOA levels found in sera of the female rats increased from 10 mg/kg/day dosage group to the 30 mg/kg/day dosage group. PFOA levels found in sera of the male rats remained the same between the 10.0 mg/kg/day dosage group and the 30 mg/kg/day dosage group.

IV. RESULTS - F1 GENERATION RATS

A. F1 Generation Male Rats

A.1. Mortality and Clinical Observations - F1 Generation Male Rats (Summary - Table D1; Individual Data - Table D14)

A.1.a. Mortality

Three, three, three, two and seven F1 generation male rats in the 0, 1, 3, 10 and 30 mg/kg/day dosage groups were moribund sacrificed or found dead. The increased incidence of mortality in the 30 mg/kg/day dosage group was considered treatment-related. Observations for these rats are described below. All other F1 generation male rats survived to scheduled sacrifice.

0 mg/kg/day dosage group

Rat 1024 was found dead on postweaning day (DP) 25, approximately one hour after the 25th daily dosage. There were no adverse clinical observations before death. This rat was one of the smallest in this group at weaning, weighing only 30 g. This rat gained weight on DPs 1 to 22. Feed consumption values were comparable to other rats in the dosage group. Necropsy revealed all lobes of the lungs to be mottled and dark red; all other tissues appeared normal. The death of this rat was considered to be due to an intubation accident.

Rat 1029 was moribund sacrificed on DP 4, after the 4th daily dosage. Clinical observations before death included chromorhinorrhea on DPs 2 through 4 and decreased motor activity and cold to touch on DP 4. This rat weighed only 31 g at weaning. All tissues examined appeared normal at necropsy. The moribund condition was attributed to a failure to thrive postweaning.

Rat 1039 was found dead on DP 42, approximately 33 minutes after the 42nd daily dosage. The only adverse clinical observation before death was vocalization on DP 34. Body weights and feed consumption were comparable to other control group male rats. All tissues examined appeared normal at necropsy. The death of this rat was considered to be due to an intubation accident because death occurred immediately after administration without any adverse clinical observations.

1 mg/kg/day dosage group

Rat 1064 was found dead on the morning of DP 6. The rat was administered five daily dosages. Clinical observations before death included chromorhinorrhea and urine-stained abdominal fur on DP 5. This rat weighed 37 g at weaning. All tissues examined appeared normal at necropsy. No cause of death could be determined.

Rat 1087 was found dead on DP 45 before administration of the 45th daily dosage. There were no adverse clinical observations before death. Body weights and feed consumption were comparable to other male rats in this dosage group. All tissues examined appeared normal at necropsy. No cause of death could be determined.

Rat 1104 was found dead on DP 2 before administration of the 2nd daily dosage. Clinical observations before death included decreased motor activity, cold to touch and emaciation on DP 1. This rat was one of the smallest in this group at weaning, weighing only 23 g. All tissues examined appeared normal at necropsy. This death was attributed to a failure to thrive postweaning.

3 mg/kg/day dosage group

Rat 1121 was found dead on DP 5 before administration of the 5th daily dosage. There were no adverse clinical observations observed before death. This rat weighed 35 g at weaning. All tissues examined appeared normal at necropsy. No cause of death could be determined.

Rat 1130 was found dead on DP 2 before administration of the 2nd daily dosage. There were no adverse clinical observations before death. This rat was one of the smallest in this group at weaning, weighing only 24 g. All tissues examined appeared normal at necropsy. This death was attributed to a failure to thrive postweaning.

Rat 1140 was found dead on DP 9 before administration of the 9th daily dosage. The only adverse clinical observation before death was emaciation on DP 3. This rat weighed only 37 g at weaning and 55 g on DP 8. Feed consumption on DPs 1 to 8 was reduced as compared to other rats in this group. All tissues examined appeared normal at necropsy. This death was attributed to a failure to thrive postweaning.

10 mg/kg/day dosage group

Rat 1200 was moribund sacrificed on DP 40 before administration of the 40th daily dosage. Clinical observations before death included chromodacryorrhea on DP 24, dehydration on DPs 24 to 40, abdominal distention on DPs 25 to 40, urine-stained abdominal fur on DPs 29 to 32 and 39 to 40, and emaciation and cold to touch on DPs 29 to 40. This rat was eating and gaining weight through the first three weeks of dosage administration and then lost body weight over the next two weeks. Feed consumption was reduced on DPs 29 to 36. Necropsy revealed the intestines distended with gas, a small (0.02 g) thymus and numerous ulcerations (pinpoint to 0.1 cm in diameter) in one cardiac region of the stomach and five ulcerations (pinpoint) in a second cardiac region of the stomach; all other tissues examined appeared normal.

Rat 1210 was found dead on DP 4 before administration of the 4th daily dosage. Clinical observations before death included decreased motor activity, cold to touch and emaciation on DP 3. This rat weighed 41 g at weaning. All tissues examined appeared normal at necropsy. No cause of death could be determined.

30 mg/kg/day dosage group

Rat 1260 was found dead on the morning of DP 4. The rat was administered three daily dosages. Clinical observations before death included decreased motor activity, cold to touch and urine-stained abdominal fur on DP 3. This rat was one of the smallest in this group at weaning, weighing only 24 g. All tissues examined appeared normal at necropsy. This death was attributed to a failure to thrive postweaning.

Rat 1263 was found dead on the morning of DP 2. The rat was administered one daily dosage. Clinical observations before death included decreased motor activity, corneal opacity, emaciation and cold to touch on DP 1. This rat was one of the smallest in this group at weaning, weighing only 25 g. All tissues examined appeared normal at necropsy. This death was attributed to a failure to thrive postweaning.

Rat 1264 was found dead on the morning of DP 2. The rat was administered one daily dosage. Clinical observations before death included decreased motor activity, corneal opacity, emaciation and cold to touch on DP 1. This rat was one of the smallest in this group at weaning, weighing only 24 g. All tissues examined appeared normal at necropsy. This death was attributed to a failure to thrive postweaning.

Rat 1275 was moribund sacrificed on DP 39 before administration of the 39th daily dosage. Clinical observations before death included chromorhinorrhea on DPs 26 to 33, dehydration on DPs 26 to 39, emaciation on DPs 29 to 39, decreased motor activity on DPs 32 to 39, urine-stained abdominal fur on DPs 32 to 39, cold to touch on DPs 33 to 39 and chromodacryorrhea on DP 39. This rat was eating and gaining weight through the first three weeks of dosage administration and then lost body weight over the next two weeks. Feed consumption was reduced on DPs 29 to 36. Necropsy revealed numerous tan areas (pinpoint to 0.1 cm) on the median lobe of the liver and a small (0.04 g) spleen; all other tissues appeared normal.

Rat 1277 was found dead on the morning of DP 4. The rat was administered three daily dosages. Clinical observations before death included chromorhinorrhea on DPs 2 and 3 and decreased motor activity, cold to touch, emaciation and urine-stained abdominal fur on DP 3. This rat was one of the smallest in this group at weaning, weighing only 25 g. All tissues examined appeared normal at necropsy. This death was attributed to a failure to thrive postweaning.

Rat 1280 was found dead on DP 3 before administration of the 3rd daily dosage. The only adverse clinical observation before death was chromorhinorrhea on DP 2. This rat weighed 34 g at weaning. All tissues examined appeared normal at necropsy. No cause of death could be determined.

Rat 1296 was found dead on DP 107 before administration of the 107th daily dosage. Clinical observations before death included rales on DP 100, chromorhinorrhea on DPs 100 to 101, chromodacryorrhea and misaligned incisors on DPs 100 to 106, emaciation on DPs 103 to 106 and urine-stained abdominal fur on DPs 104 to 106. This rat gained weight similar to other rats in this group up to DP 99 after which it lost 130 g in body weight over the next week. Feed consumption values were unremarkable up to DP 70. All tissues examined appeared normal at necropsy. No cause of death could be determined.

A.1.b. Clinical Observations

The incidences of annular constriction of the tail of male F1 generation rats were increased in the 1, 3, 10 and 30 mg/kg/day dosage groups, reaching statistical significance ($p \leq 0.05$ or $p \leq 0.01$) in the 1, 10 and 30 mg/kg/day dosage groups. The number of male rats observed to be emaciated was significantly increased ($p \leq 0.05$ or

$p \leq 0.01$) in the 10 and 30 mg/kg/day dosage groups, and the numbers of male rats with urine-stained abdominal fur, decreased motor activity and abdominal distention were significantly increased ($p \leq 0.01$) in the 30 mg/kg/day dosage group. The incidence of the observation of cold to touch was increased, albeit not significantly, in the 30 mg/kg/day dosage group.

All other clinical observations were considered unrelated to the test substance because: 1) the incidences were not dosage-dependent; and/or 2) the observation occurred in only one to three male rats in any dosage group. These observations included chromorhinorrhea, chromodacryorrhea, missing/broken and/or misaligned incisors, scab located on the neck, head, back, mouth or ear, soft or liquid feces, localized alopecia on the limbs, back or head, corneal opacity, rales, dehydration, lacrimation, swollen eye, ears or snout, red substance on the penis, excess salivation, dried and red perinasal substance, vocalization, tip of tail missing or black, ulceration on the back, red perioral substance, ptosis, enophthalmos, abrasion on the head and enlarged eye.

A.2. Body Weights and Body Weight Changes - F1 Generation Male Rats (Figure 3; Summaries - Tables D2 and D3; Individual Data - Table D15)

Body weights and body weight gains were reduced for the F1 generation male rats before and after the cohabitation period at the 1, 3, 10 and/or 30 mg/kg/day dosages of the test substance, as compared to the control group.

Body weight gains for the entire dosage period (DPs 1 to 113) were significantly reduced ($p \leq 0.01$) in a dosage-dependent manner in the 1, 3, 10 and 30 mg/kg/day dosage groups. Body weight gains were also significantly reduced ($p \leq 0.01$) in the 10 and 30 mg/kg/day dosage group for the entire precohabitation period (DP 1 to precohabitation).

Within these periods, body weight gains were significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) in the 1 and 3 mg/kg/day dosage groups on DPs 43 to 50, in the 3 mg/kg/day dosage group on DPs 57 to 64 and in the 1 mg/kg/day dosage group alone on DPs 15 to 22. Body weight gains in the 10 and 30 mg/kg/day dosage groups were significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) on DPs 8 to 15, 22 to 29, 29 to 36, 43 to 50 and 50 to 57. Body weight gains in the 30 mg/kg/day dosage group were also significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) on DPs 1 to 8, 15 to 22, 36 to 43, 57 to 64 and 64 to 70.
Body weights were significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) on DPs 50, 57, 64, 70, 99, 106 and 113 in the 1 mg/kg/day dosage group, on DPs 106 and 113 in the 3 mg/kg/day dosage group and at all weekly intervals after DP 36 in the 10 mg/kg/day dosage group and DP 8 in the 30 mg/kg/day dosage group.

A.3 Absolute (g/day) and Relative (g/kg/day) Feed Consumption - F1 Generation Male Rats (Summaries - Tables D4 and D5; Individual Data - Table D16)

Absolute (g/day) feed consumption values for the F1 generation male rats were significantly reduced ($p \leq 0.01$) and relative (g/kg/day) feed consumption values were significantly increased ($p \leq 0.05$ or $p \leq 0.01$) for the entire precohabitation period (DPs 1 to 70) by dosages of APFO of 10 (absolute only) and 30 mg/kg/day.

Absolute feed consumption values for the 30 mg/kg/day dosage group were significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) on DPs 1 to 8, 8 to 15, 15 to 22, 22 to 29, 29 to 36, 43 to 50 and 50 to 57. Relative feed consumption values were significantly reduced ($p \leq 0.05$) in the 30 mg/kg/day dosage group on DPs 1 to 8. Relative feed consumption values were significantly increased ($p \leq 0.05$) in the 10 mg/kg/day dosage group on DPs 29 to 36 and significantly increased ($p \leq 0.01$) in the 30 mg/kg/day dosage group on DPs 22 to 29, 29 to 36, 36 to 43, 43 to 50, 50 to 57, 57 to 64 and 64 to 70. Relative feed consumption values were significantly increased ($p \leq 0.01$) in the 10 and 30 mg/kg/day dosage groups on DPs 99 to 106, 106 to 113 and 99 to 113.

The significant reduction ($p \leq 0.05$ or $p \leq 0.01$) in the absolute feed consumption value on DPs 22 to 29, 29 to 36, 43 to 50 and 1 to 70 in the 1 mg/kg/day dosage group were considered unrelated to the test substance because they were not dosage dependent.

A.4. Sexual Maturation - F1 Generation Male Rats (Summary - Table D6; Individual Data - Table D17)

Preputial separation of F1 generation male rats was slightly delayed (approximately three and a half days later than the control group value) in the 30 mg/kg/day dosage group, compared to the control group. The Testing Facility historical control average and range for this parameter is 46.1 days and 43.9 to 47.7 days, respectively (42 studies; 1995 to 2000). The average day when preputial separation was evident in the 30 mg/kg/day dosage group (52.2 days of age) significantly differed ($p \leq 0.01$) from the control group value (48.5 days of age). When this observation in the 30 mg/kg/day dosage group was covaried with the significantly reduced ($p \leq 0.01$) body weight at time of acquisition, to determine if the significantly reduced body weights were a factor, the difference was still significant, but at the $p \leq 0.05$ level. When this observation in the 30 mg/kg/day dosage group was covaried with gestational age at time of acquisition to determine if this group was younger and more immature than the control group, there was no significant difference in sexual maturation.

A.5. Mating and Fertility - F1 Generation Male Rats (Summary - Table D7; Individual Data - Table D18)

Dosages of the test substance as high as 30 mg/kg/day did not affect any mating and fertility parameters evaluated in the F1 generation male rats. Values for the fertility and pregnancy indices (number of pregnancies per number of rats that mated and rats in cohabitation, respectively), the number of days to inseminate, the number of rats that mated and the number of rats with confirmed mating dates during the first week of cohabitation were comparable among the five dosage groups. Of the male rats assigned to cohabitation, 93.3%, 96.6%, 93.3%, 93.3% and 96.7% impregnated the cohort female rat in the five dosage groups, respectively.

A.6. Necropsy Observations - F1 Generation Male Rats (Summary - Table D8 Individual Data - Table D19)

The number of F1 generation males that appeared normal at necropsy was significantly reduced ($p \leq 0.01$) in the 10 and 30 mg/kg/day dosage groups, compared to the control group.

Tan areas occurred in the left lateral and/or median lobes of the liver in 6*, 10** and 9** male rats in the 3, 10 and 30 mg/kg/day dosage groups, respectively. One of these rats in the 30 mg/kg/day dosage group also had a small spleen. One 30 mg/kg/day dosage group rat had an enlarged liver. Moderate to slight dilation of the pelvis of one or both kidneys occurred in 4** and 1 rats in the 10 and 30 mg/kg/day dosage groups, respectively. A tan area in the parenchyma of the spleen occurred in one 10 mg/kg/day dosage group rat.

All other necropsy observations were considered unrelated to the test substance because: 1) the incidences were not dosage-dependent; and 2) the observation occurred in only one male rat in any dosage group. These observations included small prostate for one 1 mg/kg/day dosage group rat, small and flaccid left testis and small left epididymides for another 1 mg/kg/day dosage group rat, large left testis for one 3 mg/kg/day dosage group rat, ulceration of the cardiac region of the stomach, intestines distended with gas and small thymus for one rat that was moribund sacrificed in the 10 mg/kg/day dosage group. Mottled dark red lung lobes occurred in one 0 mg/kg/day dosage group rat that was found dead.

A.7. Terminal Body Weights, Organ Weights and Ratios (%) of Organ Weights to Terminal Body Weight and Brain Weight - F1 Generation Male Rats (Summaries - Tables D9 through D11; Individual Data - Tables D20 and D21)

Terminal body weights of the F1 generation male rats were significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) in a dosage-dependent manner in the 1, 3, 10 and 30 mg/kg/day dosage groups.

The absolute weights of the liver were significantly increased ($p \leq 0.01$) and the absolute weights of the spleen were significantly decreased ($p \leq 0.05$ or $p \leq 0.01$) in the 1 mg/kg/day and higher dosage groups, compared to the control group values. The absolute weights of the left and/or right kidneys were significantly increased ($p \leq 0.05$ or $p \leq 0.01$) in the 1 and 3 mg/kg/day dosage groups and significantly decreased ($p \leq 0.01$) in the 30 mg/kg/day dosage group, compared to control group values. The absolute weight of the thymus was also significantly decreased ($p \leq 0.01$) in the 10 and 30 mg/kg/day dosage groups. The absolute weight of the prostate, brain and left adrenal gland were significantly decreased ($p \leq 0.05$ or $p \leq 0.01$) in the 30 mg/kg/day dosage group.

The ratios of the weights of the seminal vesicles, with and without fluid, liver and left and right kidneys to the terminal body weights were significantly increased ($p \leq 0.05$ or $p \leq 0.01$) in the 1 mg/kg/day and higher dosage groups, compared to the control group values. The ratios of the weights of the left testis, with and without the tunica albuginea and the right testis to the terminal body weight, were significantly increased ($p \leq 0.05$ or $p \leq 0.01$) in the 3 mg/kg/day and higher dosage groups. The ratios of the weights of the left epididymis, left cauda epididymis, right epididymis and brain to the terminal body weight were significantly increased ($p \leq 0.05$ or $p \leq 0.01$) in the 10 mg/kg/day and higher dosage groups.

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* Significantly different from the Group I value ($p \leq 0.05$).

** Significantly different from the Group I value ($p \leq 0.01$).

The ratios of the weight of the seminal vesicles with fluid to the brain weight were increased in the 1 mg/kg/day and higher dosage groups, compared to the control group values. These ratios were significantly increased ($p \leq 0.05$) in the 1 and 10 mg/kg/day dosage groups. The ratios of the liver weight to the brain weight were significantly increased ($p \leq 0.01$) in the 1 mg/kg/day and higher dosage groups, and the ratios of the left and right kidney weights to the brain weight were significantly increased ($p \leq 0.05$ or $p \leq 0.01$) in the 1, 3 and 10 mg/kg/day dosage groups. The ratios of the spleen weight to the brain weight were significantly decreased ($p \leq 0.05$ or $p \leq 0.01$) in the 1 mg/kg/day and higher dosage groups, and the ratios of the thymus weight to the brain weight were significantly decreased ($p \leq 0.05$ or $p \leq 0.01$) in the 10 and 30 mg/kg/day dosage groups. The ratios of the left and right testes weight to the brain weight were increased in the 3 mg/kg/day and higher dosage groups. These ratios were significantly increased ($p \leq 0.05$ or $p \leq 0.01$) in the 10 mg/kg/day (right testis only) and 30 mg/kg/day dosage groups.

A.8. Histopathology (APPENDIX K)

No treatment-related microscopic changes were observed in the reproductive organs of any of the 10 male rats in the F1 generation selected for histopathologic evaluation that had been given up to 30 mg/kg/day of the test substance. A treatment-related microscopic change was observed in the adrenal glands of 7/10 male rats of the 30 mg/kg/day dosage group. This change consisted of increased thickness and prominence of the zona glomerulosa due to cytoplasmic hypertrophy and vacuolation of the cells of the adrenal cortex. Treatment-related microscopic changes also were observed in the liver sections of the F1 generation male rats in the 3, 10 and 30 mg/kg/day dosage groups. Microscopically, these gross changes were due to diffuse hypertrophy of the hepatocytes. Hepatocytes in all areas (diffuse) of the hepatic lobules were enlarged due to an increased dense, eosinophilic cytoplasm. A very low incidences of single-cell or focal/multifocal hepatocellular necrosis also was observed in a few rats of these groups. Hepatic tissue was available for micropic examination only from rats with gross observations in the liver. All other microscopic changes observed in the various organs and tissues were considered to have occurred spontaneously and to be incidental and unrelated to treatment. There were a few microscopic changes observed in rats designated as "reduced fertility", but these changes occurred spontaneously and were of the type that occur spontaneously in male rats of the age and strain and were not compound-related.

A.9. Cauda Epididymal Sperm Motility, Count, Density and Spermatid Count - F1 Generation Male Rats (Summary - Table D12; Individual Data - Table D22)

A.9.a. Cauda Epididymal Sperm Motility

No statistically significant or dosage-dependent differences occurred in the numbers of motile sperm, percentage of motile sperm, static count (nonmotile sperm), total count or sperm density.

A.9.b. Cauda Epididymal Spermatid Count and Concentration

Cauda epididymal spermatid count and density were unaffected by dosages of the test substance as high as 30 mg/kg/day. No statistically significant differences occurred.

A.10. Cauda Epididymal Sperm Morphology - F1 Generation Male Rats (Summary - Table D13; Individual Data - Table D23)

Sperm morphology was unaffected by dosages of the test substance as high as 30 mg/kg/day. The number of sperm with a broken flagellum was significantly reduced ($p \leq 0.05$) in the 1 mg/kg/day dosage group, compared to the control group. This finding was not considered treatment-related because it was not dosage-dependent.

B. F1 Generation Female Rats

B.1. Mortality and Clinical Observations - F1 Generation Female Rats (Summary - Table E1; Individual Data - Table E26)

B.1.a. Mortality

Two, one, one and six** F1 generation female rats in the 1, 3, 10 and 30 mg/kg/day dosage groups were found dead during the post-lactation period. All the deaths, except one in the 1 mg/kg/day dosage group, occurred postweaning days 2 to 8. This increased incidence of mortality in the 30 mg/kg/day dosage group was considered treatment-related and may have been related to their small size (5 of the 7 found dead pups were 28 g or less at weaning). Observations for these rats are described below. All other F1 generation female rats survived to scheduled sacrifice.

1 mg/kg/day dosage group

Rat 1365 was found dead on postweaning day (DP) 4 before administration of the fourth daily dosage. Clinical observations before death included tip of tail missing on DPs 1 to 3 and decreased motor activity, chromorhinorrhea and cold to touch on DP 3. This rat was one of the smallest in this group at weaning, weighing only 31 g. All tissues examined appeared normal at necropsy. This death was attributed to a failure to thrive postweaning.

Rat 1373 was found dead on DP 51 before administration of the 51st daily dosage. Clinical observations before death included chromorhinorrhea on DPs 28 to 35, dehydration on DPs 29 to 50, urine-stained abdominal fur on DPs 32 to 50, chromodacryorrhea on DP 35, emaciation on DPs 35 to 50 and decreased motor activity on DPs 45 to 50. This rat lost weight after DP 29. Feed consumption values were unremarkable. Necropsy revealed distended stomach and intestines and a depressed white area on the dorsal surface of the right apical lobe of the lungs. All other tissues appeared normal. No cause of death could be determined.

** Significantly different from the control group value ($p \leq 0.01$).

3 mg/kg/day dosage group

Rat 1432 was found dead on the morning of DP 7 before administration of the 7th daily dosage. Clinical observations before death included urine-stained abdominal fur and chromorhinorrhea on DPs 4 to 6 and emaciation on DP 6. This rat was one of the smallest in this group at weaning, weighing 31 g. All tissues examined appeared normal at necropsy. This death was attributed to a failure to thrive postweaning.

10 mg/kg/day dosage group

Rat 1484 was found dead on the morning of DP 3 before administration of the third daily dosage. Clinical observations before death included urine-stained abdominal fur on DPs 1 and 2 and decreased motor activity, cold to touch and labored breathing on DP 2. This rat was one of the smallest in this group at weaning, weighing only 28 g. All tissues examined appeared normal at necropsy. This death was attributed to a failure to thrive postweaning.

30 mg/kg/day dosage group

Rat 1549 was found dead on DP 8 before administration of the eighth daily dosage. Clinical observations before death included decreased motor activity on DPs 2 and 3, chromorhinorrhea on DPs 2 to 7, cold to touch on DPs 3 to 7 and urine-stained abdominal fur on DPs 5 to 7. This rat was one of the smallest in this group at weaning, weighing only 28 g and feed consumption was severely reduced on DPs 1 to 8. All tissues examined appeared normal at necropsy. This death was attributed to a failure to thrive postweaning.

Rat 1559 was found dead on DP 6 before administration of the sixth daily dosage. Clinical observations before death included urine-stained abdominal fur on DPs 3 to 5 and cold to touch and emaciation on DP 5. This rat was one of the smallest in this group at weaning, weighing only 22 g. All tissues examined appeared normal at necropsy. This death was attributed to a failure to thrive postweaning.

Rat 1562 was found dead on the morning of DP 2. The rat was not administered the test substance. No clinical observations, body weight or feed consumption values were recorded. All tissues examined appeared normal at necropsy. No cause of death could be determined.

Rat 1563 was found dead on the morning of DP 2. The rat was not administered the test substance. No clinical observations, body weight or feed consumption values were recorded. All tissues examined appeared normal at necropsy. No cause of death could be determined.

Rat 1574 was found dead on DP 3, approximately one hour after the third daily dosage. Clinical observations before death included cold to touch and urine-stained abdominal fur on DPs 2 and 3. This rat was one of the smallest in this group at weaning, weighing only 23 g. All tissues examined appeared normal at necropsy. This death was attributed to a failure to thrive postweaning.

Rat 1575 was found dead on the morning of DP 3 before administration of the third daily dosage. There were no adverse clinical observations before death. This rat was one of the smallest in this group at weaning, weighing only 23 g. All tissues examined appeared normal at necropsy. This death was attributed to a failure to thrive postweaning.

B.1.b. Clinical Observations

All clinical observations during the precohabitation, gestation and lactation periods were considered unrelated to the test substance because: 1) the incidences were increased to statistically significant levels; 2) the incidences were not dosage-dependent; and/or 3) the observation occurred in only one to two female rats in any dosage group. These observations included abdominal distention, urine-stained abdominal fur, cold to touch, chromorhinorrhea, rales, tip of tail missing, scab on the head or back, localized alopecia on the limbs, neck or head, decreased motor activity, emaciation, bent tail, missing/broken and/or misaligned incisors, lacrimation, swollen eye, labored breathing, soft or liquid feces, chromodacryorrhea, swollen ear, dehydration, annular constriction of the tail, swollen head or snout, ptosis, mass in the right axilla and red perivaginal substance.

A significant increase ($p \leq 0.01$) in the incidence of red perivaginal substance in the 3 mg/kg/day dosage group during the lactation period was not considered treatment-related because it was not dosage-dependent.

B.2. Body Weights and Body Weight Changes - F1 Generation Female Rats (Figure 4; Summaries - Tables E2 through E7; Individual Data - Tables E27 through E29)

B.2.a. Precohabitation

Body weights and body weight gains during the precohabitation period were significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) by 30 mg/kg/day dosages of the test substance. Body weight gain for the entire precohabitation period (DP 1 to precohabitation) was significantly reduced ($p \leq 0.05$). Within this period, body weight gains were significantly reduced ($p \leq 0.01$) on DPs 1 to 8 and 8 to 15. Body weights in this group were significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) on DPs 8, 15, 22, 29, 50, 57 and precohabitation.

Body weights and body weight gains during the precohabitation period were unaffected by dosages of the test substance as high as 10 mg/kg/day. Body weight gains in the 1 mg/kg/day dosage group were significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) on DPs 1 to 8 and 8 to 15 and in the 10 mg/kg/day dosage group were significantly reduced ($p \leq 0.01$) on DPs 8 to15. Body weights in the 1 mg/kg/day dosage group were also significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) on DPs 8, 15, 22 and 29. These reductions in the 1 and 10 mg/kg/day dosage groups were not considered treatment-related because: 1) they were not dosage-dependent; and 2) they did not persist.

B.2.b. Gestation

Body weights during the gestation period were significantly reduced ($p \leq 0.05$) in the 30 mg/kg/day dosage group on gestation days (DGs) 0, 7, 10 and 14, compared to the control group.
Body weights and body weight gains during the gestation period were unaffected by dosages of the test substance as high as 10 mg/kg/day.

B.2.c. Lactation

Body weights during the lactation period were significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) in the 30 mg/kg/day dosage group on lactation days (DLs) 5, 8, 11 and 15, compared to the control group.

Body weights and body weight gains during the lactation period were unaffected by dosages of the test substance as high as 10 mg/kg/day.

B.3. Absolute (g/day) and Relative (g/kg/day) Feed Consumption - F1 Generation Female Rats (Summaries - Tables E8 through E13; Individual Data - Tables E30 through E32)

Absolute (g/day) feed consumption values were significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) in the 30 mg/kg/day dosage group on DPs 1 to 8, 8 to 15 and 15 to 22 during the precohabitation period, on DGs 7 to 10 during the gestation period and on DLs 1 to 15 during the lactation period. Relative (g/kg/day) feed consumption values were comparable among the 0, 1, 3, 10 and 30 mg/kg/day dosage groups for the precohabitation, gestation and lactation periods and did not differ statistically.

Absolute and relative feed consumption values during the precohabitation, gestation and lactation periods were unaffected by dosages of the test substance as high as 10 mg/kg/day. Absolute feed consumption values were significantly reduced ($p \leq 0.01$) in the 1 mg/kg/day dosage group on DPs 1 to 8 and 8 to 15 during the precohabitation period. These significant reductions in the absolute feed consumption in the 1 mg/kg/day dosage group were considered unrelated to the test substance because they were not dosage dependent and did not persist.

B.4. Sexual Maturation - F1 Generation Female Rats (Summary - Table E14; Individual Data - Table E33)

The 30 mg/kg/day dosage group F1 generation female rats had a small (approximately 1.7 days increase from the control group value), statistically significant ($p \leq 0.01$) delay in vaginal patency. The Testing Facility historical control average and range for this parameter is 32.1 days and 30.1 to 34.0 days, respectively (42 studies; 1995 to 2000). The average day when vaginal patency was evident in the 30 mg/kg/day dosage group (36.6 days of age) significantly differed ($p \leq 0.01$) from the control group value (34.9 days of age). When this observation in the 30 mg/kg/day dosage group was covaried with the significantly reduced ($p \leq 0.01$) body weight at time of acquisition, to determine if the significantly reduced body weights were a factor, the difference was still significant, but at the $p \leq 0.05$ level. When this observation in the 30 mg/kg/day dosage group was

covaried with gestational age at time of acquisition, to determine if this group was younger and more immature than the control group, there was no significant difference in sexual maturation.

B.5. Estrous Cycling, Mating and Fertility - F1 Generation Female Rats (Summary - Table E15; Individual Data - Table E34)

The average numbers of estrous stages per 21 days were significantly increased ($p \leq 0.01$) in the 30 mg/kg/day dosage group (4.7 versus 5.4 stages). The Testing Facility historical control average and range for this parameter is 5.0 stages and 4.8 to 5.2 stages, respectively (7 studies; 1992 to 2002). When this observation in the 30 mg/kg/day dosage group was covaried with the day 64 body weight or age, the difference was still significant, but at the $p \leq 0.05$ level.

Evaluation of the number of rats with 6 or more consecutive days of diestrus or estrus and estrous stages at sacrifice did not reveal any differences among the five dosage groups.

All mating and fertility parameters (numbers of days in cohabitation, rats that mated, fertility index, rats with confirmed mating dates during the first week of cohabitation and rats pregnant per rats in cohabitation) were unaffected by dosages of the test substance as high as 30 mg/kg/day.

B.6. Necropsy Observations - F1 Generation Female Rats (Summary - Table E16; Individual Data - Table E35)

All necropsy observations for the F1 generation female rats were considered unrelated to the test substance because: 1) the incidences were not dosage-dependent; and 2) the observation occurred in only one female rat in any dosage group. The observations included a small spleen for a 0 mg/kg/day dosage group rat, a mass on the left lateral lobe of the liver with adhesion of the caudate lobe for a 1 mg/kg/day dosage group rat; slight dilation of the pelvis of both kidneys for a 3 mg/kg/day dosage group rat; moderate dilation of the pelvis of the right kidney, thickened urinary bladder walls and moderate dilation of both ureters with one calculi at the caudal end for a 30 mg/kg/day dosage group rat. One rat in the 1 mg/kg/day dosage group that was found dead had distended stomach and intestines with a depressed white area on the lungs, as previously described

B.7. Terminal Body Weights, Organ Weights and Ratios (%) of Organ Weights to Terminal Body Weight and Brain Weight - F1 Generation Female Rats (Summaries - Tables E17 through E19; Individual Data - Tables E36 and E37)

Terminal body weights of the F1 generation female rats were comparable among the five dosage groups and did not differ significantly.

The absolute weight of the pituitary and the ratios of the pituitary weight to the terminal body weight and to the brain weight were significantly ($p \leq 0.05$ or $p \leq 0.01$) decreased in the 3 mg/kg/day and higher dosage groups, as compared to the control group values.

The absolute weights of the brain, liver, kidneys, adrenals, spleen, thymus, ovaries and uterus and the ratios of these organ weights to the terminal body weight and the brain weight were unaffected by dosages of the test substance as high as 30 mg/kg/day.

Primordial follicle count for ten F1 generation female rats in the vehicle control and 30 mg/kg/day dosage groups were comparable and did not significantly differ.

B.8. Histopathology (APPENDIX K)

No treatment-related microscopic changes were observed in the reproductive organs of any of the 10 female rats in the F1 generation selected for histopathologic evaluation that had been given up to 30 mg/kg/day of the test substance. All microscopic changes observed in the various organs and tissues were considered to have occurred spontaneously and to be incidental and unrelated to treatment. There were a few microscopic changes observed in rats designated as "reduced fertility", but these changes occurred spontaneously and were of the type that occur spontaneously in female rats of the age and strain and were not compound-related.

B.9. Natural Delivery and Litter Data - F1 Generation Female Rats (Summaries - Tables E20, E21 and E25 ; Individual Data - Tables E38 through E41 and E45)

Pregnancy occurred in 28 to 29 rats in each dosage group. Natural delivery observations were unaffected by dosages of the test substance as high as 30 mg/kg/day. Values for the numbers of dams delivering litters, the duration of gestation, averages for implantation sites per delivered litter, the gestation index (number of dams with one or more liveborn pups/number of pregnant rats), the numbers of dams with stillborn pups, dams with all pups dying and liveborn and stillborn pups were comparable among the five dosage groups and did not significantly differ.

The viability index (number of live pups on day 5 postweaning per number of liveborn pups on day 1 postweaning) and lactation index (number of live pups on day 22 postweaning per number of live pups on day 5 postweaning) were comparable and did not differ significantly.

The numbers of pups found dead or presumed cannibalized were significantly increased ($p \leq 0.01$) in the 3 and 10 mg/kg/day dosage groups on day 1 of lactation. These increases were not considered related to the test substance because: 1) they were not dosage-dependent; and 2) they did not affect any other measures of pup viability (surviving pups per litter, live litter size at weighing).

The number of pups surviving per litter, the percentage male pups, litter size and average pup body weight per litter were comparable and did not differ significantly on DLs 1, 5, 8, 15 or 22 for any of the dosage groups when compared to the control group. Anogenital distances measured for male and female pups on DLs 1 and 22 were comparable among the five dosage groups and did not significantly differ.

B.10. Clinical and Necropsy Observations - F2 Generation Pups (Summaries - Tables E22 and E23 ; Individual Data - Tables E42 and E43)

No clinical or necropsy observations were attributable to maternal dosages of the test substance as high as 30 mg/kg/day because: 1) the incidences were not dosage-dependent; and 2) the observation occurred in only one or two litters. These clinical observations included cold to touch, absent tail or eye, tip of tail missing, scab on tail or back, pale in appearance, abrasion at the base of the tail, mass on the mouth, abrasion on the back or tail, emaciation, domed head, dehydration, tail bent or thread-like, no anal opening present, ungroomed coat and no milk present in the stomach. Necropsy observations were limited to no milk in stomach in pups that were found dead. In the pups examined at necropsy on DL 22, dilated kidneys occurred in the 0 mg/kg/day (1 pup in one litter), 1 mg/kg/day (1 pup in one litter) and 3 mg/kg/day (2 pups in 2 litters) dosage groups and marked dilation of the third and lateral ventricles of the brain occurred in the 10 mg/kg/day dosage group (1 pup in 1 litter).

B.11. F2 Generation Terminal Body Weights and Selected Organ Weights and Ratios (%) of Organ Weights to Terminal Body Weights and Brain Weights - (Table E24; Individual Data - Table E44)

F2 generation rats had comparable terminal body weights on DL 22; the values did not significantly differ from the control group values.

Absolute weights of the brain, spleen and thymus and ratios of these organ weights to terminal body weight and to brain weight were comparable among the five dosage groups and did not significantly differ.

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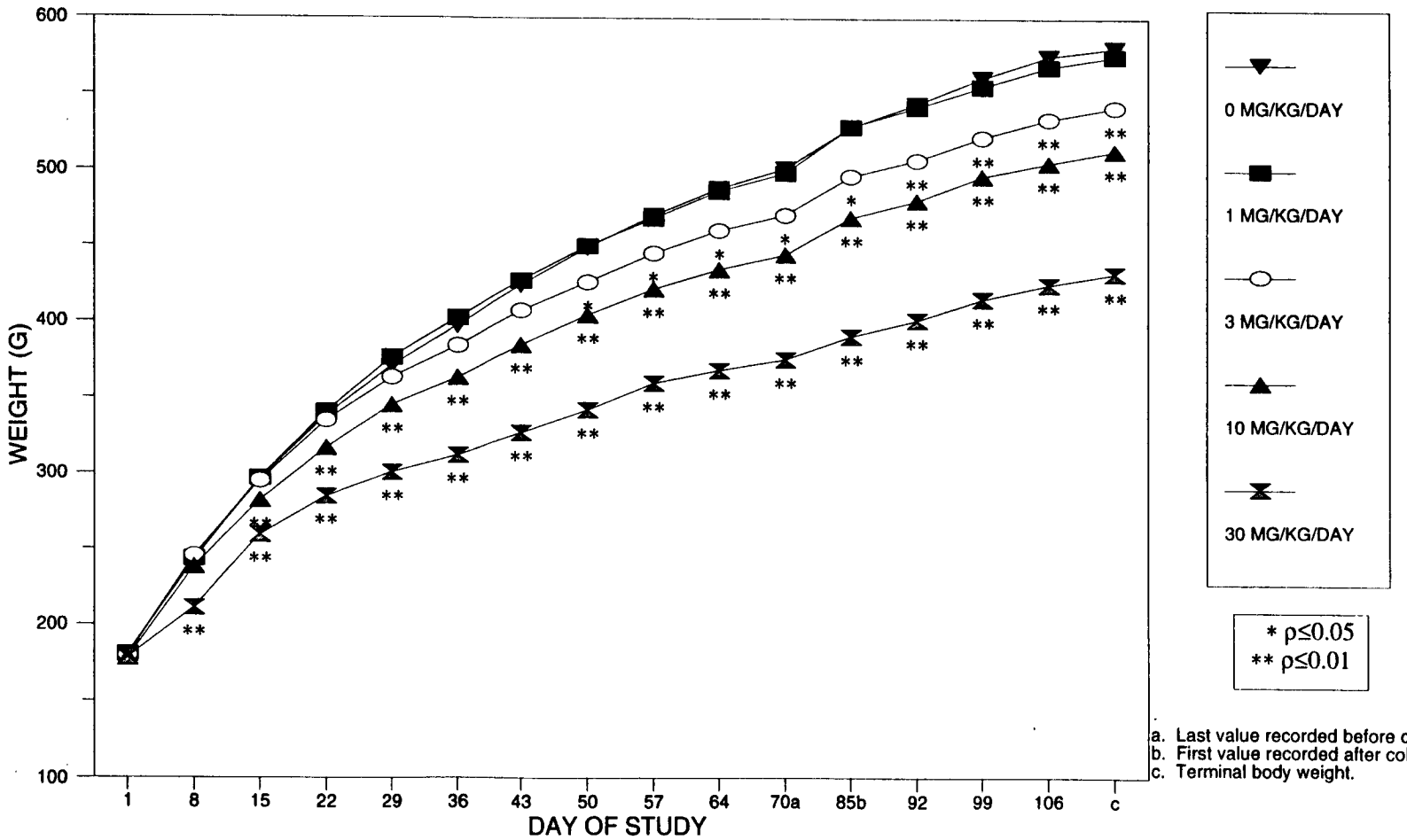
APPENDIX A

REPORT FIGURES

BODY WEIGHTS

P GENERATION MALE RATS

Figure 1

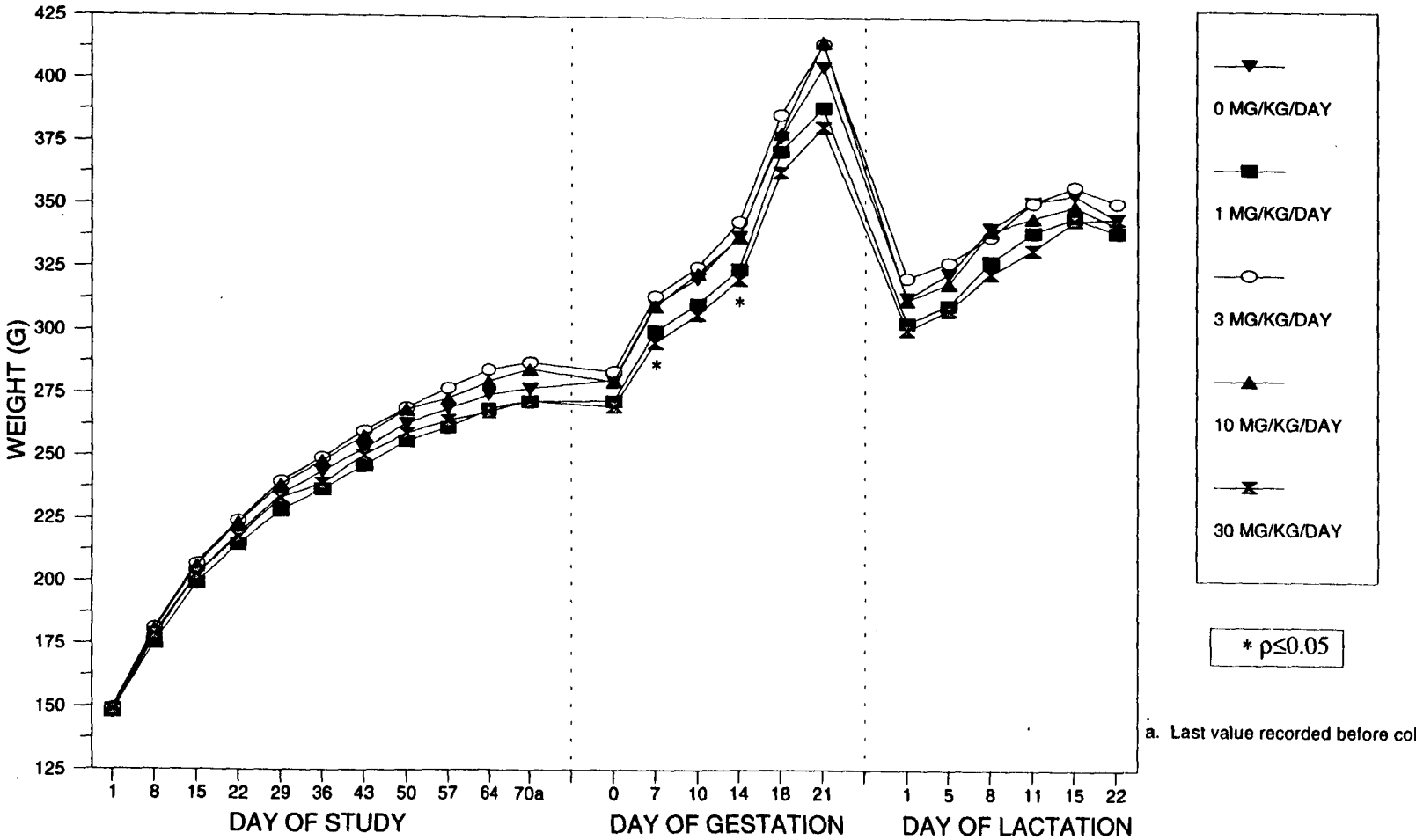


a. Last value recorded before cohabitation.
b. First value recorded after cohabitation.
c. Terminal body weight.

BODY WEIGHTS

P GENERATION FEMALE RATS

Figure 2

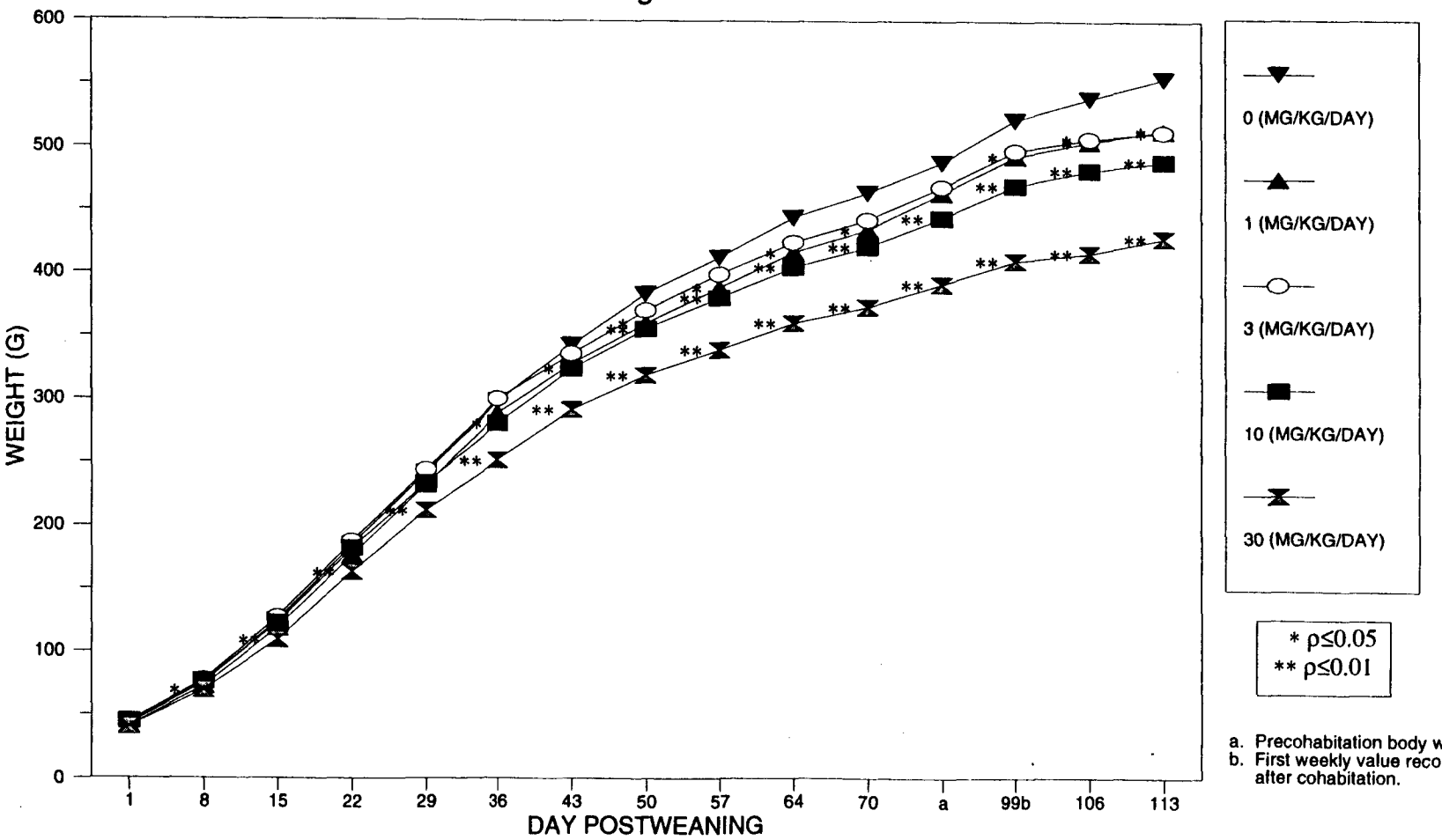


a. Last value recorded before cohabitation.

BODY WEIGHTS

F1 GENERATION MALE RATS

Figure 3

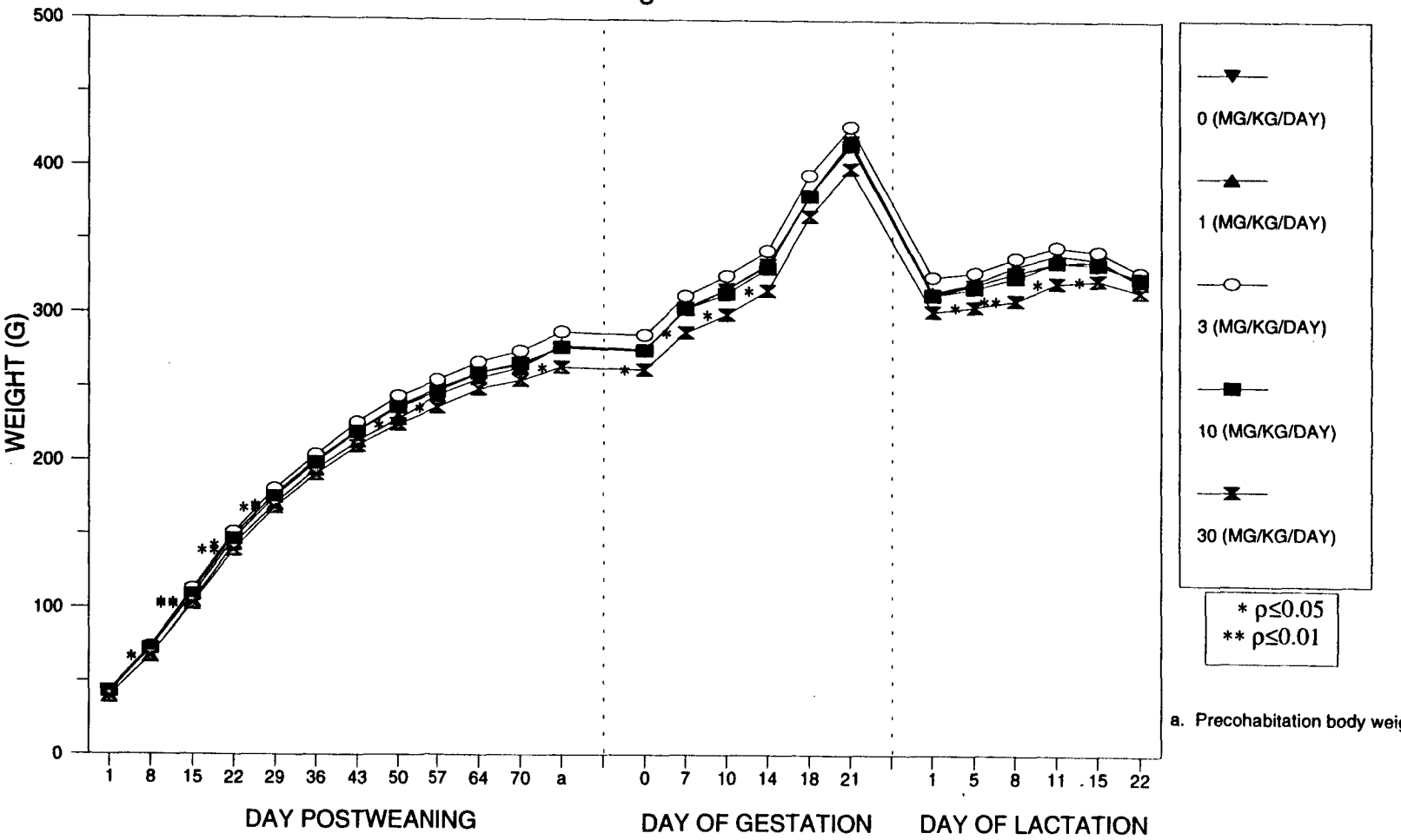


a. Precohabitation body weight.
b. First weekly value recorded after cohabitation.

BODY WEIGHTS

F1 GENERATION FEMALE RATS

Figure 4



a. Precohabitation body weight.

APPENDIX B

REPORT TABLES - P GENERATION MALE RATS

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B1 (PAGE 1): CLINICAL OBSERVATIONS - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
MAXIMUM POSSIBLE INCIDENCE		3240/ 30	3240/ 30	3240/ 30	3240/ 30	3178/ 30
MORIBUND SACRIFICED		0	0	0	0	1a
CHROMORHINORRHEA		3/ 2	10/ 2	26/ 7	15/ 5	27/ 8
DEHYDRATION		0/ 0	0/ 0	0/ 0	0/ 0	30/ 4**a
SOFT OR LIQUID FECES		17/ 7	12/ 8	3/ 2	11/ 3	4/ 3
LOCALIZED ALOPECIA:	TOTAL	396/ 8	63/ 2**	84/ 3**	38/ 1**	141/ 3**
	LIMBS	396/ 8	58/ 1**	84/ 3**	38/ 1**	141/ 3**
	HEAD	0/ 0	5/ 1	0/ 0	0/ 0	0/ 0
URINE-STAINED ABDOMINAL FUR		0/ 0	0/ 0	0/ 0	0/ 0	13/ 3**a
UNGROOMED COAT		0/ 0	0/ 0	0/ 0	0/ 0	21/ 3**
EMACIATION		0/ 0	0/ 0	0/ 0	0/ 0	34/ 2a
DRIED RED OR RED PERINASAL SUBSTANCE		0/ 0	0/ 0	0/ 0	0/ 0	8/ 2
COLD TO TOUCH		0/ 0	0/ 0	0/ 0	0/ 0	6/ 2a
INCISORS:	TOTAL	16/ 1	85/ 4	153/ 3	35/ 2	11/ 1
	MISSING/BROKEN	16/ 1	36/ 4	56/ 2	16/ 2	0/ 0
	MISALIGNED	0/ 0	53/ 2	120/ 2	19/ 1	11/ 1
CHROMODACRYORRHEA		0/ 0	35/ 2	124/ 2	21/ 1	5/ 1
DECREASED MOTOR ACTIVITY		0/ 0	0/ 0	0/ 0	0/ 0	1/ 1a
PALE EXTREMITIES		0/ 0	0/ 0	0/ 0	0/ 0	6/ 1

STATISTICAL ANALYSES OF CLINICAL OBSERVATION DATA WERE RESTRICTED TO THE NUMBER OF RATS WITH OBSERVATIONS.
MAXIMUM POSSIBLE INCIDENCE = (DAYS X RATS)/NUMBER OF RATS EXAMINED PER GROUP.
N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RATS WITH OBSERVATION.
a. Rat 13732 was moribund sacrificed on day 45 of study.
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B1 (PAGE 2): CLINICAL OBSERVATIONS - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	I 0	II 1	III 3	IV 10	V 30
MAXIMUM POSSIBLE INCIDENCE	3240/ 30	3240/ 30	3240/ 30	3240/ 30	3178/ 30
MORIBUND SACRIFICED	0	0	0	0	1a
DRIED, RED SUBSTANCE ON FUR b	0/ 0	0/ 0	0/ 0	0/ 0	6/ 1
NO FECES	0/ 0	0/ 0	0/ 0	0/ 0	2/ 1
SCANT FECES	0/ 0	0/ 0	0/ 0	0/ 0	2/ 1
RALES	0/ 0	0/ 0	0/ 0	0/ 0	1/ 1
RIGHT OR BOTH EARS: SWOLLEN	15/ 1	38/ 2	0/ 0	11/ 1	0/ 0
SCAB c	0/ 0	46/ 4**	8/ 2*	0/ 0	0/ 0
RIGHT FORELIMB: ABRASION	0/ 0	4/ 1	0/ 0	0/ 0	0/ 0
PENIS: RED SUBSTANCE	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0
VOCALIZATION	1/ 1	0/ 0	0/ 0	0/ 0	0/ 0

STATISTICAL ANALYSES OF CLINICAL OBSERVATION DATA WERE RESTRICTED TO THE NUMBER OF RATS WITH OBSERVATIONS.
MAXIMUM POSSIBLE INCIDENCE = (DAYS X RATS)/NUMBER OF RATS EXAMINED PER GROUP.
N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RATS WITH OBSERVATION.
a. Rat 13732 was moribund sacrificed on day 45 of study.
b. Located on both forepaws.
c. Located on the nose, mouth, head, right forelimb or back.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B2 (PAGE 1): BODY WEIGHTS - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	30	30	30	30
BODY WEIGHT (G)						
DAY 1	MEAN±S.D.	180.9 ± 7.3	180.7 ± 7.6	179.9 ± 6.7	178.4 ± 7.2	178.6 ± 7.2
DAY 8	MEAN±S.D.	242.8 ± 12.4	243.6 ± 10.4	245.7 ± 8.4	238.1 ± 10.4	211.3 ± 17.0**
DAY 15	MEAN±S.D.	296.7 ± 15.9	297.1 ± 12.2	295.1 ± 10.7	282.4 ± 14.7**	259.4 ± 16.0**
DAY 22	MEAN±S.D.	338.2 ± 16.2	340.9 ± 16.8	334.8 ± 16.0	316.8 ± 22.6**	284.9 ± 26.3**
DAY 29	MEAN±S.D.	370.9 ± 19.0	376.6 ± 21.6	363.3 ± 23.9	345.2 ± 27.4**	300.9 ± 29.9**
DAY 36	MEAN±S.D.	397.6 ± 21.8	402.5 ± 26.4	384.3 ± 27.0	363.4 ± 31.9**	312.3 ± 35.2**
DAY 43	MEAN±S.D.	424.0 ± 25.2	427.0 ± 28.4	407.0 ± 32.6	384.2 ± 37.5**	326.3 ± 45.8**
DAY 50	MEAN±S.D.	448.7 ± 26.7	449.7 ± 30.5	425.7 ± 34.2*	404.2 ± 39.0**	341.7 ± 39.1** [29]a
DAY 57	MEAN±S.D.	469.9 ± 28.9	468.0 ± 33.8	444.8 ± 36.9*	421.5 ± 42.9**	359.3 ± 44.0** [29]a
DAY 64	MEAN±S.D.	487.9 ± 32.4	486.1 ± 37.8	459.9 ± 38.3*	434.1 ± 44.9**	367.6 ± 49.3** [29]a

DAY = DAY OF STUDY
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rat 13732, which was moribund sacrificed on day 45 of study.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B2 (PAGE 2): BODY WEIGHTS - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	30	30	30	30
INCLUDED IN ANALYSES	N	30	30	30	30	29a
BODY WEIGHT (G)						
DAY 70b	MEAN±S.D.	501.1 ± 33.8	498.0 ± 38.8	470.4 ± 43.2*	444.2 ± 46.2**	375.0 ± 54.0**
DAY 85c	MEAN±S.D.	528.3 ± 34.7	528.8 ± 43.2	495.8 ± 42.3*	468.3 ± 49.2**	389.9 ± 64.4**
DAY 92	MEAN±S.D.	543.8 ± 37.1	541.6 ± 43.1	506.7 ± 44.7**	479.9 ± 52.0**	400.9 ± 69.2**
DAY 99	MEAN±S.D.	561.1 ± 37.8	555.1 ± 44.2	521.6 ± 47.5**	495.8 ± 53.0**	414.6 ± 64.3**
DAY 106	MEAN±S.D.	575.5 ± 39.7	568.3 ± 45.2	533.8 ± 46.2**	504.9 ± 54.4**	424.3 ± 62.9**
TERMINAL BODY WEIGHT d	MEAN±S.D.	580.7 ± 40.0	575.3 ± 47.6	541.7 ± 47.2**	513.0 ± 53.9**	431.8 ± 64.1**

DAY = DAY OF STUDY
a. Excludes values for rat 13732, which was moribund sacrificed on day 45 of study.
b. Last value recorded before cohabitation.
c. First value recorded after cohabitation.
d. Terminal body weights were recorded when the rats were day 106 to 109 of study.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B3 (PAGE 1): BODY WEIGHT CHANGES - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)		I 0	II 1	III 3	IV 10	V 30
RATS TESTED	N	30	30	30	30	30
BODY WEIGHT CHANGE (G)						
DAYS 1 - 8	MEAN±S.D.	+61.9 ± 7.3	+63.0 ± 4.7	+65.8 ± 4.9*	+59.7 ± 6.2	+32.7 ± 17.0**
DAYS 8 - 15	MEAN±S.D.	+53.9 ± 12.5	+53.5 ± 8.0	+49.4 ± 7.8	+44.3 ± 10.0**	+48.1 ± 10.8*
DAYS 15 - 22	MEAN±S.D.	+41.5 ± 6.1	+43.8 ± 7.9	+39.8 ± 9.5	+34.4 ± 12.6	+25.5 ± 17.8**
DAYS 22 - 29	MEAN±S.D.	+32.7 ± 7.9	+35.6 ± 7.8	+28.5 ± 10.7	+28.3 ± 8.7	+16.0 ± 16.5**
DAYS 29 - 36	MEAN±S.D.	+26.7 ± 7.0	+26.0 ± 8.3	+21.0 ± 6.6**	+18.3 ± 6.0**	+11.4 ± 10.5**
DAYS 36 - 43	MEAN±S.D.	+26.4 ± 6.6	+24.5 ± 5.8	+22.7 ± 9.7	+20.7 ± 9.2	+14.0 ± 26.7**
DAYS 43 - 50	MEAN±S.D.	+24.7 ± 5.8	+22.7 ± 5.0	+18.7 ± 5.2**	+20.0 ± 9.8*	+10.7 ± 16.5** [29]a
DAYS 50 - 57	MEAN±S.D.	+21.3 ± 6.4	+18.3 ± 8.3	+19.1 ± 8.3	+17.4 ± 7.8	+17.6 ± 14.7 [29]a
DAYS 57 - 64	MEAN±S.D.	+17.9 ± 7.1	+18.1 ± 6.6	+15.1 ± 7.0	+12.6 ± 6.0*	+8.2 ± 9.6** [29]a

DAYS = DAYS OF STUDY
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rat 13732, which was moribund sacrificed on day 45 of study.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B3 (PAGE 2): BODY WEIGHT CHANGES - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	30	30	30	30
INCLUDED IN ANALYSES	N	30	30	30	30	29a
BODY WEIGHT CHANGE (G)						
DAYS 64 - 70b	MEAN±S.D.	+13.2 ± 7.4	+11.9 ± 10.8	+10.5 ± 10.7	+10.1 ± 7.0	+7.4 ± 9.8
DAYS 1 - 70b	MEAN±S.D.	+320.2± 30.8	+317.3± 37.3	+290.5± 43.1*	+265.8± 44.5**	+196.6± 53.2**
DAYS 85c- 92	MEAN±S.D.	+15.5 ± 7.4	+12.8 ± 5.4	+10.9 ± 6.8*	+11.6 ± 7.7	+11.0 ± 18.4
DAYS 92 - 99	MEAN±S.D.	+17.3 ± 5.8	+13.6 ± 5.5	+14.9 ± 7.6	+15.9 ± 6.7	+13.7 ± 16.5
DAYS 99 -106	MEAN±S.D.	+14.4 ± 7.1	+13.2 ± 6.1	+12.3 ± 10.0	+9.1 ± 9.2	+9.7 ± 11.3
DAYS 1 -106	MEAN±S.D.	+394.6± 36.8	+387.7± 43.4	+353.9± 46.6**	+326.5± 53.1**	+246.0± 61.5**
DAY 1 - TERMINATION d	MEAN±S.D.	+399.8± 37.0	+394.7± 45.7	+361.8± 47.7**	+334.5± 52.6**	+253.4± 62.9**

DAY(S) = DAY(S) OF STUDY
a. Excludes values for rat 13732, which was moribund sacrificed on day 45 of study.
b. Last value recorded before cohabitation.
c. First value recorded after cohabitation.
d. Terminal body weights were recorded when the rats were day 106 to 109 of study.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B4 (PAGE 1): ABSOLUTE FEED CONSUMPTION VALUES (G/DAY) - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	30	30	30	30
FEED CONSUMPTION (G/DAY)						
DAYS 1 - 8	MEAN±S.D.	23.8 ± 1.6	23.9 ± 1.3	23.9 ± 1.2	23.0 ± 1.6	19.5 ± 3.3** [29]a
DAYS 8 - 15	MEAN±S.D.	26.6 ± 3.2	26.4 ± 1.8	26.1 ± 2.2 [28]a	25.7 ± 2.2	25.1 ± 2.4
DAYS 15 - 22	MEAN±S.D.	28.7 ± 1.6	28.8 ± 2.3	28.6 ± 2.0	28.9 ± 3.1	26.7 ± 4.6
DAYS 22 - 29	MEAN±S.D.	28.0 ± 1.9	28.6 ± 2.2	28.2 ± 2.6	28.5 ± 3.2 [29]a	26.0 ± 2.7**
DAYS 29 - 36	MEAN±S.D.	27.8 ± 1.9	28.2 ± 2.1 [29]a	28.1 ± 2.6 [28]a	28.4 ± 3.4	25.4 ± 2.6**
DAYS 36 - 43	MEAN±S.D.	28.3 ± 2.1	28.3 ± 2.3	28.4 ± 2.7	28.5 ± 3.4	25.2 ± 5.0**
DAYS 43 - 50	MEAN±S.D.	28.7 ± 1.9 [29]a	28.6 ± 2.4	28.4 ± 2.7 [29]a	28.7 ± 3.4 [28]a	26.2 ± 2.5** [28]a,b
DAYS 50 - 57	MEAN±S.D.	29.4 ± 1.8 [29]a	29.6 ± 3.0	29.4 ± 2.9	29.2 ± 3.4	26.8 ± 2.9** [29]b
DAYS 57 - 64	MEAN±S.D.	29.8 ± 2.2	29.9 ± 2.5	29.4 ± 3.5	29.5 ± 3.5	27.1 ± 3.5** [29]b
DAYS 64 - 70c	MEAN±S.D.	28.2 ± 2.1 [29]a	29.3 ± 2.8 [29]a	29.3 ± 4.0 [26]a	28.5 ± 3.5 [29]a	25.8 ± 3.2** [29]b
DAYS 1 - 70c	MEAN±S.D.	27.9 ± 1.5 [29]a	28.1 ± 1.8 [29]a	28.1 ± 2.0 [26]a	27.9 ± 2.7 [29]a	25.6 ± 2.2** [29]b
DAYS 85d- 92	MEAN±S.D.	29.9 ± 2.4 [29]a	29.8 ± 3.1	29.7 ± 3.0	29.5 ± 3.9	26.3 ± 5.3** [29]b
DAYS 92 - 99	MEAN±S.D.	29.0 ± 2.4	29.2 ± 2.8	29.1 ± 3.2	28.9 ± 3.8	26.6 ± 3.0** [29]b
DAYS 99 -106	MEAN±S.D.	28.9 ± 2.1	29.3 ± 2.4 [29]a	28.7 ± 2.7 [27]a	28.2 ± 3.8 [29]a	25.8 ± 3.2** [29]b
DAYS 1 -106	MEAN±S.D.	28.3 ± 1.6	28.3 ± 1.8 [29]a	28.1 ± 2.2 [27]a	28.1 ± 2.8 [29]a	25.7 ± 2.2** [29]b

DAYS = DAYS OF STUDY
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values that were associated with spillage.
b. Excludes values for rat 13732, which was moribund sacrificed on day 45 of study.
c. Last value recorded before cohabitation.
d. First value recorded after cohabitation.
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE B5 (PAGE 1): RELATIVE FEED CONSUMPTION VALUES (G/KG/DAY) - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	30	30	30	30
FEED CONSUMPTION (G/KG/DAY)						
DAYS 1 - 8	MEAN±S.D.	112.2 ± 5.7	112.8 ± 5.0	112.2 ± 4.4	110.6 ± 5.6	99.8 ± 14.8** [29]a
DAYS 8 - 15	MEAN±S.D.	98.8 ± 10.9	97.8 ± 6.5	96.7 ± 7.8 [28]a	98.6 ± 6.4	107.1 ± 10.9**
DAYS 15 - 22	MEAN±S.D.	90.6 ± 4.6	90.2 ± 5.7	90.7 ± 5.4	96.2 ± 7.4**	97.9 ± 15.3**
DAYS 22 - 29	MEAN±S.D.	78.8 ± 3.8	79.6 ± 4.5	80.8 ± 5.4	85.7 ± 5.6** [29]a	89.0 ± 8.5**
DAYS 29 - 36	MEAN±S.D.	72.4 ± 3.1	71.9 ± 3.4 [29]a	75.4 ± 4.6* [28]a	80.0 ± 6.4**	83.2 ± 6.2**
DAYS 36 - 43	MEAN±S.D.	69.0 ± 3.6	68.2 ± 5.1	71.7 ± 5.3	76.3 ± 6.2**	79.0 ± 14.8**
DAYS 43 - 50	MEAN±S.D.	66.0 ± 3.7 [29]a	65.3 ± 4.7	68.5 ± 5.2 [29]a	73.4 ± 7.7** [28]a	78.7 ± 7.6** [28]a,b
DAYS 50 - 57	MEAN±S.D.	64.0 ± 2.9 [29]a	64.6 ± 6.1	67.6 ± 5.5*	70.7 ± 5.6**	76.7 ± 7.4** [29]b
DAYS 57 - 64	MEAN±S.D.	62.2 ± 3.1	62.7 ± 4.0	65.2 ± 7.1*	69.1 ± 5.8**	74.8 ± 7.0** [29]b
DAYS 64 - 70c	MEAN±S.D.	57.1 ± 2.4 [29]a	59.8 ± 5.6 [29]a	63.4 ± 9.1** [26]a	65.0 ± 7.2** [29]a	70.0 ± 6.9** [29]b
DAYS 1 - 70c	MEAN±S.D.	73.7 ± 2.2 [29]a	74.3 ± 3.7 [29]a	77.1 ± 4.7* [26]a	80.5 ± 4.7** [29]a	84.8 ± 6.6** [29]b
DAYS 85d- 92	MEAN±S.D.	55.7 ± 3.5 [29]a	55.9 ± 5.2	59.4 ± 4.7**	62.4 ± 6.3**	66.6 ± 12.4** [29]b
DAYS 92 - 99	MEAN±S.D.	52.6 ± 2.7	53.3 ± 4.4	56.7 ± 4.8**	59.3 ± 5.5**	66.5 ± 10.5** [29]b
DAYS 99 -106	MEAN±S.D.	50.9 ± 2.8	52.6 ± 3.4 [29]a	54.7 ± 4.0** [27]a	56.6 ± 4.9** [29]a	62.5 ± 11.8** [29]b
DAYS 1 -106	MEAN±S.D.	65.8 ± 2.4	66.4 ± 3.6 [29]a	69.2 ± 4.3** [27]a	72.6 ± 4.4** [29]a	77.6 ± 6.3** [29]b

DAYS = DAYS OF STUDY
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values that were associated with spillage.
b. Excludes values for rat 13732, which was moribund sacrificed on day 45 of study.
c. Last value recorded before cohabitation.
d. First value recorded after cohabitation.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE B6 (PAGE 1): MATING AND FERTILITY - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS IN COHABITATION	N	29	29	30	30	29
DAYS IN COHABITATION a	MEAN±S.D.	3.3 ± 2.6	1.9 ± 1.2*	2.4 ± 1.7 [29]	3.1 ± 2.4 [28]	2.6 ± 1.4 [28]
RATS THAT MATED	N(%)	29(100.0)	29(100.0)	30(100.0)	29(96.7)	29(100.0)
FERTILITY INDEX b	N/N (%)	28/ 29 (96.6)	27/ 29 (93.1)	30/ 30 (100.0)	29/ 29 (100.0)	28/ 29 (96.6)
RATS WITH CONFIRMED MATING DATES	N	29	29	29	27	28
RATS MATING c						
DAYS 1-7	N(%)	27(93.1)	29(100.0)	28(96.6)	27(100.0)	28(100.0)
DAYS 8-14	N(%)	2(6.9)	0(0.0)	1(3.4)	0(0.0)	0(0.0)
RATS PREGNANT/RATS IN COHABITATION	N/N (%)	28/ 29 (96.6)	27/ 29 (93.1)	30/ 30 (100.0)	29/ 30 (96.7)	28/ 29 (96.6)

[ ] = NUMBER OF VALUES AVERAGED
a. Restricted to rats with a confirmed mating date and rats that did not mate.
b. Number of pregnancies/number of rats that mated.
c. Restricted to rats with a confirmed mating date.
* Significantly different from the Group I value ($p \leq 0.05$).

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B7 (PAGE 1): NECROPSY OBSERVATIONS - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS EXAMINED a	N	30	30	30	30	30
MORIBUND SACRIFICED	N	0	0	0	0	1b
APPEARED NORMAL	N	29	28	28	28	25
TESTES:						
RIGHT OR BILATERAL, SMALL AND FLACCID	N	0	1	0	1	1
LEFT, LARGE	N	0	0	0	0	1
BILATERAL, RED	N	0	0	0	0	1b
EPIDIDYMIDES:						
RIGHT, LEFT OR BILATERAL, SMALL AND FLACCID	N	0	1	0	1	2
KIDNEYS:						
RIGHT, PELVIS, SLIGHT OR MODERATE DILATION	N	0	1	2	1	2
LUNGS: ALL LOBES, NUMEROUS DARK RED AREAS	N	1	0	0	0	0
LIVER: ALL LOBES, TAN AND PALE	N	0	0	0	0	1b

a. Refer to the individual clinical observations table (Table B12) for external observations confirmed at necropsy.
b. Rat 13732 was moribund sacrificed on day 45 of study.

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TABLE B8 (PAGE 1): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	30	30	30	29a
TERMINAL BODY WEIGHT	MEAN±S.D.	580.7 ± 40.0	575.3 ± 47.6	541.7 ± 47.2**	513.0 ± 53.9**	431.8 ± 64.1**
EPIDIDYMIS LEFT	MEAN±S.D.	0.7210 ±0.0599	0.6991 ±0.0468	0.6901 ±0.0477	0.7039 ±0.0476	0.6322 ±0.0722**
CAUDA EPIDIDYMIS LEFT	MEAN±S.D.	0.3320 ±0.0398	0.3172 ±0.0256	0.3148 ±0.0280	0.3215 ±0.0307	0.2898 ±0.0374**
TESTIS LEFT	MEAN±S.D.	1.7953 ±0.1369	1.8103 ±0.1477	1.7868 ±0.1312	1.8194 ±0.0995	1.7878 ±0.2930
LEFT TESTIS MINUS TUNICA ALBUGINEA	MEAN±S.D.	1.6613 ±0.1410	1.6822 ±0.1356	1.6598 ±0.1268	1.6955 ±0.0943	1.6361 ±0.3290
SEMINAL VESICLES WITH FLUID	MEAN±S.D.	2.2662 ±0.3478 [29]b	2.3326 ±0.3472	2.3550 ±0.3246	2.3052 ±0.3281 [28]b	2.0652 ±0.2934*
SEMINAL VESICLES WITHOUT FLUID	MEAN±S.D.	1.2686 ±0.1554	1.2539 ±0.1685	1.2789 ±0.1608	1.2664 ±0.1670*	1.1329 ±0.1545**
EPIDIDYMIS RIGHT	MEAN±S.D.	0.7187 ±0.0573	0.6891 ±0.0791	0.6930 ±0.0521	0.6771 ±0.0958	0.6366 ±0.0663**
TESTIS RIGHT	MEAN±S.D.	1.8173 ±0.1687	1.8398 ±0.3036	1.7915 ±0.1293	1.7660 ±0.2117	1.7475 ±0.2063
PROSTATE	MEAN±S.D.	1.1378 ±0.1852	1.1426 ±0.2030	1.1181 ±0.1672	1.0368 ±0.2031	0.8619 ±0.1841**

ALL WEIGHTS WERE RECORDED IN GRAMS (G).
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rat 13732, which was moribund sacrificed on day 45 of study.
b. Excludes values for rats that had fluid loss prior to weighing or organs damaged (weight affected).
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE B8 (PAGE 2): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	30	30	30	29a
PITUITARY	MEAN±S.D.	0.014 ± 0.004	0.014 ± 0.003	0.012 ± 0.003*	0.014 ± 0.003	0.010 ± 0.003**
BRAIN	MEAN±S.D.	2.26 ± 0.17	2.28 ± 0.10	2.26 ± 0.12	2.24 ± 0.12	2.20 ± 0.14
LIVER	MEAN±S.D.	20.30 ± 2.46	24.27 ± 3.22**	27.71 ± 2.74**	28.74 ± 3.88**	27.49 ± 3.68**
KIDNEY LEFT	MEAN±S.D.	2.19 ± 0.20	2.51 ± 0.28**	2.51 ± 0.21**	2.34 ± 0.24*	1.99 ± 0.19**
KIDNEY RIGHT	MEAN±S.D.	2.19 ± 0.18	2.54 ± 0.30**	2.50 ± 0.18**	2.36 ± 0.25**	2.06 ± 0.20*
ADRENAL LEFT	MEAN±S.D.	0.032 ± 0.005	0.032 ± 0.004	0.030 ± 0.006	0.030 ± 0.006	0.028 ± 0.006**
ADRENAL RIGHT	MEAN±S.D.	0.032 ± 0.005	0.031 ± 0.005	0.030 ± 0.008	0.031 ± 0.007	0.026 ± 0.007**
SPLEEN	MEAN±S.D.	0.94 ± 0.16	0.87 ± 0.12	0.86 ± 0.11	0.87 ± 0.14	0.74 ± 0.17**
THYMUS	MEAN±S.D.	0.44 ± 0.10	0.38 ± 0.08	0.38 ± 0.10	0.40 ± 0.14	0.30 ± 0.09**

ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Excludes values for rat 13732, which was moribund sacrificed on day 45 of study.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B9 (PAGE 1): RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	30	30	30	29a
TERMINAL BODY WEIGHT	MEAN±S.D.	580.7 ± 40.0	575.3 ± 47.6	541.7 ± 47.2**	513.0 ± 53.9**	431.8 ± 64.1**
EPIDIDYMIS LEFT	MEAN±S.D.	0.123 ± 0.013	0.123 ± 0.010	0.127 ± 0.011	0.138 ± 0.015**	0.150 ± 0.023**
CAUDA EPIDIDYMIS LEFT	MEAN±S.D.	0.058 ± 0.007	0.055 ± 0.007	0.057 ± 0.006	0.062 ± 0.008	0.067 ± 0.012**
TESTIS LEFT	MEAN±S.D.	0.311 ± 0.025	0.316 ± 0.031	0.332 ± 0.036	0.358 ± 0.042**	0.419 ± 0.080**
LEFT TESTIS MINUS TUNICA ALBUGINEA	MEAN±S.D.	0.287 ± 0.026	0.294 ± 0.030	0.307 ± 0.034	0.333 ± 0.040**	0.386 ± 0.089**
SEMINAL VESICLES WITH FLUID	MEAN±S.D.	0.397 ± 0.062 [29]b	0.407 ± 0.068	0.436 ± 0.064*	0.465 ± 0.062** [28]b	0.484 ± 0.076**
SEMINAL VESICLES WITHOUT FLUID	MEAN±S.D.	0.219 ± 0.026	0.219 ± 0.031	0.237 ± 0.034	0.249 ± 0.034**	0.266 ± 0.044**
EPIDIDYMIS RIGHT	MEAN±S.D.	0.123 ± 0.012	0.120 ± 0.017	0.128 ± 0.012	0.133 ± 0.022**	0.149 ± 0.022**
TESTIS RIGHT	MEAN±S.D.	0.313 ± 0.028	0.321 ± 0.056	0.334 ± 0.036	0.347 ± 0.055**	0.410 ± 0.064**
PROSTATE	MEAN±S.D.	0.195 ± 0.033	0.200 ± 0.045	0.207 ± 0.033	0.202 ± 0.038	0.199 ± 0.035

ALL WEIGHTS WERE RECORDED IN GRAMS (G). RATIOS (%) = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rat 13732, which was moribund sacrificed on day 45 of study.
b. Excludes values for rats that had fluid loss prior to weighing or organs damaged (weight affected).
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B9 (PAGE 2): RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	30	30	30	29a
TERMINAL BODY WEIGHT	MEAN±S.D.	580.7 ± 40.0	575.3 ± 47.6	541.7 ± 47.2**	513.0 ± 53.9**	431.8 ± 64.1**
PITUITARY b	MEAN±S.D.	2.409 ± 0.607	2.435 ± 0.533	2.248 ± 0.543	2.752 ± 0.748	2.476 ± 0.749
BRAIN	MEAN±S.D.	0.390 ± 0.034	0.399 ± 0.035	0.418 ± 0.038*	0.442 ± 0.056**	0.518 ± 0.066**
LIVER	MEAN±S.D.	3.490 ± 0.286	4.223 ± 0.500**	5.131 ± 0.472**	5.606 ± 0.514**	6.420 ± 0.729**
KIDNEY LEFT	MEAN±S.D.	0.378 ± 0.036	0.437 ± 0.047**	0.465 ± 0.043**	0.457 ± 0.040**	0.466 ± 0.054**
KIDNEY RIGHT	MEAN±S.D.	0.379 ± 0.030	0.443 ± 0.048**	0.463 ± 0.039**	0.462 ± 0.034**	0.481 ± 0.051**
ADRENAL LEFT b	MEAN±S.D.	5.562 ± 0.786	5.575 ± 0.749	5.594 ± 1.125	5.879 ± 1.094	6.593 ± 1.776*
ADRENAL RIGHT b	MEAN±S.D.	5.439 ± 0.852	5.361 ± 1.016	5.513 ± 1.361	6.157 ± 1.646	6.177 ± 1.589
SPLEEN	MEAN±S.D.	0.161 ± 0.027	0.152 ± 0.020	0.160 ± 0.024	0.169 ± 0.025	0.171 ± 0.035
THYMUS	MEAN±S.D.	0.075 ± 0.017	0.066 ± 0.012	0.071 ± 0.017	0.079 ± 0.027	0.071 ± 0.022

ALL WEIGHTS WERE RECORDED IN GRAMS (G). RATIOS (%) = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Excludes values for rat 13732, which was moribund sacrificed on day 45 of study.
b. Value was multiplied by 1000.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B10 (PAGE 1): RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)		I 0	II 1	III 3	IV 10	V 30
RATS TESTED	N	30	30	30	30	29a
BRAIN WEIGHT	MEAN±S.D.	2.26 ± 0.17	2.28 ± 0.10	2.26 ± 0.12	2.24 ± 0.12	2.20 ± 0.14
EPIDIDYMIS LEFT	MEAN±S.D.	32.08 ± 3.12	30.68 ± 2.33	30.68 ± 2.74	31.47 ± 2.72	28.82 ± 3.71**
CAUDA EPIDIDYMIS LEFT	MEAN±S.D.	14.75 ± 1.80	13.92 ± 1.32	13.99 ± 1.38	14.37 ± 1.58	13.21 ± 1.88**
TESTIS LEFT	MEAN±S.D.	79.85 ± 7.02	79.38 ± 6.31	79.43 ± 7.22	81.27 ± 5.21	81.63 ± 15.65
LEFT TESTIS MINUS TUNICA ALBUGINEA	MEAN±S.D.	73.91 ± 7.27	73.76 ± 5.75	73.79 ± 6.84	75.74 ± 5.08	74.85 ± 17.14
SEMINAL VESICLES WITH FLUID	MEAN±S.D.	101.29 ± 19.24 [29]b	102.13 ± 14.14	104.58 ± 14.68	105.25 ± 13.91 [28]b	94.09 ± 14.20
SEMINAL VESICLES WITHOUT FLUID	MEAN±S.D.	56.50 ± 8.07	54.94 ± 7.05	56.82 ± 7.49	56.65 ± 8.37	51.62 ± 7.45
EPIDIDYMIS RIGHT	MEAN±S.D.	31.96 ± 2.81	30.21 ± 3.52	30.81 ± 2.85	30.29 ± 4.62	29.00 ± 3.36**
TESTIS RIGHT	MEAN±S.D.	80.89 ± 9.04	80.67 ± 13.57	79.66 ± 7.30	78.95 ± 9.84	79.61 ± 10.36
PROSTATE	MEAN±S.D.	50.58 ± 8.22	50.09 ± 8.73	49.67 ± 7.57	46.29 ± 9.04	39.12 ± 8.06**

ALL WEIGHTS WERE RECORDED IN GRAMS (G). RATIOS (%) = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rat 13732, which was moribund sacrificed on day 45 of study.
b. Excludes values for rats that had fluid loss prior to weighing or organs damaged (weight affected).
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B10 (PAGE 2): RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	30	30	30	29a
BRAIN WEIGHT	MEAN±S.D.	2.26 ± 0.17	2.28 ± 0.10	2.26 ± 0.12	2.24 ± 0.12	2.20 ± 0.14
PITUITARY	MEAN±S.D.	0.62 ± 0.18	0.61 ± 0.12	0.54 ± 0.14*	0.62 ± 0.14	0.48 ± 0.14**
LIVER	MEAN±S.D.	903.14 ±118.64	1066.18 ±153.82**	1230.29 ±119.75**	1284.45 ±182.50**	1248.34 ±144.28**
KIDNEY LEFT	MEAN±S.D.	97.52 ± 10.67	110.12 ± 12.60**	111.70 ± 10.49**	104.60 ± 11.72*	90.41 ± 8.68*
KIDNEY RIGHT	MEAN±S.D.	97.52 ± 9.94	111.62 ± 13.45**	110.97 ± 9.45**	105.62 ± 12.37**	93.51 ± 8.68
ADRENAL LEFT	MEAN±S.D.	1.43 ± 0.20	1.40 ± 0.19	1.34 ± 0.26	1.34 ± 0.26	1.28 ± 0.30
ADRENAL RIGHT	MEAN±S.D.	1.40 ± 0.23	1.35 ± 0.25	1.32 ± 0.35	1.40 ± 0.35	1.20 ± 0.29
SPLEEN	MEAN±S.D.	41.51 ± 6.97	38.41 ± 5.84	38.55 ± 6.02	38.86 ± 6.15	33.40 ± 7.37**
THYMUS	MEAN±S.D.	19.38 ± 4.57	16.89 ± 3.73	17.11 ± 4.59	18.08 ± 6.17	13.73 ± 4.01**

ALL WEIGHTS WERE RECORDED IN GRAMS (G). RATIOS (%) = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Excludes values for rat 13732, which was moribund sacrificed on day 45 of study.

* Significantly different from the Group I value ($p \leq 0.05$).

** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B11 (PAGE 1): CAUDA EPIDIDYMAL SPERM MOTILITY, COUNT, DENSITY AND SPERMATID COUNT - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	30	30	30	29a
NUMBER MOTILE	MEAN±S.D.	354.0 ± 98.9	346.5 ± 118.4	373.3 ± 102.5	338.2 ± 89.0	327.4 ± 130.2
MOTILE PERCENT	MEAN±S.D.	82.6 ± 11.1	84.7 ± 7.0	86.8 ± 6.7	87.4 ± 4.0	83.9 ± 8.8
STATIC COUNT (NONMOTILE)	MEAN±S.D.	73.3 ± 44.0	63.0 ± 33.9	56.7 ± 32.4	48.4 ± 20.3*	58.4 ± 31.0
TOTAL COUNT b	MEAN±S.D.	427.2 ± 105.5	409.6 ± 135.6	430.0 ± 112.6	386.6 ± 100.6	385.8 ± 138.3
SPERM COUNT c	MEAN±S.D.	110.6 ± 33.8	119.5 ± 38.3	111.2 ± 37.6	117.7 ± 42.9	98.1 ± 36.9
SPERM DENSITY d	MEAN±S.D.	962.65 ± 279.89	1086.87 ± 323.61	1016.78 ± 322.39	1047.73 ± 318.51	952.81 ± 307.64

a. Excludes values for rat 13732 which was moribund sacrificed on day 45 of study.

b. Sum of number motile and static count. Groups of five fields were evaluated until a sperm count of at least 200 was achieved or 20 fields were evaluated.

c. Sperm count used in the calculation of sperm density. Ten fields were evaluated.

d. The sperm density was calculated by dividing the sperm count by the volume in the image area (34.3×10^{-6} mL), multiplying by 2 (dilution factor) and multiplying by 10^{-6} to obtain the sperm concentration. The calculated sperm concentration value (rounded to 1 decimal place) was multiplied by 50 (volume) and divided by the weight of the left cauda epididymis (see Table B17 for the weight of the left cauda epididymis) to obtain the sperm density. The calculated value will vary by approximately 0.8% from the Computer Automated Sperm Analysis because the digital image evaluated is slightly smaller (4 pixels) than the actual field causing a slight underestimate of the actual volume and an overestimate of the concentration.

* Significantly different from the Group I value ($p \leq 0.05$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B11 (PAGE 2): CAUDA EPIDIDYMAL SPERM MOTILITY, COUNT, DENSITY AND SPERMATID COUNT - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	30	30	30	29a
SPERMATID COUNT b	MEAN±S.D.	50.7 ± 16.6	45.9 ± 13.0	47.3 ± 15.6	46.4 ± 14.8	42.6 ± 16.2
SPERMATID DENSITY c	MEAN±S.D.	91.99 ± 30.26	79.83 ± 21.97	82.38 ± 25.57	79.16 ± 24.87	74.47 ± 29.09

a. Excludes values for rat 13732 which was moribund sacrificed on day 45 of study.

b. Spermatid count used in the calculation of spermatid density. Ten fields were evaluated.

c. The spermatid density was calculated by dividing the spermatid count by the volume in the image area (34.3×10^{-6} mL), multiplying by 2 (dilution factor) and multiplying by 10^{-6} to obtain the spermatid concentration. The calculated spermatid concentration value (rounded to 1 decimal place) was multiplied by 50 (volume) and divided by the weight of the left testis minus tunica albuginea (see Table B18 for the weight of the left testis minus tunica albuginea) to obtain the spermatid density. The calculated value will vary by approximately 0.8% from the Computer Automated Sperm Analysis because the digital image evaluated is slightly smaller (4 pixels) than the actual field causing a slight underestimate of the actual volume and an overestimate of the concentration.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B12 (PAGE 1): CAUDA EPIDIDYMAL SPERM MORPHOLOGY - SUMMARY - P GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	30	30	30	30
INCLUDED IN ANALYSES	N	30	30	30	30	29a
NORMAL	MEAN±S.D.	187.1 ± 24.4	191.4 ± 7.0	191.2 ± 5.3	190.9 ± 3.5	178.6 ± 48.7
PERCENT ABNORMAL	MEAN%±S.D.	6.4 ± 12.2	4.3 ± 3.5	4.4 ± 2.6	4.6 ± 1.8	9.7 ± 21.0
DETACHED HEAD	MEAN±S.D.	7.5 ± 11.2	4.4 ± 3.8	4.5 ± 2.8	5.9 ± 2.9	7.4 ± 14.9
NO HEAD	MEAN±S.D.	5.2 ± 13.3	3.5 ± 3.5	3.7 ± 2.9	2.9 ± 2.3	6.1 ± 17.0
BROKEN FLAGELLUM	MEAN±S.D.	0.2 ± 0.4	0.6 ± 1.0	0.4 ± 0.6	0.2 ± 0.4	1.1 ± 3.1
NO HOOK	MEAN±S.D.	0.0 ± 0.2	0.0 ± 0.0	0.0 ± 0.2	0.1 ± 0.2	0.1 ± 0.3
EXCESSIVE HOOK	MEAN±S.D.	0.0 ± 0.0	0.1 ± 0.2	0.0 ± 0.2	0.0 ± 0.2	0.1 ± 0.2
COILED FLAGELLUM	MEAN±S.D.	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 0.2
BENT FLAGELLUM	MEAN±S.D.	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.2	0.0 ± 0.0
SHORT SPERM HEAD	MEAN±S.D.	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.1 ± 0.2

a. Excludes values for rat 13732, which was moribund sacrificed on day 45 of study.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B13 (PAGE 1): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP I		0 MG/KG/DAY
RAT #		DESCRIPTION
13601	DS(60)	SOFT OR LIQUID FECES
	DS(67)	SOFT OR LIQUID FECES
13602		NO ADVERSE FINDINGS
13603	DS(58- 59)	SOFT OR LIQUID FECES
13604	DS(10)	SOFT OR LIQUID FECES
13605	DS(30- 36)	LOCALIZED ALOPECIA: LIMBS
13606	DS(18- 20)	SOFT OR LIQUID FECES
	DS(88)	SOFT OR LIQUID FECES
13607	DS(10- 49)	LOCALIZED ALOPECIA: LIMBS
	DS(72- 85)	LOCALIZED ALOPECIA: LIMBS
	DS(93-107)	LOCALIZED ALOPECIA: LIMBS a
13608	DS(22- 75)	LOCALIZED ALOPECIA: LIMBS
	DS(44)	SOFT OR LIQUID FECES
	DS(94- 96)	LOCALIZED ALOPECIA: LIMBS
13609		NO ADVERSE FINDINGS
13610		NO ADVERSE FINDINGS
13611	DS(44- 84)	LOCALIZED ALOPECIA: LIMBS
13612		NO ADVERSE FINDINGS
13613		NO ADVERSE FINDINGS
13614	DS(17)	CHROMORHINORRHEA
	DS(17- 35)	LOCALIZED ALOPECIA: LIMBS
13615	DS(25-108)	LOCALIZED ALOPECIA: LIMBS a
13616	DS(15- 17)	SOFT OR LIQUID FECES
	DS(94-108)	BOTH EARS: SWOLLEN a
13617	DS(22)	VOCALIZATION

DS = DAY OF STUDY
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B13 (PAGE 2): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP I		0 MG/KG/DAY
RAT #		DESCRIPTION
13618	DS(69- 84)	INCISORS: MISSING/BROKEN
13619		NO ADVERSE FINDINGS
13620		NO ADVERSE FINDINGS
13621		NO ADVERSE FINDINGS
13622		NO ADVERSE FINDINGS
13623		NO ADVERSE FINDINGS
13625		NO ADVERSE FINDINGS
13626	DS(29-109)	LOCALIZED ALOPECIA: LIMBS
13627		NO ADVERSE FINDINGS
13628		NO ADVERSE FINDINGS
13629	DS(23- 60)	LOCALIZED ALOPECIA: LIMBS
	DS(39)	SOFT OR LIQUID FECES
	DS(86- 87)	SOFT OR LIQUID FECES
	DS(108)	SOFT OR LIQUID FECES
13630	DS(8- 9)	CHROMORHINORRHEA

DS = DAY OF STUDY

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B13 (PAGE 3): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP II		1 MG/KG/DAY
RAT #		DESCRIPTION
13631		NO ADVERSE FINDINGS
13632		NO ADVERSE FINDINGS
13633		NO ADVERSE FINDINGS
13634	DS(2- 3)	CHROMORHINORRHEA
	DS(96- 97)	SOFT OR LIQUID FECES
13635	DS(9)	SOFT OR LIQUID FECES
13636	DS(24- 27)	INCISORS: MISSING/BROKEN
	DS(24- 28)	INCISORS: MISALIGNED
13637		NO ADVERSE FINDINGS
13638	DS(94-107)	BOTH EARS: SWOLLEN a
13639	DS(59)	SOFT OR LIQUID FECES
13640		NO ADVERSE FINDINGS
13641		NO ADVERSE FINDINGS
13642	DS(7)	SOFT OR LIQUID FECES
	DS(18- 21)	CHROMORHINORRHEA
	DS(22- 79)	LOCALIZED ALOPECIA: LIMBS
	DS(72- 75)	CHROMORHINORRHEA
	DS(86- 87)	SOFT OR LIQUID FECES
13643		NO ADVERSE FINDINGS
13644	DS(36- 60)	INCISORS: MISSING/BROKEN
	DS(36- 62)	CHROMODACRYORRHEA
	DS(61-108)	INCISORS: MISALIGNED a
	DS(88- 92)	CHROMODACRYORRHEA
	DS(94)	CHROMODACRYORRHEA
	DS(108)	SOFT OR LIQUID FECES

DS = DAY OF STUDY
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B13 (PAGE 4): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP II		1 MG/KG/DAY
RAT #		DESCRIPTION
13645	DS(101-106)	NOSE: SCAB (0.2 CM X 0.2 CM)
13646		NO ADVERSE FINDINGS
13647		NO ADVERSE FINDINGS
13648	DS(46)	SOFT OR LIQUID FECES
13649		NO ADVERSE FINDINGS
13650	DS(33- 36)	RIGHT FORELIMB: ABRASION (2.0 CM X 1.0 CM)
	DS(37- 39)	RIGHT FORELIMB: SCAB (1.0 CM X 0.5 CM)
13651		NO ADVERSE FINDINGS
13652	DS(19- 43)	BACK: SCAB (1.0 CM X 1.0 CM)
13653	DS(10)	SOFT OR LIQUID FECES
	DS(31)	SOFT OR LIQUID FECES
	DS(86-109)	RIGHT EAR: SWOLLEN a
13654	DS(83- 94)	HEAD: SCAB (0.5 CM X 0.2 CM)
	DS(95- 99)	LOCALIZED ALOPECIA: HEAD
	DS(102)	INCISORS: MISSING/BROKEN
13655	DS(59)	PENIS: RED SUBSTANCE, SLIGHT
13656		NO ADVERSE FINDINGS
13657	DS(72- 73)	CHROMODACRYORRHEA
13658		NO ADVERSE FINDINGS
13659	DS(105-110)	INCISORS: MISSING/BROKEN a
13660	DS(48)	SOFT OR LIQUID FECES

DS = DAY OF STUDY
a. Observation confirmed at necropsy.

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TABLE B13 (PAGE 5): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP III		3 MG/KG/DAY
RAT #		DESCRIPTION
13661		NO ADVERSE FINDINGS
13662	DS(74-106)	INCISORS: MISSING/BROKEN a
13663	DS(61)	SOFT OR LIQUID FECES
13664	DS(31- 32)	CHROMORHINORRHEA
	DS(31- 53)	INCISORS: MISSING/BROKEN
	DS(31-106)	CHROMODACRYORRHEA a
	DS(31-106)	INCISORS: MISALIGNED a
	DS(101-106)	LOCALIZED ALOPECIA: LIMBS a
13665	DS(9- 10)	SOFT OR LIQUID FECES
	DS(90- 94)	MOUTH: SCAB (0.2 CM X 0.2 CM)
13666		NO ADVERSE FINDINGS
13667	DS(57- 69)	CHROMODACRYORRHEA
	DS(57-100)	INCISORS: MISALIGNED
	DS(72- 75)	CHROMODACRYORRHEA
	DS(77-107)	CHROMODACRYORRHEA a
13668		NO ADVERSE FINDINGS
13669		NO ADVERSE FINDINGS
13670		NO ADVERSE FINDINGS
13671		NO ADVERSE FINDINGS
13672		NO ADVERSE FINDINGS
13673		NO ADVERSE FINDINGS
13674		NO ADVERSE FINDINGS
13675		NO ADVERSE FINDINGS

DS = DAY OF STUDY
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B13 (PAGE 6): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP III		3 MG/KG/DAY
RAT #		DESCRIPTION
13676		NO ADVERSE FINDINGS
13677		NO ADVERSE FINDINGS
13678	DS(16- 17)	CHROMORHINORRHEA
13679	DS(39-109)	LOCALIZED ALOPECIA: LIMBS a
13680	DS(25- 27)	CHROMORHINORRHEA
13681		NO ADVERSE FINDINGS
13682		NO ADVERSE FINDINGS
13683	DS(51- 52)	CHROMORHINORRHEA
13684	DS(20)	CHROMORHINORRHEA
13685		NO ADVERSE FINDINGS
13686	DS(95- 97)	NOSE: SCAB (0.2 CM X 0.2 CM)
13687		NO ADVERSE FINDINGS
13688		NO ADVERSE FINDINGS
13689	DS(10- 23)	CHROMORHINORRHEA
	DS(59)	CHROMORHINORRHEA
13690	DS(16- 22)	LOCALIZED ALOPECIA: LIMBS
	DS(18)	CHROMORHINORRHEA

DS = DAY OF STUDY
a. Observation confirmed at necropsy.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B13 (PAGE 7): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP IV		10 MG/KG/DAY
RAT #		DESCRIPTION
13691		NO ADVERSE FINDINGS
13692		NO ADVERSE FINDINGS
13693		NO ADVERSE FINDINGS
13694		NO ADVERSE FINDINGS
13695	DS(71)	CHROMORHINORRHEA
13696	DS(82- 84)	SOFT OR LIQUID FECES
13697		NO ADVERSE FINDINGS
13698		NO ADVERSE FINDINGS
13699		NO ADVERSE FINDINGS
13700		NO ADVERSE FINDINGS
13701	DS(64- 65)	CHROMORHINORRHEA
	DS(64- 78)	INCISORS: MISSING/BROKEN
	DS(65- 70)	CHROMODACRYORRHEA
	DS(73- 76)	CHROMODACRYORRHEA
	DS(79- 97)	INCISORS: MISALIGNED
	DS(95- 96)	CHROMODACRYORRHEA
	DS(99-107)	CHROMODACRYORRHEA a
13702	DS(2)	CHROMORHINORRHEA
	DS(23- 28)	CHROMORHINORRHEA
13703		NO ADVERSE FINDINGS
13704	DS(15- 18)	SOFT OR LIQUID FECES
	DS(36)	SOFT OR LIQUID FECES
13705		NO ADVERSE FINDINGS

DS = DAY OF STUDY
a. Observation confirmed at necropsy.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B13 (PAGE 8): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP IV		10 MG/KG/DAY
RAT #		DESCRIPTION
13706		NO ADVERSE FINDINGS
13707		NO ADVERSE FINDINGS
13708	DS(108)	INCISORS: MISSING/BROKEN a
13709	DS(15- 16)	CHROMORHINORRHEA
13710	DS(99-109)	BOTH OR RIGHT EARS: SWOLLEN a
13711		NO ADVERSE FINDINGS
13712		NO ADVERSE FINDINGS
13713	DS(72-109)	LOCALIZED ALOPECIA: LIMBS a
13714		NO ADVERSE FINDINGS
13715		NO ADVERSE FINDINGS
13716		NO ADVERSE FINDINGS
13717		NO ADVERSE FINDINGS
13718	DS(16- 18)	SOFT OR LIQUID FECES
13719	DS(16- 17)	CHROMORHINORRHEA
	DS(23)	CHROMORHINORRHEA
13720		NO ADVERSE FINDINGS

DS = DAY OF STUDY
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B13 (PAGE 9): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP V		30 MG/KG/DAY
RAT #		DESCRIPTION
13721		NO ADVERSE FINDINGS
13722	DS(87)	SOFT OR LIQUID FECES
13723	DS(22)	RALES
	DS(85)	DEHYDRATION
	DS(85)	UNGROOMED COAT
	DS(87- 92)	UNGROOMED COAT
	DS(87- 99)	DEHYDRATION
	DS(94- 95)	DRIED RED PERINASAL SUBSTANCE
13724		NO ADVERSE FINDINGS
13725		NO ADVERSE FINDINGS
13726	DS(24- 26)	CHROMORHINORRHEA
	DS(52- 53)	SOFT OR LIQUID FECES
13727	DS(73- 84)	LOCALIZED ALOPECIA: LIMBS
	DS(93- 99)	LOCALIZED ALOPECIA: LIMBS
13728		NO ADVERSE FINDINGS
13729		NO ADVERSE FINDINGS
13730	DS(8)	CHROMORHINORRHEA
	DS(16- 21)	CHROMORHINORRHEA
13731	DS(3)	CHROMORHINORRHEA
	DS(58- 68)	INCISORS: MISALIGNED
13732	DS(8- 9)	DEHYDRATION
	DS(18- 34)	EMACIATION
	DS(41- 45)	EMACIATION a
	DS(44- 45)	COLD TO TOUCH
	DS(44- 45)	URINE-STAINED ABDOMINAL FUR
	DS(45)	DECREASED MOTOR ACTIVITY
	DS(45)	MORIBUND SACRIFICED

DS = DAY OF STUDY
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B13 (PAGE 10): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP V		30 MG/KG/DAY
RAT #		DESCRIPTION
13733		NO ADVERSE FINDINGS
13734		NO ADVERSE FINDINGS
13735		NO ADVERSE FINDINGS
13736	DS(14- 17)	CHROMORHINORRHEA
	DS(23- 24)	CHROMORHINORRHEA
13737	DS(85- 90)	DEHYDRATION
	DS(85- 92)	UNGROOMED COAT
	DS(92)	DEHYDRATION
13738	DS(20- 23)	CHROMORHINORRHEA
13739		NO ADVERSE FINDINGS
13740	DS(36-100)	LOCALIZED ALOPECIA: LIMBS
	DS(107-109)	LOCALIZED ALOPECIA: LIMBS a
13741	DS(85- 94)	URINE-STAINED ABDOMINAL FUR
	DS(86- 91)	DRIED, RED OR RED PERINASAL SUBSTANCE
	DS(86- 91)	UNGROOMED COAT
	DS(86- 91)	BOTH FOREPAWS: DRIED, RED SUBSTANCE ON FUR
	DS(86- 92)	DEHYDRATION
	DS(88- 91)	COLD TO TOUCH
	DS(88- 93)	PALE EXTREMITIES
	DS(88- 99)	EMACIATION
	DS(90- 91)	NO FECES
	DS(92- 93)	SCANT FECES
13742	DS(2- 3)	CHROMORHINORRHEA

DS = DAY OF STUDY
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B13 (PAGE 11): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP V		30 MG/KG/DAY
RAT #		DESCRIPTION
13743		NO ADVERSE FINDINGS
13744	DS(16)	SOFT OR LIQUID FECES
13745		NO ADVERSE FINDINGS
13746	DS(100)	CHROMORHINORRHEA
13747	DS(31- 60)	LOCALIZED ALOPECIA: LIMBS
	DS(78- 84)	LOCALIZED ALOPECIA: LIMBS
	DS(94-110)	LOCALIZED ALOPECIA: LIMBS a
13748	DS(17- 21)	CHROMODACRYORRHEA
13749		NO ADVERSE FINDINGS
13750	DS(3- 5)	CHROMORHINORRHEA
	DS(72)	URINE-STAINED ABDOMINAL FUR

DS = DAY OF STUDY
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B14 (PAGE 1): BODY WEIGHTS - INDIVIDUAL DATA - P GENERATION MALE RATS

DAY	1	8	15	22	29	36	43	50	57	64	70a	77	85b	92	99	106
RAT #	DOSAGE GROUP I				0 MG/KG/DAY											
13601	166.	216.	275.	310.	340.	369.	398.	431.	455.	480.	500.	507.	529.	555.	567.	592.
13602	191.	252.	315.	362.	394.	418.	446.	462.	487.	511.	520.	538.	553.	576.	592.	610.
13603	187.	253.	312.	351.	382.	409.	432.	455.	460.	484.	511.	508.	517.	538.	552.	570.
13604	189.	251.	313.	365.	401.	434.	458.	490.	516.	537.	556.	565.	586.	604.	631.	633.
13605	166.	225.	279.	327.	353.	380.	402.	425.	440.	458.	472.	487.	494.	514.	530.	533.
13606	196.	267.	326.	363.	399.	432.	461.	489.	520.	546.	555.	566.	598.	610.	630.	653.
13607	178.	232.	288.	329.	353.	373.	393.	416.	438.	455.	463.	481.	497.	514.	529.	545.
13608	182.	243.	295.	336.	363.	400.	411.	428.	448.	478.	479.	502.	505.	522.	542.	562.
13609	172.	233.	286.	335.	374.	409.	440.	464.	486.	502.	515.	523.	548.	565.	580.	604.
13610	184.	244.	304.	341.	365.	392.	431.	456.	471.	484.	477.	500.	518.	534.	554.	567.
13611	177.	247.	314.	363.	402.	425.	459.	489.	509.	533.	542.	554.	578.	597.	616.	632.
13612	177.	239.	286.	332.	366.	397.	419.	445.	470.	482.	492.	504.	509.	527.	543.	554.
13613	171.	226.	270.	314.	343.	359.	378.	408.	432.	450.	470.	479.	489.	514.	528.	549.
13614	181.	229.	279.	313.	344.	368.	398.	422.	446.	460.	462.	473.	493.	500.	525.	527.
13615	182.	238.	294.	339.	379.	410.	445.	457.	471.	493.	511.	511.	527.	542.	562.	582.
13616	190.	272.	270.	317.	368.	404.	433.	465.	498.	514.	537.	557.	570.	590.	614.	637.
13617	178.	236.	292.	332.	361.	378.	399.	429.	440.	441.	462.	471.	478.	489.	494.	507.
13618	191.	253.	303.	335.	366.	386.	412.	433.	444.	462.	472.	482.	499.	510.	525.	540.
13619	176.	237.	292.	334.	366.	392.	409.	438.	455.	471.	485.	501.	509.	526.	543.	564.
13620	178.	243.	290.	339.	375.	406.	435.	462.	482.	495.	511.	517.	536.	543.	565.	570.
13621	174.	234.	276.	323.	358.	381.	410.	423.	440.	453.	472.	486.	496.	492.	513.	523.
13622	182.	238.	290.	330.	354.	378.	399.	424.	454.	460.	472.	483.	504.	520.	544.	554.
13623	181.	233.	296.	336.	374.	402.	440.	458.	486.	496.	514.	525.	531.	534.	555.	580.
13624	185.	246.	293.	327.	356.	375.	400.	420.	440.	458.	467.	482.	490.	502.	512.	524.
13625	180.	247.	311.	341.	361.	385.	410.	432.	461.	481.	487.	504.	532.	544.	563.	567.
13626	186.	245.	308.	353.	408.	434.	463.	492.	513.	545.	566.	564.	570.	606.	616.	636.
13627	176.	244.	304.	348.	374.	386.	404.	423.	444.	449.	466.	486.	510.	523.	551.	564.
13628	188.	256.	312.	356.	377.	423.	457.	489.	516.	535.	555.	570.	583.	599.	604.	617.
13629	176.	241.	297.	326.	362.	388.	409.	437.	454.	476.	485.	504.	515.	529.	540.	547.
13630	187.	263.	331.	368.	408.	434.	469.	498.	522.	547.	556.	579.	586.	596.	614.	622.

DAY = DAY OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.
b. First value recorded after cohabitation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B14 (PAGE 2): BODY WEIGHTS - INDIVIDUAL DATA - P GENERATION MALE RATS

DAY	1	8	15	22	29	36	43	50	57	64	70a	77	85b	92	99	106
RAT #	DOSAGE GROUP II				1 MG/KG/DAY											
13631	163.	225.	285.	319.	348.	375.	396.	415.	433.	453.	472.	481.	502.	512.	532.	548.
13632	194.	256.	317.	359.	394.	417.	440.	459.	465.	476.	486.	494.	512.	523.	546.	558.
13633	180.	241.	292.	328.	362.	376.	398.	418.	431.	444.	456.	472.	485.	498.	498.	502.
13634	182.	245.	301.	358.	405.	433.	462.	484.	509.	522.	499.	478.	541.	564.	585.	607.
13635	167.	221.	279.	318.	348.	362.	392.	410.	427.	441.	454.	470.	485.	503.	513.	526.
13636	193.	265.	313.	360.	386.	414.	429.	438.	468.	485.	514.	524.	540.	551.	571.	587.
13637	183.	251.	322.	372.	408.	440.	459.	481.	506.	524.	544.	556.	584.	604.	622.	640.
13638	181.	250.	296.	335.	370.	398.	432.	460.	482.	517.	532.	548.	574.	592.	605.	611.
13639	175.	244.	302.	360.	404.	441.	466.	483.	493.	510.	499.	521.	536.	553.	564.	562.
13640	190.	259.	317.	362.	398.	429.	465.	485.	501.	531.	545.	558.	577.	585.	600.	614.
13641	179.	237.	300.	340.	372.	394.	411.	434.	456.	464.	477.	488.	502.	516.	523.	536.
13642	176.	242.	308.	348.	385.	403.	420.	443.	449.	471.	460.	472.	512.	530.	547.	561.
13643	184.	250.	305.	350.	389.	422.	451.	482.	496.	517.	517.	542.	562.	571.	586.	593.
13644	186.	249.	307.	352.	387.	403.	428.	449.	467.	488.	504.	515.	538.	542.	560.	583.
13645	180.	244.	285.	335.	374.	400.	427.	455.	455.	471.	486.	498.	512.	527.	541.	560.
13646	184.	248.	294.	335.	370.	392.	422.	439.	460.	479.	490.	497.	516.	527.	533.	548.
13647	173.	231.	288.	339.	381.	415.	431.	453.	476.	491.	507.	515.	527.	537.	550.	564.
13648	188.	247.	298.	343.	387.	419.	452.	478.	505.	523.	542.	539.	562.	566.	588.	606.
13649	180.	244.	294.	334.	353.	372.	396.	416.	431.	442.	461.	476.	488.	496.	510.	515.
13650	187.	247.	290.	345.	376.	402.	430.	455.	470.	483.	501.	502.	520.	544.	563.	568.
13651	166.	227.	287.	337.	369.	418.	442.	467.	500.	519.	537.	545.	559.	570.	575.	592.
13652	181.	243.	292.	335.	370.	405.	429.	458.	469.	490.	502.	526.	538.	553.	562.	572.
13653	176.	233.	275.	313.	350.	370.	391.	414.	429.	439.	454.	468.	482.	488.	499.	517.
13654	188.	253.	307.	353.	388.	407.	434.	460.	476.	491.	501.	522.	546.	558.	569.	578.
13655	178.	244.	296.	344.	395.	422.	454.	483.	515.	540.	565.	577.	604.	611.	627.	635.
13656	188.	246.	282.	316.	343.	367.	381.	400.	420.	437.	445.	458.	470.	488.	496.	514.
13657	174.	232.	277.	305.	322.	332.	355.	377.	385.	393.	411.	416.	433.	440.	455.	462.
13658	182.	241.	300.	328.	363.	394.	412.	431.	460.	485.	494.	508.	516.	527.	543.	566.
13659	175.	234.	294.	336.	385.	404.	427.	451.	464.	484.	490.	484.	497.	517.	529.	545.
13660	187.	260.	311.	369.	415.	450.	478.	512.	541.	573.	594.	618.	643.	654.	662.	680.

DAY = DAY OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.
b. First value recorded after cohabitation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B14 (PAGE 3): BODY WEIGHTS - INDIVIDUAL DATA - P GENERATION MALE RATS

DAY	1	8	15	22	29	36	43	50	57	64	70a	77	85b	92	99	106
RAT #	DOSAGE GROUP III				3 MG/KG/DAY											
13661	171.	231.	287.	336.	368.	394.	432.	450.	461.	474.	486.	509.	532.	551.	569.	585.
13662	195.	260.	305.	333.	361.	387.	411.	421.	445.	464.	479.	447.	488.	502.	515.	539.
13663	181.	250.	306.	347.	378.	398.	426.	448.	472.	476.	494.	505.	523.	547.	567.	567.
13664	180.	245.	298.	337.	378.	384.	403.	422.	430.	441.	444.	442.	470.	475.	485.	511.
13665	171.	235.	290.	338.	360.	376.	398.	412.	433.	454.	466.	472.	480.	499.	507.	511.
13666	191.	257.	292.	312.	320.	343.	359.	373.	390.	406.	418.	422.	432.	436.	459.	481.
13667	182.	250.	307.	356.	391.	415.	441.	468.	460.	451.	476.	492.	516.	519.	513.	542.
13668	182.	242.	292.	321.	323.	338.	355.	371.	378.	385.	402.	408.	414.	417.	425.	449.
13669	170.	227.	279.	303.	318.	336.	369.	392.	400.	419.	385.	441.	452.	462.	480.	502.
13670	187.	247.	304.	341.	365.	386.	412.	432.	450.	468.	484.	498.	520.	534.	549.	555.
13671	174.	243.	291.	339.	366.	375.	391.	405.	431.	446.	460.	472.	483.	488.	501.	526.
13672	184.	240.	284.	326.	361.	385.	378.	398.	420.	440.	454.	448.	466.	475.	490.	497.
13673	168.	232.	282.	320.	352.	374.	399.	421.	447.	463.	477.	483.	499.	516.	538.	551.
13674	185.	244.	292.	319.	332.	346.	360.	378.	401.	414.	426.	447.	460.	468.	484.	496.
13675	175.	246.	301.	339.	363.	385.	410.	428.	445.	475.	473.	492.	518.	524.	540.	556.
13676	184.	258.	289.	318.	339.	354.	363.	386.	398.	410.	418.	431.	447.	455.	458.	464.
13677	175.	244.	293.	327.	363.	381.	404.	418.	438.	450.	460.	479.	488.	492.	514.	522.
13678	182.	251.	311.	356.	404.	434.	468.	485.	511.	532.	550.	562.	574.	589.	610.	617.
13679	178.	248.	284.	329.	362.	386.	415.	430.	452.	472.	475.	502.	510.	520.	540.	546.
13680	182.	253.	308.	359.	394.	417.	434.	445.	469.	490.	493.	481.	506.	523.	540.	521.
13681	172.	240.	288.	337.	361.	393.	412.	425.	439.	452.	460.	466.	469.	481.	490.	507.
13682	177.	253.	312.	357.	400.	424.	453.	483.	501.	520.	538.	544.	504.	533.	569.	584.
13683	180.	249.	287.	333.	374.	406.	426.	444.	471.	483.	495.	519.	532.	554.	563.	572.
13684	185.	248.	288.	330.	359.	384.	398.	420.	446.	458.	469.	477.	497.	499.	515.	525.
13685	172.	232.	275.	308.	342.	362.	382.	400.	418.	431.	447.	461.	472.	479.	483.	487.
13686	188.	252.	300.	325.	337.	346.	364.	389.	409.	427.	433.	450.	461.	470.	482.	499.
13687	175.	240.	288.	329.	355.	374.	394.	408.	428.	445.	450.	456.	472.	478.	496.	507.
13688	187.	254.	316.	358.	386.	402.	433.	450.	466.	488.	497.	513.	531.	542.	558.	561.
13689	178.	244.	293.	344.	380.	411.	441.	458.	490.	498.	507.	524.	534.	543.	557.	562.
13690	186.	255.	310.	368.	408.	433.	479.	511.	544.	565.	596.	584.	624.	629.	650.	673.

DAY = DAY OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.
b. First value recorded after cohabitation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B14 (PAGE 4): BODY WEIGHTS - INDIVIDUAL DATA - P GENERATION MALE RATS

DAY	1	8	15	22	29	36	43	50	57	64	70a	77	85b	92	99	106
RAT #	DOSAGE GROUP IV				10 MG/KG/DAY											
13691	166.	227.	276.	322.	356.	369.	392.	414.	429.	444.	464.	468.	478.	496.	509.	528.
13692	188.	241.	261.	293.	317.	329.	345.	356.	365.	378.	388.	389.	395.	409.	433.	450.
13693	178.	246.	300.	353.	386.	413.	433.	450.	483.	494.	499.	520.	543.	552.	556.	570.
13694	187.	254.	305.	345.	383.	410.	429.	460.	489.	501.	519.	520.	523.	544.	558.	571.
13695	172.	233.	274.	300.	334.	356.	386.	409.	408.	426.	429.	440.	469.	483.	498.	506.
13696	190.	253.	297.	331.	353.	376.	411.	442.	469.	481.	470.	479.	509.	520.	540.	553.
13697	180.	234.	279.	303.	333.	350.	366.	382.	395.	410.	419.	424.	439.	441.	456.	476.
13698	184.	240.	269.	315.	349.	372.	394.	411.	434.	450.	463.	480.	486.	498.	517.	524.
13699	170.	228.	262.	296.	310.	322.	343.	354.	366.	383.	391.	405.	424.	430.	446.	468.
13700	190.	259.	304.	347.	379.	403.	433.	440.	454.	475.	481.	488.	498.	503.	521.	530.
13701	177.	240.	284.	320.	351.	362.	387.	412.	420.	428.	434.	435.	430.	460.	462.	485.
13702	168.	231.	274.	310.	343.	355.	381.	385.	395.	415.	423.	435.	450.	459.	474.	487.
13703	171.	226.	280.	315.	341.	354.	371.	401.	414.	422.	437.	445.	460.	469.	480.	483.
13704	175.	240.	285.	339.	385.	406.	436.	456.	482.	489.	510.	523.	549.	580.	598.	620.
13705	179.	241.	289.	330.	350.	367.	396.	414.	441.	454.	470.	476.	499.	509.	540.	551.
13706	183.	248.	302.	334.	362.	384.	399.	424.	442.	456.	462.	452.	467.	486.	513.	519.
13707	171.	233.	281.	324.	363.	384.	404.	424.	440.	459.	467.	487.	499.	514.	535.	541.
13708	188.	255.	300.	350.	390.	413.	433.	453.	472.	476.	483.	507.	526.	537.	552.	538.
13709	180.	234.	296.	304.	335.	352.	373.	382.	396.	401.	407.	392.	412.	421.	437.	443.
13710	181.	232.	253.	275.	290.	300.	305.	316.	328.	335.	347.	352.	371.	372.	381.	390.
13711	170.	218.	256.	268.	284.	295.	300.	306.	330.	336.	340.	345.	364.	370.	383.	393.
13712	169.	225.	261.	282.	322.	337.	355.	378.	385.	392.	407.	427.	441.	436.	449.	435.
13713	176.	240.	280.	289.	317.	334.	323.	378.	404.	420.	423.	434.	450.	462.	478.	484.
13714	181.	230.	278.	307.	314.	325.	339.	369.	384.	383.	390.	394.	410.	423.	439.	434.
13715	175.	239.	296.	329.	361.	378.	404.	423.	444.	465.	471.	452.	506.	519.	533.	544.
13716	183.	238.	293.	321.	340.	351.	380.	400.	417.	433.	440.	448.	481.	494.	514.	521.
13717	178.	226.	278.	300.	326.	343.	369.	384.	392.	395.	414.	420.	439.	452.	467.	477.
13718	182.	243.	294.	340.	368.	395.	421.	439.	460.	477.	493.	498.	503.	521.	521.	519.
13719	171.	233.	277.	324.	350.	375.	396.	419.	441.	458.	477.	483.	494.	495.	518.	524.
13720	190.	257.	288.	339.	363.	393.	421.	444.	467.	488.	509.	512.	535.	542.	565.	583.

DAY = DAY OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.
b. First value recorded after cohabitation.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B14 (PAGE 5): BODY WEIGHTS - INDIVIDUAL DATA - P GENERATION MALE RATS

DAY	1	8	15	22	29	36	43	50	57	64	70a	77	85b	92	99	106
RAT #	DOSAGE GROUP V				30 MG/KG/DAY											
13721	166.	220.	263.	299.	331.	358.	381.	394.	417.	437.	444.	450.	464.	481.	498.	511.
13722	193.	229.	268.	307.	316.	315.	335.	344.	355.	368.	385.	405.	414.	435.	441.	452.
13723	178.	212.	252.	254.	260.	263.	267.	283.	289.	286.	273.	285.	295.	302.	312.	321.
13724	185.	193.	243.	281.	296.	298.	304.	326.	350.	349.	361.	370.	386.	388.	407.	378.
13725	170.	203.	235.	259.	256.	259.	274.	279.	288.	285.	298.	300.	331.	339.	353.	361.
13726	179.	227.	283.	312.	301.	306.	350.	373.	378.	380.	394.	345.	419.	438.	451.	465.
13727	182.	227.	286.	317.	320.	327.	334.	338.	351.	363.	380.	390.	405.	413.	423.	440.
13728	183.	224.	268.	293.	306.	315.	324.	346.	365.	363.	355.	371.	385.	388.	392.	411.
13729	172.	221.	272.	298.	309.	317.	329.	342.	357.	369.	374.	381.	392.	396.	413.	427.
13730	186.	236.	286.	339.	372.	392.	410.	420.	440.	459.	456.	475.	486.	499.	520.	515.
13731	175.	232.	280.	296.	321.	341.	360.	377.	389.	390.	402.	406.	424.	441.	453.	462.
13732	186.	162.	236.	208.	278.	311.	192.	MORIBUND SACRIFICED ON DAY 45 OF STUDY								
13733	171.	198.	254.	313.	361.	393.	418.	442.	475.	480.	506.	518.	536.	547.	536.	550.
13734	188.	233.	271.	308.	313.	317.	335.	353.	378.	385.	374.	390.	396.	408.	428.	450.
13735	178.	205.	249.	275.	282.	300.	336.	347.	356.	364.	369.	389.	400.	408.	428.	437.
13736	181.	214.	253.	281.	300.	292.	314.	352.	337.	342.	352.	356.	362.	381.	380.	389.
13737	171.	206.	232.	263.	277.	282.	290.	302.	320.	327.	345.	344.	269.	345.	365.	374.
13738	183.	218.	271.	284.	309.	337.	354.	373.	386.	399.	412.	418.	431.	443.	457.	464.
13739	174.	192.	251.	266.	271.	282.	304.	303.	331.	337.	334.	339.	353.	351.	354.	360.
13740	188.	206.	267.	300.	322.	333.	368.	377.	405.	414.	429.	433.	449.	464.	478.	486.
13741	171.	211.	257.	257.	262.	268.	296.	308.	315.	310.	311.	312.	268.	217.	300.	341.
13742	185.	216.	255.	283.	283.	281.	291.	296.	302.	304.	306.	321.	325.	322.	335.	342.
13743	169.	187.	232.	263.	287.	294.	306.	318.	331.	343.	344.	360.	370.	390.	373.	390.
13744	176.	191.	243.	268.	274.	282.	295.	315.	328.	337.	340.	349.	352.	359.	370.	386.
13745	176.	217.	259.	277.	276.	301.	321.	328.	353.	358.	360.	368.	370.	379.	399.	395.
13746	190.	237.	282.	288.	311.	320.	335.	352.	370.	380.	386.	391.	415.	419.	429.	442.
13747	169.	209.	255.	253.	256.	258.	280.	286.	297.	301.	305.	302.	301.	306.	321.	323.
13748	185.	190.	266.	319.	353.	367.	392.	328.	403.	448.	475.	485.	501.	517.	548.	547.
13749	173.	217.	268.	305.	321.	335.	347.	358.	375.	390.	400.	383.	409.	436.	442.	456.
13750	176.	206.	246.	282.	303.	326.	348.	349.	380.	391.	404.	390.	399.	414.	418.	431.

DAY = DAY OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.
b. First value recorded after cohabitation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B15 (PAGE 1): FEED CONSUMPTION VALUES - INDIVIDUAL DATA - P GENERATION MALE RATS

DAYS	1- 8	8- 15	15- 22	22- 29	29- 36	36- 43	43- 50	50- 57	57- 64	64- 70a	85b-92	92- 99	99-106
RAT #	DOSAGE GROUP I				0 MG/KG/DAY								
13601	148.	195.	190.	178.	188.	196.	208.	215.	225.	188.	226.	214.	220.
13602	166.	209.	217.	208.	201.	196.	198.	206.	218.	176.	213.	208.	208.
13603	183.	207.	225.	212.	198.	204.	202.	198.	210.	174.	205.	201.	202.
13604	172.	211.	220.	210.	210.	215.	217.	226.	220.	185.	220.	219.	203.
13605	164.	185.	207.	198.	195.	195.	198.	194.	204.	171.	223.	197.	193.
13606	179.	203.	195.	216.	213.	220.	220.	230.	228.	188.	247.	240.	219.
13607	154.	199.	198.	193.	181.	192.	205.	207.	199.	165.	204.	209.	190.
13608	166.	182.	197.	187.	201.	196.	191.	198.	204.	167.	209.	201.	191.
13609	168.	175.	201.	196.	200.	207.	210.	219.	213.	166.	222.	202.	212.
13610	177.	209.	208.	196.	212.	230.	228.	227.	239.	c	243.	233.	231.
13611	189.	218.	221.	229.	214.	218.	c	224.	235.	187.	239.	229.	226.
13612	170.	188.	201.	200.	202.	200.	191.	199.	206.	168.	200.	199.	202.
13613	153.	161.	186.	185.	170.	177.	186.	197.	205.	160.	192.	195.	207.
13614	153.	182.	180.	174.	177.	199.	200.	203.	198.	153.	199.	192.	190.
13615	152.	168.	197.	194.	189.	197.	186.	190.	207.	172.	198.	194.	206.
13616	190.	95.	208.	206.	203.	195.	202.	217.	226.	181.	218.	225.	221.
13617	160.	186.	182.	191.	186.	183.	188.	189.	183.	160.	185.	180.	175.
13618	166.	177.	200.	187.	189.	196.	207.	205.	201.	151.	208.	202.	209.
13619	164.	184.	204.	205.	188.	189.	198.	c	199.	166.	192.	187.	198.
13620	165.	177.	207.	208.	201.	200.	200.	205.	204.	173.	203.	198.	188.
13621	162.	170.	199.	190.	186.	182.	180.	187.	185.	158.	178.	171.	178.
13622	158.	176.	191.	179.	172.	181.	187.	193.	184.	157.	202.	198.	198.
13623	148.	189.	201.	192.	190.	193.	200.	206.	209.	169.	187.	184.	192.
13624	175.	176.	195.	183.	188.	190.	189.	194.	198.	159.	c	181.	186.
13625	176.	195.	196.	173.	181.	183.	203.	206.	203.	160.	199.	194.	180.
13626	164.	186.	213.	212.	207.	206.	204.	215.	232.	180.	225.	234.	230.
13627	159.	189.	207.	187.	174.	170.	176.	180.	177.	139.	199.	197.	195.
13628	177.	198.	207.	182.	220.	231.	223.	214.	226.	187.	221.	211.	208.
13629	172.	202.	189.	196.	195.	197.	213.	205.	204.	170.	210.	198.	206.
13630	166.	207.	195.	205.	213.	214.	219.	219.	218.	184.	209.	207.	210.

DAYS = DAYS OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.
b. First value recorded after cohabitation.
c. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B15 (PAGE 2): FEED CONSUMPTION VALUES - INDIVIDUAL DATA - P GENERATION MALE RATS

DAYS	1- 8	8- 15	15- 22	22- 29	29- 36	36- 43	43- 50	50- 57	57- 64	64- 70a	85b-92	92- 99	99-106
RAT #	DOSAGE GROUP II				1 MG/KG/DAY								
13631	160.	189.	183.	176.	175.	182.	189.	195.	200.	169.	197.	199.	193.
13632	166.	189.	211.	197.	195.	197.	196.	199.	205.	174.	221.	210.	219.
13633	173.	172.	188.	186.	178.	180.	186.	188.	196.	166.	192.	184.	169.
13634	169.	190.	222.	228.	228.	230.	232.	232.	233.	175.	255.	228.	224.
13635	156.	207.	206.	198.	200.	207.	217.	212.	219.	182.	217.	209.	210.
13636	186.	195.	230.	210.	212.	197.	219.	230.	231.	213.	236.	240.	235.
13637	172.	206.	216.	211.	212.	205.	215.	215.	223.	c	230.	213.	218.
13638	176.	191.	203.	206.	204.	217.	216.	223.	233.	194.	238.	228.	221.
13639	167.	182.	229.	217.	216.	210.	210.	210.	220.	172.	221.	206.	202.
13640	180.	199.	215.	211.	202.	218.	216.	220.	235.	187.	231.	218.	220.
13641	160.	207.	203.	193.	190.	182.	189.	194.	190.	164.	190.	170.	189.
13642	173.	208.	215.	216.	194.	196.	189.	197.	211.	158.	227.	211.	209.
13643	171.	187.	191.	201.	198.	203.	198.	202.	216.	174.	209.	206.	211.
13644	178.	193.	198.	203.	195.	174.	192.	196.	208.	182.	190.	219.	226.
13645	167.	178.	200.	215.	196.	203.	200.	204.	197.	169.	203.	191.	200.
13646	170.	180.	184.	193.	186.	185.	187.	197.	195.	161.	195.	188.	193.
13647	159.	172.	185.	190.	190.	182.	183.	190.	196.	171.	190.	182.	196.
13648	163.	171.	195.	199.	203.	201.	201.	217.	216.	179.	206.	204.	215.
13649	170.	188.	219.	196.	186.	199.	200.	196.	200.	167.	195.	185.	181.
13650	171.	179.	209.	210.	203.	213.	221.	216.	211.	174.	233.	225.	216.
13651	165.	182.	195.	197.	206.	212.	213.	210.	221.	184.	198.	194.	205.
13652	163.	177.	214.	219.	203.	206.	197.	200.	196.	169.	198.	195.	190.
13653	153.	163.	181.	174.	171.	170.	170.	175.	172.	219.	169.	167.	176.
13654	176.	176.	200.	190.	186.	191.	190.	205.	201.	165.	201.	198.	199.
13655	173.	182.	204.	205.	213.	208.	209.	226.	227.	196.	228.	226.	218.
13656	148.	158.	164.	156.	162.	157.	159.	167.	170.	143.	167.	173.	181.
13657	154.	177.	200.	187.	c	200.	195.	194.	200.	152.	215.	211.	198.
13658	155.	183.	173.	192.	191.	191.	185.	280.	199.	165.	185.	198.	220.
13659	169.	184.	198.	207.	202.	201.	210.	200.	209.	168.	197.	211.	217.
13660	183.	186.	214.	220.	222.	221.	224.	233.	246.	201.	240.	239.	c

DAYS = DAYS OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.
b. First value recorded after cohabitation.
c. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B15 (PAGE 3): FEED CONSUMPTION VALUES - INDIVIDUAL DATA - P GENERATION MALE RATS

DAYS	1- 8	8- 15	15- 22	22- 29	29- 36	36- 43	43- 50	50- 57	57- 64	64- 70a	85b-92	92- 99	99-106
RAT #	DOSAGE GROUP III				3 MG/KG/DAY								
13661	158.	179.	186.	189.	191.	193.	200.	193.	191.	168.	209.	200.	202.
13662	178.	191.	203.	201.	205.	209.	201.	213.	223.	179.	224.	208.	210.
13663	162.	176.	191.	193.	190.	201.	205.	205.	212.	173.	216.	211.	194.
13664	178.	184.	220.	239.	c	215.	215.	221.	221.	198.	218.	207.	219.
13665	169.	197.	215.	199.	196.	201.	202.	210.	221.	176.	213.	197.	187.
13666	174.	177.	196.	174.	181.	194.	190.	183.	181.	151.	174.	176.	185.
13667	167.	191.	203.	209.	205.	212.	211.	206.	128.	165.	180.	179.	203.
13668	172.	197.	204.	176.	183.	195.	204.	207.	219.	172.	212.	209.	202.
13669	152.	208.	173.	172.	160.	188.	190.	194.	195.	203.	187.	185.	191.
13670	178.	222.	237.	239.	228.	227.	229.	242.	232.	186.	236.	228.	216.
13671	168.	185.	207.	189.	179.	186.	190.	201.	205.	138.	197.	190.	193.
13672	151.	167.	183.	193.	197.	160.	168.	181.	199.	c	186.	178.	178.
13673	165.	175.	193.	192.	199.	198.	195.	208.	206.	c	206.	205.	200.
13674	161.	190.	198.	173.	168.	170.	172.	176.	186.	c	185.	181.	188.
13675	167.	195.	202.	208.	207.	203.	214.	218.	226.	130.	238.	222.	212.
13676	174.	c	184.	172.	161.	158.	166.	159.	164.	156.	167.	162.	162.
13677	164.	c	177.	207.	203.	190.	191.	199.	205.	202.	200.	206.	204.
13678	166.	192.	200.	218.	221.	218.	212.	221.	215.	c	229.	216.	219.
13679	166.	162.	201.	207.	209.	220.	c	231.	212.	176.	204.	197.	c
13680	162.	184.	200.	209.	c	208.	191.	205.	228.	157.	214.	218.	c
13681	154.	169.	192.	190.	201.	197.	195.	202.	198.	226.	201.	192.	195.
13682	166.	184.	210.	215.	212.	215.	217.	216.	221.	181.	241.	256.	c
13683	165.	155.	194.	192.	195.	184.	178.	189.	192.	160.	208.	201.	195.
13684	180.	172.	199.	191.	196.	179.	179.	187.	191.	153.	196.	197.	185.
13685	161.	155.	188.	193.	196.	191.	188.	196.	199.	164.	199.	180.	181.
13686	170.	179.	193.	168.	176.	188.	203.	210.	209.	186.	204.	205.	202.
13687	169.	176.	214.	201.	203.	202.	199.	207.	208.	174.	204.	211.	210.
13688	184.	204.	200.	200.	201.	206.	212.	227.	216.	186.	225.	213.	216.
13689	159.	168.	200.	190.	200.	200.	203.	204.	203.	180.	209.	214.	209.
13690	176.	193.	234.	227.	244.	251.	259.	261.	274.	237.	268.	274.	267.

DAYS = DAYS OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.
b. First value recorded after cohabitation.
c. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B15 (PAGE 4): FEED CONSUMPTION VALUES - INDIVIDUAL DATA - P GENERATION MALE RATS

DAYS	1- 8	8- 15	15- 22	22- 29	29- 36	36- 43	43- 50	50- 57	57- 64	64- 70a	85b-92	92- 99	99-106
RAT #	DOSAGE GROUP IV			10 MG/KG/DAY									
13691	152.	183.	200.	200.	181.	217.	209.	200.	209.	178.	223.	214.	216.
13692	155.	168.	199.	183.	186.	194.	195.	186.	192.	153.	197.	194.	190.
13693	171.	208.	234.	233.	235.	228.	c	251.	237.	207.	245.	229.	220.
13694	167.	199.	210.	210.	207.	201.	229.	224.	229.	192.	216.	203.	203.
13695	176.	191.	214.	219.	230.	235.	c	231.	248.	204.	256.	233.	219.
13696	174.	189.	230.	207.	223.	232.	238.	240.	230.	193.	249.	245.	231.
13697	156.	172.	173.	172.	167.	174.	177.	188.	191.	155.	177.	172.	181.
13698	163.	144.	191.	188.	189.	196.	194.	197.	197.	167.	195.	184.	191.
13699	162.	162.	194.	182.	178.	183.	184.	180.	183.	172.	187.	175.	182.
13700	181.	187.	235.	230.	241.	243.	233.	243.	245.	119.	242.	223.	227.
13701	163.	177.	219.	195.	198.	197.	199.	198.	198.	190.	191.	164.	176.
13702	157.	176.	197.	194.	190.	194.	194.	194.	201.	148.	193.	192.	196.
13703	147.	176.	185.	179.	176.	161.	189.	180.	179.	192.	139.	187.	177.
13704	156.	174.	221.	230.	229.	221.	218.	221.	224.	183.	237.	239.	245.
13705	166.	196.	229.	225.	218.	223.	221.	224.	221.	184.	220.	222.	225.
13706	165.	195.	195.	188.	188.	198.	204.	201.	209.	172.	215.	209.	203.
13707	157.	186.	208.	225.	226.	215.	210.	214.	222.	184.	218.	227.	215.
13708	169.	185.	222.	234.	222.	209.	217.	220.	207.	177.	224.	227.	208.
13709	165.	191.	178.	176.	180.	185.	187.	182.	211.	c	195.	189.	175.
13710	172.	180.	171.	165.	178.	179.	173.	176.	176.	151.	179.	165.	170.
13711	141.	156.	183.	169.	178.	170.	198.	190.	181.	153.	185.	175.	173.
13712	144.	144.	151.	162.	160.	161.	211.	159.	148.	137.	161.	157.	130.
13713	164.	169.	179.	179.	178.	157.	204.	202.	199.	158.	195.	188.	190.
13714	150.	174.	177.	c	171.	172.	173.	177.	175.	145.	179.	186.	165.
13715	174.	204.	202.	204.	205.	207.	202.	213.	219.	177.	215.	160.	c
13716	143.	190.	201.	190.	191.	193.	168.	197.	203.	161.	211.	217.	210.
13717	150.	184.	190.	185.	181.	185.	135.	177.	178.	158.	186.	195.	191.
13718	161.	183.	219.	218.	210.	217.	204.	211.	213.	175.	217.	237.	163.
13719	157.	173.	215.	207.	205.	210.	222.	200.	218.	182.	217.	223.	217.
13720	183.	182.	241.	233.	238.	235.	246.	248.	258.	195.	243.	243.	241.

DAYS = DAYS OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.
b. First value recorded after cohabitation.
c. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B15 (PAGE 5): FEED CONSUMPTION VALUES - INDIVIDUAL DATA - P GENERATION MALE RATS

DAYS	1- 8	8- 15	15- 22	22- 29	29- 36	36- 43	43- 50	50- 57	57- 64	64- 70a	85b-92	92- 99	99-106
RAT #	DOSAGE GROUP V				30 MG/KG/DAY								
13721	144.	176.	189.	183.	189.	195.	191.	200.	203.	154.	206.	201.	192.
13722	137.	174.	214.	176.	179.	188.	186.	168.	170.	162.	197.	179.	180.
13723	132.	170.	146.	157.	146.	158.	156.	156.	149.	105.	145.	146.	205.
13724	184.	190.	232.	205.	182.	194.	220.	228.	219.	168.	211.	207.	111.
13725	150.	204.	214.	178.	160.	173.	171.	165.	165.	156.	185.	175.	168.
13726	162.	213.	217.	189.	179.	210.	217.	203.	205.	174.	233.	217.	206.
13727	156.	211.	208.	182.	176.	170.	178.	189.	202.	170.	193.	181.	190.
13728	152.	186.	200.	193.	185.	182.	195.	200.	194.	160.	201.	187.	187.
13729	156.	186.	204.	195.	196.	191.	194.	208.	208.	162.	197.	200.	201.
13730	153.	186.	228.	228.	223.	221.	205.	219.	240.	166.	223.	224.	203.
13731	154.	178.	174.	175.	165.	175.	182.	180.	170.	154.	190.	193.	178.
13732	74.	184.	59.	208.	191.	19.	MORIBUND SACRIFICED ON DAY 45 OF STUDY						
13733	108.	151.	202.	205.	200.	207.	201.	206.	212.	188.	209.	190.	166.
13734	159.	164.	214.	192.	174.	167.	189.	189.	191.	157.	169.	188.	190.
13735	116.	157.	169.	157.	169.	173.	187.	184.	190.	148.	183.	181.	175.
13736	140.	154.	181.	171.	161.	155.	167.	171.	175.	147.	185.	163.	166.
13737	124.	133.	165.	165.	145.	147.	147.	149.	159.	129.	183.	171.	162.
13738	145.	184.	169.	177.	176.	181.	177.	183.	180.	150.	190.	172.	180.
13739	130.	174.	185.	163.	172.	181.	169.	182.	172.	136.	160.	166.	154.
13740	123.	169.	203.	184.	191.	199.	202.	205.	206.	172.	215.	210.	201.
13741	c	194.	180.	155.	165.	186.	175.	174.	166.	139.	23.	198.	225.
13742	135.	172.	189.	177.	171.	169.	172.	173.	168.	146.	177.	172.	170.
13743	100.	158.	175.	182.	177.	170.	184.	182.	182.	147.	197.	160.	168.
13744	105.	173.	191.	169.	169.	176.	186.	185.	197.	143.	176.	184.	175.
13745	162.	179.	182.	166.	189.	184.	182.	198.	182.	155.	177.	195.	178.
13746	148.	177.	152.	190.	180.	182.	183.	181.	185.	155.	175.	182.	179.
13747	140.	182.	175.	151.	154.	166.	166.	159.	161.	129.	156.	162.	148.
13748	106.	163.	217.	208.	209.	218.	c	220.	245.	200.	221.	235.	204.
13749	133.	167.	181.	170.	163.	158.	159.	164.	166.	138.	176.	163.	163.
13750	140.	172.	202.	208.	210.	209.	200.	213.	233.	181.	199.	207.	209.

DAYS = DAYS OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.
b. First value recorded after cohabitation.
c. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B16 (PAGE 1): MATING AND FERTILITY - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP I 0 MG/KG/DAY

RAT #	DAYS IN COHABITATION	MATING STATUS	MATING DATE	FEMALE PREGNANCY STATUS
13601	3	M	C	P(13801)
13602	2	M	C	P(13802)
13603	4	M	C	P(13803)
13604	1	M	C	P(13805)
13605	1	M	C	P(13806)
13606	3	M	C	P(13807)
13607	1	M	C	P(13808)
13608	14	M	C	P(13809)
13609	2	M	C	P(13810)
13610	1	M	C	NP(13811)
13611	4	M	C	P(13812)
13612	4	M	C	P(13813)
13613	3	M	C	P(13814)
13614	4	M	C	P(13815)
13615	8	M	C	P(13816)
13616	3	M	C	P(13817)
13617	3	M	C	P(13818)
13618	2	M	C	P(13819)
13619	2	M	C	P(13820)
13620	4	M	C	P(13821)
13621	4	M	C	P(13822)
13622	4	M	C	P(13823)
13623	4	M	C	P(13824)
13624	4	M	C	P(13825)
13625	1	M	C	P(13826)
13626	4	M	C	P(13827)
13627	1	M	C	P(13828)
13628	1	M	C	P(13829)
13629	4	M	C	P(13830)
13630a	-	-	-	--------

M = MATED ( ) = FEMALE RAT NUMBER
C = CONFIRMED NC = NOT CONFIRMED
P = PREGNANT NP = NOT PREGNANT
a. Rat 13630 was not assigned to cohabitation because there were no available female rats.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B16 (PAGE 2): MATING AND FERTILITY - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP II 1 MG/KG/DAY

RAT #	DAYS IN COHABITATION	MATING STATUS	MATING DATE	FEMALE PREGNANCY STATUS
13631	3	M	C	P(13831)
13632	4	M	C	P(13832)
13633	2	M	C	P(13833)
13634	2	M	C	P(13834)
13635	2	M	C	P(13835)
13636	1	M	C	P(13837)
13637	1	M	C	P(13838)
13638	2	M	C	P(13839)
13639	1	M	C	NP(13840)
13640	1	M	C	P(13841)
13641	1	M	C	P(13842)
13642	4	M	C	P(13843)
13643	1	M	C	P(13844)
13644	1	M	C	P(13845)
13645	1	M	C	P(13846)
13646	1	M	C	P(13847)
13647	4	M	C	P(13848)
13648	3	M	C	P(13849)
13649	1	M	C	P(13850)
13650	1	M	C	NP(13851)
13651	1	M	C	P(13852)
13652	1	M	C	P(13853)
13653	1	M	C	P(13854)
13654	1	M	C	P(13855)
13655	1	M	C	P(13856)
13656	4	M	C	P(13857)
13657	1	M	C	P(13858)
13658	3	M	C	P(13859)
13659	4	M	C	P(13860)
13660a	-	-	-	--------

M = MATED ( ) = FEMALE RAT NUMBER
C = CONFIRMED NC = NOT CONFIRMED
P = PREGNANT NP = NOT PREGNANT
a. Rat 13660 was not assigned to cohabitation because there were no available female rats.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B16 (PAGE 3): MATING AND FERTILITY - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP III 3 MG/KG/DAY

RAT #	DAYS IN COHABITATION	MATING STATUS	MATING DATE	FEMALE PREGNANCY STATUS
13661	1	M	C	P(13861)
13662	14	M	NC	P(13862)
13663	2	M	C	P(13863)
13664	5	M	C	P(13864)
13665	1	M	C	P(13865)
13666	2	M	C	P(13866)
13667	4	M	C	P(13867)
13668	4	M	C	P(13868)
13669	4	M	C	P(13869)
13670	1	M	C	P(13870)
13671	2	M	C	P(13871)
13672	4	M	C	P(13872)
13673	8	M	C	P(13873)
13674	2	M	C	P(13874)
13675	1	M	C	P(13875)
13676	1	M	C	P(13876)
13677	3	M	C	P(13877)
13678	1	M	C	P(13878)
13679	1	M	C	P(13879)
13680	1	M	C	P(13880)
13681	1	M	C	P(13881)
13682	3	M	C	P(13882)
13683	1	M	C	P(13883)
13684	4	M	C	P(13884)
13685	1	M	C	P(13885)
13686	1	M	C	P(13886)
13687	4	M	C	P(13887)
13688	1	M	C	P(13888)
13689	1	M	C	P(13889)
13690	4	M	C	P(13890)

M = MATED ( ) = FEMALE RAT NUMBER
C = CONFIRMED NC = NOT CONFIRMED
P = PREGNANT NP = NOT PREGNANT

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B16 (PAGE 4): MATING AND FERTILITY - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP IV 10 MG/KG/DAY

RAT #	DAYS IN COHABITATION	MATING STATUS	MATING DATE	FEMALE PREGNANCY STATUS
13691	4	M	C	P(13891)
13692	4	M	C	P(13892)
13693	1	M	C	P(13893)
13694	2	M	C	P(13894)
13695	2	M	C	P(13895)
13696	2	M	C	P(13896)
13697	4	M	C	P(13897)
13698	1	M	C	P(13898)
13699	3	M	C	P(13899)
13700	14	DID NOT MATE	-	-(13900)
13701	4	M	C	P(13901)
13702	2	M	C	P(13902)
13703	3	M	C	P(13903)
13704	3	M	C	P(13904)
13705	4	M	C	P(13905)
13706	14	M	NC	P(13906)
13707	2	M	C	P(13907)
13708	1	M	C	P(13908)
13709	4	M	C	P(13909)
13710	2	M	C	P(13910)
13711	1	M	C	P(13911)
13712	2	M	C	P(13912)
13713	3	M	C	P(13913)
13714	3	M	C	P(13914)
13715	4	M	C	P(13915)
13716	3	M	C	P(13916)
13717	14	M	NC	P(13917)
13718	4	M	C	P(13918)
13719	3	M	C	P(13919)
13720	3	M	C	P(13920)

M = MATED ( ) = FEMALE RAT NUMBER
C = CONFIRMED NC = NOT CONFIRMED
P = PREGNANT NP = NOT PREGNANT

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B16 (PAGE 5): MATING AND FERTILITY - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP V 30 MG/KG/DAY

RAT #	DAYS IN COHABITATION	MATING STATUS	MATING DATE	FEMALE PREGNANCY STATUS
13721	2	M	C	P(13921)
13722	2	M	C	P(13922)
13723a	1	M	C	P(13923)
13723b	3	M	C	P(13950)
13724	1	M	C	P(13924)
13725	4	M	C	P(13925)
13726	2	M	C	P(13926)
13727	2	M	C	P(13927)
13728	1	M	C	P(13928)
13729	3	M	C	NP(13929)
13730	2	M	C	P(13930)
13731	4	M	C	P(13931)
13732	MORIBUND SACRIFICED ON DAY 45 OF STUDY			
13733	3	M	C	P(13932)
13734	4	M	C	P(13933)
13735	14	M	NC	P(13934)
13736	2	M	C	P(13935)
13737	4	M	C	P(13936)
13738	3	M	C	P(13937)
13739	2	M	C	P(13938)
13740	2	M	C	P(13939)
13741	5	M	C	P(13940)
13742	1	M	C	P(13941)
13743	1	M	C	P(13942)
13744	1	M	C	P(13943)
13745	2	M	C	P(13944)
13746	6	M	C	P(13945)
13747	4	M	C	P(13946)
13748	1	M	C	P(13947)
13749	4	M	C	P(13948)
13750	3	M	C	P(13949)

M = MATED ( ) = FEMALE RAT NUMBER
C = CONFIRMED NC = NOT CONFIRMED
P = PREGNANT NP = NOT PREGNANT
a. Result of first cohabitation period.
b. Male rat mated early in the first cohabitation period and was cohabited with a second female rat.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B17 (PAGE 1): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
I				
0	13601	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13602	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13603	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13604	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13605	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13606	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13607	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13608	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13609	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13610	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13611	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13612	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13613	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13614	DS 108	107	LUNGS: ALL LOBES, NUMEROUS DARK RED AREAS (PINPOINT TO 2.0 CM X 2.0 CM). ALL OTHER TISSUES APPEARED NORMAL.
	13615	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13616	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13617	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13618	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13619	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13620	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13621	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13622	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13623	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13624	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13625	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13626	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13627	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13628	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13629	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13630	DS 110	109	ALL TISSUES APPEARED NORMAL.

DS = DAY OF STUDY

a. Refer to the individual clinical observations table (Table B12) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B17 (PAGE 2): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
II				
1	13631	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13632	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13633	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13634	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13635	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13636	DS 106	105	TESTES: RIGHT, SMALL AND FLACCID. EPIDIDYMIDES: RIGHT, SMALL AND FLACCID. ALL OTHER TISSUES APPEARED NORMAL.
	13637	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13638	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13639	DS 107	106	KIDNEYS: RIGHT, PELVIS, SLIGHT DILATION. ALL OTHER TISSUES APPEARED NORMAL.
	13640	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13641	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13642	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13643	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13644	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13645	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13646	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13647	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13648	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13649	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13650	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13651	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13652	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13653	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13654	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13655	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13656	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13657	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13658	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13659	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13660	DS 110	109	ALL TISSUES APPEARED NORMAL.

DS = DAY OF STUDY

a. Refer to the individual clinical observations table (Table B12) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B17 (PAGE 3): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
III 3	13661	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13662	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13663	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13664	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13665	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13666	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13667	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13668	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13669	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13670	DS 107	106	KIDNEYS: RIGHT, PELVIS, MODERATE DILATION. ALL OTHER TISSUES APPEARED NORMAL.
	13671	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13672	DS 107	106	KIDNEYS: RIGHT, PELVIS, SLIGHT DILATION. ALL OTHER TISSUES APPEARED NORMAL.
	13673	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13674	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13675	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13676	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13677	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13678	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13679	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13680	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13681	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13682	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13683	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13684	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13685	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13686	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13687	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13688	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13689	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13690	DS 110	109	ALL TISSUES APPEARED NORMAL.

DS = DAY OF STUDY
a. Refer to the individual clinical observations table (Table B12) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B17 (PAGE 4): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
IV				
10	13691	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13692	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13693	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13694	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13695	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13696	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13697	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13698	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13699	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13700	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13701	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13702	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13703	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13704	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13705	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13706	DS 108	107	TESTES: RIGHT, SMALL AND FLACCID. EPIDIDYMIDES: RIGHT, SMALL AND FLACCID. ALL OTHER TISSUES APPEARED NORMAL.
	13707	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13708	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13709	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13710	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13711	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13712	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13713	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13714	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13715	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13716	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13717	DS 110	109	KIDNEYS: RIGHT, PELVIS, SLIGHT DILATION. ALL OTHER TISSUES APPEARED NORMAL.
	13718	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13719	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13720	DS 110	109	ALL TISSUES APPEARED NORMAL.

DS = DAY OF STUDY

a. Refer to the individual clinical observations table (Table B12) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B17 (PAGE 5): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
V				
30	13721	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13722	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13723	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13724	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13725	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13726	DS 106	105	ALL TISSUES APPEARED NORMAL.
	13727	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13728	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13729	DS 107	106	KIDNEYS: RIGHT, PELVIS, SLIGHT DILATION. ALL OTHER TISSUES APPEARED NORMAL.
	13730	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13731	DS 107	106	ALL TISSUES APPEARED NORMAL.
	13732	DS 45	44	MORIBUND SACRIFICED ON DAY 45 OF STUDY. LIVER: ALL LOBES, TAN AND PALE. TESTES: BILATERAL, RED. ALL OTHER TISSUES APPEARED NORMAL.
	13733	DS 108	107	EPIDIDYMIDES: LEFT, SMALL AND FLACCID. KIDNEYS: RIGHT, PELVIS, SLIGHT DILATION. ALL OTHER TISSUES APPEARED NORMAL.
	13734	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13735	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13736	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13737	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13738	DS 108	107	ALL TISSUES APPEARED NORMAL.
	13739	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13740	DS 109	108	ALL TISSUES APPEARED NORMAL.

DS = DAY OF STUDY
a. Refer to the individual clinical observations table (Table B12) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B17 (PAGE 6): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - P GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
V 30 (Cont.)	13741	DS 109	108	TESTES: BILATERAL, SMALL AND FLACCID. EPIDIDYMIDES: BILATERAL, SMALL AND FLACCID. ALL OTHER TISSUES APPEARED NORMAL.
	13742	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13743	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13744	DS 109	108	ALL TISSUES APPEARED NORMAL.
	13745	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13746	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13747	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13748	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13749	DS 110	109	ALL TISSUES APPEARED NORMAL.
	13750	DS 110	109	TESTES: LEFT, LARGE. ALL OTHER TISSUES APPEARED NORMAL.

DS = DAY OF STUDY
a. Refer to the individual clinical observations table (Table B12) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B18 (PAGE 1): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS LEFT ABS. WT.	EPIDIDYMIS LEFT REL. % TBW	CAUDA EPIDIDYMIS LEFT ABS. WT.	CAUDA EPIDIDYMIS LEFT REL. % TBW	TESTIS LEFT ABS. WT.	TESTIS LEFT REL. % TBW	L. TESTIS MINUS TUNICA ALBUGINEA ABS. WT.	L. TESTIS MINUS TUNICA ALBUGINEA REL. % TBW	SEMINAL VESICLES WITH FLUID ABS. WT.	SEMINAL VESICLES WITH FLUID REL. % TBW	SEMINAL VESICLES WITHOUT FLUID ABS. WT.	SEMINAL VESICLES WITHOUT FLUID REL. % TBW
DOSAGE GROUP I		0 MG/KG/DAY											
13601	592.	0.6756	0.11	0.2966	0.05	1.5259	0.26	1.2920	0.22	1.3897	0.23	0.9914	0.17
13602	610.	0.6786	0.11	0.3086	0.05	1.6647	0.27	1.5221	0.25	2.2138	0.36	1.2279	0.20
13603	570.	0.7340	0.13	0.3341	0.06	1.7979	0.32	1.6608	0.29	2.2003	0.39	1.3738	0.24
13604	633.	0.7152	0.11	0.3136	0.05	1.9262	0.30	1.7009	0.27	1.6708	0.26	1.1445	0.18
13605	533.	0.7034	0.13	0.3543	0.07	1.8636	0.35	1.7079	0.32	2.1486	0.40	1.1320	0.21
13606	653.	0.7420	0.11	0.3611	0.06	1.8832	0.29	1.7583	0.27	1.7423a	0.27a	1.2432	0.19
13607	543.	0.6822	0.12	0.3203	0.06	1.8506	0.34	1.7435	0.32	2.1930	0.40	1.0702	0.20
13608	567.	0.7947	0.14	0.3453	0.06	1.8574	0.33	1.7354	0.31	2.1517	0.38	1.2132	0.21
13609	609.	0.5497	0.09	0.2145	0.04	1.6417	0.27	1.4397	0.24	2.6536	0.44	1.4047	0.23
13610	569.	0.6732	0.12	0.2883	0.05	1.5787	0.28	1.4846	0.26	2.7678	0.49	1.3165	0.23
13611	634.	0.6526	0.10	0.3271	0.05	1.7823	0.28	1.6617	0.26	2.1404	0.34	1.1786	0.18
13612	557.	0.6830	0.12	0.2887	0.05	1.7653	0.32	1.6275	0.29	2.4939	0.45	1.3161	0.24
13613	559.	0.6764	0.12	0.3010	0.05	1.7861	0.32	1.6113	0.29	1.9469	0.35	1.3192	0.24
13614	536.	0.6695	0.12	0.2733	0.05	1.5910	0.30	1.4794	0.28	2.2970	0.43	1.0604	0.20
13615	586.	0.7240	0.12	0.3652	0.06	1.9534	0.33	1.8326	0.31	2.5074	0.43	1.4403	0.24
13616	639.	0.7570	0.12	0.3567	0.06	1.9754	0.31	1.8243	0.28	2.5305	0.40	1.3395	0.21
13617	513.	0.7783	0.15	0.3479	0.07	1.7610	0.34	1.6507	0.32	2.1888	0.43	1.2973	0.25
13618	556.	0.7269	0.13	0.3458	0.06	1.8719	0.34	1.7273	0.31	2.3224	0.42	1.3218	0.24
13619	571.	0.7967	0.14	0.3973	0.07	1.9766	0.35	1.8446	0.32	2.6549	0.46	1.5503	0.27
13620	566.	0.7542	0.13	0.3459	0.06	1.8314	0.32	1.7046	0.30	2.1074	0.37	1.0458	0.18
13621	527.	0.6623	0.12	0.3287	0.06	1.6391	0.31	1.5212	0.29	2.4345	0.46	1.3000	0.25
13622	559.	0.7321	0.13	0.3161	0.06	1.7766	0.32	1.6795	0.30	2.2753	0.41	1.2186	0.22
13623	588.	0.7364	0.12	0.3896	0.07	1.6860	0.29	1.5789	0.27	2.0262	0.34	1.1769	0.20
13624	527.	0.7481	0.14	0.3361	0.06	1.8174	0.34	1.6876	0.32	1.8379	0.35	0.9276	0.18
13625	578.	0.7424	0.13	0.2999	0.05	1.7695	0.31	1.6738	0.29	2.9931	0.52	1.3586	0.24
13626	656.	0.8408	0.13	0.3786	0.06	1.9527	0.30	1.8342	0.28	2.6403	0.40	1.4879	0.23
13627	568.	0.7204	0.13	0.3192	0.06	1.6706	0.29	1.5585	0.27	2.4498	0.43	1.3752	0.24
13628	635.	0.7515	0.12	0.3760	0.06	1.8851	0.30	1.7864	0.28	2.6437	0.42	1.5575	0.24
13629	558.	0.6810	0.12	0.3307	0.06	1.6630	0.30	1.5519	0.28	2.3510	0.42	1.3665	0.24
13630	628.	0.8494	0.14	0.3993	0.06	2.1140	0.34	1.9567	0.31	2.0128	0.32	1.3021	0.21

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.
a. Damaged during processing (some fluid loss prior to weighing); values excluded from group averages and statistical analyses.

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TABLE B18 (PAGE 2): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS RIGHT ABS. WT.	EPIDIDYMIS RIGHT REL. % TBW	TESTIS RIGHT ABS. WT.	TESTIS RIGHT REL. % TBW	PROSTATE ABS. WT.	PROSTATE REL. % TBW	PITUITARY ABS. WT.	PITUITARY REL. % TBW a	BRAIN ABS. WT.	BRAIN REL. % TBW	LIVER ABS. WT.	LIVER REL. % TBW
DOSAGE GROUP I		0 MG/KG/DAY											
13601	592.	0.6727	0.11	1.5705	0.26	0.9769	0.16	0.016	2.70	2.36	0.40	23.61	3.99
13602	610.	0.6538	0.11	1.5701	0.26	1.0477	0.17	0.014	2.30	2.38	0.39	22.78	3.73
13603	570.	0.7422	0.13	1.8434	0.32	1.1461	0.20	0.012	2.10	2.19	0.38	18.43	3.23
13604	633.	0.7242	0.11	1.8830	0.30	1.2982	0.20	0.016	2.53	2.40	0.38	20.30	3.21
13605	533.	0.7013	0.13	1.8294	0.34	0.8545	0.16	0.014	2.63	2.22	0.42	15.86	2.98
13606	653.	0.7714	0.12	1.9176	0.29	1.2630	0.19	0.009	1.38	2.24	0.34	22.82	3.49
13607	543.	0.6884	0.13	1.8831	0.35	1.4560	0.27	0.014	2.58	2.35	0.43	18.53	3.41
13608	567.	0.7813	0.14	1.9010	0.34	1.3797	0.24	0.015	2.64	2.33	0.41	19.26	3.40
13609	609.	0.6624	0.11	2.3432	0.38	1.2521	0.20	0.029	4.76	2.11	0.35	23.25	3.82
13610	569.	0.6645	0.12	1.5825	0.28	1.1033	0.19	0.017	2.99	1.86	0.33	22.41	3.94
13611	634.	0.6452	0.10	1.8363	0.29	1.1326	0.18	0.018	2.84	2.32	0.36	22.68	3.58
13612	557.	0.7042	0.13	1.8260	0.33	1.0173	0.18	0.012	2.15	2.11	0.38	17.03	3.06
13613	559.	0.6920	0.12	1.8150	0.32	1.2060	0.22	0.013	2.32	2.51	0.45	21.60	3.86
13614	536.	0.6590	0.12	1.5240	0.28	1.2564	0.23	0.016	2.98	2.19	0.41	20.68	3.86
13615	586.	0.7307	0.12	1.9427	0.33	1.0383	0.18	0.012	2.05	2.25	0.38	20.97	3.58
13616	639.	0.7448	0.12	1.9684	0.31	0.9796	0.15	0.015	2.35	2.52	0.39	25.02	3.92
13617	513.	0.8023	0.16	1.7778	0.35	1.0554	0.20	0.013	2.53	2.52	0.49	16.93	3.30
13618	556.	0.6947	0.12	1.7963	0.32	1.0403	0.19	0.008	1.44	2.27	0.41	19.31	3.47
13619	571.	0.8216	0.14	2.0150	0.35	1.1757	0.20	0.016	2.80	2.33	0.41	21.32	3.73
13620	566.	0.6324	0.11	1.7662	0.31	1.3352	0.24	0.014	2.47	2.21	0.39	20.80	3.67
13621	527.	0.6737	0.13	1.7174	0.32	1.1837	0.22	0.012	2.28	2.15	0.41	16.17	3.07
13622	559.	0.6907	0.12	1.6943	0.30	1.2359	0.22	0.009	1.61	2.22	0.40	18.88	3.38
13623	588.	0.7404	0.12	1.7379	0.30	1.2678	0.22	0.015	2.55	2.45	0.42	19.31	3.28
13624	527.	0.7047	0.13	1.8086	0.34	0.9132	0.17	0.011	2.09	1.83	0.35	18.10	3.43
13625	578.	0.7624	0.13	1.7619	0.30	1.1731	0.20	0.014	2.42	2.25b	0.39	19.76	3.42
13626	656.	0.8685	0.13	1.9505	0.30	1.6005	0.24	0.018	2.74	2.33	0.36	24.67	3.76
13627	568.	0.7318	0.13	1.6434	0.29	1.1031	0.19	0.011	1.94	2.17	0.38	17.86	3.14
13628	635.	0.7165	0.11	1.8347	0.29	0.8151	0.13	0.012	1.89	2.10	0.33	22.09	3.48
13629	558.	0.6744	0.12	1.6857	0.30	1.0534	0.19	0.011	1.97	2.10	0.38	18.41	3.30
13630	628.	0.8078	0.13	2.0934	0.33	0.7730	0.12	0.014	2.23	2.43	0.39	20.24	3.22

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B18 (PAGE 3): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT		SPLEEN		THYMUS	
		ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW
DOSAGE GROUP I			0 MG/KG/DAY										
13601	592.	2.17	0.37	2.19	0.37	0.030	5.07	0.031	5.24	0.75	0.13	0.38	0.06
13602	610.	2.55	0.42	2.55	0.42	0.032	5.24	0.035	5.74	0.96	0.16	0.63	0.10
13603	570.	1.90	0.33	1.96	0.34	0.031	5.44	0.026	4.56	0.69	0.12	0.38	0.07
13604	633.	2.33	0.37	2.28	0.36	0.026	4.11	0.033	5.21	1.11	0.18	0.69	0.11
13605	533.	2.26	0.42	2.25	0.42	0.029	5.44	0.028	5.25	1.00	0.19	0.45	0.08
13606	653.	2.25	0.34	2.39	0.37	0.044	6.74	0.039	5.97	1.20	0.18	0.55	0.08
13607	543.	2.17	0.40	2.14	0.39	0.046	8.47	0.021	3.87	0.83	0.15	0.41	0.08
13608	567.	2.12	0.37	2.15	0.38	0.031	5.47	0.033	5.82	0.90	0.16	0.52	0.09
13609	609.	2.33	0.38	2.43	0.40	0.031	5.09	0.029	4.76	1.04	0.17	0.42	0.07
13610	569.	2.31	0.40	2.29	0.40	0.028	4.92	0.028	4.92	0.76	0.13	0.32	0.06
13611	634.	2.47	0.39	2.38	0.38	0.035	5.52	0.038	5.99	0.94	0.15	0.29	0.04
13612	557.	2.18	0.39	2.21	0.40	0.033	5.92	0.032	5.74	0.79	0.14	0.34	0.06
13613	559.	2.50	0.45	2.32	0.42	0.029	5.19	0.033	5.90	0.98	0.18	0.49	0.09
13614	536.	2.53	0.47	2.31	0.43	0.028	5.22	0.027	5.04	0.98	0.18	0.49	0.09
13615	586.	1.85	0.32	2.03	0.35	0.035	5.97	0.039	6.66	1.01	0.17	0.40	0.07
13616	639.	2.58	0.40	2.61	0.41	0.042	6.57	0.035	5.48	1.26	0.20	0.41	0.06
13617	513.	1.92	0.37	2.05	0.40	0.032	6.24	0.031	6.04	1.12	0.22	0.50	0.10
13618	556.	1.99	0.36	1.89	0.34	0.032	5.76	0.036	6.47	0.80	0.14	0.32	0.06
13619	571.	2.09	0.37	2.03	0.36	0.035	6.13	0.033	5.78	0.93	0.16	0.39	0.07
13620	566.	2.02	0.36	1.99	0.35	0.028	4.95	0.029	5.12	1.32	0.23	0.52	0.09
13621	527.	2.15	0.41	2.12	0.40	0.027	5.12	0.023	4.36	0.85	0.16	0.40	0.08
13622	559.	2.30	0.41	2.20	0.39	0.035	6.26	0.045	8.05	0.68	0.12	0.44	0.08
13623	588.	2.10	0.36	2.30	0.39	0.033	5.61	0.031	5.27	0.80	0.14	0.33	0.06
13624	527.	2.11	0.40	2.15	0.41	0.027	5.12	0.022	4.17	0.87	0.16	0.57	0.11
13625	578.	1.99	0.34	2.09	0.36	0.027	4.67	0.027	4.67	0.87	0.15	0.31	0.05
13626	656.	2.28	0.35	2.34	0.36	0.034	5.18	0.036	5.49	0.96	0.15	0.49	0.07
13627	568.	2.09	0.37	2.05	0.36	0.032	5.63	0.036	6.34	0.94	0.16	0.42	0.07
13628	635.	2.08	0.33	2.01	0.32	0.035	5.51	0.031	4.88	1.07	0.17	0.50	0.08
13629	558.	2.03	0.36	1.99	0.36	0.029	5.20	0.033	5.91	0.68	0.12	0.26	0.05
13630	628.	2.07	0.33	2.03	0.32	0.032	5.10	0.028	4.46	0.97	0.15	0.46	0.07

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.
a. Value was multiplied by 1000.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B18 (PAGE 4): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS LEFT ABS. WT.	EPIDIDYMIS LEFT REL. % TBW	CAUDA EPIDIDYMIS LEFT ABS. WT.	CAUDA EPIDIDYMIS LEFT REL. % TBW	TESTIS LEFT ABS. WT.	TESTIS LEFT REL. % TBW	L. TESTIS MINUS TUNICA ALBUGINEA ABS. WT.	L. TESTIS MINUS TUNICA ALBUGINEA REL. % TBW	SEMINAL VESICLES WITH FLUID ABS. WT.	SEMINAL VESICLES WITH FLUID REL. % TBW	SEMINAL VESICLES WITHOUT FLUID ABS. WT.	SEMINAL VESICLES WITHOUT FLUID REL. % TBW
DOSAGE GROUP II		1 MG/KG/DAY											
13631	548.	0.6495	0.12	0.2998	0.05	1.6770	0.31	1.5445	0.28	2.4075	0.44	1.5081	0.28
13632	558.	0.7034	0.13	0.3166	0.06	1.9768	0.35	1.8290	0.33	2.8763	0.52	1.4047	0.25
13633	502.	0.7044	0.14	0.3546	0.07	1.7819	0.35	1.6458	0.33	3.2227	0.64	1.5709	0.31
13634	607.	0.7068	0.12	0.3369	0.06	1.8226	0.30	1.6586	0.27	1.6848	0.28	1.1637	0.19
13635	526.	0.6053	0.12	0.2813	0.05	1.6595	0.32	1.5483	0.29	1.4917	0.28	0.8167	0.16
13636	587.	0.7697	0.13	0.3525	0.06	1.8739	0.32	1.6712	0.28	2.3337	0.40	1.2939	0.22
13637	645.	0.7061	0.11	0.3434	0.05	1.6545	0.26	1.5240	0.24	2.5335	0.39	1.3047	0.20
13638	624.	0.6470	0.10	0.2792	0.04	1.9344	0.31	1.8105	0.29	2.3501	0.38	1.1924	0.19
13639	579.	0.7020	0.12	0.2951	0.05	2.0283	0.35	1.8573	0.32	2.3202	0.40	1.0796	0.19
13640	623.	0.7283	0.12	0.3536	0.06	1.8745	0.30	1.7670	0.28	2.6251	0.42	1.3840	0.22
13641	548.	0.7490	0.14	0.3527	0.06	1.8714	0.34	1.7242	0.31	2.3899	0.44	1.2356	0.22
13642	572.	0.7241	0.13	0.3150	0.06	1.7279	0.30	1.6227	0.28	2.4003	0.42	1.2870	0.22
13643	603.	0.7330	0.12	0.3398	0.06	1.9500	0.32	1.8364	0.30	2.5036	0.42	1.2468	0.21
13644	592.	0.7089	0.12	0.3200	0.05	1.9383	0.33	1.8199	0.31	2.1300	0.36	1.2740	0.22
13645	567.	0.6784	0.12	0.3183	0.06	1.6234	0.29	1.5062	0.26	2.4119	0.42	1.2195	0.22
13646	549.	0.6822	0.12	0.3463	0.06	1.6999	0.31	1.5800	0.29	2.0676	0.38	1.1076	0.20
13647	577.	0.6658	0.12	0.2982	0.05	1.7814	0.31	1.6328	0.28	2.6220	0.45	1.4890	0.26
13648	623.	0.6317	0.10	0.3064	0.05	1.8391	0.30	1.7159	0.28	2.1504	0.34	1.1768	0.19
13649	528.	0.6941	0.13	0.3058	0.06	1.7156	0.32	1.6256	0.31	2.2035	0.42	1.1379	0.22
13650	584.	0.7437	0.13	0.2876	0.05	1.9510	0.33	1.8355	0.31	2.4213	0.41	1.4614	0.25
13651	597.	0.7134	0.12	0.3282	0.05	1.9750	0.33	1.8339	0.31	2.5200	0.42	1.4917	0.25
13652	569.	0.7191	0.13	0.3231	0.06	1.7946	0.32	1.6913	0.30	2.4900	0.44	1.2234	0.22
13653	520.	0.6303	0.12	0.2784	0.05	1.8551	0.36	1.6992	0.33	1.6932	0.32	1.0140	0.20
13654	589.	0.6840	0.12	0.2935	0.05	1.5110	0.26	1.4044	0.24	2.3628	0.40	1.1243	0.19
13655	647.	0.8054	0.12	0.3335	0.05	2.1552	0.33	1.9836	0.31	2.8403	0.44	1.4880	0.23
13656	517.	0.7198	0.14	0.3468	0.07	1.7050	0.33	1.6041	0.31	2.2805	0.44	1.2083	0.23
13657	475.	0.6277	0.13	0.3055	0.06	1.7519	0.37	1.6518	0.35	2.1178	0.44	1.0602	0.22
13658	576.	0.6425	0.11	0.2637	0.04	1.5617	0.27	1.4618	0.25	2.1529	0.37	1.1517	0.20
13659	531.	0.7407	0.14	0.3172	0.06	1.9318	0.36	1.8052	0.34	2.1495	0.40	1.2183	0.23
13660	697.	0.7581	0.11	0.3225	0.05	1.6871	0.24	1.5755	0.23	2.2241	0.32	1.2827	0.18

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B18 (PAGE 5): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS RIGHT		TESTIS RIGHT		PROSTATE		PITUITARY		BRAIN		LIVER	
		ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW
DOSAGE GROUP II		1 MG/KG/DAY											
13631	548.	0.6184	0.11	1.6665	0.30	1.2524	0.23	0.016	2.92	2.22	0.40	23.73	4.33
13632	558.	0.7187	0.13	2.0272	0.36	1.3965	0.25	0.015	2.69	2.34	0.42	26.29	4.71
13633	502.	0.7346	0.15	1.8301	0.36	1.1854	0.24	0.020	3.98	2.43	0.48	20.13	4.01
13634	607.	0.7092	0.12	1.8432	0.30	0.9863	0.16	0.015	2.47	2.13	0.35	24.69	4.07
13635	526.	0.6527	0.12	1.7937	0.34	1.1001	0.21	0.010	1.90	2.07	0.39	23.30	4.43
13636	587.	0.3677b	0.06	0.8983b	0.15	1.2274	0.21	0.012	2.04	2.17	0.37	27.55	4.69
13637	645.	0.7132	0.11	1.6779	0.26	1.1159	0.17	0.016	2.48	2.26	0.35	25.31	3.92
13638	624.	0.6219	0.10	1.9129	0.31	1.3568	0.22	0.017	2.72	2.43	0.39	26.08	4.18
13639	579.	0.6966	0.12	2.0712	0.36	1.0950	0.19	0.008	1.38	2.42	0.42	26.73	4.62
13640	623.	0.6905	0.11	1.9493	0.31	0.9987	0.16	0.017	2.73	2.20	0.35	32.23	5.17
13641	548.	0.7322	0.13	1.8401	0.34	0.9751	0.18	0.015	2.74	2.26	0.41	25.22	4.60
13642	572.	0.7423	0.13	1.7467	0.30	1.2793	0.22	0.012	2.10	2.34	0.41	19.48	3.40
13643	603.	0.7523	0.12	2.5181	0.42	1.1153	0.18	0.016	2.65	2.21	0.37	25.04	4.15
13644	592.	0.7081	0.12	1.8376	0.31	1.1768	0.20	0.009	1.52	2.44	0.41	24.65	4.16
13645	567.	0.6380	0.11	1.5823	0.28	1.0379	0.18	0.019	3.35	2.25	0.40	23.13	4.08
13646	549.	0.6909	0.12	1.7069	0.31	1.4184	0.26	0.012	2.18	2.31	0.42	22.38	4.08
13647	577.	0.6756	0.12	2.6503	0.46	0.6843	0.12	0.013	2.25	2.25	0.39	25.86	4.48
13648	623.	0.6579	0.10	1.9075	0.31	1.0489	0.17	0.011	1.76	2.33	0.37	22.58	3.62
13649	528.	0.6966	0.13	1.6978	0.32	1.4685	0.28	0.015	2.84	2.35	0.44	29.17	5.52
13650	584.	0.7426	0.13	2.0238	0.35	1.1363	0.19	0.012	2.05	2.32	0.40	22.99	3.94
13651	597.	0.7281	0.12	1.9809	0.33	0.8039	0.13	0.013	2.18	2.38	0.40	22.73	3.81
13652	569.	0.7464	0.13	1.8349	0.32	0.9861	0.17	0.016	2.81	2.26	0.40	22.86	4.02
13653	520.	0.6316	0.12	1.7942	0.34	1.1095	0.21	0.010	1.92	2.37	0.46	17.07	3.28
13654	589.	0.6388	0.11	1.5501	0.26	1.2735	0.22	0.015	2.55	2.23	0.38	26.32	4.47
13655	647.	0.7879	0.12	2.1403	0.33	0.9730	0.15	0.014	2.16	2.33	0.36	29.05	4.49
13656	517.	0.7250	0.14	1.7659	0.34	1.6851	0.32	0.014	2.71	2.31	0.45	19.16	3.70
13657	475.	0.6460	0.14	1.7433	0.37	1.1798	0.25	0.013	2.74	2.10	0.44	23.90	5.03
13658	576.	0.6287	0.11	1.5591	0.27	0.8826	0.15	0.016	2.78	2.31	0.40	22.05	3.83
13659	531.	0.7940	0.15	2.0007	0.38	1.1305	0.21	0.013	2.45	2.17c	0.41	21.10	3.97
13660	697.	0.7865	0.11	1.6440	0.24	1.1982	0.17	0.014	2.01	2.28	0.33	27.36	3.92

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.
b. Rat 13636 had a small and flaccid right epididymis and right testis. See the individual necropsy observations table (Table B16).
c. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B18 (PAGE 6): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	KIDNEY LEFT ABS. WT.	KIDNEY LEFT REL. % TBW	KIDNEY RIGHT ABS. WT.	KIDNEY RIGHT REL. % TBW	ADRENAL LEFT ABS. WT.	ADRENAL LEFT REL. % TBW a	ADRENAL RIGHT ABS. WT.	ADRENAL RIGHT REL. % TBW a	SPLEEN ABS. WT.	SPLEEN REL. % TBW	THYMUS ABS. WT.	THYMUS REL. % TBW
DOSAGE GROUP II		1 MG/KG/DAY											
13631	548.	2.49	0.45	2.48	0.45	0.034	6.20	0.034	6.20	0.95	0.17	0.39	0.07
13632	558.	2.97	0.53	2.84	0.51	0.038	6.81	0.038	6.81	0.92	0.16	0.38	0.07
13633	502.	2.67	0.53	2.62	0.52	0.032	6.37	0.031	6.18	0.68	0.14	0.26	0.05
13634	607.	2.79	0.46	3.00	0.49	0.037	6.10	0.036	5.93	1.06	0.17	0.50	0.08
13635	526.	2.32	0.44	2.15	0.41	0.028	5.32	0.028	5.32	0.70	0.13	0.41	0.08
13636	587.	2.73	0.46	2.97	0.50	0.029	4.94	0.030	5.11	0.94	0.16	0.52	0.09
13637	645.	2.29	0.36	2.36	0.36	0.036	5.58	0.037	5.74	1.05	0.16	0.47	0.07
13638	624.	2.64	0.42	2.85	0.46	0.027	4.33	0.022	3.52	0.98	0.16	0.42	0.07
13639	579.	2.72	0.47	2.44b	0.42	0.036	6.22	0.029	5.01	0.90	0.16	0.25	0.04
13640	623.	2.74	0.44	2.79	0.45	0.037	5.94	0.033	5.30	0.75	0.12	0.29	0.05
13641	548.	2.66	0.48	2.57	0.47	0.032	5.84	0.032	5.84	1.02	0.19	0.35	0.06
13642	572.	2.20	0.38	2.15	0.38	0.032	5.59	0.031	5.42	1.08	0.19	0.29	0.05
13643	603.	2.84	0.47	2.68	0.44	0.034	5.64	0.033	5.47	0.72	0.12	0.45	0.07
13644	592.	2.58	0.44	2.71	0.46	0.033	5.57	0.032	5.40	0.75	0.13	0.49	0.08
13645	567.	2.80	0.49	2.77	0.49	0.038	6.70	0.036	6.35	1.02	0.18	0.31	0.05
13646	549.	2.68	0.49	2.67	0.49	0.026	4.74	0.024	4.37	0.71	0.13	0.32	0.06
13647	577.	2.67	0.46	2.70	0.47	0.031	5.37	0.030	5.20	0.95	0.16	0.52	0.09
13648	623.	2.41	0.39	2.56	0.41	0.027	4.33	0.026	4.17	0.81	0.13	0.33	0.05
13649	528.	2.55	0.48	2.72	0.52	0.032	6.06	0.042	7.95	0.80	0.15	0.44	0.08
13650	584.	2.22	0.38	2.36	0.40	0.031	5.31	0.028	4.79	1.01	0.17	0.39	0.07
13651	597.	2.56	0.43	2.80	0.47	0.029	4.86	0.025	4.19	0.93	0.16	0.43	0.07
13652	569.	2.55	0.45	2.35	0.41	0.033	5.80	0.032	5.62	0.84	0.15	0.30	0.05
13653	520.	2.06	0.40	2.30	0.44	0.024	4.62	0.022	4.23	0.74	0.14	0.36	0.07
13654	589.	2.22	0.38	2.20	0.37	0.040	6.79	0.041	6.96	0.89	0.15	0.42	0.07
13655	647.	2.87	0.44	3.18	0.49	0.027	4.17	0.024	3.71	0.88	0.14	0.36	0.06
13656	517.	1.89	0.36	1.92	0.37	0.029	5.61	0.025	4.84	0.72	0.14	0.32	0.06
13657	475.	2.20	0.46	2.17	0.46	0.029	6.10	0.032	6.74	0.86	0.18	0.31	0.06
13658	576.	2.20	0.38	2.32	0.40	0.036	6.25	0.027	4.69	0.70	0.12	0.43	0.07
13659	531.	2.11	0.40	2.10	0.40	0.030	5.65	0.029	5.46	0.87	0.16	0.31	0.06
13660	697.	2.67	0.38	2.63	0.38	0.031	4.45	0.030	4.30	1.01	0.14	0.51	0.07

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Rat 13639 had slight dilation of the pelvis of the right kidney. See the individual necropsy observations table (Table B16).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B18 (PAGE 7): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS LEFT ABS. WT.	EPIDIDYMIS LEFT REL. % TBW	CAUDA EPIDIDYMIS LEFT ABS. WT.	CAUDA EPIDIDYMIS LEFT REL. % TBW	TESTIS LEFT ABS. WT.	TESTIS LEFT REL. % TBW	L. TESTIS MINUS TUNICA ALBUGINEA ABS. WT.	L. TESTIS MINUS TUNICA ALBUGINEA REL. % TBW	SEMINAL VESICLES WITH FLUID ABS. WT.	SEMINAL VESICLES WITH FLUID REL. % TBW	SEMINAL VESICLES WITHOUT FLUID ABS. WT.	SEMINAL VESICLES WITHOUT FLUID REL. % TBW
DOSAGE GROUP III		3 MG/KG/DAY											
13661	585.	0.6912	0.12	0.3254	0.06	1.9614	0.34	1.7444	0.30	2.8329	0.48	1.4299	0.24
13662	539.	0.6733	0.12	0.3247	0.06	1.7494	0.32	1.6186	0.30	1.7487	0.32	0.9591	0.18
13663	567.	0.7359	0.13	0.3684	0.06	1.8987	0.33	1.7604	0.31	2.1959	0.39	1.1255	0.20
13664	511.	0.6819	0.13	0.3250	0.06	1.8210	0.36	1.7070	0.33	2.3292	0.46	1.2339	0.24
13665	511.	0.6495	0.13	0.3010	0.06	1.7079	0.33	1.5898	0.31	2.2164	0.43	1.0909	0.21
13666	481.	0.6823	0.14	0.2923	0.06	1.8632	0.39	1.7270	0.36	2.1344	0.44	1.0447	0.22
13667	550.	0.6787	0.12	0.3297	0.06	1.6308	0.30	1.5095	0.27	2.1297	0.39	1.2414	0.22
13668	453.	0.5743	0.13	0.2440	0.05	1.6210	0.36	1.4979	0.33	1.8561	0.41	1.0709	0.24
13669	502.	0.6734	0.13	0.3213	0.06	1.7453	0.35	1.5993	0.32	2.8444	0.57	1.4370	0.29
13670	555.	0.7859	0.14	0.3657	0.06	1.8911	0.34	1.7575	0.32	2.8418	0.51	1.4905	0.27
13671	536.	0.6692	0.12	0.2917	0.05	1.7697	0.33	1.6395	0.30	2.1255	0.40	1.3067	0.24
13672	504.	0.6250	0.12	0.2759	0.05	1.8034	0.36	1.6454	0.33	2.5020	0.50	1.2914	0.26
13673	569.	0.6469	0.11	0.2756	0.05	1.6549	0.29	1.5520	0.27	2.3554	0.41	1.2487	0.22
13674	498.	0.6486	0.13	0.2841	0.06	1.6521	0.33	1.5435	0.31	2.1533	0.43	1.3208	0.26
13675	563.	0.6728	0.12	0.3345	0.06	1.5921	0.28	1.4762	0.26	1.8019	0.32	1.1959	0.21
13676	475.	0.7281	0.15	0.3253	0.07	1.9417	0.41	1.8298	0.38	2.3180	0.49	1.3884	0.29
13677	535.	0.6628	0.12	0.3048	0.06	1.7046	0.32	1.5908	0.30	2.6193	0.49	1.2994	0.24
13678	628.	0.6807	0.11	0.3119	0.05	1.7415	0.28	1.5851	0.25	2.1396	0.34	1.0874	0.17
13679	555.	0.7220	0.13	0.3292	0.06	1.7870	0.32	1.6515	0.30	2.7896	0.50	1.5101	0.27
13680	536.	0.7099	0.13	0.3186	0.06	1.9063	0.36	1.7722	0.33	2.0806	0.39	1.2158	0.23
13681	519.	0.7653	0.15	0.3366	0.06	2.0456	0.39	1.9325	0.37	2.3093	0.44	1.1777	0.23
13682	596.	0.7460	0.12	0.3481	0.06	2.0411	0.34	1.9264	0.32	2.5467	0.43	1.3425	0.22
13683	588.	0.7294	0.12	0.2949	0.05	1.6796	0.28	1.5543	0.26	2.7770	0.47	1.3745	0.23
13684	536.	0.7152	0.13	0.2938	0.05	1.7144	0.32	1.5779	0.29	2.2227	0.41	1.2772	0.24
13685	492.	0.6832	0.14	0.3172	0.06	1.8082	0.37	1.6956	0.34	2.6755	0.54	1.5985	0.32
13686	508.	0.6252	0.12	0.2874	0.06	1.7667	0.35	1.6740	0.33	2.0154	0.40	1.1092	0.22
13687	528.	0.6735	0.13	0.3194	0.06	1.5957	0.30	1.4880	0.28	2.9111	0.55	1.6056	0.30
13688	582.	0.7943	0.14	0.3601	0.06	2.0392	0.35	1.9123	0.33	2.2724	0.39	1.2595	0.22
13689	572.	0.6982	0.12	0.3340	0.06	1.7096	0.30	1.5964	0.28	2.4406	0.43	1.2353	0.22
13690	676.	0.6794	0.10	0.3048	0.04	1.7594	0.26	1.6408	0.24	2.4640	0.36	1.3996	0.21

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B18 (PAGE 8): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS RIGHT ABS. WT.	EPIDIDYMIS RIGHT REL. % TBW	TESTIS RIGHT ABS. WT.	TESTIS RIGHT REL. % TBW	PROSTATE ABS. WT.	PROSTATE REL. % TBW	PITUITARY ABS. WT.	PITUITARY REL. % TBW a	BRAIN ABS. WT.	BRAIN REL. % TBW	LIVER ABS. WT.	LIVER REL. % TBW
DOSAGE GROUP III		3 MG/KG/DAY											
13661	585.	0.6942	0.12	1.9170	0.33	1.1744	0.20	0.014	2.39	2.24	0.38	28.39	4.85
13662	539.	0.6884	0.13	1.7684	0.33	1.0222	0.19	0.018	3.34	2.11	0.39	28.59	5.30
13663	567.	0.7462	0.13	1.9026	0.34	0.9513	0.17	0.008	1.41	2.32	0.41	26.16	4.61
13664	511.	0.6483	0.13	1.7742	0.35	1.0531	0.21	0.013	2.54	2.39	0.47	28.39	5.56
13665	511.	0.6558	0.13	1.7255	0.34	1.0904	0.21	0.013	2.54	2.40	0.47	28.78	5.63
13666	481.	0.7041	0.15	1.9202	0.40	1.2313	0.26	0.010	2.08	2.00	0.42	24.12	5.01
13667	550.	0.6941	0.13	1.6840	0.31	1.1857	0.22	0.012	2.18	2.23	0.40	31.05	5.64
13668	453.	0.5695	0.12	1.6580	0.37	0.8687	0.19	0.009	1.99	2.13	0.47	25.21	5.56
13669	502.	0.7484	0.15	1.8785	0.37	1.3318	0.26	0.013	2.59	2.34	0.47	29.67	5.91
13670	555.	0.7844	0.14	1.8798	0.34	1.3966	0.25	0.014	2.52	2.12	0.38	27.92	5.03
13671	536.	0.6884	0.13	1.7400	0.32	1.0287	0.19	0.011	2.05	2.36	0.44	24.03	4.48
13672	504.	0.6282	0.12	1.7492	0.35	1.1247	0.22	0.011	2.18	2.22	0.44	26.01	5.16
13673	569.	0.6464	0.11	1.6550	0.29	0.9881	0.17	0.003	0.53	2.07	0.36	28.10	4.94
13674	498.	0.6375	0.13	1.7158	0.34	1.1467	0.23	0.010	2.01	2.36	0.47	24.17	4.85
13675	563.	0.6921	0.12	1.5912	0.28	0.9485	0.17	0.014	2.49	2.22	0.39	28.39	5.04
13676	475.	0.6965	0.15	1.9457	0.41	0.9484	0.20	0.010	2.10	2.14	0.45	22.77	4.79
13677	535.	0.6481	0.12	1.7060	0.32	1.4671	0.27	0.013	2.43	2.31	0.43	27.65	5.17
13678	628.	0.6848	0.11	1.7331	0.28	1.2232	0.19	0.011	1.75	2.35	0.37	26.48	4.22
13679	555.	0.7450	0.13	1.7974	0.32	1.4973	0.27	0.011	1.98	2.41	0.43	27.01	4.87
13680	536.	0.6700	0.12	1.9337	0.36	0.8157	0.15	0.016	2.98	2.29	0.43	29.45	5.49
13681	519.	0.7726	0.15	2.0453	0.39	0.9378	0.18	0.010	1.93	2.42	0.47	29.31	5.65
13682	596.	0.7609	0.13	2.0193	0.34	1.1773	0.20	0.012	2.01	2.45	0.41	29.50	4.95
13683	588.	0.7217	0.12	1.6827	0.29	1.2601	0.21	0.013	2.21	2.19	0.37	28.45	4.84
13684	536.	0.7096	0.13	1.7016	0.32	1.1324	0.21	0.009	1.68	2.20	0.41	22.94	4.28
13685	492.	0.6926	0.14	1.8110	0.37	1.1725	0.24	0.014	2.84	2.12	0.43	26.28	5.34
13686	508.	0.6045	0.12	1.7715	0.35	1.0562	0.21	0.017	3.35	2.30	0.45	28.94	5.70
13687	528.	0.7076	0.13	1.5732	0.30	1.0888	0.21	0.013	2.46	2.34	0.44	29.66	5.62
13688	582.	0.7951	0.14	2.0475	0.35	0.9953	0.17	0.014	2.40	2.08	0.36	25.96	4.46
13689	572.	0.6814	0.12	1.6739	0.29	1.2406	0.22	0.012	2.10	2.27	0.40	34.16	5.97
13690	676.	0.6736	0.10	1.7440	0.26	0.9884	0.15	0.016	2.37	2.28	0.34	33.85b	5.01

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B18 (PAGE 9): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	KIDNEY LEFT ABS. WT.	KIDNEY LEFT REL. % TBW	KIDNEY RIGHT ABS. WT.	KIDNEY RIGHT REL. % TBW	ADRENAL LEFT ABS. WT.	ADRENAL LEFT REL. % TBW a	ADRENAL RIGHT ABS. WT.	ADRENAL RIGHT REL. % TBW a	SPLEEN ABS. WT.	SPLEEN REL. % TBW	THYMUS ABS. WT.	THYMUS REL. % TBW
DOSAGE GROUP III		3 MG/KG/DAY											
13661	585.	2.49	0.42	2.45	0.42	0.038	6.50	0.044	7.52	1.01	0.17	0.34	0.06
13662	539.	2.50	0.46	2.45	0.45	0.040	7.42	0.046	8.53	0.89	0.16	0.52	0.10
13663	567.	2.20	0.39	2.34	0.41	0.031	5.47	0.034	6.00	0.82	0.14	0.45	0.08
13664	511.	2.26	0.44	2.24	0.44	0.033	6.46	0.032	6.26	0.86	0.17	0.49	0.10
13665	511.	2.36	0.46	2.50	0.49	0.042	8.22	0.044	8.61	0.74	0.14	0.39	0.08
13666	481.	2.29	0.48	2.41	0.50	0.027	5.61	0.026	5.40	1.11	0.23	0.44	0.09
13667	550.	2.43	0.44	2.48	0.45	0.026	4.73	0.021	3.82	0.90	0.16	0.50	0.09
13668	453.	2.39	0.53	2.49	0.55	0.026	5.74	0.021	4.64	0.75	0.16	0.25	0.06
13669	502.	2.60	0.52	2.50	0.50	0.029	5.78	0.021	4.18	0.90	0.18	0.42	0.08
13670	555.	2.29	0.41	2.31b	0.42	0.023	4.14	0.021	3.78	0.79	0.14	0.38	0.07
13671	536.	2.47	0.46	2.20	0.41	0.034	6.34	0.030	5.60	0.84	0.16	0.24	0.04
13672	504.	2.42	0.48	2.23c	0.44	0.029	5.75	0.029	5.75	0.73	0.14	0.36	0.07
13673	569.	2.54	0.45	2.60	0.46	0.021	3.69	0.022	3.87	0.91	0.16	0.45	0.08
13674	498.	2.48	0.50	2.27	0.46	0.025	5.02	0.034	6.83	0.70	0.14	0.33	0.07
13675	563.	2.49	0.44	2.56	0.45	0.025	4.44	0.028	4.97	0.88	0.16	0.53	0.09
13676	475.	2.33	0.49	2.37	0.50	0.034	7.16	0.032	6.74	0.76	0.16	0.25	0.05
13677	535.	2.78	0.52	2.55	0.48	0.035	6.54	0.027	5.05	0.65	0.12	0.33	0.06
13678	628.	2.44	0.39	2.62	0.42	0.032	5.10	0.031	4.94	0.79	0.12	0.35	0.06
13679	555.	2.41	0.43	2.67	0.48	0.042	7.57	0.034	6.13	0.77	0.14	0.50	0.09
13680	536.	2.57	0.48	2.56	0.48	0.026	4.85	0.025	4.66	1.05	0.20	0.21	0.04
13681	519.	2.69	0.52	2.66	0.51	0.027	5.20	0.029	5.59	0.97	0.19	0.30	0.06
13682	596.	2.52	0.42	2.62	0.44	0.023	3.86	0.024	4.03	0.93	0.16	0.46	0.08
13683	588.	2.44	0.41	2.33	0.40	0.025	4.25	0.045	7.65	0.82	0.14	0.53	0.09
13684	536.	2.33	0.43	2.34	0.44	0.029	5.41	0.030	5.60	0.85	0.16	0.40	0.07
13685	492.	2.65	0.54	2.58	0.52	0.021	4.27	0.019	3.86	0.82	0.17	0.24	0.05
13686	508.	2.76	0.54	2.75	0.54	0.030	5.90	0.026	5.12	0.77	0.15	0.29	0.06
13687	528.	2.45	0.46	2.43	0.46	0.029	5.49	0.025	4.73	0.91	0.17	0.27	0.05
13688	582.	2.75	0.47	2.55	0.44	0.031	5.33	0.031	5.33	1.02	0.18	0.49	0.08
13689	572.	2.88	0.50	2.82	0.49	0.029	5.07	0.022	3.85	1.07	0.19	0.39	0.07
13690	676.	3.19	0.47	3.03	0.45	0.044	6.51	0.043	6.36	0.96	0.14	0.43	0.06

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Rat 13670 had moderate dilation of the pelvis of the right kidney. See the individual necropsy observations table (Table B16).

c. Rat 13672 had slight dilation of the pelvis of the right kidney. See the individual necropsy observations table (Table B16).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B18 (PAGE 10): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS LEFT ABS. WT.	EPIDIDYMIS LEFT REL. % TBW	CAUDA EPIDIDYMIS LEFT ABS. WT.	CAUDA EPIDIDYMIS LEFT REL. % TBW	TESTIS LEFT ABS. WT.	TESTIS LEFT REL. % TBW	L. TESTIS MINUS TUNICA ALBUGINEA ABS. WT.	L. TESTIS MINUS TUNICA ALBUGINEA REL. % TBW	SEMINAL VESICLES WITH FLUID ABS. WT.	SEMINAL VESICLES WITH FLUID REL. % TBW	SEMINAL VESICLES WITHOUT FLUID ABS. WT.	SEMINAL VESICLES WITHOUT FLUID REL. % TBW
DOSAGE GROUP IV		10 MG/KG/DAY											
13691	528.	0.6510	0.12	0.2903	0.05	1.7748	0.34	1.6126	0.30	1.8099	0.34	1.1447	0.22
13692	450.	0.7089	0.16	0.3304	0.07	1.8786	0.42	1.7780	0.40	2.3515	0.52	1.0306	0.23
13693	570.	0.6386	0.11	0.2740	0.05	1.8515	0.32	1.7107	0.30	1.7267a	0.30a	1.0523	0.18
13694	571.	0.7488	0.13	0.3793	0.07	1.6795	0.29	1.5725	0.28	2.4684	0.43	1.5301	0.27
13695	506.	0.6307	0.12	0.2689	0.05	1.6411	0.32	1.5376	0.30	1.9912	0.39	1.2054	0.24
13696	553.	0.6652	0.12	0.3142	0.06	1.9205	0.35	1.7789	0.32	2.0129	0.36	1.1453	0.21
13697	480.	0.7278	0.15	0.3255	0.07	1.8740	0.39	1.7521	0.36	2.2800	0.48	1.2851	0.27
13698	533.	0.7380	0.14	0.3381	0.06	2.0329	0.38	1.9220	0.36	2.6892	0.50	1.3437	0.25
13699	466.	0.6450	0.14	0.2780	0.06	1.7274	0.37	1.5993	0.34	2.2776	0.49	1.2605	0.27
13700	535.	0.7382	0.14	0.3455	0.06	1.8932	0.35	1.7207	0.32	2.4079	0.45	1.2589	0.24
13701	490.	0.6860	0.14	0.2982	0.06	1.7259	0.35	1.5848	0.32	1.9875	0.40	1.0487	0.21
13702	498.	0.7634	0.15	0.3364	0.07	1.8769	0.38	1.7673	0.35	2.3722	0.48	1.3402	0.27
13703	501.	0.7196	0.14	0.3232	0.06	1.7387	0.35	1.6197	0.32	2.4935	0.50	1.5376	0.31
13704	624.	0.7761	0.12	0.3537	0.06	1.8951	0.30	1.7609	0.28	2.3446	0.38	1.3177	0.21
13705	551.	0.6684	0.12	0.2734	0.05	1.8277	0.33	1.6738	0.30	1.4559b	0.26b	1.0436	0.19
13706	526.	0.7169	0.14	0.3511	0.07	1.8320	0.35	1.7076	0.32	2.3625	0.45	1.3581	0.26
13707	557.	0.7793	0.14	0.3728	0.07	1.6347	0.29	1.5384	0.28	2.7172	0.49	1.4232	0.26
13708	563.	0.7390	0.13	0.3343	0.06	1.8899	0.34	1.7878	0.32	2.6176	0.46	1.4343	0.25
13709	451.	0.6284	0.14	0.2894	0.06	1.6529	0.37	1.5406	0.34	2.5577	0.57	1.4163	0.31
13710	398.	0.6303	0.16	0.2903	0.07	1.8617	0.47	1.7607	0.44	2.1083	0.53	1.0055	0.25
13711	401.	0.6687	0.17	0.3095	0.08	1.6931	0.42	1.5997	0.40	2.1691	0.54	1.1139	0.28
13712	455.	0.6542	0.14	0.2903	0.06	1.8646	0.41	1.7482	0.38	2.0146	0.44	1.0707	0.24
13713	493.	0.6660	0.14	0.3171	0.06	1.7775	0.36	1.6482	0.33	2.1117	0.43	1.1951	0.24
13714	443.	0.7452	0.17	0.3291	0.07	1.8785	0.42	1.7562	0.40	2.7024	0.61	1.3951	0.31
13715	551.	0.6832	0.12	0.2975	0.05	1.7745	0.32	1.6450	0.30	2.2975	0.42	1.1581	0.21
13716	528.	0.7514	0.14	0.3387	0.06	2.0020	0.38	1.8087	0.34	2.3873	0.45	1.2017	0.23
13717	489.	0.7523	0.15	0.3543	0.07	1.8418	0.38	1.7492	0.36	2.4171	0.49	1.3391	0.27
13718	543.	0.7349	0.14	0.3363	0.06	1.8380	0.34	1.7356	0.32	2.3115	0.42	1.2358	0.23
13719	544.	0.7209	0.13	0.3571	0.06	1.8179	0.33	1.6798	0.31	2.7956	0.51	1.5191	0.28
13720	591.	0.7415	0.12	0.3476	0.06	1.8847	0.32	1.7681	0.30	2.9170	0.49	1.5807	0.27

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.
a. Damaged during processing (some fluid loss prior to weighing); values excluded from group averages and statistical analyses.
b. Damaged during processing (weight affected); values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B18 (PAGE 11): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS RIGHT		TESTIS RIGHT		PROSTATE		PITUITARY		BRAIN		LIVER	
		ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW
DOSAGE GROUP IV		10 MG/KG/DAY											
13691	528.	0.6462	0.12	1.6959	0.32	1.1002	0.21	0.009	1.70	2.31	0.44	30.43	5.76
13692	450.	0.6514	0.14	1.8472	0.41	0.6953	0.15	0.013	2.89	2.35	0.52	27.20	6.04
13693	570.	0.4308	0.08	1.5803	0.28	0.9426	0.16	0.014	2.46	2.09	0.37	30.49	5.35
13694	571.	0.7073	0.12	1.5982	0.28	0.8671	0.15	0.012	2.10	2.11	0.37	28.77	5.04
13695	506.	0.6242	0.12	1.5583	0.31	1.1675	0.23	0.016	3.16	2.05	0.40	30.35	6.00
13696	553.	0.6590	0.12	1.9059	0.34	1.1603	0.21	0.019	3.44	2.25	0.41	29.83	5.39
13697	480.	0.7200	0.15	1.8881	0.39	1.1685	0.24	0.013	2.71	2.26	0.47	28.85	6.01
13698	533.	0.7592	0.14	2.0050	0.38	1.2923	0.24	0.008	1.50	2.35	0.44	27.33	5.13
13699	466.	0.6287	0.13	1.6871	0.36	1.2763	0.27	0.015	3.22	2.28	0.49	19.75	4.24
13700	535.	0.7246	0.14	1.9501	0.36	0.8127	0.15	0.014	2.62	2.46	0.46	31.22	5.84
13701	490.	0.6728	0.14	1.7611	0.36	0.9267	0.19	0.017	3.47	2.26	0.46	22.78	4.65
13702	498.	0.7257	0.14	1.8833	0.38	0.9056	0.18	0.012	2.41	2.05	0.41	23.84	4.79
13703	501.	0.7072	0.14	1.7711	0.35	1.2401	0.25	0.019	3.79	2.37	0.47	31.22	6.23
13704	624.	0.7933	0.13	1.9822	0.32	1.4428	0.23	0.020	3.20	2.38	0.38	36.32	5.82
13705	551.	0.6890	0.12	1.8191	0.33	1.0972	0.20	0.010	1.81	2.32	0.42	35.62	6.46
13706	526.	0.3207b	0.06	0.8699b	0.16	1.1747	0.22	0.011	2.09	2.45	0.46	29.09	5.53
13707	557.	0.7579	0.14	1.6624	0.30	1.2753	0.23	0.011	1.97	2.07	0.37	29.42	5.28
13708	563.	0.7502	0.13	1.9331	0.34	0.8310	0.15	0.015	2.66	2.13	0.38	32.27	5.73
13709	451.	0.6525	0.14	1.6711	0.37	1.0523	0.23	0.017	3.77	2.33	0.52	25.48	5.65
13710	398.	0.6630	0.17	1.8448	0.46	0.7736	0.19	0.019	4.77	2.21	0.56	24.32	6.11
13711	401.	0.6400	0.16	1.6398	0.41	0.9264	0.23	0.012	2.99	2.16	0.54	22.43	5.59
13712	455.	0.6336	0.14	1.8443	0.40	0.8620	0.19	0.011	2.42	2.34	0.51	24.75	5.44
13713	493.	0.6594	0.13	1.7083	0.35	1.1091	0.22	0.014	2.84	2.10	0.42	31.60	6.41
13714	443.	0.7495	0.17	1.8709	0.42	1.0910	0.25	0.011	2.48	2.17	0.49	26.03	5.88
13715	551.	0.6537	0.12	1.7351	0.31	1.2177	0.22	0.015	2.72	2.22	0.40	34.10	6.19
13716	528.	0.7396	0.14	2.0528	0.39	1.0765	0.20	0.013	2.46	2.25	0.43	28.78	5.45
13717	489.	0.7265	0.15	1.7853	0.36	1.0506	0.21	0.018	3.68	2.43	0.50	27.61	5.65
13718	543.	0.7409	0.14	1.8402	0.34	0.6135	0.11	0.018	3.31	2.18	0.40	28.62	5.27
13719	544.	0.7150	0.13	1.7551	0.32	0.7355	0.14	0.013	2.39	2.21	0.41	32.24	5.93
13720	591.	0.7717	0.13	1.8332	0.31	1.2191	0.21	0.009	1.52	2.15	0.36	31.49	5.33

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Rat 13706 had a small and flaccid right epididymis and right testis. See the individual necropsy observations table (Table B16).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B18 (PAGE 12): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT		SPLEEN		THYMUS	
		ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW
DOSAGE GROUP IV		10 MG/KG/DAY											
13691	528.	2.23	0.42	2.27	0.43	0.018	3.41	0.043	8.14	1.01	0.19	0.61	0.12
13692	450.	2.42	0.54	2.31	0.51	0.026	5.78	0.029	6.44	0.83	0.18	0.55	0.12
13693	570.	2.34	0.41	2.37	0.42	0.036	6.32	0.038	6.67	0.97	0.17	0.77	0.14
13694	571.	2.75	0.48	3.01	0.53	0.025	4.38	0.037	6.48	0.81	0.14	0.50	0.09
13695	506.	2.29	0.45	2.34	0.46	0.028	5.53	0.030	5.93	0.79	0.16	0.40	0.08
13696	553.	2.99	0.54	2.82	0.51	0.035	6.33	0.033	5.97	1.04	0.19	0.54	0.10
13697	480.	2.16	0.45	2.16	0.45	0.032	6.67	0.033	6.88	0.90	0.19	0.50	0.10
13698	533.	2.61	0.49	2.63	0.49	0.034	6.38	0.040	7.50	0.82	0.15	0.52	0.10
13699	466.	2.11	0.45	2.09	0.45	0.019	4.08	0.016	3.43	0.81	0.17	0.42	0.09
13700	535.	2.37	0.44	2.40	0.45	0.030	5.61	0.030	5.61	0.99	0.18	0.44	0.08
13701	490.	2.03	0.41	2.01	0.41	0.022	4.49	0.021	4.28	0.71	0.14	0.26	0.05
13702	498.	2.05	0.41	2.10	0.42	0.028	5.62	0.024	4.82	0.84	0.17	0.27	0.05
13703	501.	2.52	0.50	2.38	0.48	0.043	8.58	0.034	6.79	0.95	0.19	0.31	0.06
13704	624.	2.61	0.42	2.64	0.42	0.036	5.77	0.030	4.81	1.15	0.18	0.56	0.09
13705	551.	2.45	0.44	2.51	0.46	0.033	5.99	0.026	4.72	0.90	0.16	0.54	0.10
13706	526.	2.17	0.41	2.46	0.47	0.031	5.89	0.026	4.94	0.79	0.15	0.38	0.07
13707	557.	2.50	0.45	2.47	0.44	0.032	5.74	0.030	5.38	0.79	0.14	0.40	0.07
13708	563.	2.42	0.43	2.57	0.46	0.038	6.75	0.038	6.75	0.76	0.13	0.34	0.06
13709	451.	2.19	0.48	2.20	0.49	0.031	6.87	0.019	4.21	0.74	0.16	0.28	0.06
13710	398.	2.08	0.52	2.17	0.54	0.029	7.29	0.025	6.28	0.66	0.16	0.40	0.10
13711	401.	1.87	0.47	1.92	0.48	0.028	6.98	0.039	9.72	0.83	0.21	0.50	0.12
13712	455.	2.03	0.45	2.04	0.45	0.030	6.59	0.033	7.25	1.11	0.24	0.36	0.08
13713	493.	2.18	0.44	2.15	0.44	0.025	5.07	0.027	5.48	0.72	0.15	0.26	0.05
13714	443.	2.38	0.54	2.13	0.48	0.026	5.87	0.051	11.51	0.52	0.12	0.18	0.04
13715	551.	2.39	0.43	2.45	0.44	0.035	6.35	0.033	5.99	0.98	0.18	0.29	0.05
13716	528.	2.49	0.47	2.60	0.49	0.028	5.30	0.026	4.92	0.79	0.15	0.24	0.04
13717	489.	2.37	0.48	2.38b	0.49	0.030	6.13	0.032	6.54	0.87	0.18	0.39	0.08
13718	543.	2.42	0.44	2.33	0.43	0.037	6.81	0.033	6.08	0.93	0.17	0.25	0.05
13719	544.	2.31	0.42	2.42	0.44	0.033	6.07	0.037	6.80	1.10	0.20	0.47	0.09
13720	591.	2.48	0.42	2.56	0.43	0.022	3.72	0.026	4.40	1.03	0.17	0.23	0.04

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Rat 13717 had slight dilation of the pelvis of the right kidney. See the individual necropsy observations table (Table B16).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B18 (PAGE 13): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS LEFT ABS. WT.	EPIDIDYMIS LEFT REL. % TBW	CAUDA EPIDIDYMIS LEFT ABS. WT.	CAUDA EPIDIDYMIS LEFT REL. % TBW	TESTIS LEFT ABS. WT.	TESTIS LEFT REL. % TBW	L. TESTIS MINUS TUNICA ALBUGINEA ABS. WT.	L. TESTIS MINUS TUNICA ALBUGINEA REL. % TBW	SEMINAL VESICLES WITH FLUID ABS. WT.	SEMINAL VESICLES WITH FLUID REL. % TBW	SEMINAL VESICLES WITHOUT FLUID ABS. WT.	SEMINAL VESICLES WITHOUT FLUID REL. % TBW
DOSAGE GROUP V		30 MG/KG/DAY											
13721	511.	0.6074	0.12	0.2790	0.05	1.6557	0.32	1.5270	0.30	2.1394	0.42	1.1271	0.22
13722	452.	0.6274	0.14	0.2822	0.06	2.0342	0.45	1.9065	0.42	1.9349	0.43	0.9897	0.22
13723	321.	0.6173	0.19	0.2866	0.09	1.7454	0.54	1.6102	0.50	1.8187	0.57	1.0162	0.32
13724	378.	0.6288	0.17	0.2856	0.08	1.7350	0.46	1.6175	0.43	1.8648	0.49	1.0530	0.28
13725	361.	0.5636	0.16	0.2434	0.07	1.5799	0.44	1.4784	0.41	2.0211	0.56	1.1224	0.31
13726	465.	0.5924	0.13	0.2529	0.05	1.6603	0.36	1.4205	0.30	2.3913	0.51	1.3574	0.29
13727	443.	0.6562	0.15	0.3344	0.08	1.6767	0.38	1.5666	0.35	2.3512	0.53	1.2199	0.28
13728	418.	0.6189	0.15	0.2708	0.06	1.8145	0.43	1.6036	0.38	1.6491	0.39	0.8819	0.21
13729	439.	0.6563	0.15	0.2832	0.06	1.8213	0.41	1.7046	0.39	2.7535	0.63	1.6355	0.37
13730	522.	0.7344	0.14	0.3692	0.07	1.9206	0.37	1.7641	0.34	2.7822	0.53	1.3529	0.26
13731	468.	0.6264	0.13	0.2816	0.06	1.8082	0.39	1.6879	0.36	2.2953	0.49	1.3058	0.28
13732a	----	0.32	----	b	----	1.57	----	b	----	0.41	----	b	----
13733	554.	0.4488c	0.08	0.2281	0.04	1.5848	0.29	0.7696c	0.14	1.9756	0.36	1.0945	0.20
13734	456.	0.6218	0.14	0.3056	0.07	1.7707	0.39	1.6457	0.36	1.9533	0.43	1.0168	0.22
13735	446.	0.6602	0.15	0.2885	0.06	1.6260	0.36	1.4871	0.33	2.0416	0.46	1.0459	0.23

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Rat 13732 was moribund sacrificed on day 45 of study; values excluded from group averages and statistical analyses.

b. Value was not recorded.

c. Rat 13733 had a small and flaccid left epididymis and left testis minus tunica albuginea. See the individual necropsy observations table (Table B16).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B18 (PAGE 14): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS LEFT ABS. WT.	EPIDIDYMIS LEFT REL. % TBW	CAUDA EPIDIDYMIS LEFT ABS. WT.	CAUDA EPIDIDYMIS LEFT REL. % TBW	TESTIS LEFT ABS. WT.	TESTIS LEFT REL. % TBW	L. TESTIS MINUS TUNICA ALBUGINEA ABS. WT.	L. TESTIS MINUS TUNICA ALBUGINEA REL. % TBW	SEMINAL VESICLES WITH FLUID ABS. WT.	SEMINAL VESICLES WITH FLUID REL. % TBW	SEMINAL VESICLES WITHOUT FLUID ABS. WT.	SEMINAL VESICLES WITHOUT FLUID REL. % TBW
DOSAGE GROUP V		30 MG/KG/DAY											
13736	398.	0.6673	0.17	0.3010	0.08	1.8057	0.45	1.6957	0.43	2.2496	0.56	1.2149	0.30
13737	385.	0.6265	0.16	0.2859	0.07	1.8269	0.47	1.7194	0.45	1.7412	0.45	1.1388	0.30
13738	475.	0.7368	0.16	0.3496	0.07	1.8806	0.40	1.7560	0.37	2.2771	0.48	1.1760	0.25
13739	374.	0.6346	0.17	0.2936	0.08	1.7360	0.46	1.6485	0.44	2.1199	0.57	1.1596	0.31
13740	497.	0.6890	0.14	0.3195	0.06	1.8928	0.38	1.7714	0.36	1.9407	0.39	1.0294	0.21
13741	358.	0.4128a	0.12	0.1813a	0.05	0.9095a	0.25	0.7763a	0.22	1.5799	0.44	1.0094	0.28
13742	345.	0.6057	0.18	0.2949	0.08	1.5689	0.45	1.4689	0.42	2.0911	0.61	1.1513	0.33
13743	401.	0.6398	0.16	0.3157	0.08	1.7613	0.44	1.6391	0.41	2.2751	0.57	1.1189	0.28
13744	394.	0.6318	0.16	0.2745	0.07	1.7873	0.45	1.6903	0.43	2.1831	0.55	1.2490	0.32
13745	413.	0.5971	0.14	0.2785	0.07	1.7386	0.42	1.6364	0.40	1.6923	0.41	0.9536	0.23
13746	438.	0.6928	0.16	0.2873	0.06	1.7150	0.39	1.6329	0.37	2.0396	0.46	1.1029	0.25
13747	321.	0.6158	0.19	0.2828	0.09	1.9071	0.59	1.7986	0.56	1.8077	0.56	0.8948	0.28
13748	570.	0.7390	0.13	0.3243	0.06	2.0476	0.36	1.9007	0.33	2.1969	0.38	1.2020	0.21
13749	469.	0.7383	0.16	0.3499	0.07	1.9514	0.42	1.8267	0.39	2.0347	0.43	1.1848	0.25
13750	449.	0.6466	0.14	0.2750	0.06	2.8842b	0.64	2.6964b	0.60	1.6893	0.38	1.0501	0.23

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Rat 13741 had small and flaccid epididymides and testes. See the individual necropsy observations table (Table B16).

b. Rat 13750 had a large left epididymis and left testis minus tunica albuginea. See the individual necropsy observations table (Table B16).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B18 (PAGE 15): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS RIGHT ABS. WT.	EPIDIDYMIS RIGHT REL. % TBW	TESTIS RIGHT ABS. WT.	TESTIS RIGHT REL. % TBW	PROSTATE ABS. WT.	PROSTATE REL. % TBW	PITUITARY ABS. WT.	PITUITARY REL. % TBW a	BRAIN ABS. WT.	BRAIN REL. % TBW	LIVER ABS. WT.	LIVER REL. % TBW
DOSAGE GROUP V		30 MG/KG/DAY											
13721	511.	0.5828	0.11	1.6442	0.32	0.8431	0.16	0.015	2.94	2.32	0.45	32.46	6.35
13722	452.	0.6248	0.14	2.0050	0.44	0.8430	0.19	0.013	2.88	2.12	0.47	26.38	5.84
13723	321.	0.6269	0.20	1.6768	0.52	0.5950	0.18	0.010	3.12	2.18	0.68	25.29	7.88
13724	378.	0.6778	0.18	1.7229	0.46	0.6971	0.18	0.009	2.38	2.22	0.59	20.55	5.44
13725	361.	0.6145	0.17	1.6811	0.46	0.7775	0.22	0.005	1.38	2.05	0.57	24.05	6.66
13726	465.	0.5830	0.12	1.6140	0.35	1.1966	0.26	0.011	2.36	2.39	0.51	26.25	5.64
13727	443.	0.6714	0.15	1.6811	0.38	1.1502	0.26	0.009	2.03	2.09	0.47	27.77	6.27
13728	418.	0.5943	0.14	1.7995	0.43	0.8251	0.20	0.011	2.63	2.40	0.57	33.99	8.13
13729	439.	0.6131	0.14	1.7874	0.41	0.8078	0.18	0.008	1.82	2.26	0.51	30.46	6.94
13730	522.	0.7137	0.14	1.9707	0.38	0.8931	0.17	0.011	2.11	2.18	0.42	36.40	6.97
13731	468.	0.6397	0.14	1.7492	0.37	0.6744	0.14	0.011	2.35	2.10	0.45	27.84	5.95
13732b	----	0.31	----	1.54	----	0.34	----	0.006	----	1.83	----	15.94	----
13733	554.	0.7056	0.13	1.8567	0.34	0.9479	0.17	0.012	2.17	2.41	0.44	34.60	6.24
13734	456.	0.6340	0.14	1.7743	0.39	1.2570	0.28	0.007	1.54	2.25	0.49	28.30	6.21
13735	446.	0.6247	0.14	1.6311	0.36	0.9716	0.22	0.007	1.57	2.22	0.50	26.33	5.90

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Rat 13732 was moribund sacrificed on day 45 of study; values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B18 (PAGE 16): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS RIGHT ABS. WT.	EPIDIDYMIS RIGHT REL. % TBW	TESTIS RIGHT ABS. WT.	TESTIS RIGHT REL. % TBW	PROSTATE ABS. WT.	PROSTATE REL. % TBW	PITUITARY ABS. WT.	PITUITARY REL. % TBW a	BRAIN ABS. WT.	BRAIN REL. % TBW	LIVER ABS. WT.	LIVER REL. % TBW
DOSAGE GROUP V		30 MG/KG/DAY											
13736	398.	0.6535	0.16	1.7745	0.44	1.1293	0.28	0.010	2.51	1.95	0.49	26.04	6.54
13737	385.	0.6117	0.16	1.7991	0.47	0.6582	0.17	0.009	2.34	2.09	0.54	25.32	6.58
13738	475.	0.7239	0.15	1.9556	0.41	0.9491	0.20	0.012	2.53	2.25	0.47	27.00	5.68
13739	374.	0.6380	0.17	1.7722	0.47	0.6872	0.18	0.015	4.01	2.16	0.58	23.10	6.18
13740	497.	0.6731	0.14	1.8953	0.38	1.0956	0.22	0.010	2.01	2.47	0.50	29.12	5.86
13741	358.	0.3794b	0.10	0.8606b	0.24	0.5990	0.17	0.007	1.96	2.18	0.61	27.33	7.63
13742	345.	0.6017	0.17	1.5535	0.45	0.7266	0.21	0.007	2.03	2.06	0.60	25.57	7.41
13743	401.	0.6511	0.16	1.7824	0.44	0.8984	0.22	0.008	2.00	2.27	0.57	23.40	5.84
13744	394.	0.6378	0.16	1.8145	0.46	0.7553	0.19	0.012	3.04	2.25	0.57	24.04	6.10
13745	413.	0.5834	0.14	1.7338	0.42	0.8432	0.20	0.009	2.18	2.32	0.56	29.53	7.15
13746	438.	0.6752	0.15	1.6953	0.39	0.8258	0.19	0.015	3.42	2.20	0.50	28.24	6.45
13747	321.	0.6142	0.19	1.8456	0.57	0.5597	0.17	0.016	4.98	1.88	0.58	23.29	7.26
13748	570.	0.7365	0.13	2.0122	0.35	1.0400	0.18	0.013	2.28	2.28	0.40	31.63	5.55
13749	469.	0.7260	0.15	1.8831	0.40	0.8505	0.18	0.011	2.34	2.27	0.48	27.03	5.76
13750	449.	0.6502	0.14	1.7065	0.38	0.8981	0.20	0.013	2.90	2.04	0.45	25.92	5.77

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Rat 13741 had small and flaccid epididymides and testes. See the individual necropsy observations table (Table B16).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B18 (PAGE 17): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT		SPLEEN		THYMUS	
		ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW
DOSAGE GROUP V			30 MG/KG/DAY										
13721	511.	2.04	0.40	2.19	0.43	0.035	6.85	0.040	7.83	0.76	0.15	0.36	0.07
13722	452.	1.97	0.44	2.19	0.48	0.035	7.74	0.035	7.74	0.80	0.18	0.49	0.11
13723	321.	1.96	0.61	1.94	0.60	0.033	10.28	0.028	8.72	0.72	0.22	0.37	0.12
13724	378.	2.05	0.54	2.01	0.53	0.042	11.11	0.037	9.79	0.79	0.21	0.49	0.13
13725	361.	1.65	0.46	1.73	0.48	0.028	7.76	0.026	7.20	0.45	0.12	0.20	0.06
13726	465.	2.21	0.48	2.20	0.47	0.029	6.24	0.039	8.39	0.93	0.20	0.51	0.11
13727	443.	2.08	0.47	2.16	0.49	0.026	5.87	0.024	5.42	0.75	0.17	0.28	0.06
13728	418.	1.89	0.45	1.94	0.46	0.028	6.70	0.025	5.98	0.67	0.16	0.25	0.06
13729	439.	2.13	0.48	2.05b	0.47	0.020	4.56	0.014	3.19	0.52	0.12	0.25	0.06
13730	522.	2.44	0.47	2.45	0.47	0.035	6.70	0.031	5.94	0.70	0.13	0.38	0.07
13731	468.	2.02	0.43	2.05	0.44	0.028	5.98	0.026	5.56	0.57	0.12	0.18	0.04
13732c	----	1.22	----	1.25	----	0.026	----	0.026	----	0.13	----	0.12	----
13733	554.	2.19	0.40	2.31d	0.42	0.032	5.78	0.035	6.32	0.94	0.17	0.28	0.05
13734	456.	2.22	0.49	2.30	0.50	0.022	4.82	0.023	5.04	0.69	0.15	0.32	0.07
13735	446.	2.06	0.46	2.23	0.50	0.030	6.73	0.014	3.14	0.97	0.22	0.40	0.09

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.
b. Rat 13729 had slight dilation of the pelvis of the right kidney. See the individual necropsy observations table (Table B16).
c. Rat 13732 was moribund sacrificed on day 45 of study; values excluded from group averages and statistical analyses.
d. Rat 13733 had slight dilation of the pelvis of the right kidney. See the individual necropsy observations table (Table B16).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B18 (PAGE 18): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	KIDNEY LEFT ABS. WT.	KIDNEY LEFT REL. % TBW	KIDNEY RIGHT ABS. WT.	KIDNEY RIGHT REL. % TBW	ADRENAL LEFT ABS. WT.	ADRENAL LEFT REL. % TBW a	ADRENAL RIGHT ABS. WT.	ADRENAL RIGHT REL. % TBW a	SPLEEN ABS. WT.	SPLEEN REL. % TBW	THYMUS ABS. WT.	THYMUS REL. % TBW
DOSAGE GROUP V		30 MG/KG/DAY											
13736	398.	1.85	0.46	1.99	0.50	0.030	7.54	0.023	5.78	0.72	0.18	0.28	0.07
13737	385.	1.73	0.45	1.79	0.46	0.021	5.45	0.017	4.42	0.65	0.17	0.20	0.05
13738	475.	1.98	0.42	1.95	0.41	0.037	7.79	0.032	6.74	0.73	0.15	0.32	0.07
13739	374.	1.95	0.52	2.01	0.54	0.026	6.95	0.025	6.68	0.69	0.18	0.25	0.07
13740	497.	1.98	0.40	2.15	0.43	0.024	4.83	0.027	5.43	0.80	0.16	0.27	0.05
13741	358.	1.82	0.51	2.02	0.56	0.009	2.51	0.014	3.91	0.42	0.12	0.20	0.06
13742	345.	1.60	0.46	1.64	0.48	0.027	7.83	0.029	8.40	0.86	0.25	0.17	0.05
13743	401.	1.87	0.47	1.93	0.48	0.020	4.99	0.026	6.48	0.62	0.15	0.20	0.05
13744	394.	1.80	0.46	1.94	0.49	0.029	7.36	0.028	7.11	0.58	0.15	0.29	0.07
13745	413.	1.92	0.46	2.07	0.50	0.026	6.30	0.026	6.30	0.73	0.18	0.28	0.07
13746	438.	2.27	0.52	2.20	0.50	0.028	6.39	0.025	5.71	0.74	0.17	0.35	0.08
13747	321.	1.89	0.59	1.93	0.60	0.031	9.66	0.020	6.23	0.51	0.16	0.27	0.08
13748	570.	2.20	0.38	2.43	0.43	0.032	5.61	0.030	5.26	1.09	0.19	0.38	0.07
13749	469.	1.79	0.38	1.78	0.38	0.029	6.18	0.028	5.97	0.87	0.18	0.29	0.06
13750	449.	2.07	0.46	2.04	0.45	0.021	4.68	0.020	4.45	1.06	0.24	0.27	0.06

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.
a. Value was multiplied by 1000.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B19 (PAGE 1): BRAIN WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS LEFT ABS. WT.	EPIDIDYMIS LEFT REL. % BRW	CAUDA EPIDIDYMIS LEFT ABS. WT.	CAUDA EPIDIDYMIS LEFT REL. % BRW	TESTIS LEFT ABS. WT.	TESTIS LEFT REL. % BRW	L. TESTIS MINUS TUNICA ALBUGINEA ABS. WT.	L. TESTIS MINUS TUNICA ALBUGINEA REL. % BRW	SEMINAL VESICLES WITH FLUID ABS. WT.	SEMINAL VESICLES WITH FLUID REL. % BRW	SEMINAL VESICLES WITHOUT FLUID ABS. WT.	SEMINAL VESICLES WITHOUT FLUID REL. % BRW
DOSAGE GROUP I		0 MG/KG/DAY											
13601	2.36	0.6756	28.63	0.2966	12.57	1.5259	64.66	1.2920	54.74	1.3897	58.88	0.9914	42.01
13602	2.38	0.6786	28.51	0.3086	12.97	1.6647	69.94	1.5221	63.95	2.2138	93.02	1.2279	51.59
13603	2.19	0.7340	33.52	0.3341	15.26	1.7979	82.10	1.6608	75.84	2.2003	100.47	1.3738	62.73
13604	2.40	0.7152	29.80	0.3136	13.07	1.9262	80.26	1.7009	70.87	1.6708	69.62	1.1445	47.69
13605	2.22	0.7034	31.68	0.3543	15.96	1.8636	83.94	1.7079	76.93	2.1486	96.78	1.1320	50.99
13606	2.24	0.7420	33.12	0.3611	16.12	1.8832	84.07	1.7583	78.50	1.7423a	77.78a	1.2432	55.50
13607	2.35	0.6822	29.03	0.3203	13.63	1.8506	78.75	1.7435	74.19	2.1930	93.32	1.0702	45.54
13608	2.33	0.7947	34.11	0.3453	14.82	1.8574	79.72	1.7354	74.48	2.1517	92.35	1.2132	52.07
13609	2.11	0.5497	26.05	0.2145	10.16	1.6417	77.80	1.4397	68.23	2.6536	125.76	1.4047	66.57
13610	1.86	0.6732	36.19	0.2883	15.50	1.5787	84.88	1.4846	79.82	2.7678	148.81	1.3165	70.78
13611	2.32	0.6526	28.13	0.3271	14.10	1.7823	76.82	1.6617	71.62	2.1404	92.26	1.1786	50.80
13612	2.11	0.6830	32.37	0.2887	13.68	1.7653	83.66	1.6275	77.13	2.4939	118.19	1.3161	62.37
13613	2.51	0.6764	26.95	0.3010	11.99	1.7861	71.16	1.6113	64.20	1.9469	77.56	1.3192	52.56
13614	2.19	0.6695	30.57	0.2733	12.48	1.5910	72.65	1.4794	67.55	2.2970	104.88	1.0604	48.42
13615	2.25	0.7240	32.18	0.3652	16.23	1.9534	86.82	1.8326	81.45	2.5074	111.44	1.4403	64.01
13616	2.52	0.7570	30.04	0.3567	14.15	1.9754	78.39	1.8243	72.39	2.5305	100.42	1.3395	53.15
13617	2.52	0.7783	30.88	0.3479	13.80	1.7610	69.88	1.6507	65.50	2.1888	86.86	1.2973	51.48
13618	2.27	0.7269	32.02	0.3458	15.23	1.8719	82.46	1.7273	76.09	2.3224	102.31	1.3218	58.23
13619	2.33	0.7967	34.19	0.3973	17.05	1.9766	84.83	1.8446	79.17	2.6549	113.94	1.5503	66.54
13620	2.21	0.7542	34.13	0.3459	15.65	1.8314	82.87	1.7046	77.13	2.1074	95.36	1.0458	47.32
13621	2.15	0.6623	30.80	0.3287	15.29	1.6391	76.24	1.5212	70.75	2.4345	113.23	1.3000	60.46
13622	2.22	0.7321	32.98	0.3161	14.24	1.7766	80.03	1.6795	75.65	2.2753	102.49	1.2186	54.89
13623	2.45	0.7364	30.06	0.3896	15.90	1.6860	68.82	1.5789	64.44	2.0262	82.70	1.1769	48.04
13624	1.83	0.7481	40.88	0.3361	18.37	1.8174	99.31	1.6876	92.22	1.8379	100.43	0.9276	50.69
13625	2.25b	0.7424	33.00	0.2999	13.33	1.7695	78.64	1.6738	74.39	2.9931	133.03	1.3586	60.38
13626	2.33	0.8408	36.08	0.3786	16.25	1.9527	83.81	1.8342	78.72	2.6403	113.32	1.4879	63.86
13627	2.17	0.7204	33.20	0.3192	14.71	1.6706	76.99	1.5585	71.82	2.4498	112.89	1.3752	63.37
13628	2.10	0.7515	35.78	0.3760	17.90	1.8851	89.77	1.7864	85.07	2.6437	125.89	1.5575	74.17
13629	2.10	0.6810	32.43	0.3307	15.75	1.6630	79.19	1.5519	73.90	2.3510	111.95	1.3665	65.07
13630	2.43	0.8494	34.95	0.3993	16.43	2.1140	87.00	1.9567	80.52	2.0128	82.83	1.3021	53.58

ALL WEIGHTS WERE RECORDED IN GRAMS. ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Damaged during processing (some fluid loss prior to weighing); values excluded from group averages and statistical analyses.

b. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B19 (PAGE 2): BRAIN WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS RIGHT		TESTIS RIGHT		PROSTATE		PITUITARY		LIVER		KIDNEY LEFT	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
DOSAGE GROUP I		0 MG/KG/DAY											
13601	2.36	0.6727	28.50	1.5705	66.55	0.9769	41.39	0.016	0.68	23.61	1000.42	2.17	91.95
13602	2.38	0.6538	27.47	1.5701	65.97	1.0477	44.02	0.014	0.59	22.78	957.14	2.55	107.14
13603	2.19	0.7422	33.89	1.8434	84.17	1.1461	52.33	0.012	0.55	18.43	841.55	1.90	86.76
13604	2.40	0.7242	30.18	1.8830	78.46	1.2982	54.09	0.016	0.67	20.30	845.83	2.33	97.08
13605	2.22	0.7013	31.59	1.8294	82.40	0.8545	38.49	0.014	0.63	15.86	714.41	2.26	101.80
13606	2.24	0.7714	34.44	1.9176	85.61	1.2630	56.38	0.009	0.40	22.82	1018.75	2.25	100.45
13607	2.35	0.6884	29.29	1.8831	80.13	1.4560	61.96	0.014	0.60	18.53	788.51	2.17	92.34
13608	2.33	0.7813	33.53	1.9010	81.59	1.3797	59.21	0.015	0.64	19.26	826.61	2.12	90.99
13609	2.11	0.6624	31.39	2.3432	111.05	1.2521	59.34	0.029	1.37	23.25	1101.90	2.33	110.43
13610	1.86	0.6645	35.72	1.5825	85.08	1.1033	59.32	0.017	0.91	22.41	1204.84	2.31	124.19
13611	2.32	0.6452	27.81	1.8363	79.15	1.1326	48.82	0.018	0.78	22.68	977.59	2.47	106.46
13612	2.11	0.7042	33.37	1.8260	86.54	1.0173	48.21	0.012	0.57	17.03	807.11	2.18	103.32
13613	2.51	0.6920	27.57	1.8150	72.31	1.2060	48.05	0.013	0.52	21.60	860.56	2.50	99.60
13614	2.19	0.6590	30.09	1.5240	69.59	1.2564	57.37	0.016	0.73	20.68	944.29	2.53	115.52
13615	2.25	0.7307	32.48	1.9427	86.34	1.0383	46.15	0.012	0.53	20.97	932.00	1.85	82.22
13616	2.52	0.7448	29.56	1.9684	78.11	0.9796	38.87	0.015	0.60	25.02	992.86	2.58	102.38
13617	2.52	0.8023	31.84	1.7778	70.55	1.0554	41.88	0.013	0.52	16.93	671.82	1.92	76.19
13618	2.27	0.6947	30.60	1.7963	79.13	1.0403	45.83	0.008	0.35	19.31	850.66	1.99	87.66
13619	2.33	0.8216	35.26	2.0150	86.48	1.1757	50.46	0.016	0.69	21.32	915.02	2.09	89.70
13620	2.21	0.6324	28.62	1.7662	79.92	1.3352	60.42	0.014	0.63	20.80	941.18	2.02	91.40
13621	2.15	0.6737	31.33	1.7174	79.88	1.1837	55.06	0.012	0.56	16.17	752.09	2.15	100.00
13622	2.22	0.6907	31.11	1.6943	76.32	1.2359	55.67	0.009	0.40	18.88	850.45	2.30	103.60
13623	2.45	0.7404	30.22	1.7379	70.93	1.2678	51.75	0.015	0.61	19.31	788.16	2.10	85.71
13624	1.83	0.7047	38.51	1.8086	98.83	0.9132	49.90	0.011	0.60	18.10	989.07	2.11	115.30
13625	2.25a	0.7624	33.88	1.7619	78.31	1.1731	52.14	0.014	0.62	19.76	878.22	1.99	88.44
13626	2.33	0.8685	37.27	1.9505	83.71	1.6005	68.69	0.018	0.77	24.67	1058.80	2.28	97.85
13627	2.17	0.7318	33.72	1.6434	75.73	1.1031	50.83	0.011	0.51	17.86	823.04	2.09	96.31
13628	2.10	0.7165	34.12	1.8347	87.37	0.8151	38.81	0.012	0.57	22.09	1051.90	2.08	99.05
13629	2.10	0.6744	32.11	1.6857	80.27	1.0534	50.16	0.011	0.52	18.41	876.67	2.03	96.67
13630	2.43	0.8078	33.24	2.0934	86.15	0.7730	31.81	0.014	0.58	20.24	832.92	2.07	85.18

ALL WEIGHTS WERE RECORDED IN GRAMS. ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B19 (PAGE 3): BRAIN WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	BRAIN WEIGHT	KIDNEY RIGHT ABS. WT.	KIDNEY RIGHT REL. % BRW	ADRENAL LEFT ABS. WT.	ADRENAL LEFT REL. % BRW	ADRENAL RIGHT ABS. WT.	ADRENAL RIGHT REL. % BRW	SPLEEN ABS. WT.	SPLEEN REL. % BRW	THYMUS ABS. WT.	THYMUS REL. % BRW
DOSAGE GROUP I		0 MG/KG/DAY									
13601	2.36	2.19	92.80	0.030	1.27	0.031	1.31	0.75	31.78	0.38	16.10
13602	2.38	2.55	107.14	0.032	1.34	0.035	1.47	0.96	40.34	0.63	26.47
13603	2.19	1.96	89.50	0.031	1.42	0.026	1.19	0.69	31.51	0.38	17.35
13604	2.40	2.28	95.00	0.026	1.08	0.033	1.38	1.11	46.25	0.69	28.75
13605	2.22	2.25	101.35	0.029	1.31	0.028	1.26	1.00	45.04	0.45	20.27
13606	2.24	2.39	106.70	0.044	1.96	0.039	1.74	1.20	53.57	0.55	24.55
13607	2.35	2.14	91.06	0.046	1.96	0.021	0.89	0.83	35.32	0.41	17.45
13608	2.33	2.15	92.27	0.031	1.33	0.033	1.42	0.90	38.63	0.52	22.32
13609	2.11	2.43	115.16	0.031	1.47	0.029	1.37	1.04	49.29	0.42	19.90
13610	1.86	2.29	123.12	0.028	1.50	0.028	1.50	0.76	40.86	0.32	17.20
13611	2.32	2.38	102.59	0.035	1.51	0.038	1.64	0.94	40.52	0.29	12.50
13612	2.11	2.21	104.74	0.033	1.56	0.032	1.52	0.79	37.44	0.34	16.11
13613	2.51	2.32	92.43	0.029	1.16	0.033	1.31	0.98	39.04	0.49	19.52
13614	2.19	2.31	105.48	0.028	1.28	0.027	1.23	0.98	44.75	0.49	22.37
13615	2.25	2.03	90.22	0.035	1.56	0.039	1.73	1.01	44.89	0.40	17.78
13616	2.52	2.61	103.57	0.042	1.67	0.035	1.39	1.26	50.00	0.41	16.27
13617	2.52	2.05	81.35	0.032	1.27	0.031	1.23	1.12	44.44	0.50	19.84
13618	2.27	1.89	83.26	0.032	1.41	0.036	1.58	0.80	35.24	0.32	14.10
13619	2.33	2.03	87.12	0.035	1.50	0.033	1.42	0.93	39.91	0.39	16.74
13620	2.21	1.99	90.04	0.028	1.27	0.029	1.31	1.32	59.73	0.52	23.53
13621	2.15	2.12	98.60	0.027	1.26	0.023	1.07	0.85	39.53	0.40	18.60
13622	2.22	2.20	99.10	0.035	1.58	0.045	2.03	0.68	30.63	0.44	19.82
13623	2.45	2.30	93.88	0.033	1.35	0.031	1.26	0.80	32.65	0.33	13.47
13624	1.83	2.15	117.49	0.027	1.48	0.022	1.20	0.87	47.54	0.57	31.15
13625	2.25a	2.09	92.89	0.027	1.20	0.027	1.20	0.87	38.67	0.31	13.78
13626	2.33	2.34	100.43	0.034	1.46	0.036	1.54	0.96	41.20	0.49	21.03
13627	2.17	2.05	94.47	0.032	1.47	0.036	1.66	0.94	43.32	0.42	19.35
13628	2.10	2.01	95.71	0.035	1.67	0.031	1.48	1.07	50.95	0.50	23.81
13629	2.10	1.99	94.76	0.029	1.38	0.033	1.57	0.68	32.38	0.26	12.38
13630	2.43	2.03	83.54	0.032	1.32	0.028	1.15	0.97	39.92	0.46	18.93

ALL WEIGHTS WERE RECORDED IN GRAMS. ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B19 (PAGE 4): BRAIN WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS LEFT ABS. WT.	EPIDIDYMIS LEFT REL. % BRW	CAUDA EPIDIDYMIS LEFT ABS. WT.	CAUDA EPIDIDYMIS LEFT REL. % BRW	TESTIS LEFT ABS. WT.	TESTIS LEFT REL. % BRW	L. TESTIS MINUS TUNICA ALBUGINEA ABS. WT.	L. TESTIS MINUS TUNICA ALBUGINEA REL. % BRW	SEMINAL VESICLES WITH FLUID ABS. WT.	SEMINAL VESICLES WITH FLUID REL. % BRW	SEMINAL VESICLES WITHOUT FLUID ABS. WT.	SEMINAL VESICLES WITHOUT FLUID REL. % BRW
DOSAGE GROUP II		1 MG/KG/DAY											
13631	2.22	0.6495	29.26	0.2998	13.50	1.6770	75.54	1.5445	69.57	2.4075	108.44	1.5081	67.93
13632	2.34	0.7034	30.06	0.3166	13.53	1.9768	84.48	1.8290	78.16	2.8763	122.92	1.4047	60.03
13633	2.43	0.7044	28.99	0.3546	14.59	1.7819	73.33	1.6458	67.73	3.2227	132.62	1.5709	64.65
13634	2.13	0.7068	33.18	0.3369	15.82	1.8226	85.57	1.6586	77.87	1.6848	79.10	1.1637	54.63
13635	2.07	0.6053	29.24	0.2813	13.59	1.6595	80.17	1.5483	74.80	1.4917	72.06	0.8167	39.45
13636	2.17	0.7697	35.47	0.3525	16.24	1.8739	86.35	1.6712	77.01	2.3337	107.54	1.2939	59.63
13637	2.26	0.7061	31.24	0.3434	15.19	1.6545	73.21	1.5240	67.43	2.5335	112.10	1.3047	57.73
13638	2.43	0.6470	26.62	0.2792	11.49	1.9344	79.60	1.8105	74.51	2.3501	96.71	1.1924	49.07
13639	2.42	0.7020	29.01	0.2951	12.19	2.0283	83.81	1.8573	76.75	2.3202	95.88	1.0796	44.61
13640	2.20	0.7283	33.10	0.3536	16.07	1.8745	85.20	1.7670	80.32	2.6251	119.32	1.3840	62.91
13641	2.26	0.7490	33.14	0.3527	15.61	1.8714	82.80	1.7242	76.29	2.3899	105.75	1.2356	54.67
13642	2.34	0.7241	30.94	0.3150	13.46	1.7279	73.84	1.6227	69.35	2.4003	102.58	1.2870	55.00
13643	2.21	0.7330	33.17	0.3398	15.38	1.9500	88.24	1.8364	83.10	2.5036	113.28	1.2468	56.42
13644	2.44	0.7089	29.05	0.3200	13.11	1.9383	79.44	1.8199	74.59	2.1300	87.30	1.2740	52.21
13645	2.25	0.6784	30.15	0.3183	14.15	1.6234	72.15	1.5062	66.94	2.4119	107.20	1.2195	54.20
13646	2.31	0.6822	29.53	0.3463	14.99	1.6999	73.59	1.5800	68.40	2.0676	89.51	1.1076	47.95
13647	2.25	0.6658	29.59	0.2982	13.25	1.7814	79.17	1.6328	72.57	2.6220	116.53	1.4890	66.18
13648	2.33	0.6317	27.11	0.3064	13.15	1.8391	78.93	1.7159	73.64	2.1504	92.29	1.1768	50.51
13649	2.35	0.6941	29.54	0.3058	13.01	1.7156	73.00	1.6256	69.17	2.2035	93.76	1.1379	48.42
13650	2.32	0.7437	32.06	0.2876	12.40	1.9510	84.09	1.8355	79.12	2.4213	104.37	1.4614	62.99
13651	2.38	0.7134	29.97	0.3282	13.79	1.9750	82.98	1.8339	77.05	2.5200	105.88	1.4917	62.68
13652	2.26	0.7191	31.82	0.3231	14.30	1.7946	79.41	1.6913	74.84	2.4900	110.18	1.2234	54.13
13653	2.37	0.6303	26.59	0.2784	11.75	1.8551	78.27	1.6992	71.70	1.6932	71.44	1.0140	42.78
13654	2.23	0.6840	30.67	0.2935	13.16	1.5110	67.76	1.4044	62.98	2.3628	105.96	1.1243	50.42
13655	2.33	0.8054	34.57	0.3335	14.31	2.1552	92.50	1.9836	85.13	2.8403	121.90	1.4880	63.86
13656	2.31	0.7198	31.16	0.3468	15.01	1.7050	73.81	1.6041	69.44	2.2805	98.72	1.2083	52.31
13657	2.10	0.6277	29.89	0.3055	14.55	1.7519	83.42	1.6518	78.66	2.1178	100.85	1.0602	50.48
13658	2.31	0.6425	27.81	0.2637	11.42	1.5617	67.61	1.4618	63.28	2.1529	93.20	1.1517	49.86
13659	2.17a	0.7407	34.13	0.3172	14.62	1.9318	89.02	1.8052	83.19	2.1495	99.06	1.2183	56.14
13660	2.28	0.7581	33.25	0.3225	14.14	1.6871	74.00	1.5755	69.10	2.2241	97.55	1.2827	56.26

ALL WEIGHTS WERE RECORDED IN GRAMS. ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B19 (PAGE 5): BRAIN WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS RIGHT		TESTIS RIGHT		PROSTATE		PITUITARY		LIVER		KIDNEY LEFT	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
DOSAGE GROUP II		1 MG/KG/DAY											
13631	2.22	0.6184	27.86	1.6665	75.07	1.2524	56.41	0.016	0.72	23.73	1068.92	2.49	112.16
13632	2.34	0.7187	30.71	2.0272	86.63	1.3965	59.68	0.015	0.64	26.29	1123.50	2.97	126.92
13633	2.43	0.7346	30.23	1.8301	75.31	1.1854	48.78	0.020	0.82	20.13	828.40	2.67	109.88
13634	2.13	0.7092	33.30	1.8432	86.54	0.9863	46.30	0.015	0.70	24.69	1159.15	2.79	130.98
13635	2.07	0.6527	31.53	1.7937	86.65	1.1001	53.14	0.010	0.48	23.30	1125.60	2.32	112.08
13636	2.17	0.3677a	16.94	0.8983a	41.40	1.2274	56.56	0.012	0.55	27.55	1269.58	2.73	125.81
13637	2.26	0.7132	31.56	1.6779	74.24	1.1159	49.38	0.016	0.71	25.31	1119.91	2.29	101.33
13638	2.43	0.6219	25.59	1.9129	78.72	1.3568	55.84	0.017	0.70	26.08	1073.25	2.64	108.64
13639	2.42	0.6966	28.78	2.0712	85.59	1.0950	45.25	0.008	0.33	26.73	1104.54	2.72	112.40
13640	2.20	0.6905	31.39	1.9493	88.60	0.9987	45.40	0.017	0.77	32.23	1465.00	2.74	124.54
13641	2.26	0.7322	32.40	1.8401	81.42	0.9751	43.15	0.015	0.66	25.22	1115.93	2.66	117.70
13642	2.34	0.7423	31.72	1.7467	74.64	1.2793	54.67	0.012	0.51	19.48	832.48	2.20	94.02
13643	2.21	0.7523	34.04	2.5181	113.94	1.1153	50.47	0.016	0.72	25.04	1133.03	2.84	128.51
13644	2.44	0.7081	29.02	1.8376	75.31	1.1768	48.23	0.009	0.37	24.65	1010.24	2.58	105.74
13645	2.25	0.6380	28.36	1.5823	70.32	1.0379	46.13	0.019	0.84	23.13	1028.00	2.80	124.44
13646	2.31	0.6909	29.91	1.7069	73.89	1.4184	61.40	0.012	0.52	22.38	968.83	2.68	116.02
13647	2.25	0.6756	30.03	2.6503	117.79	0.6843	30.41	0.013	0.58	25.86	1149.33	2.67	118.67
13648	2.33	0.6579	28.24	1.9075	81.87	1.0489	45.02	0.011	0.47	22.58	969.10	2.41	103.43
13649	2.35	0.6966	29.64	1.6978	72.25	1.4685	62.49	0.015	0.64	29.17	1241.28	2.55	108.51
13650	2.32	0.7426	32.01	2.0238	87.23	1.1363	48.98	0.012	0.52	22.99	990.95	2.22	95.69
13651	2.38	0.7281	30.59	1.9809	83.23	0.8039	33.78	0.013	0.55	22.73	955.04	2.56	107.56
13652	2.26	0.7464	33.03	1.8349	81.19	0.9861	43.63	0.016	0.71	22.86	1011.50	2.55	112.83
13653	2.37	0.6316	26.65	1.7942	75.70	1.1095	46.81	0.010	0.42	17.07	720.25	2.06	86.92
13654	2.23	0.6388	28.64	1.5501	69.51	1.2735	57.11	0.015	0.67	26.32	1180.27	2.22	99.55
13655	2.33	0.7879	33.82	2.1403	91.86	0.9730	41.76	0.014	0.60	29.05	1246.78	2.87	123.18
13656	2.31	0.7250	31.38	1.7659	76.44	1.6851	72.95	0.014	0.61	19.16	829.44	1.89	81.82
13657	2.10	0.6460	30.76	1.7433	83.01	1.1798	56.18	0.013	0.62	23.90	1138.10	2.20	104.76
13658	2.31	0.6287	27.22	1.5591	67.49	0.8826	38.21	0.016	0.69	22.05	954.54	2.20	95.24
13659	2.17b	0.7940	36.59	2.0007	92.20	1.1305	52.10	0.013	0.60	21.10	972.35	2.11	97.24
13660	2.28	0.7865	34.50	1.6440	72.10	1.1982	52.55	0.014	0.61	27.36	1200.00	2.67	117.10

ALL WEIGHTS WERE RECORDED IN GRAMS. ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Rat 13636 had a small and flaccid right epididymis and right testis. See the individual necropsy observations table (Table B16).

b. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B19 (PAGE 6): BRAIN WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	BRAIN WEIGHT	KIDNEY RIGHT ABS. WT.	KIDNEY RIGHT REL. % BRW	ADRENAL LEFT ABS. WT.	ADRENAL LEFT REL. % BRW	ADRENAL RIGHT ABS. WT.	ADRENAL RIGHT REL. % BRW	SPLEEN ABS. WT.	SPLEEN REL. % BRW	THYMUS ABS. WT.	THYMUS REL. % BRW
DOSAGE GROUP II		1 MG/KG/DAY									
13631	2.22	2.48	111.71	0.034	1.53	0.034	1.53	0.95	42.79	0.39	17.57
13632	2.34	2.84	121.37	0.038	1.62	0.038	1.62	0.92	39.32	0.38	16.24
13633	2.43	2.62	107.82	0.032	1.32	0.031	1.28	0.68	27.98	0.26	10.70
13634	2.13	3.00	140.84	0.037	1.74	0.036	1.69	1.06	49.76	0.50	23.47
13635	2.07	2.15	103.86	0.028	1.35	0.028	1.35	0.70	33.82	0.41	19.81
13636	2.17	2.97	136.87	0.029	1.34	0.030	1.38	0.94	43.32	0.52	23.96
13637	2.26	2.36	104.42	0.036	1.59	0.037	1.64	1.05	46.46	0.47	20.80
13638	2.43	2.85	117.28	0.027	1.11	0.022	0.90	0.98	40.33	0.42	17.28
13639	2.42	2.44a	100.83	0.036	1.49	0.029	1.20	0.90	37.19	0.25	10.33
13640	2.20	2.79	126.82	0.037	1.68	0.033	1.50	0.75	34.09	0.29	13.18
13641	2.26	2.57	113.72	0.032	1.42	0.032	1.42	1.02	45.13	0.35	15.49
13642	2.34	2.15	91.88	0.032	1.37	0.031	1.32	1.08	46.15	0.29	12.39
13643	2.21	2.68	121.27	0.034	1.54	0.033	1.49	0.72	32.58	0.45	20.36
13644	2.44	2.71	111.06	0.033	1.35	0.032	1.31	0.75	30.74	0.49	20.08
13645	2.25	2.77	123.11	0.038	1.69	0.036	1.60	1.02	45.33	0.31	13.78
13646	2.31	2.67	115.58	0.026	1.12	0.024	1.04	0.71	30.74	0.32	13.85
13647	2.25	2.70	120.00	0.031	1.38	0.030	1.33	0.95	42.22	0.52	23.11
13648	2.33	2.56	109.87	0.027	1.16	0.026	1.12	0.81	34.76	0.33	14.16
13649	2.35	2.72	115.74	0.032	1.36	0.042	1.79	0.80	34.04	0.44	18.72
13650	2.32	2.36	101.72	0.031	1.34	0.028	1.21	1.01	43.53	0.39	16.81
13651	2.38	2.80	117.65	0.029	1.22	0.025	1.05	0.93	39.08	0.43	18.07
13652	2.26	2.35	103.98	0.033	1.46	0.032	1.42	0.84	37.17	0.30	13.27
13653	2.37	2.30	97.05	0.024	1.01	0.022	0.93	0.74	31.22	0.36	15.19
13654	2.23	2.20	98.65	0.040	1.79	0.041	1.84	0.89	39.91	0.42	18.83
13655	2.33	3.18	136.48	0.027	1.16	0.024	1.03	0.88	37.77	0.36	15.45
13656	2.31	1.92	83.12	0.029	1.26	0.025	1.08	0.72	31.17	0.32	13.85
13657	2.10	2.17	103.33	0.029	1.38	0.032	1.52	0.86	40.95	0.31	14.76
13658	2.31	2.32	100.43	0.036	1.56	0.027	1.17	0.70	30.30	0.43	18.61
13659	2.17b	2.10	96.77	0.030	1.38	0.029	1.34	0.87	40.09	0.31	14.28
13660	2.28	2.63	115.35	0.031	1.36	0.030	1.32	1.01	44.30	0.51	22.37

ALL WEIGHTS WERE RECORDED IN GRAMS. ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Rat 13639 had slight dilation of the pelvis of the right kidney. See the individual necropsy observations table (Table B16).
b. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B19 (PAGE 7): BRAIN WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS LEFT ABS. WT.	EPIDIDYMIS LEFT REL. % BRW	CAUDA EPIDIDYMIS LEFT ABS. WT.	CAUDA EPIDIDYMIS LEFT REL. % BRW	TESTIS LEFT ABS. WT.	TESTIS LEFT REL. % BRW	L. TESTIS MINUS TUNICA ALBUGINEA ABS. WT.	L. TESTIS MINUS TUNICA ALBUGINEA REL. % BRW	SEMINAL VESICLES WITH FLUID ABS. WT.	SEMINAL VESICLES WITH FLUID REL. % BRW	SEMINAL VESICLES WITHOUT FLUID ABS. WT.	SEMINAL VESICLES WITHOUT FLUID REL. % BRW
DOSAGE GROUP III		3 MG/KG/DAY											
13661	2.24	0.6912	30.86	0.3254	14.53	1.9614	87.56	1.7444	77.87	2.8329	126.47	1.4299	63.83
13662	2.11	0.6733	31.91	0.3247	15.39	1.7494	82.91	1.6186	76.71	1.7487	82.88	0.9591	45.45
13663	2.32	0.7359	31.72	0.3684	15.88	1.8987	81.84	1.7604	75.88	2.1959	94.65	1.1255	48.51
13664	2.39	0.6819	28.53	0.3250	13.60	1.8210	76.19	1.7070	71.42	2.3292	97.46	1.2339	51.63
13665	2.40	0.6495	27.06	0.3010	12.54	1.7079	71.16	1.5898	66.24	2.2164	92.35	1.0909	45.45
13666	2.00	0.6823	34.11	0.2923	14.62	1.8632	93.16	1.7270	86.35	2.1344	106.72	1.0447	52.24
13667	2.23	0.6787	30.43	0.3297	14.78	1.6308	73.13	1.5095	67.69	2.1297	95.50	1.2414	55.67
13668	2.13	0.5743	26.96	0.2440	11.46	1.6210	76.10	1.4979	70.32	1.8561	87.14	1.0709	50.28
13669	2.34	0.6734	28.78	0.3213	13.73	1.7453	74.58	1.5993	68.35	2.8444	121.56	1.4370	61.41
13670	2.12	0.7859	37.07	0.3657	17.25	1.8911	89.20	1.7575	82.90	2.8418	134.05	1.4905	70.31
13671	2.36	0.6692	28.36	0.2917	12.36	1.7697	74.99	1.6395	69.47	2.1255	90.06	1.3067	55.37
13672	2.22	0.6250	28.15	0.2759	12.43	1.8034	81.23	1.6454	74.12	2.5020	112.70	1.2914	58.17
13673	2.07	0.6469	31.25	0.2756	13.31	1.6549	79.95	1.5520	74.98	2.3554	113.79	1.2487	60.32
13674	2.36	0.6486	27.48	0.2841	12.04	1.6521	70.00	1.5435	65.40	2.1533	91.24	1.3208	55.97
13675	2.22	0.6728	30.31	0.3345	15.07	1.5921	71.72	1.4762	66.50	1.8019	81.17	1.1959	53.87
13676	2.14	0.7281	34.02	0.3253	15.20	1.9417	90.73	1.8298	85.50	2.3180	108.32	1.3884	64.88
13677	2.31	0.6628	28.69	0.3048	13.19	1.7046	73.79	1.5908	68.86	2.6193	113.39	1.2994	56.25
13678	2.35	0.6807	28.96	0.3119	13.27	1.7415	74.11	1.5851	67.45	2.1396	91.05	1.0874	46.27
13679	2.41	0.7220	29.96	0.3292	13.66	1.7870	74.15	1.6515	68.53	2.7896	115.75	1.5101	62.66
13680	2.29	0.7099	31.00	0.3186	13.91	1.9063	83.24	1.7722	77.39	2.0806	90.86	1.2158	53.09
13681	2.42	0.7653	31.62	0.3366	13.91	2.0456	84.53	1.9325	79.86	2.3093	95.42	1.1777	48.66
13682	2.45	0.7460	30.45	0.3481	14.21	2.0411	83.31	1.9264	78.63	2.5467	103.95	1.3425	54.80
13683	2.19	0.7294	33.30	0.2949	13.46	1.6796	76.69	1.5543	70.97	2.7770	126.80	1.3745	62.76
13684	2.20	0.7152	32.51	0.2938	13.35	1.7144	77.93	1.5779	71.72	2.2227	101.03	1.2772	58.05
13685	2.12	0.6832	32.23	0.3172	14.96	1.8082	85.29	1.6956	79.98	2.6755	126.20	1.5985	75.40
13686	2.30	0.6252	27.18	0.2874	12.50	1.7667	76.81	1.6740	72.78	2.0154	87.63	1.1092	48.23
13687	2.34	0.6735	28.78	0.3194	13.65	1.5957	68.19	1.4880	63.59	2.9111	124.40	1.6056	68.62
13688	2.08	0.7943	38.19	0.3601	17.31	2.0392	98.04	1.9123	91.94	2.2724	109.25	1.2595	60.55
13689	2.27	0.6982	30.76	0.3340	14.71	1.7096	75.31	1.5964	70.32	2.4406	107.52	1.2353	54.42
13690	2.28	0.6794	29.80	0.3048	13.37	1.7594	77.17	1.6408	71.96	2.4640	108.07	1.3996	61.38

ALL WEIGHTS WERE RECORDED IN GRAMS. ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B19 (PAGE 8): BRAIN WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS RIGHT ABS. WT.	EPIDIDYMIS RIGHT REL. % BRW	TESTIS RIGHT ABS. WT.	TESTIS RIGHT REL. % BRW	PROSTATE ABS. WT.	PROSTATE REL. % BRW	PITUITARY ABS. WT.	PITUITARY REL. % BRW	LIVER ABS. WT.	LIVER REL. % BRW	KIDNEY LEFT ABS. WT.	KIDNEY LEFT REL. % BRW
DOSAGE GROUP III		3 MG/KG/DAY											
13661	2.24	0.6942	30.99	1.9170	85.58	1.1744	52.43	0.014	0.62	28.39	1267.41	2.49	111.16
13662	2.11	0.6884	32.62	1.7684	83.81	1.0222	48.44	0.018	0.85	28.59	1354.98	2.50	118.48
13663	2.32	0.7462	32.16	1.9026	82.01	0.9513	41.00	0.008	0.34	26.16	1127.59	2.20	94.83
13664	2.39	0.6483	27.12	1.7742	74.23	1.0531	44.06	0.013	0.54	28.39	1187.87	2.26	94.56
13665	2.40	0.6558	27.32	1.7255	71.90	1.0904	45.43	0.013	0.54	28.78	1199.17	2.36	98.33
13666	2.00	0.7041	35.20	1.9202	96.01	1.2313	61.56	0.010	0.50	24.12	1206.00	2.29	114.50
13667	2.23	0.6941	31.12	1.6840	75.52	1.1857	53.17	0.012	0.54	31.05	1392.38	2.43	108.97
13668	2.13	0.5695	26.74	1.6580	77.84	0.8687	40.78	0.009	0.42	25.21	1183.57	2.39	112.21
13669	2.34	0.7484	31.98	1.8785	80.28	1.3318	56.91	0.013	0.56	29.67	1267.95	2.60	111.11
13670	2.12	0.7844	37.00	1.8798	88.67	1.3966	65.88	0.014	0.66	27.92	1316.98	2.29	108.02
13671	2.36	0.6884	29.17	1.7400	73.73	1.0287	43.59	0.011	0.47	24.03	1018.22	2.47	104.66
13672	2.22	0.6282	28.30	1.7492	78.79	1.1247	50.66	0.011	0.50	26.01	1171.62	2.42	109.01
13673	2.07	0.6464	31.23	1.6550	79.95	0.9881	47.73	0.003	0.14	28.10	1357.49	2.54	122.70
13674	2.36	0.6375	27.01	1.7158	72.70	1.1467	48.59	0.010	0.42	24.17	1024.15	2.48	105.08
13675	2.22	0.6921	31.18	1.5912	71.68	0.9485	42.72	0.014	0.63	28.39	1278.83	2.49	112.16
13676	2.14	0.6965	32.55	1.9457	90.92	0.9484	44.32	0.010	0.47	22.77	1064.02	2.33	108.88
13677	2.31	0.6481	28.06	1.7060	73.85	1.4671	63.51	0.013	0.56	27.65	1196.97	2.78	120.35
13678	2.35	0.6848	29.14	1.7331	73.75	1.2232	52.05	0.011	0.47	26.48	1126.81	2.44	103.83
13679	2.41	0.7450	30.91	1.7974	74.58	1.4973	62.13	0.011	0.46	27.01	1120.75	2.41	100.00
13680	2.29	0.6700	29.26	1.9337	84.44	0.8157	35.62	0.016	0.70	29.45	1286.03	2.57	112.23
13681	2.42	0.7726	31.92	2.0453	84.52	0.9378	38.75	0.010	0.41	29.31	1211.16	2.69	111.16
13682	2.45	0.7609	31.06	2.0193	82.42	1.1773	48.05	0.012	0.49	29.50	1204.08	2.52	102.86
13683	2.19	0.7217	32.95	1.6827	76.84	1.2601	57.54	0.013	0.59	28.45	1299.09	2.44	111.42
13684	2.20	0.7096	32.25	1.7016	77.34	1.1324	51.47	0.009	0.41	22.94	1042.73	2.33	105.91
13685	2.12	0.6926	32.67	1.8110	85.42	1.1725	55.31	0.014	0.66	26.28	1239.62	2.65	125.00
13686	2.30	0.6045	26.28	1.7715	77.02	1.0562	45.92	0.017	0.74	28.94	1258.26	2.76	120.00
13687	2.34	0.7076	30.24	1.5732	67.23	1.0888	46.53	0.013	0.56	29.66	1267.52	2.45	104.70
13688	2.08	0.7951	38.22	2.0475	98.44	0.9953	47.85	0.014	0.67	25.96	1248.08	2.75	132.21
13689	2.27	0.6814	30.02	1.6739	73.74	1.2406	54.65	0.012	0.53	34.16	1504.84	2.88	126.87
13690	2.28	0.6736	29.54	1.7440	76.49	0.9884	43.35	0.016	0.70	33.85a	1484.65	3.19	139.91

ALL WEIGHTS WERE RECORDED IN GRAMS. ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B19 (PAGE 9): BRAIN WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	BRAIN WEIGHT	KIDNEY RIGHT ABS. WT.	KIDNEY RIGHT REL. % BRW	ADRENAL LEFT ABS. WT.	ADRENAL LEFT REL. % BRW	ADRENAL RIGHT ABS. WT.	ADRENAL RIGHT REL. % BRW	SPLEEN ABS. WT.	SPLEEN REL. % BRW	THYMUS ABS. WT.	THYMUS REL. % BRW
DOSAGE GROUP III		3 MG/KG/DAY									
13661	2.24	2.45	109.38	0.038	1.70	0.044	1.96	1.01	45.09	0.34	15.18
13662	2.11	2.45	116.11	0.040	1.90	0.046	2.18	0.89	42.18	0.52	24.64
13663	2.32	2.34	100.86	0.031	1.34	0.034	1.46	0.82	35.34	0.45	19.40
13664	2.39	2.24	93.72	0.033	1.38	0.032	1.34	0.86	35.98	0.49	20.50
13665	2.40	2.50	104.17	0.042	1.75	0.044	1.83	0.74	30.83	0.39	16.25
13666	2.00	2.41	120.50	0.027	1.35	0.026	1.30	1.11	55.50	0.44	22.00
13667	2.23	2.48	111.21	0.026	1.16	0.021	0.94	0.90	40.36	0.50	22.42
13668	2.13	2.49	116.90	0.026	1.22	0.021	0.98	0.75	35.21	0.25	11.74
13669	2.34	2.50	106.84	0.029	1.24	0.021	0.90	0.90	38.46	0.42	17.95
13670	2.12	2.31a	108.96	0.023	1.08	0.021	0.99	0.79	37.26	0.38	17.92
13671	2.36	2.20	93.22	0.034	1.44	0.030	1.27	0.84	35.59	0.24	10.17
13672	2.22	2.23b	100.45	0.029	1.31	0.029	1.31	0.73	32.88	0.36	16.22
13673	2.07	2.60	125.60	0.021	1.01	0.022	1.06	0.91	43.96	0.45	21.74
13674	2.36	2.27	96.19	0.025	1.06	0.034	1.44	0.70	29.66	0.33	13.98
13675	2.22	2.56	115.32	0.025	1.13	0.028	1.26	0.88	39.64	0.53	23.87
13676	2.14	2.37	110.75	0.034	1.59	0.032	1.50	0.76	35.51	0.25	11.68
13677	2.31	2.55	110.39	0.035	1.52	0.027	1.17	0.65	28.14	0.33	14.28
13678	2.35	2.62	111.49	0.032	1.36	0.031	1.32	0.79	33.62	0.35	14.89
13679	2.41	2.67	110.79	0.042	1.74	0.034	1.41	0.77	31.95	0.50	20.75
13680	2.29	2.56	111.79	0.026	1.14	0.025	1.09	1.05	45.85	0.21	9.17
13681	2.42	2.66	109.92	0.027	1.12	0.029	1.20	0.97	40.08	0.30	12.40
13682	2.45	2.62	106.94	0.023	0.94	0.024	0.98	0.93	37.96	0.46	18.78
13683	2.19	2.33	106.39	0.025	1.14	0.045	2.05	0.82	37.44	0.53	24.20
13684	2.20	2.34	106.36	0.029	1.32	0.030	1.36	0.85	38.64	0.40	18.18
13685	2.12	2.58	121.70	0.021	0.99	0.019	0.90	0.82	38.68	0.24	11.32
13686	2.30	2.75	119.56	0.030	1.30	0.026	1.13	0.77	33.48	0.29	12.61
13687	2.34	2.43	103.85	0.029	1.24	0.025	1.07	0.91	38.89	0.27	11.54
13688	2.08	2.55	122.60	0.031	1.49	0.031	1.49	1.02	49.04	0.49	23.56
13689	2.27	2.82	124.23	0.029	1.28	0.022	0.97	1.07	47.14	0.39	17.18
13690	2.28	3.03	132.89	0.044	1.93	0.043	1.88	0.96	42.10	0.43	18.86

ALL WEIGHTS WERE RECORDED IN GRAMS. ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Rat 13670 had moderate dilation of the pelvis of the right kidney. See the individual necropsy observations table (Table B16).
b. Rat 13672 had slight dilation of the pelvis of the right kidney. See the individual necropsy observations table (Table B16).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B19 (PAGE 10): BRAIN WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS LEFT ABS. WT.	EPIDIDYMIS LEFT REL. % BRW	CAUDA EPIDIDYMIS LEFT ABS. WT.	CAUDA EPIDIDYMIS LEFT REL. % BRW	TESTIS LEFT ABS. WT.	TESTIS LEFT REL. % BRW	L. TESTIS MINUS TUNICA ALBUGINEA ABS. WT.	L. TESTIS MINUS TUNICA ALBUGINEA REL. % BRW	SEMINAL VESICLES WITH FLUID ABS. WT.	SEMINAL VESICLES WITH FLUID REL. % BRW	SEMINAL VESICLES WITHOUT FLUID ABS. WT.	SEMINAL VESICLES WITHOUT FLUID REL. % BRW
DOSAGE GROUP IV		10 MG/KG/DAY											
13691	2.31	0.6510	28.18	0.2903	12.57	1.7748	76.83	1.6126	69.81	1.8099	78.35	1.1447	49.55
13692	2.35	0.7089	30.16	0.3304	14.06	1.8786	79.94	1.7780	75.66	2.3515	100.06	1.0306	43.86
13693	2.09	0.6386	30.56	0.2740	13.11	1.8515	88.59	1.7107	81.85	1.7267a	82.62a	1.0523	50.35
13694	2.11	0.7488	35.49	0.3793	17.98	1.6795	79.60	1.5725	74.53	2.4684	116.98	1.5301	72.52
13695	2.05	0.6307	30.76	0.2689	13.12	1.6411	80.05	1.5376	75.00	1.9912	97.13	1.2054	58.80
13696	2.25	0.6652	29.56	0.3142	13.96	1.9205	85.36	1.7789	79.06	2.0129	89.46	1.1453	50.90
13697	2.26	0.7278	32.20	0.3255	14.40	1.8740	82.92	1.7521	77.53	2.2800	100.88	1.2851	56.86
13698	2.35	0.7380	31.40	0.3381	14.39	2.0329	86.51	1.9220	81.79	2.6892	114.43	1.3437	57.18
13699	2.28	0.6450	28.29	0.2780	12.19	1.7274	75.76	1.5993	70.14	2.2776	99.89	1.2605	55.28
13700	2.46	0.7382	30.01	0.3455	14.04	1.8932	76.96	1.7207	69.95	2.4079	97.88	1.2589	51.17
13701	2.26	0.6860	30.35	0.2982	13.19	1.7259	76.37	1.5848	70.12	1.9875	87.94	1.0487	46.40
13702	2.05	0.7634	37.24	0.3364	16.41	1.8769	91.56	1.7673	86.21	2.3722	115.72	1.3402	65.38
13703	2.37	0.7196	30.36	0.3232	13.64	1.7387	73.36	1.6197	68.34	2.4935	105.21	1.5376	64.88
13704	2.38	0.7761	32.61	0.3537	14.86	1.8951	79.63	1.7609	73.99	2.3446	98.51	1.3177	55.36
13705	2.32	0.6684	28.81	0.2734	11.78	1.8277	78.78	1.6738	72.15	1.4559b	62.75b	1.0436	44.98
13706	2.45	0.7169	29.26	0.3511	14.33	1.8320	74.78	1.7076	69.70	2.3625	96.43	1.3581	55.43
13707	2.07	0.7793	37.65	0.3728	18.01	1.6347	78.97	1.5384	74.32	2.7172	131.26	1.4232	68.75
13708	2.13	0.7390	34.69	0.3343	15.69	1.8899	88.73	1.7878	83.93	2.6176	122.89	1.4343	67.34
13709	2.33	0.6284	26.97	0.2894	12.42	1.6529	70.94	1.5406	66.12	2.5577	109.77	1.4163	60.78
13710	2.21	0.6303	28.52	0.2903	13.14	1.8617	84.24	1.7607	79.67	2.1083	95.40	1.0055	45.50
13711	2.16	0.6687	30.96	0.3095	14.33	1.6931	78.38	1.5997	74.06	2.1691	100.42	1.1139	51.57
13712	2.34	0.6542	27.96	0.2903	12.40	1.8646	79.68	1.7482	74.71	2.0146	86.09	1.0707	45.76
13713	2.10	0.6660	31.71	0.3171	15.10	1.7775	84.64	1.6482	78.48	2.1117	100.56	1.1951	56.91
13714	2.17	0.7452	34.34	0.3291	15.16	1.8785	86.57	1.7562	80.93	2.7024	124.53	1.3951	64.29
13715	2.22	0.6832	30.77	0.2975	13.40	1.7745	79.93	1.6450	74.10	2.2975	103.49	1.1581	52.17
13716	2.25	0.7514	33.40	0.3387	15.05	2.0020	88.98	1.8087	80.39	2.3873	106.10	1.2017	53.41
13717	2.43	0.7523	30.96	0.3543	14.58	1.8418	75.79	1.7492	71.98	2.4171	99.47	1.3391	55.11
13718	2.18	0.7349	33.71	0.3363	15.43	1.8380	84.31	1.7356	79.61	2.3115	106.03	1.2358	56.69
13719	2.21	0.7209	32.62	0.3571	16.16	1.8179	82.26	1.6798	76.01	2.7956	126.50	1.5191	68.74
13720	2.15	0.7415	34.49	0.3476	16.17	1.8847	87.66	1.7681	82.24	2.9170	135.67	1.5807	73.52

ALL WEIGHTS WERE RECORDED IN GRAMS. ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Damaged during processing (some fluid loss prior to weighing); values excluded from group averages and statistical analyses.

b. Damaged during processing (weight affected); values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B19 (PAGE 11): BRAIN WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS RIGHT		TESTIS RIGHT		PROSTATE		PITUITARY		LIVER		KIDNEY LEFT	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
DOSAGE GROUP IV		10 MG/KG/DAY											
13691	2.31	0.6462	27.97	1.6959	73.42	1.1002	47.63	0.009	0.39	30.43	1317.32	2.23	96.54
13692	2.35	0.6514	27.72	1.8472	78.60	0.6953	29.59	0.013	0.55	27.20	1157.45	2.42	102.98
13693	2.09	0.4308	20.61	1.5803	75.61	0.9426	45.10	0.014	0.67	30.49	1458.85	2.34	111.96
13694	2.11	0.7073	33.52	1.5982	75.74	0.8671	41.09	0.012	0.57	28.77	1363.51	2.75	130.33
13695	2.05	0.6242	30.45	1.5583	76.01	1.1675	56.95	0.016	0.78	30.35	1480.49	2.29	111.71
13696	2.25	0.6590	29.29	1.9059	84.71	1.1603	51.57	0.019	0.84	29.83	1325.78	2.99	132.89
13697	2.26	0.7200	31.86	1.8881	83.54	1.1685	51.70	0.013	0.58	28.85	1276.55	2.16	95.58
13698	2.35	0.7592	32.31	2.0050	85.32	1.2923	54.99	0.008	0.34	27.33	1162.98	2.61	111.06
13699	2.28	0.6287	27.57	1.6871	74.00	1.2763	55.98	0.015	0.66	19.75	866.23	2.11	92.54
13700	2.46	0.7246	29.46	1.9501	79.27	0.8127	33.04	0.014	0.57	31.22	1269.10	2.37	96.34
13701	2.26	0.6728	29.77	1.7611	77.92	0.9267	41.00	0.017	0.75	22.78	1007.96	2.03	89.82
13702	2.05	0.7257	35.40	1.8833	91.87	0.9056	44.18	0.012	0.58	23.84	1162.93	2.05	100.00
13703	2.37	0.7072	29.84	1.7711	74.73	1.2401	52.32	0.019	0.80	31.22	1317.30	2.52	106.33
13704	2.38	0.7933	33.33	1.9822	83.28	1.4428	60.62	0.020	0.84	36.32	1526.05	2.61	109.66
13705	2.32	0.6890	29.70	1.8191	78.41	1.0972	47.29	0.010	0.43	35.62	1535.34	2.45	105.60
13706	2.45	0.3207a	13.09	0.8699a	35.51	1.1747	47.95	0.011	0.45	29.09	1187.35	2.17	88.57
13707	2.07	0.7579	36.61	1.6624	80.31	1.2753	61.61	0.011	0.53	29.42	1421.26	2.50	120.77
13708	2.13	0.7502	35.22	1.9331	90.76	0.8310	39.01	0.015	0.70	32.27	1515.02	2.42	113.62
13709	2.33	0.6525	28.00	1.6711	71.72	1.0523	45.16	0.017	0.73	25.48	1093.56	2.19	93.99
13710	2.21	0.6630	30.00	1.8448	83.48	0.7736	35.00	0.019	0.86	24.32	1100.45	2.08	94.12
13711	2.16	0.6400	29.63	1.6398	75.92	0.9264	42.89	0.012	0.56	22.43	1038.43	1.87	86.57
13712	2.34	0.6336	27.08	1.8443	78.82	0.8620	36.84	0.011	0.47	24.75	1057.69	2.03	86.75
13713	2.10	0.6594	31.40	1.7083	81.35	1.1091	52.81	0.014	0.67	31.60	1504.76	2.18	103.81
13714	2.17	0.7495	34.54	1.8709	86.22	1.0910	50.28	0.011	0.51	26.03	1199.54	2.38	109.68
13715	2.22	0.6537	29.44	1.7351	78.16	1.2177	54.85	0.015	0.68	34.10	1536.04	2.39	107.66
13716	2.25	0.7396	32.87	2.0528	91.24	1.0765	47.84	0.013	0.58	28.78	1279.11	2.49	110.67
13717	2.43	0.7265	29.90	1.7853	73.47	1.0506	43.23	0.018	0.74	27.61	1136.21	2.37	97.53
13718	2.18	0.7409	33.99	1.8402	84.41	0.6135	28.14	0.018	0.82	28.62	1312.84	2.42	111.01
13719	2.21	0.7150	32.35	1.7551	79.42	0.7355	33.28	0.013	0.59	32.24	1458.82	2.31	104.52
13720	2.15	0.7717	35.89	1.8332	85.26	1.2191	56.70	0.009	0.42	31.49	1464.65	2.48	115.35

ALL WEIGHTS WERE RECORDED IN GRAMS. ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Rat 13706 had a small and flaccid right epididymis and right testis. See the individual necropsy observations table (Table B16).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B19 (PAGE 12): BRAIN WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	BRAIN WEIGHT	KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT		SPLEEN		THYMUS	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
DOSAGE GROUP IV		10 MG/KG/DAY									
13691	2.31	2.27	98.27	0.018	0.78	0.043	1.86	1.01	43.72	0.61	26.41
13692	2.35	2.31	98.30	0.026	1.11	0.029	1.23	0.83	35.32	0.55	23.40
13693	2.09	2.37	113.40	0.036	1.72	0.038	1.82	0.97	46.41	0.77	36.84
13694	2.11	3.01	142.65	0.025	1.18	0.037	1.75	0.81	38.39	0.50	23.70
13695	2.05	2.34	114.15	0.028	1.36	0.030	1.46	0.79	38.54	0.40	19.51
13696	2.25	2.82	125.33	0.035	1.56	0.033	1.47	1.04	46.22	0.54	24.00
13697	2.26	2.16	95.58	0.032	1.42	0.033	1.46	0.90	39.82	0.50	22.12
13698	2.35	2.63	111.91	0.034	1.45	0.040	1.70	0.82	34.89	0.52	22.13
13699	2.28	2.09	91.67	0.019	0.83	0.016	0.70	0.81	35.53	0.42	18.42
13700	2.46	2.40	97.56	0.030	1.22	0.030	1.22	0.99	40.24	0.44	17.89
13701	2.26	2.01	88.94	0.022	0.97	0.021	0.93	0.71	31.42	0.26	11.50
13702	2.05	2.10	102.44	0.028	1.36	0.024	1.17	0.84	40.98	0.27	13.17
13703	2.37	2.38	100.42	0.043	1.81	0.034	1.43	0.95	40.08	0.31	13.08
13704	2.38	2.64	110.92	0.036	1.51	0.030	1.26	1.15	48.32	0.56	23.53
13705	2.32	2.51	108.19	0.033	1.42	0.026	1.12	0.90	38.79	0.54	23.28
13706	2.45	2.46	100.41	0.031	1.26	0.026	1.06	0.79	32.24	0.38	15.51
13707	2.07	2.47	119.32	0.032	1.54	0.030	1.45	0.79	38.16	0.40	19.32
13708	2.13	2.57	120.66	0.038	1.78	0.038	1.78	0.76	35.68	0.34	15.96
13709	2.33	2.20	94.42	0.031	1.33	0.019	0.82	0.74	31.76	0.28	12.02
13710	2.21	2.17	98.19	0.029	1.31	0.025	1.13	0.66	29.86	0.40	18.10
13711	2.16	1.92	88.89	0.028	1.30	0.039	1.80	0.83	38.42	0.50	23.15
13712	2.34	2.04	87.18	0.030	1.28	0.033	1.41	1.11	47.44	0.36	15.38
13713	2.10	2.15	102.38	0.025	1.19	0.027	1.28	0.72	34.28	0.26	12.38
13714	2.17	2.13	98.16	0.026	1.20	0.051	2.35	0.52	23.96	0.18	8.29
13715	2.22	2.45	110.36	0.035	1.58	0.033	1.49	0.98	44.14	0.29	13.06
13716	2.25	2.60	115.56	0.028	1.24	0.026	1.16	0.79	35.11	0.24	10.67
13717	2.43	2.38a	97.94	0.030	1.23	0.032	1.32	0.87	35.80	0.39	16.05
13718	2.18	2.33	106.88	0.037	1.70	0.033	1.51	0.93	42.66	0.25	11.47
13719	2.21	2.42	109.50	0.033	1.49	0.037	1.67	1.10	49.77	0.47	21.27
13720	2.15	2.56	119.07	0.022	1.02	0.026	1.21	1.03	47.91	0.23	10.70

ALL WEIGHTS WERE RECORDED IN GRAMS. ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Rat 13717 had slight dilation of the pelvis of the right kidney. See the individual necropsy observations table (Table B16).

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TABLE B19 (PAGE 13): BRAIN WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS LEFT ABS. WT.	EPIDIDYMIS LEFT REL. % BRW	CAUDA EPIDIDYMIS LEFT ABS. WT.	CAUDA EPIDIDYMIS LEFT REL. % BRW	TESTIS LEFT ABS. WT.	TESTIS LEFT REL. % BRW	L. TESTIS MINUS TUNICA ALBUGINEA ABS. WT.	L. TESTIS MINUS TUNICA ALBUGINEA REL. % BRW	SEMINAL VESICLES WITH FLUID ABS. WT.	SEMINAL VESICLES WITH FLUID REL. % BRW	SEMINAL VESICLES WITHOUT FLUID ABS. WT.	SEMINAL VESICLES WITHOUT FLUID REL. % BRW
DOSAGE GROUP V		30 MG/KG/DAY											
13721	2.32	0.6074	26.18	0.2790	12.02	1.6557	71.37	1.5270	65.82	2.1394	92.22	1.1271	48.58
13722	2.12	0.6274	29.59	0.2822	13.31	2.0342	95.95	1.9065	89.93	1.9349	91.27	0.9897	46.68
13723	2.18	0.6173	28.32	0.2866	13.15	1.7454	80.06	1.6102	73.86	1.8187	83.43	1.0162	46.61
13724	2.22	0.6288	28.32	0.2856	12.86	1.7350	78.15	1.6175	72.86	1.8648	84.00	1.0530	47.43
13725	2.05	0.5636	27.49	0.2434	11.87	1.5799	77.07	1.4784	72.12	2.0211	98.59	1.1224	54.75
13726	2.39	0.5924	24.79	0.2529	10.58	1.6603	69.47	1.4205	59.44	2.3913	100.05	1.3574	56.79
13727	2.09	0.6562	31.40	0.3344	16.00	1.6767	80.22	1.5666	74.96	2.3512	112.50	1.2199	58.37
13728	2.40	0.6189	25.79	0.2708	11.28	1.8145	75.60	1.6036	66.82	1.6491	68.71	0.8819	36.74
13729	2.26	0.6563	29.04	0.2832	12.53	1.8213	80.59	1.7046	75.42	2.7535	121.84	1.6355	72.37
13730	2.18	0.7344	33.69	0.3692	16.94	1.9206	88.10	1.7641	80.92	2.7822	127.62	1.3529	62.06
13731	2.10	0.6264	29.83	0.2816	13.41	1.8082	86.10	1.6879	80.38	2.2953	109.30	1.3058	62.18
13732a	1.83	0.32	-----	b	----	1.57	----	b	-----	0.41	-----	b	-----
13733	2.41	0.4488c	18.62	0.2281	9.46	1.5848	65.76	0.7696c	31.93	1.9756	81.98	1.0945	45.41
13734	2.25	0.6218	27.64	0.3056	13.58	1.7707	78.70	1.6457	73.14	1.9533	86.81	1.0168	45.19
13735	2.22	0.6602	29.74	0.2885	13.00	1.6260	73.24	1.4871	66.99	2.0416	91.96	1.0459	47.11

ALL WEIGHTS WERE RECORDED IN GRAMS. ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Rat 13732 was moribund sacrificed on day 45 of study; values excluded from group averages and statistical analyses.
b. Value was not recorded.
c. Rat 13733 had a small and flaccid left epididymis and left testis minus tunica albuginea. See the individual necropsy observations table (Table B16).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B19 (PAGE 14): BRAIN WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS LEFT		CAUDA EPIDIDYMIS LEFT		TESTIS LEFT		L. TESTIS MINUS TUNICA ALBUGINEA		SEMINAL VESICLES WITH FLUID		SEMINAL VESICLES WITHOUT FLUID	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
DOSAGE GROUP V		30 MG/KG/DAY											
13736	1.95	0.6673	34.22	0.3010	15.44	1.8057	92.60	1.6957	86.96	2.2496	115.36	1.2149	62.30
13737	2.09	0.6265	29.98	0.2859	13.68	1.8269	87.41	1.7194	82.27	1.7412	83.31	1.1388	54.49
13738	2.25	0.7368	32.75	0.3496	15.54	1.8806	83.58	1.7560	78.04	2.2771	101.20	1.1760	52.27
13739	2.16	0.6346	29.38	0.2936	13.59	1.7360	80.37	1.6485	76.32	2.1199	98.14	1.1596	53.68
13740	2.47	0.6890	27.89	0.3195	12.94	1.8928	76.63	1.7714	71.72	1.9407	78.57	1.0294	41.68
13741	2.18	0.4128a	18.94	0.1813a	8.32	0.9095a	41.72	0.7763a	35.61	1.5799	72.47	1.0094	46.30
13742	2.06	0.6057	29.40	0.2949	14.32	1.5689	76.16	1.4689	71.30	2.0911	101.51	1.1513	55.89
13743	2.27	0.6398	28.18	0.3157	13.91	1.7613	77.59	1.6391	72.21	2.2751	100.22	1.1189	49.29
13744	2.25	0.6318	28.08	0.2745	12.20	1.7873	79.44	1.6903	75.12	2.1831	97.03	1.2490	55.51
13745	2.32	0.5971	25.74	0.2785	12.00	1.7386	74.94	1.6364	70.53	1.6923	72.94	0.9536	41.10
13746	2.20	0.6928	31.49	0.2873	13.06	1.7150	77.95	1.6329	74.22	2.0396	92.71	1.1029	50.13
13747	1.88	0.6158	32.76	0.2828	15.04	1.9071	101.44	1.7986	95.67	1.8077	96.15	0.8948	47.60
13748	2.28	0.7390	32.41	0.3243	14.22	2.0476	89.81	1.9007	83.36	2.1969	96.36	1.2020	52.72
13749	2.27	0.7383	32.52	0.3499	15.41	1.9514	85.96	1.8267	80.47	2.0347	89.63	1.1848	52.19
13750	2.04	0.6466	31.70	0.2750	13.48	2.8842b	141.38	2.6964b	132.18	1.6893	82.81	1.0501	51.48

ALL WEIGHTS WERE RECORDED IN GRAMS. ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Rat 13741 had small and flaccid epididymides and testes. See the individual necropsy observations table (Table B16).

b. Rat 13750 had a large left epididymis and left testis minus tunica albuginea. See the individual necropsy observations table (Table B16).

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TABLE B19 (PAGE 15): BRAIN WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS RIGHT ABS. WT.	EPIDIDYMIS RIGHT REL. % BRW	TESTIS RIGHT ABS. WT.	TESTIS RIGHT REL. % BRW	PROSTATE ABS. WT.	PROSTATE REL. % BRW	PITUITARY ABS. WT.	PITUITARY REL. % BRW	LIVER ABS. WT.	LIVER REL. % BRW	KIDNEY LEFT ABS. WT.	KIDNEY LEFT REL. % BRW
DOSAGE GROUP V		30 MG/KG/DAY											
13721	2.32	0.5828	25.12	1.6442	70.87	0.8431	36.34	0.015	0.65	32.46	1399.14	2.04	87.93
13722	2.12	0.6248	29.47	2.0050	94.58	0.8430	39.76	0.013	0.61	26.38	1244.34	1.97	92.92
13723	2.18	0.6269	28.76	1.6768	76.92	0.5950	27.29	0.010	0.46	25.29	1160.09	1.96	89.91
13724	2.22	0.6778	30.53	1.7229	77.61	0.6971	31.40	0.009	0.40	20.55	925.68	2.05	92.34
13725	2.05	0.6145	29.98	1.6811	82.00	0.7775	37.93	0.005	0.24	24.05	1173.17	1.65	80.49
13726	2.39	0.5830	24.39	1.6140	67.53	1.1966	50.07	0.011	0.46	26.25	1098.33	2.21	92.47
13727	2.09	0.6714	32.12	1.6811	80.44	1.1502	55.03	0.009	0.43	27.77	1328.71	2.08	99.52
13728	2.40	0.5943	24.76	1.7995	74.98	0.8251	34.38	0.011	0.46	33.99	1416.25	1.89	78.75
13729	2.26	0.6131	27.13	1.7874	79.09	0.8078	35.74	0.008	0.35	30.46	1347.79	2.13	94.25
13730	2.18	0.7137	32.74	1.9707	90.40	0.8931	40.97	0.011	0.50	36.40	1669.72	2.44	111.93
13731	2.10	0.6397	30.46	1.7492	83.30	0.6744	32.11	0.011	0.52	27.84	1325.71	2.02	96.19
13732a	1.83	0.31	-----	1.54	----	0.34	----	0.006	-----	15.94	-------	1.22	-----
13733	2.41	0.7056	29.28	1.8567	77.04	0.9479	39.33	0.012	0.50	34.60	1435.68	2.19	90.87
13734	2.25	0.6340	28.18	1.7743	78.86	1.2570	55.87	0.007	0.31	28.30	1257.78	2.22	98.67
13735	2.22	0.6247	28.14	1.6311	73.47	0.9716	43.76	0.007	0.32	26.33	1186.04	2.06	92.79

ALL WEIGHTS WERE RECORDED IN GRAMS. ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Rat 13732 was moribund sacrificed on day 45 of study; values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B19 (PAGE 16): BRAIN WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS RIGHT		TESTIS RIGHT		PROSTATE		PITUITARY		LIVER		KIDNEY LEFT	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
DOSAGE GROUP V		30 MG/KG/DAY											
13736	1.95	0.6535	33.51	1.7745	91.00	1.1293	57.91	0.010	0.51	26.04	1335.38	1.85	94.87
13737	2.09	0.6117	29.27	1.7991	86.08	0.6582	31.49	0.009	0.43	25.32	1211.48	1.73	82.78
13738	2.25	0.7239	32.17	1.9556	86.92	0.9491	42.18	0.012	0.53	27.00	1200.00	1.98	88.00
13739	2.16	0.6380	29.54	1.7722	82.05	0.6872	31.81	0.015	0.69	23.10	1069.44	1.95	90.28
13740	2.47	0.6731	27.25	1.8953	76.73	1.0956	44.36	0.010	0.40	29.12	1178.95	1.98	80.16
13741	2.18	0.3794a	17.40	0.8606a	39.48	0.5990	27.48	0.007	0.32	27.33	1253.67	1.82	83.49
13742	2.06	0.6017	29.21	1.5535	75.41	0.7266	35.27	0.007	0.34	25.57	1241.26	1.60	77.67
13743	2.27	0.6511	28.68	1.7824	78.52	0.8984	39.58	0.008	0.35	23.40	1030.84	1.87	82.38
13744	2.25	0.6378	28.35	1.8145	80.64	0.7553	33.57	0.012	0.53	24.04	1068.44	1.80	80.00
13745	2.32	0.5834	25.15	1.7338	74.73	0.8432	36.34	0.009	0.39	29.53	1272.84	1.92	82.76
13746	2.20	0.6752	30.69	1.6953	77.06	0.8258	37.54	0.015	0.68	28.24	1283.64	2.27	103.18
13747	1.88	0.6142	32.67	1.8456	98.17	0.5597	29.77	0.016	0.85	23.29	1238.83	1.89	100.53
13748	2.28	0.7365	32.30	2.0122	88.25	1.0400	45.61	0.013	0.57	31.63	1387.28	2.20	96.49
13749	2.27	0.7260	31.98	1.8831	82.96	0.8505	37.47	0.011	0.48	27.03	1190.75	1.79	78.85
13750	2.04	0.6502	31.87	1.7065	83.65	0.8981	44.02	0.013	0.64	25.92	1270.59	2.07	101.47

ALL WEIGHTS WERE RECORDED IN GRAMS. ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Rat 13741 had small and flaccid epididymides and testes. See the individual necropsy observations table (Table B16).

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TABLE B19 (PAGE 17): BRAIN WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	BRAIN WEIGHT	KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT		SPLEEN		THYMUS	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
DOSAGE GROUP V			30 MG/KG/DAY								
13721	2.32	2.19	94.40	0.035	1.51	0.040	1.72	0.76	32.76	0.36	15.52
13722	2.12	2.19	103.30	0.035	1.65	0.035	1.65	0.80	37.74	0.49	23.11
13723	2.18	1.94	88.99	0.033	1.51	0.028	1.28	0.72	33.03	0.37	16.97
13724	2.22	2.01	90.54	0.042	1.89	0.037	1.67	0.79	35.58	0.49	22.07
13725	2.05	1.73	84.39	0.028	1.36	0.026	1.27	0.45	21.95	0.20	9.76
13726	2.39	2.20	92.05	0.029	1.21	0.039	1.63	0.93	38.91	0.51	21.34
13727	2.09	2.16	103.35	0.026	1.24	0.024	1.15	0.75	35.88	0.28	13.40
13728	2.40	1.94	80.83	0.028	1.17	0.025	1.04	0.67	27.92	0.25	10.42
13729	2.26	2.05a	90.71	0.020	0.88	0.014	0.62	0.52	23.01	0.25	11.06
13730	2.18	2.45	112.38	0.035	1.60	0.031	1.42	0.70	32.11	0.38	17.43
13731	2.10	2.05	97.62	0.028	1.33	0.026	1.24	0.57	27.14	0.18	8.57
13732b	1.83	1.25	-----	0.026	----	0.026	----	0.13	-----	0.12	----
13733	2.41	2.31c	95.85	0.032	1.33	0.035	1.45	0.94	39.00	0.28	11.62
13734	2.25	2.30	102.22	0.022	0.98	0.023	1.02	0.69	30.67	0.32	14.22
13735	2.22	2.23	100.45	0.030	1.35	0.014	0.63	0.97	43.69	0.40	18.02

ALL WEIGHTS WERE RECORDED IN GRAMS. ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Rat 13729 had slight dilation of the pelvis of the right kidney. See the individual necropsy observations table (Table B16).

b. Rat 13732 was moribund sacrificed on day 45 of study; values excluded from group averages and statistical analyses.

c. Rat 13733 had slight dilation of the pelvis of the right kidney. See the individual necropsy observations table (Table B16).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B19 (PAGE 18): BRAIN WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	BRAIN WEIGHT	KIDNEY RIGHT ABS. WT.	KIDNEY RIGHT REL. % BRW	ADRENAL LEFT ABS. WT.	ADRENAL LEFT REL. % BRW	ADRENAL RIGHT ABS. WT.	ADRENAL RIGHT REL. % BRW	SPLEEN ABS. WT.	SPLEEN REL. % BRW	THYMUS ABS. WT.	THYMUS REL. % BRW
DOSAGE GROUP V		30 MG/KG/DAY									
13736	1.95	1.99	102.05	0.030	1.54	0.023	1.18	0.72	36.92	0.28	14.36
13737	2.09	1.79	85.64	0.021	1.00	0.017	0.81	0.65	31.10	0.20	9.57
13738	2.25	1.95	86.67	0.037	1.64	0.032	1.42	0.73	32.44	0.32	14.22
13739	2.16	2.01	93.06	0.026	1.20	0.025	1.16	0.69	31.94	0.25	11.57
13740	2.47	2.15	87.04	0.024	0.97	0.027	1.09	0.80	32.39	0.27	10.93
13741	2.18	2.02	92.66	0.009	0.41	0.014	0.64	0.42	19.27	0.20	9.17
13742	2.06	1.64	79.61	0.027	1.31	0.029	1.41	0.86	41.75	0.17	8.25
13743	2.27	1.93	85.02	0.020	0.88	0.026	1.14	0.62	27.31	0.20	8.81
13744	2.25	1.94	86.22	0.029	1.29	0.028	1.24	0.58	25.78	0.29	12.89
13745	2.32	2.07	89.22	0.026	1.12	0.026	1.12	0.73	31.46	0.28	12.07
13746	2.20	2.20	100.00	0.028	1.27	0.025	1.14	0.74	33.64	0.35	15.91
13747	1.88	1.93	102.66	0.031	1.65	0.020	1.06	0.51	27.13	0.27	14.36
13748	2.28	2.43	106.58	0.032	1.40	0.030	1.32	1.09	47.81	0.38	16.67
13749	2.27	1.78	78.41	0.029	1.28	0.028	1.23	0.87	38.32	0.29	12.78
13750	2.04	2.04	100.00	0.021	1.03	0.020	0.98	1.06	51.96	0.27	13.24

ALL WEIGHTS WERE RECORDED IN GRAMS. ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

PROTOCOL 418-020: ORAL (GAVAGE) TWO GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B20 (PAGE 1): CAUDA EPIDIDYMAL SPERM MOTILITY, COUNT, DENSITY AND SPERMATID COUNT - INDIVIDUAL DATA - P GENERATION MALE RATS
(See footnotes at the end of this table.)

DOSAGE GROUP I				0 MG/KG/DAY				
RAT NUMBER	NUMBER MOTILE	MOTILE PERCENT	STATIC COUNT (NONMOTILE)	TOTAL COUNT a	SPERM COUNT b	SPERM DENSITY c	SPERMATID COUNT d	SPERMATID DENSITY e
13601	267	92	22	289	79	770.5	38	85.1
13602	189	87	29	218	111	1040.5	36	68.4
13603	392	86	64	456	89	770.6	45	78.4
13604	408	92	37	445	77	710.3	33	56.1
13605	400	85	72	472	118	963.4	66	111.8
13606	502	84	93	595	136	1089.5	36	59.2
13607	380	92	34	414	128	1156.0	75	124.4
13608	359	88	50	409	143	1198.0	68	113.3
13609	123	34	240	363	38	512.5	27	54.2
13610	409	88	58	467	132	1324.4	59	115.0
13611	247	76	76	323	91	804.8	91	158.4
13612	458	89	54	512	120	1202.4	56	99.5
13613	360	88	50	410	95	913.0	67	120.3
13614	428	79	112	540	60	635.1	52	101.7
13615	375	89	47	422	145	1148.5	67	105.8
13616	269	80	68	337	129	1046.1	71	112.6
13617	548	81	127	675	117	972.8	47	82.4
13618	229	85	42	271	117	978.7	38	63.6
13619	155	63	91	246	89	648.0	50	78.4
13620	372	77	113	485	95	794.5	53	89.9
13621	413	87	60	473	146	1284.9	29	161.0
13622	286	88	40	326	147	1345.2	82	141.2
13623	267	83	53	320	137	1017.2	50	91.6
13624	398	89	47	445	205	1764.4	45	77.1
13625	392	91	38	430	83	800.6	56	96.8
13626	454	85	83	537	63	481.4	37	58.4
13627	355	85	61	416	83	752.2	44	81.7
13628	373	84	73	446	133	1023.2	37	59.9
13629	394	75	131	525	125	1093.4	37	69.0
13630	417	76	133	550	88	637.5	30	44.4

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TABLE B20 (PAGE 2): CAUDA EPIDIDYMAL SPERM MOTILITY, COUNT, DENSITY AND SPERMATID COUNT - INDIVIDUAL DATA - P GENERATION MALE RATS
(See footnotes at the end of this table.)

DOSAGE GROUP II				1 MG/KG/DAY				
RAT NUMBER	NUMBER MOTILE	MOTILE PERCENT	STATIC COUNT (NONMOTILE)	TOTAL COUNT a	SPERM COUNT b	SPERM DENSITY c	SPERMATID COUNT d	SPERMATID DENSITY e
13631	530	87	82	612	101	974.5	40	74.9
13632	274	84	51	325	101	922.8	45	71.2
13633	403	89	49	452	69	562.9	44	77.3
13634	264	83	56	320	103	884.4	56	97.7
13635	178	70	77	255	98	1007.8	49	91.5
13636	440	82	96	536	93	763.2	42	72.7
13637	554	88	75	629	98	825.5	42	79.7
13638	350	78	101	451	54	559.5	39	62.3
13639	244	92	21	265	147	1441.0	51	113.5
13640	198	85	35	233	130	1063.5	56	91.7
13641	541	86	89	630	104	853.0	47	78.9
13642	407	84	78	485	114	1046.9	40	71.3
13643	302	93	22	324	138	1174.8	49	77.2
13644	177	80	45	222	112	1012.4	49	77.9
13645	272	84	52	324	130	1181.4	32	61.5
13646	225	69	101	326	199	1662.3	31	56.8
13647	328	67	159	487	104	1008.9	68	120.5
13648	430	80	110	540	135	1274.5	48	80.9
13649	410	79	109	519	132	1248.7	28	49.8
13650	305	84	56	361	78	784.5	65	102.4
13651	300	92	27	327	180	1586.5	59	93.1
13652	205	95	10	215	212	1898.0	50	85.5
13653	370	89	48	418	117	1215.7	62	105.5
13654	227	88	31	258	99	975.7	60	123.6
13655	562	89	66	628	162	1405.2	72	105.0
13656	470	93	37	507	170	1418.0	41	73.9
13657	417	91	43	460	110	1041.6	40	70.0
13658	490	84	95	585	72	789.8	24	47.5
13659	280	88	39	319	152	1386.2	30	48.1
13660	243	89	31	274	71	636.8	18	33.0

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TABLE B20 (PAGE 3): CAUDA EPIDIDYMAL SPERM MOTILITY, COUNT, DENSITY AND SPERMATID COUNT - INDIVIDUAL DATA - P GENERATION MALE RATS
(See footnotes at the end of this table.)

DOSAGE GROUP III				3 MG/KG/DAY				
RAT NUMBER	NUMBER MOTILE	MOTILE PERCENT	STATIC COUNT (NONMOTILE)	TOTAL COUNT a	SPERM COUNT b	SPERM DENSITY c	SPERMATID COUNT d	SPERMATID DENSITY e
13661	261	94	17	278	87	773.4	40	66.3
13662	387	87	59	446	132	1176.0	48	85.8
13663	258	87	40	298	118	926.5	48	78.9
13664	288	63	172	460	95	845.6	49	83.0
13665	424	82	94	518	86	826.5	53	96.4
13666	392	89	46	438	77	762.0	43	72.0
13667	508	93	37	545	78	684.4	39	74.7
13668	423	92	37	460	72	853.6	56	108.1
13669	424	86	70	494	117	1053.4	63	114.0
13670	298	91	31	329	173	1368.4	98	161.3
13671	503	92	43	546	85	842.9	50	88.2
13672	270	83	54	324	64	671.0	29	51.0
13673	451	90	48	499	90	944.6	47	87.6
13674	549	83	112	661	87	885.8	64	119.9
13675	512	90	56	568	131	1132.9	32	62.7
13676	523	92	47	570	121	1076.0	59	93.3
13677	376	93	27	403	139	1319.2	46	83.6
13678	358	79	94	452	76	704.9	39	71.2
13679	293	90	33	326	134	1177.5	27	47.3
13680	269	88	36	305	107	971.5	43	70.2
13681	235	73	85	320	79	678.9	80	119.8
13682	391	87	60	451	183	1520.7	50	75.1
13683	453	91	44	497	214	2099.2	54	100.5
13684	549	87	84	633	105	1033.8	42	77.0
13685	221	94	13	234	180	1641.5	43	73.4
13686	411	88	57	468	82	825.3	57	98.5
13687	357	81	83	440	107	969.1	34	66.1
13688	245	82	54	299	100	803.3	37	56.0
13689	252	85	45	297	138	1195.2	26	47.1
13690	317	93	24	341	78	740.3	24	42.3

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TABLE B20 (PAGE 4): CAUDA EPIDIDYMAL SPERM MOTILITY, COUNT, DENSITY AND SPERMATID COUNT - INDIVIDUAL DATA - P GENERATION MALE RATS

(See footnotes at the end of this table.)

DOSAGE GROUP IV				10 MG/KG/DAY				
RAT NUMBER	NUMBER MOTILE	MOTILE PERCENT	STATIC COUNT (NONMOTILE)	TOTAL COUNT a	SPERM COUNT b	SPERM DENSITY c	SPERMATID COUNT d	SPERMATID DENSITY e
13691	353	85	61	414	103	1026.3	26	46.6
13692	328	86	55	383	101	884.3	40	65.1
13693	368	89	45	413	78	823.5	63	106.5
13694	202	83	40	242	157	1197.4	46	84.6
13695	517	82	116	633	94	1011.2	30	56.4
13696	305	83	64	369	72	662.9	33	53.7
13697	248	86	40	288	109	968.7	62	102.4
13698	467	88	61	528	136	1163.6	59	88.8
13699	283	91	29	312	106	1103.0	48	86.8
13700	334	89	40	374	100	837.3	70	117.7
13701	237	81	54	291	86	834.2	36	65.7
13702	355	93	27	382	121	1040.5	51	83.5
13703	385	86	65	450	129	1154.6	55	98.2
13704	305	88	40	345	278	2273.6	42	69.0
13705	456	90	51	507	92	973.4	46	79.5
13706	241	85	44	285	89	733.3	71	120.3
13707	401	93	30	431	162	1257.0	59	110.9
13708	334	92	30	364	152	1315.3	52	84.1
13709	251	85	43	294	69	689.7	51	95.8
13710	535	87	82	617	86	857.0	69	113.4
13711	294	94	20	314	143	1336.5	43	77.8
13712	396	93	32	428	84	837.0	55	91.0
13713	302	89	39	341	139	1268.0	58	101.8
13714	247	80	63	310	121	1063.6	38	62.6
13715	447	86	74	521	72	700.1	30	52.8
13716	273	87	41	314	128	1093.2	59	94.4
13717	210	83	43	253	160	1306.3	29	48.0
13718	412	87	63	475	81	696.7	19	31.7
13719	397	96	15	412	179	1450.0	26	44.8
13720	264	86	44	308	105	873.8	25	40.9

PROTOCOL 418-020: ORAL (GAVAGE) TWO GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B20 (PAGE 5): CAUDA EPIDIDYMAL SPERM MOTILITY, COUNT, DENSITY AND SPERMATID COUNT - INDIVIDUAL DATA - P GENERATION MALE RATS
(See footnotes at the end of this table.)

DOSAGE GROUP V				30 MG/KG/DAY				
RAT NUMBER	NUMBER MOTILE	MOTILE PERCENT	STATIC COUNT (NONMOTILE)	TOTAL COUNT a	SPERM COUNT b	SPERM DENSITY c	SPERMATID COUNT d	SPERMATID DENSITY e
13721	498	92	44	542	82	850.2	40	75.8
13722	375	82	81	456	87	891.8	44	66.8
13723	386	84	71	457	64	646.0	39	70.1
13724	208	75	68	276	105	1063.5	48	85.8
13725	457	81	105	562	57	677.4	41	80.2
13726	368	77	107	475	80	915.1	36	73.3
13727	243	89	29	272	134	1159.2	82	151.4
13728	420	88	59	479	70	747.7	43	77.6
13729	188	80	46	234	107	1092.9	49	83.2
13730	345	90	37	382	157	1230.1	51	83.6
13731	477	86	78	555	118	1212.1	52	89.1
13732	MORIBUND SACRIFICED ON DAY 45 OF STUDY							
13733	106	90	12	118	1	12.7	2	7.5
13734	321	90	34	355	115	1088.6	74	130.1
13735	320	81	73	393	69	691.8	44	85.6
13736	710	92	60	770	85	816.9	66	112.6
13737	294	65	158	452	122	1234.4	52	87.5
13738	266	78	73	339	173	1431.5	55	90.6
13739	262	86	41	303	105	1034.5	38	66.7
13740	388	86	61	449	101	914.4	41	67.0
13741	108	58	79	187	13	207.4	3	11.2
13742	179	68	83	262	113	1108.4	42	82.7
13743	320	96	15	335	119	1090.4	41	72.4
13744	392	93	31	423	91	959.0	41	70.2
13745	440	89	53	493	130	1350.3	37	65.4
13746	273	90	31	304	102	1027.0	41	72.6
13747	228	82	49	277	77	787.6	39	62.7
13748	218	84	42	260	131	1168.5	39	59.4
13749	470	90	51	521	125	1033.4	34	53.8
13750	235	91	23	258	113	1188.6	23	24.7

TABLE B20 (PAGE 6): CAUDA EPIDIDYMAL SPERM MOTILITY, COUNT, DENSITY AND SPERMATID COUNT - INDIVIDUAL DATA - P GENERATION MALE RATS

FOOTNOTES:

a. Sum of number motile and static count. Groups of five fields were evaluated until a sperm count of at least 200 was achieved or 20 fields were evaluated.

b. Sperm count used in the calculation of sperm density. Ten fields were evaluated.

c. The sperm density was calculated by dividing the sperm count by the volume in the image area (34.3×10^{-6} mL), multiplying by 2 (dilution factor) and multiplying by 10^{-6} to obtain the sperm concentration. The calculated sperm concentration value (rounded to 1 decimal place) was multiplied by 50 (volume) and divided by the weight of the left cauda epididymis (see Table B17 for the weight of the left cauda epididymis) to obtain the sperm density. The calculated value will vary by approximately 0.8% from the Computer Automated Sperm Analysis because the digital image evaluated is slightly smaller (4 pixels) than the actual field causing a slight underestimate of the actual volume and an overestimate of the concentration.

d. Spermatid count used in the calculation of spermatid density. Ten fields were evaluated.

e. The spermatid density was calculated by dividing the spermatid count by the volume in the image area (34.3×10^{-6} mL), multiplying by 2 (dilution factor) and multiplying by 10^{-6} to obtain the spermatid concentration. The calculated spermatid concentration value (rounded to 1 decimal place) was multiplied by 50 (volume) and divided by the weight of the left testis minus tunica albuginea (see Table B18 for the weight of the left testis minus tunica albuginea) to obtain the spermatid density. The calculated value will vary by approximately 0.8% from the Computer Automated Sperm Analysis because the digital image evaluated is slightly smaller (4 pixels) than the actual field causing a slight underestimate of the actual volume and an overestimate of the concentration.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B21 (PAGE 1): CAUDA EPIDIDYMAL SPERM MORPHOLOGY - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	NORMAL	DETACHED HEAD	NO HEAD	BROKEN FLAGEL-LUM	NO HOOK	EXCES-SIVE HOOK	COILED FLAGEL-LUM	BENT FLAGEL-LUM	SHORT SPERM HEAD	OTHER	PERCENT ABNORMAL
DOSAGE GROUP I			0 MG/KG/DAY								
13601	193	6	1	0	0	0	0	0	0	0	3.5
13602	199	0	1	0	0	0	0	0	0	0	0.5
13603	192	3	4	1	0	0	0	0	0	0	4.0
13604	189	9	2	0	0	0	0	0	0	0	5.5
13605	189	8	3	0	0	0	0	0	0	0	5.5
13606	190	7	3	0	0	0	0	0	0	0	5.0
13607	197	2	1	0	0	0	0	0	0	0	1.5
13608	194	4	1	1	0	0	0	0	0	0	3.0
13609	60	64	75	1	0	0	0	0	0	0	70.0
13610	189	6	5	0	0	0	0	0	0	0	5.5
13611	179	15	6	0	0	0	0	0	0	0	10.5
13612	186	9	5	0	0	0	0	0	0	0	7.0
13613	197	2	1	0	0	0	0	0	0	0	1.5
13614	187	6	7	0	0	0	0	0	0	0	6.5
13615	189	9	2	0	0	0	0	0	0	0	5.5
13616	188	10	2	0	0	0	0	0	0	0	6.0
13617	193	6	1	0	0	0	0	0	0	0	3.5
13618	181	10	9	0	0	0	0	0	0	0	9.5
13619	192	5	2	1	0	0	0	0	0	0	4.0
13620	191	8	1	0	0	0	0	0	0	0	4.5
13621	193	5	2	0	0	0	0	0	0	0	3.5
13622	191	3	4	1	1	0	0	0	0	0	4.5
13623	192	6	2	0	0	0	0	0	0	0	4.0
13624	191	6	3	0	0	0	0	0	0	0	4.5
13625	196	2	2	0	0	0	0	0	0	0	2.0
13626	195	4	1	0	0	0	0	0	0	0	2.5
13627	195	2	2	1	0	0	0	0	0	0	2.5
13628	197	2	1	0	0	0	0	0	0	0	1.5
13629	196	1	3	0	0	0	0	0	0	0	2.0
13630	192	5	3	0	0	0	0	0	0	0	4.0

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B21 (PAGE 2): CAUDA EPIDIDYMAL SPERM MORPHOLOGY - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	NORMAL	DETACHED HEAD	NO HEAD	BROKEN FLAGEL-LUM	NO HOOK	EXCES-SIVE HOOK	COILED FLAGEL-LUM	BENT FLAGEL-LUM	SHORT SPERM HEAD	OTHER	PERCENT ABNORMAL
DOSAGE GROUP II			1 MG/KG/DAY								
13631	194	3	3	0	0	0	0	0	0	0	3.0
13632	191	6	3	0	0	0	0	0	0	0	4.5
13633	193	5	2	0	0	0	0	0	0	0	3.5
13634	185	4	8	3	0	0	0	0	0	0	7.5
13635	188	7	2	3	0	0	0	0	0	0	6.0
13636	195	3	2	0	0	0	0	0	0	0	2.5
13637	195	3	2	0	0	0	0	0	0	0	2.5
13638	160	20	19	1	0	0	0	0	0	0	20.0
13639	196	1	2	1	0	0	0	0	0	0	2.0
13640	187	6	7	0	0	0	0	0	0	0	6.5
13641	195	1	4	0	0	0	0	0	0	0	2.5
13642	196	2	2	0	0	0	0	0	0	0	2.0
13643	197	3	0	0	0	0	0	0	0	0	1.5
13644	194	3	2	1	0	0	0	0	0	0	3.0
13645	197	1	1	1	0	0	0	0	0	0	1.5
13646	195	2	3	0	0	0	0	0	0	0	2.5
13647	197	0	3	0	0	0	0	0	0	0	1.5
13648	186	8	6	0	0	0	0	0	0	0	7.0
13649	197	2	1	0	0	0	0	0	0	0	1.5
13650	192	4	3	1	0	0	0	0	0	0	4.0
13651	190	5	4	1	0	0	0	0	0	0	5.0
13652	191	5	4	0	0	0	0	0	0	0	4.5
13653	185	10	2	2	0	1	0	0	0	0	7.5
13654	191	4	2	3	0	0	0	0	0	0	4.5
13655	196	1	2	1	0	0	0	0	0	0	2.0
13656	196	1	3	0	0	0	0	0	0	0	2.0
13657	193	7	0	0	0	0	0	0	0	0	3.5
13658	191	2	6	1	0	0	0	0	0	0	4.5
13659	189	7	4	0	0	0	0	0	0	0	5.5
13660	191	5	3	0	0	1	0	0	0	0	4.5

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B21 (PAGE 3): CAUDA EPIDIDYMAL SPERM MORPHOLOGY - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	NORMAL	DETACHED HEAD	NO HEAD	BROKEN FLAGEL-LUM	NO HOOK	EXCES-SIVE HOOK	COILED FLAGEL-LUM	BENT FLAGEL-LUM	SHORT SPERM HEAD	OTHER	PERCENT ABNORMAL
DOSAGE GROUP III			3 MG/KG/DAY								
13661	198	2	0	0	0	0	0	0	0	0	1.0
13662	195	4	1	0	0	0	0	0	0	0	2.5
13663	196	2	2	0	0	0	0	0	0	0	2.0
13664	185	5	8	1	0	0	1	0	0	0	7.5
13665	190	4	5	1	0	0	0	0	0	0	5.0
13666	189	6	2	2	1	0	0	0	0	0	5.5
13667	193	0	6	1	0	0	0	0	0	0	3.5
13668	194	2	4	0	0	0	0	0	0	0	3.0
13669	193	4	2	1	0	0	0	0	0	0	3.5
13670	188	4	8	0	0	0	0	0	0	0	6.0
13671	189	4	7	0	0	0	0	0	0	0	5.5
13672	194	4	2	0	0	0	0	0	0	0	3.0
13673	191	7	2	0	0	0	0	0	0	0	4.5
13674	172	13	13	1	0	1	0	0	0	0	14.0
13675	194	4	1	1	0	0	0	0	0	0	3.0
13676	189	8	3	0	0	0	0	0	0	0	5.5
13677	194	2	4	0	0	0	0	0	0	0	3.0
13678	195	1	4	0	0	0	0	0	0	0	2.5
13679	187	7	5	1	0	0	0	0	0	0	6.5
13680	195	2	2	1	0	0	0	0	0	0	2.5
13681	197	2	1	0	0	0	0	0	0	0	1.5
13682	194	5	1	0	0	0	0	0	0	0	3.0
13683	187	7	6	0	0	0	0	0	0	0	6.5
13684	191	6	2	1	0	0	0	0	0	0	4.5
13685	195	3	2	0	0	0	0	0	0	0	2.5
13686	181	11	8	0	0	0	0	0	0	0	9.5
13687	194	3	1	2	0	0	0	0	0	0	3.0
13688	194	3	3	0	0	0	0	0	0	0	3.0
13689	193	4	3	0	0	0	0	0	0	0	3.5
13690	189	7	4	0	0	0	0	0	0	0	5.5

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B21 (PAGE 4): CAUDA EPIDIDYMAL SPERM MORPHOLOGY - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	NORMAL	DETACHED HEAD	NO HEAD	BROKEN FLAGEL-LUM	NO HOOK	EXCES-SIVE HOOK	COILED FLAGEL-LUM	BENT FLAGEL-LUM	SHORT SPERM HEAD	OTHER	PERCENT ABNORMAL
DOSAGE GROUP IV			10 MG/KG/DAY								
13691	195	5	0	0	0	0	0	0	0	0	2.5
13692	193	7	0	0	0	0	0	0	0	0	3.5
13693	193	5	1	0	1	0	0	0	0	0	3.5
13694	186	6	8	0	0	0	0	0	0	0	7.0
13695	193	2	5	0	0	0	0	0	0	0	3.5
13696	186	9	4	0	1	0	0	0	0	0	7.0
13697	194	3	3	0	0	0	0	0	0	0	3.0
13698	194	4	2	0	0	0	0	0	0	0	3.0
13699	192	6	1	0	0	0	0	1	0	0	4.0
13700	192	5	2	1	0	0	0	0	0	0	4.0
13701	184	11	4	1	0	0	0	0	0	0	8.0
13702	196	2	2	0	0	0	0	0	0	0	2.0
13703	189	9	2	0	0	0	0	0	0	0	5.5
13704	191	8	0	0	0	1	0	0	0	0	4.5
13705	193	4	3	0	0	0	0	0	0	0	3.5
13706	187	9	4	0	0	0	0	0	0	0	6.5
13707	190	10	0	0	0	0	0	0	0	0	5.0
13708	183	8	9	0	0	0	0	0	0	0	8.5
13709	189	5	6	0	0	0	0	0	0	0	5.5
13710	188	9	1	1	0	0	1	0	0	0	6.0
13711	194	3	2	1	0	0	0	0	0	0	3.0
13712	192	7	1	0	0	0	0	0	0	0	4.0
13713	194	1	4	1	0	0	0	0	0	0	3.0
13714	194	1	5	0	0	0	0	0	0	0	3.0
13715	185	11	3	1	0	0	0	0	0	0	7.5
13716	193	2	5	0	0	0	0	0	0	0	3.5
13717	193	5	2	0	0	0	0	0	0	0	3.5
13718	193	6	1	0	0	0	0	0	0	0	3.5
13719	193	5	2	0	0	0	0	0	0	0	3.5
13720	188	8	4	0	0	0	0	0	0	0	6.0

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE B21 (PAGE 5): CAUDA EPIDIDYMAL SPERM MORPHOLOGY - INDIVIDUAL DATA - P GENERATION MALE RATS

RAT NUMBER	NORMAL	DETACHED HEAD	NO HEAD	BROKEN FLAGEL-LUM	NO HOOK	EXCES-SIVE HOOK	COILED FLAGEL-LUM	BENT FLAGEL-LUM	SHORT SPERM HEAD	OTHER	PERCENT ABNORMAL
DOSAGE GROUP V			30 MG/KG/DAY								
13721	195	4	1	0	0	0	0	0	0	0	2.5
13722	193	4	2	1	0	0	0	0	0	0	3.5
13723	187	7	5	1	0	0	0	0	0	0	6.5
13724	196	1	3	0	0	0	0	0	0	0	2.0
13725	193	2	3	2	0	0	0	0	0	0	3.5
13726	196	3	1	0	0	0	0	0	0	0	2.0
13727	190	8	2	0	0	0	0	0	0	0	5.0
13728	190	3	6	1	0	0	0	0	0	0	5.0
13729	194	3	2	1	0	0	0	0	0	0	3.0
13730	190	7	3	0	0	0	0	0	0	0	5.0
13731	191	5	4	0	0	0	0	0	0	0	4.5
13732	MORIBUND SACRIFICED ON DAY 45 OF STUDY										
13733	4	6	3	0	0	0	0	0	0	0	69.2
13734	196	1	3	0	0	0	0	0	0	0	2.0
13735	188	11	1	0	0	0	0	0	0	0	6.0
13736	190	5	3	2	0	0	0	0	0	0	5.0
13737	189	3	7	1	0	0	0	0	0	0	5.5
13738	191	2	7	0	0	0	0	0	0	0	4.5
13739	194	2	2	1	0	1	0	0	0	0	3.0
13740	191	5	4	0	0	0	0	0	0	0	4.5
13741	3	83	94	17	1	1	1	0	0	0	98.5
13742	192	5	2	1	0	0	0	0	0	0	4.0
13743	191	7	2	0	0	0	0	0	0	0	4.5
13744	192	6	1	1	0	0	0	0	0	0	4.0
13745	194	4	2	0	0	0	0	0	0	0	3.0
13746	187	9	3	0	0	0	0	0	1	0	6.5
13747	197	1	1	0	1	0	0	0	0	0	1.5
13748	198	1	1	0	0	0	0	0	0	0	1.0
13749	194	2	2	0	1	0	0	0	1	0	3.0
13750	175	15	8	2	0	0	0	0	0	0	12.5

APPENDIX C

REPORT TABLES - P GENERATION FEMALE RATS

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C1 (PAGE 1): CLINICAL OBSERVATIONS - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	I 0	II 1	III 3	IV 10	V 30
PRECOHABITATION (DAY 1 OF STUDY TO THE DAY OF COHABITATION):					
MAXIMUM POSSIBLE INCIDENCE	2098/ 30	2089/ 30	2100/ 30	2100/ 30	2100/ 30
MORIBUND SACRIFICED	1a	1b	0	0	0
INCISORS: TOTAL	13/ 3	6/ 1	16/ 1	26/ 1	48/ 2
MISSING/BROKEN	12/ 2	6/ 1	0/ 0	13/ 1	27/ 2
MISALIGNED	1/ 1a	0/ 0	16/ 1	13/ 1	39/ 1
CHROMORHINORRHEA	1/ 1a	6/ 1	5/ 3	1/ 1	2/ 1
UNGROOMED COAT	0/ 0	0/ 0	0/ 0	0/ 0	1/ 1
SCAB(S) c	7/ 1	0/ 0	0/ 0	7/ 1	0/ 0
CHROMODACRYORRHEA	1/ 1a	0/ 0	3/ 1	13/ 1	0/ 0
LOCALIZED ALOPECIA: TOTAL	84/ 2	51/ 2	0/ 0	0/ 0	0/ 0
LIMBS	84/ 2	39/ 1	0/ 0	0/ 0	0/ 0
UNDERSIDE	0/ 0	12/ 1	0/ 0	0/ 0	0/ 0
LEFT FORELIMB AND FOREPAW: SWOLLEN	0/ 0	3/ 1b	0/ 0	0/ 0	0/ 0
SOFT OR LIQUID FECES	0/ 0	3/ 1	0/ 0	0/ 0	0/ 0
LEFT FORELIMB: FRACTURED	0/ 0	1/ 1b	0/ 0	0/ 0	0/ 0
PALATE: BROKEN	1/ 1a	0/ 0	0/ 0	0/ 0	0/ 0
SWOLLEN SNOUT	1/ 1a	0/ 0	0/ 0	0/ 0	0/ 0

STATISTICAL ANALYSES OF CLINICAL OBSERVATION DATA WERE RESTRICTED TO THE NUMBER OF RATS WITH OBSERVATIONS.
MAXIMUM POSSIBLE INCIDENCE = (DAYS X RATS)/NUMBER OF RATS EXAMINED PER GROUP.
N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RATS WITH OBSERVATION.
a. Rat 13804 was moribund sacrificed on day 68 of study.
b. Rat 13836 was moribund sacrificed on day 59 of study.
c. Located on the back, right forelimb or left forelimb.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C1 (PAGE 2): CLINICAL OBSERVATIONS - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP	I	II	III	IV	V
DOSAGE (MG/KG/DAY)	0	1	3	10	30
PRESUMED GESTATION: a					
MAXIMUM POSSIBLE INCIDENCE	640/ 29	642/ 29	641/ 29	595/ 27	640/ 29
MORTALITY	0	0	0	0	0
LOCALIZED ALOPECIA: TOTAL	26/ 3	37/ 2	7/ 1	17/ 1	15/ 2
LIMBS	26/ 3	22/ 1	7/ 1	17/ 1	15/ 2
UNDERSIDE	0/ 0	15/ 1	0/ 0	0/ 0	0/ 0
RIGHT OR BOTH EARS: SWOLLEN	18/ 1	0/ 0	15/ 1	15/ 1	28/ 2
INCISORS: TOTAL	19/ 1	0/ 0	22/ 1	42/ 3	21/ 1
MISSING/BROKEN	0/ 0	0/ 0	0/ 0	20/ 2	13/ 1
MISALIGNED	19/ 1	0/ 0	22/ 1	22/ 1	21/ 1
CHROMORHINORRHEA	0/ 0	0/ 0	0/ 0	1/ 1	1/ 1
HEAD: MASS	0/ 0	0/ 0	0/ 0	0/ 0	3/ 1
CHROMODACRYORRHEA	19/ 1	0/ 0	3/ 1	4/ 2	0/ 0
DRIED, RED PERINASAL SUBSTANCE	0/ 0	0/ 0	0/ 0	1/ 1	0/ 0
BOTH FOREPAWS: DRIED, RED SUBSTANCE	0/ 0	0/ 0	0/ 0	1/ 1	0/ 0
LEFT HINDPAW: SWOLLEN	0/ 0	0/ 0	18/ 1	0/ 0	0/ 0
LEFT HINDPAW OR LOWER MIDLINE: SCAB	0/ 0	6/ 1	4/ 1	0/ 0	0/ 0
LEFT HINDPAW: ABRASION	0/ 0	0/ 0	3/ 1	0/ 0	0/ 0

STATISTICAL ANALYSES OF CLINICAL OBSERVATION DATA WERE RESTRICTED TO THE NUMBER OF RATS WITH OBSERVATIONS.
MAXIMUM POSSIBLE INCIDENCE = (DAYS X RATS)/NUMBER OF RATS EXAMINED PER GROUP.
N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RATS WITH OBSERVATION.
a. Restricted to rats with a confirmed mating date.

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TABLE C1 (PAGE 3): CLINICAL OBSERVATIONS - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
LACTATION:						
MAXIMUM POSSIBLE INCIDENCE		602/ 28	583/ 27	638/ 29	638/ 29	617/ 29
MORTALITY						
SACRIFICED a		1b	1c	0	0	0
LOCALIZED ALOPECIA:	TOTAL	34/ 3	49/ 3	2/ 2	22/ 1	30/ 4
	LIMBS	34/ 3	42/ 3	2/ 2	22/ 1	23/ 3
	UNDERSIDE	0/ 0	22/ 1	0/ 0	0/ 0	0/ 0
	HEAD	0/ 0	0/ 0	0/ 0	0/ 0	7/ 1
RIGHT OR BOTH EARS: SWOLLEN		27/ 2	19/ 1	0/ 0	32/ 3	49/ 3
INCISORS: TOTAL		22/ 1	0/ 0	22/ 1	31/ 2	16/ 1
MISSING/BROKEN		0/ 0	0/ 0	16/ 1	9/ 1	16/ 1
MISALIGNED		22/ 1	0/ 0	22/ 1	22/ 1	14/ 1
CHROMODACRYORRHEA		22/ 1	0/ 0	0/ 0	4/ 1	10/ 1
HEAD OR RIGHT AXILLA: MASS		0/ 0	0/ 0	0/ 0	3/ 1	4/ 1
HEAD: SCAB		0/ 0	0/ 0	0/ 0	0/ 0	7/ 1
SOFT OR LIQUID FECES		8/ 5	4/ 2	2/ 1	6/ 2	0/ 0
TRAUMATIZED CORNEA		0/ 0	0/ 0	19/ 1	0/ 0	0/ 0
RIGHT EYE: SWOLLEN		0/ 0	0/ 0	10/ 1	0/ 0	0/ 0
TEAT: SWOLLEN		0/ 0	0/ 0	2/ 1	0/ 0	0/ 0

STATISTICAL ANALYSES OF CLINICAL OBSERVATION DATA WERE RESTRICTED TO THE NUMBER OF RATS WITH OBSERVATIONS.
MAXIMUM POSSIBLE INCIDENCE = (DAYS X RATS)/NUMBER OF RATS EXAMINED PER GROUP.
N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RATS WITH OBSERVATION.

a. The litters from dams 13822 in Group I and 13852 in Group II were mixed together. Both dams and litters were sacrificed because it was not possible to identify to which litter the pups belonged.
b. Dam 13822 was sacrificed on day 8 of lactation.
c. Dam 13852 was sacrificed on day 11 of lactation.

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TABLE C2 (PAGE 1): BODY WEIGHTS - PRECOHABITATION - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP			I	II	III	IV	V
DOSAGE (MG/KG/DAY)			0	1	3	10	30
RATS TESTED		N	30	30	30	30	30
BODY WEIGHT (G)							
DAY 1		MEAN±S.D.	147.8 ± 7.3	148.0 ± 5.7	149.3 ± 6.5	149.4 ± 6.5	148.9 ± 6.7
DAY 8		MEAN±S.D.	177.7 ± 9.1	175.3 ± 7.3	181.3 ± 8.2	180.6 ± 9.3	178.8 ± 7.0
DAY 15		MEAN±S.D.	202.4 ± 12.2	199.2 ± 11.1	206.9 ± 11.8	205.9 ± 12.0	202.7 ± 8.2
DAY 22		MEAN±S.D.	218.5 ± 15.0	214.5 ± 14.1	224.1 ± 15.8	223.1 ± 14.7	217.4 ± 9.6
DAY 29		MEAN±S.D.	234.5 ± 18.5	228.0 ± 15.5	239.8 ± 19.6	238.4 ± 15.8	233.0 ± 10.2
DAY 36		MEAN±S.D.	243.7 ± 18.2	236.7 ± 16.6	249.2 ± 21.5	247.9 ± 16.9	238.9 ± 10.1
DAY 43		MEAN±S.D.	252.8 ± 20.9	245.9 ± 16.1	259.7 ± 24.2	257.8 ± 17.2	250.1 ± 11.1
DAY 50		MEAN±S.D.	262.8 ± 20.4	255.8 ± 17.6	269.0 ± 25.5	268.3 ± 18.0	258.8 ± 11.7
DAY 57		MEAN±S.D.	268.9 ± 22.4	261.3 ± 17.4	276.9 ± 25.9	272.8 ± 19.0	264.0 ± 13.3
DAY 64		MEAN±S.D.	274.4 ± 22.2	268.5 ± 18.2 [29]a	284.2 ± 27.1	279.7 ± 19.2	267.5 ± 13.0
DAY 70b		MEAN±S.D.	276.8 ± 22.7 [29]a	271.8 ± 18.1 [29]a	287.2 ± 27.6	284.4 ± 21.8	271.8 ± 14.0

DAY = DAY OF STUDY
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rats that were moribund sacrificed.
b. Last value recorded before cohabitation.

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TABLE C3 (PAGE 1): BODY WEIGHT CHANGES - PRECOHABITATION - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)		I 0	II 1	III 3	IV 10	V 30
RATS TESTED	N	30	30	30	30	30
BODY WEIGHT CHANGE (G)						
DAYS 1 - 8	MEAN±S.D.	+30.0 ± 7.5	+27.3 ± 5.2	+32.0 ± 4.7	+31.2 ± 4.8	+30.0 ± 4.1
DAYS 8 - 15	MEAN±S.D.	+24.6 ± 6.0	+23.9 ± 5.4	+25.6 ± 4.9	+25.3 ± 5.8	+23.8 ± 4.7
DAYS 15 - 22	MEAN±S.D.	+16.1 ± 5.5	+15.3 ± 5.2	+17.2 ± 7.0	+17.2 ± 6.0	+14.7 ± 4.8
DAYS 22 - 29	MEAN±S.D.	+16.0 ± 7.0	+13.5 ± 4.0	+15.7 ± 5.6	+15.3 ± 3.9	+15.6 ± 4.1
DAYS 29 - 36	MEAN±S.D.	+9.2 ± 6.9	+8.8 ± 5.4	+9.5 ± 4.5	+9.5 ± 3.6	+6.0 ± 4.9*
DAYS 36 - 43	MEAN±S.D.	+9.1 ± 5.3	+9.1 ± 5.3	+10.5 ± 5.2	+9.9 ± 4.1	+11.1 ± 4.6
DAYS 43 - 50	MEAN±S.D.	+10.0 ± 5.8	+9.9 ± 4.5	+9.2 ± 5.1	+10.4 ± 4.8	+8.7 ± 5.1
DAYS 50 - 57	MEAN±S.D.	+6.1 ± 5.7	+5.5 ± 4.4	+7.9 ± 5.1	+4.6 ± 5.0	+5.2 ± 3.8
DAYS 57 - 64	MEAN±S.D.	+5.5 ± 5.8	+6.4 ± 4.9 [29]a	+7.3 ± 3.8	+6.9 ± 5.9	+3.5 ± 5.9
DAYS 64 - 70b	MEAN±S.D.	+2.6 ± 5.4 [29]a	+3.3 ± 3.6 [29]a	+3.1 ± 5.0	+4.7 ± 5.6	+4.3 ± 5.5
DAYS 1 - 70b	MEAN±S.D.	+129.3± 21.7 [29]a	+124.1± 17.1 [29]a	+138.0± 24.1	+134.9± 18.7	+123.0± 13.4

DAYS = DAYS OF STUDY
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rats that were moribund sacrificed.
b. Last value recorded before cohabitation.
* Significantly different from the Group I value ($p \leq 0.05$).

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TABLE C4 (PAGE 1): MATERNAL BODY WEIGHTS - GESTATION - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP			I	II	III	IV	V
DOSAGE (MG/KG/DAY)			0	1	3	10	30
RATS TESTED		N	29a	29a	30	30	30
PREGNANT		N	28	27	30	29	29
INCLUDED IN ANALYSES		N	28	27	29b	27b	28b
MATERNAL BODY WEIGHT (G)							
DAY 0		MEAN±S.D.	280.3 ± 24.2	272.0 ± 19.2	283.5 ± 27.3	279.7 ± 22.7	269.8 ± 14.8
DAY 7		MEAN±S.D.	310.3 ± 24.9	299.6 ± 21.8	313.6 ± 30.0	309.6 ± 22.2	295.1 ± 15.5*
DAY 10		MEAN±S.D.	320.6 ± 25.5	310.5 ± 22.6	325.4 ± 31.3	322.7 ± 23.7	306.4 ± 16.2
DAY 14		MEAN±S.D.	337.7 ± 26.3	324.7 ± 22.2	343.3 ± 32.8	337.3 ± 24.4	320.5 ± 19.7*
DAY 18		MEAN±S.D.	377.4 ± 29.3 [27]c	371.6 ± 26.8	386.4 ± 35.6	378.8 ± 26.8	363.3 ± 25.7
DAY 21		MEAN±S.D.	405.4 ± 46.0 [27]d	389.0 ± 51.5	414.7 ± 47.2	415.3 ± 29.8 [26]d	381.4 ± 43.1

DAY = DAY OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes rats that were moribund sacrificed prior to cohabitation.
b. Excludes rats that did not have a confirmed mating date.
c. Excludes values that were not recorded.
d. Excludes values for rats that delivered.
* Significantly different from the Group I value ($p \leq 0.05$).

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TABLE C5 (PAGE 1): MATERNAL BODY WEIGHT CHANGES - GESTATION - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	29a	29a	30	30	30
PREGNANT	N	28	27	30	29	29
INCLUDED IN ANALYSES	N	28	27	29b	27b	28b
MATERNAL BODY WEIGHT CHANGE (G)						
DAYS 0 - 7	MEAN±S.D.	+30.0 ± 9.3	+27.6 ± 7.1	+30.1 ± 9.0	+29.9 ± 10.4	+25.3 ± 8.3
DAYS 7 - 10	MEAN±S.D.	+10.3 ± 6.0	+10.9 ± 6.3	+11.8 ± 5.3	+13.1 ± 5.2	+11.3 ± 6.4
DAYS 10 - 14	MEAN±S.D.	+17.1 ± 6.2	+14.2 ± 4.3	+17.9 ± 5.4	+14.6 ± 6.2	+14.0 ± 9.4
DAYS 14 - 18	MEAN±S.D.	+39.1 ± 11.2 [27]c	+46.9 ± 8.9	+43.0 ± 12.1	+41.5 ± 9.3	+42.8 ± 15.0
DAYS 18 - 21	MEAN±S.D.	+29.5 ± 31.6 [26]c,d	+17.4 ± 38.2	+28.3 ± 24.6	+36.6 ± 12.0 [26]d	+18.1 ± 35.7
DAYS 0 - 21	MEAN±S.D.	+126.0± 33.2 [27]d	+117.1± 40.8	+131.2± 29.4	+134.8± 20.5 [26]d	+111.5± 38.9

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes rats that were moribund sacrificed prior to cohabitation.
b. Excludes rats that did not have a confirmed mating date.
c. Excludes values that were not recorded.
d. Excludes values for rats that delivered.

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TABLE C6 (PAGE 1): MATERNAL BODY WEIGHTS - LACTATION - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP			I	II	III	IV	V
DOSAGE (MG/KG/DAY)			0	1	3	10	30
RATS TESTED		N	29a	29a	30	30	30
PREGNANT		N	28	27	30	29	29
DELIVERED A LITTER		N	28	27	29	29	29
MATERNAL BODY WEIGHT (G)							
DAY 1		MEAN±S.D.	313.1 ± 24.7	303.2 ± 19.8	321.2 ± 28.8	312.2 ± 24.1	300.3 ± 19.9
DAY 5		MEAN±S.D.	322.8 ± 28.6	310.2 ± 22.0	327.3 ± 29.1	318.8 ± 25.4	308.3 ± 18.8 [27]b,c
DAY 8		MEAN±S.D.	341.0 ± 26.3 [24]b	327.8 ± 24.3 [23]b	337.7 ± 27.6 [25]b	339.8 ± 28.2 [21]b	322.8 ± 19.4 [25]b,c
DAY 11		MEAN±S.D.	351.5 ± 28.2 [25]b,c	339.4 ± 29.7 [22]b,c	351.4 ± 31.2 [28]b	345.2 ± 24.9	332.3 ± 20.5 [27]b,c
DAY 15		MEAN±S.D.	354.4 ± 29.5 [27]c	345.3 ± 26.8 [26]c	357.7 ± 28.9	349.9 ± 27.8	344.2 ± 18.1 [28]c
DAY 22		MEAN±S.D.	345.0 ± 29.1 [27]c	339.5 ± 23.6 [26]c	351.4 ± 23.0	342.1 ± 26.1	345.0 ± 17.7 [28]c

DAY = DAY OF LACTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes rats that were moribund sacrificed prior to cohabitation.
b. Excludes values that were not recorded.
c. Excludes values for rats that were sacrificed or sacrificed due to no surviving pups.

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TABLE C7 (PAGE 1): MATERNAL BODY WEIGHT CHANGES - LACTATION - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)		I 0	II 1	III 3	IV 10	V 30
RATS TESTED	N	29a	29a	30	30	30
PREGNANT	N	28	27	30	29	29
DELIVERED A LITTER	N	28	27	29	29	29
INCLUDED IN ANALYSES	N	28	27	29	29	28b
MATERNAL BODY WEIGHT CHANGE (G)						
DAYS 1 - 5	MEAN±S.D.	+9.7 ± 11.8	+7.0 ± 14.5	+6.1 ± 11.0	+6.6 ± 12.8	+7.4 ± 13.0 [27]c
DAYS 5 - 8	MEAN±S.D.	+12.4 ± 13.1 [24]c	+16.0 ± 10.6 [23]c	+14.1 ± 10.7 [25]c	+18.8 ± 8.4 [21]c	+12.5 ± 9.8 [24]c
DAYS 8 - 11	MEAN±S.D.	+14.9 ± 12.9 [21]b,c	+9.8 ± 14.9 [18]b,c	+9.6 ± 13.2 [24]c	+7.1 ± 22.6 [21]c	+9.1 ± 15.2 [24]c
DAYS 11 - 15	MEAN±S.D.	+4.3 ± 15.9 [25]b,c	+8.5 ± 19.3 [22]b,c	+6.0 ± 16.1 [28]c	+4.8 ± 19.1	+12.6 ± 13.4 [27]c
DAYS 1 - 15	MEAN±S.D.	+41.8 ± 14.5 [27]b	+42.8 ± 17.5 [26]b	+36.5 ± 13.0	+37.8 ± 16.0	+42.9 ± 17.2
DAYS 15 - 22	MEAN±S.D.	-9.4 ± 25.2 [27]b	-5.8 ± 22.5 [26]b	-6.3 ± 16.5	-7.9 ± 22.9	+0.8 ± 16.8
DAYS 1 - 22	MEAN±S.D.	+32.4 ± 23.0 [27]b	+37.0 ± 21.7 [26]b	+30.2 ± 19.4	+29.9 ± 21.3	+43.7 ± 15.8

DAYS = DAYS OF LACTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rats that were moribund sacrificed prior to cohabitation.
b. Excludes values for rats that were sacrificed or sacrificed due to no surviving pups.
c. Excludes values that were not recorded.

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TABLE C8 (PAGE 1): ABSOLUTE FEED CONSUMPTION VALUES (G/DAY) - PRECOHABITATION - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	30	30	30	30
FEED CONSUMPTION (G/DAY)						
DAYS 1 - 8	MEAN±S.D.	18.8 ± 1.8	19.2 ± 2.1 [29]a	19.9 ± 1.4	19.7 ± 1.7	19.6 ± 1.5 [29]a
DAYS 8 - 15	MEAN±S.D.	20.8 ± 2.4	21.0 ± 2.9 [29]a	21.8 ± 2.7 [29]a	21.7 ± 2.4	21.2 ± 1.8
DAYS 15 - 22	MEAN±S.D.	21.5 ± 2.0 [28]a	21.2 ± 2.3 [29]a	21.8 ± 2.2 [29]a	22.2 ± 1.9 [29]a	20.9 ± 1.6 [25]a
DAYS 22 - 29	MEAN±S.D.	21.3 ± 2.2 [28]a	20.7 ± 2.2	22.3 ± 2.8	22.1 ± 2.9 [29]a	21.2 ± 1.6 [28]a
DAYS 29 - 36	MEAN±S.D.	21.4 ± 2.4	21.0 ± 1.8	21.8 ± 2.1 [29]a	22.0 ± 2.3 [29]a	21.0 ± 1.9 [29]a
DAYS 36 - 43	MEAN±S.D.	21.6 ± 2.5 [29]a	21.5 ± 1.9 [29]a	22.6 ± 2.7	22.2 ± 2.2 [29]a	21.4 ± 1.8 [29]a
DAYS 43 - 50	MEAN±S.D.	22.6 ± 2.8 [27]a	21.7 ± 1.8 [29]a	22.8 ± 2.5 [29]a	22.5 ± 2.4 [28]a	22.0 ± 3.0
DAYS 50 - 57	MEAN±S.D.	21.0 ± 2.3 [28]a	21.2 ± 2.0	22.2 ± 2.2 [27]a	22.2 ± 2.8 [29]a	21.2 ± 2.3 [28]a
DAYS 57 - 64	MEAN±S.D.	21.8 ± 2.8 [27]a	21.1 ± 1.6 [29]b	22.1 ± 1.8	21.8 ± 2.2 [29]a	20.5 ± 1.7*
DAYS 64 - 70c	MEAN±S.D.	21.3 ± 2.0 [27]a,b	21.1 ± 2.3 [29]b	21.4 ± 2.0	21.2 ± 2.4 [29]a	20.1 ± 2.0
DAYS 1 - 70c	MEAN±S.D.	21.3 ± 1.6 [27]a,b	21.0 ± 1.7 [29]b	21.9 ± 2.0	21.8 ± 1.9 [29]a	21.0 ± 1.5

DAYS = DAYS OF STUDY
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values that were not recorded or appeared incorrectly recorded, as well as those associated with spillage.
b. Excludes values for rats that were moribund sacrificed.
c. Last value recorded before cohabitation.
* Significantly different from the Group I value ($p \leq 0.05$).

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TABLE C9 (PAGE 1): RELATIVE FEED CONSUMPTION VALUES (G/KG/DAY) - PRECOHABITATION - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	30	30	30	30
FEED CONSUMPTION (G/KG/DAY)						
DAYS 1 - 8	MEAN±S.D.	115.6 ± 9.4	118.9 ± 11.6 [29]a	120.4 ± 6.5	119.6 ± 7.8	120.0 ± 8.0 [29]a
DAYS 8 - 15	MEAN±S.D.	110.0 ± 14.4	112.0 ± 13.7 [29]a	112.8 ± 13.5 [29]a	112.1 ± 9.5	111.2 ± 8.9
DAYS 15 - 22	MEAN±S.D.	102.4 ± 8.4 [28]a	102.2 ± 7.4 [29]a	101.3 ± 7.6 [29]a	103.7 ± 7.1 [29]a	100.0 ± 6.0 [25]a
DAYS 22 - 29	MEAN±S.D.	94.3 ± 8.9 [28]a	93.5 ± 6.7	96.0 ± 9.1	95.2 ± 10.7 [29]a	94.1 ± 6.4 [28]a
DAYS 29 - 36	MEAN±S.D.	89.3 ± 5.8	90.7 ± 5.9	89.2 ± 4.8 [29]a	90.5 ± 6.4 [29]a	89.2 ± 8.0 [29]a
DAYS 36 - 43	MEAN±S.D.	86.9 ± 6.9 [29]a	88.8 ± 6.4 [29]a	88.7 ± 7.2	87.6 ± 6.1 [29]a	87.5 ± 5.6 [29]a
DAYS 43 - 50	MEAN±S.D.	87.8 ± 7.2 [27]a	86.7 ± 5.3 [29]a	86.0 ± 6.2 [29]a	85.6 ± 5.8 [28]a	86.3 ± 10.3
DAYS 50 - 57	MEAN±S.D.	79.6 ± 6.4 [28]a	82.1 ± 6.2	80.7 ± 5.8 [27]a	82.1 ± 7.2 [29]a	81.0 ± 7.0 [28]a
DAYS 57 - 64	MEAN±S.D.	81.1 ± 9.2 [27]a	79.7 ± 5.0 [29]b	78.9 ± 4.8	78.7 ± 5.8 [29]a	77.3 ± 4.8
DAYS 64 - 70c	MEAN±S.D.	76.6 ± 5.4 [27]a,b	78.1 ± 7.8 [29]b	75.3 ± 6.3	75.2 ± 5.2 [29]a	74.3 ± 5.7
DAYS 1 - 70c	MEAN±S.D.	91.1 ± 4.1 [27]a,b	92.2 ± 5.4 [29]b	91.8 ± 5.7	91.9 ± 4.8 [29]a	91.0 ± 4.7

DAYS = DAYS OF STUDY
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values that were not recorded or appeared incorrectly recorded, as well as those associated with spillage.
b. Excludes values for rats that were moribund sacrificed.
c. Last value recorded before cohabitation.

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TABLE C10 (PAGE 1): MATERNAL ABSOLUTE FEED CONSUMPTION VALUES (G/DAY) - GESTATION - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	29a	29a	30	30	30
PREGNANT	N	28	27	30	29	29
INCLUDED IN ANALYSES	N	28	27	29b	27b	28b
MATERNAL FEED CONSUMPTION (G/DAY)						
DAYS 0 - 7	MEAN±S.D.	25.9 ± 3.2 [27]c	25.7 ± 2.4	26.0 ± 3.1 [26]c	25.0 ± 2.5	24.1 ± 2.3 [27]c
DAYS 7 - 10	MEAN±S.D.	27.0 ± 3.7	25.7 ± 2.5	28.0 ± 2.9	26.8 ± 2.8 [26]c	25.5 ± 2.5
DAYS 10 - 14	MEAN±S.D.	27.6 ± 3.5	25.8 ± 2.4* [26]c	28.4 ± 3.5 [28]c	26.2 ± 3.3 [26]c	25.4 ± 3.0*
DAYS 14 - 18	MEAN±S.D.	26.1 ± 2.8	26.8 ± 2.7 [26]c	27.3 ± 3.1	26.1 ± 2.5 [26]c	25.6 ± 3.7
DAYS 18 - 21	MEAN±S.D.	23.6 ± 2.4 [25]d	23.2 ± 3.1 [23]d	24.5 ± 2.8 [28]d	23.5 ± 3.6 [26]d	23.0 ± 3.9 [27]d
DAYS 0 - 21	MEAN±S.D.	26.1 ± 2.6 [25]d	25.6 ± 1.9 [23]d	26.7 ± 2.3 [28]d	25.6 ± 2.2 [26]d	24.6 ± 2.2* [27]d

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes rats that were moribund sacrificed prior to cohabitation.
b. Excludes rats that did not have a confirmed mating date.
c. Excludes values that were associated with spillage.
d. Excludes values for rats that delivered.
* Significantly different from the Group I value ($p \leq 0.05$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C11 (PAGE 1): MATERNAL RELATIVE FEED CONSUMPTION VALUES (G/KG/DAY) - GESTATION - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	29a	29a	30	30	30
PREGNANT	N	28	27	30	29	29
INCLUDED IN ANALYSES	N	28	27	29b	27b	28b
MATERNAL FEED CONSUMPTION (G/KG/DAY)						
DAYS 0 - 7	MEAN±S.D.	87.5 ± 9.5 [27]c	90.1 ± 8.3	87.0 ± 7.6 [26]c	84.8 ± 7.4	85.3 ± 7.1 [27]c
DAYS 7 - 10	MEAN±S.D.	85.4 ± 8.3	84.5 ± 7.0	87.7 ± 7.1	85.1 ± 6.5 [26]c	84.8 ± 6.4
DAYS 10 - 14	MEAN±S.D.	84.0 ± 7.7	81.5 ± 7.3 [26]c	84.4 ± 8.0 [28]c	79.6 ± 6.5 [26]c	81.0 ± 7.6
DAYS 14 - 18	MEAN±S.D.	73.3 ± 6.2 [27]c	77.1 ± 7.7 [26]c	75.1 ± 8.6	73.2 ± 5.4 [26]c	74.7 ± 9.4
DAYS 18 - 21	MEAN±S.D.	59.7 ± 8.5 [24]c,d	59.9 ± 7.7 [23]d	61.3 ± 6.0 [28]d	59.1 ± 7.7 [26]d	61.7 ± 9.2 [27]d
DAYS 0 - 21	MEAN±S.D.	77.0 ± 5.5 [25]d	77.3 ± 5.7 [23]d	77.7 ± 4.4 [28]d	75.0 ± 4.4 [26]d	76.0 ± 5.3 [27]d

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes rats that were moribund sacrificed prior to cohabitation.
b. Excludes rats that did not have a confirmed mating date.
c. Excludes values that were not recorded, as well as those associated with spillage.
d. Excludes values for rats that delivered.

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TABLE C12 (PAGE 1): MATERNAL ABSOLUTE FEED CONSUMPTION VALUES (G/DAY) - LACTATION - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	29a	29a	30	30	30
PREGNANT	N	28	27	30	29	29
DELIVERED A LITTER	N	28	27	29	29	29
INCLUDED IN ANALYSES	N	28	27	29	29	28b
MATERNAL FEED CONSUMPTION (G/DAY)						
DAYS 1 - 5	MEAN±S.D.	31.8 ± 6.4 [25]c	31.9 ± 4.6	33.1 ± 7.1 [28]c	31.0 ± 6.3 [25]c	29.6 ± 6.1 [26]c
DAYS 5 - 8	MEAN±S.D.	51.2 ± 8.6 [26]b,c	49.6 ± 7.2	50.0 ± 10.8	50.9 ± 8.9 [28]c	47.6 ± 10.0
DAYS 8 - 11	MEAN±S.D.	61.8 ± 10.6 [25]b,c	58.7 ± 10.5 [25]b,c	62.2 ± 13.1	59.6 ± 8.4 [28]c	55.2 ± 10.6 [27]c
DAYS 11 - 15d	MEAN±S.D.	69.4 ± 11.1 [26]b,c	68.2 ± 8.6 [25]b,c	69.0 ± 14.0 [28]c	67.6 ± 12.8	66.2 ± 7.7
DAYS 1 - 15d	MEAN±S.D.	54.1 ± 7.5 [26]b,c	51.8 ± 5.7 [25]b,c	53.6 ± 10.7 [28]c	53.1 ± 9.3	50.0 ± 7.3

DAYS = DAYS OF LACTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes rats that were moribund sacrificed prior to cohabitation.
b. Excludes values for rats that were sacrificed or sacrificed due to no surviving pups.
c. Excludes values that were associated with spillage.
d. Because it is presumed that the pups begin to consume maternal feed after day 15 of lactation, maternal feed consumption values were not tabulated on days 15 to 22 of lactation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C13 (PAGE 1): MATERNAL RELATIVE FEED CONSUMPTION VALUES (G/KG/DAY) - LACTATION - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	29a	29a	30	30	30
PREGNANT	N	28	27	30	29	29
DELIVERED A LITTER	N	28	27	29	29	29
INCLUDED IN ANALYSES	N	28	27	29	29	28b
MATERNAL FEED CONSUMPTION (G/KG/DAY)						
DAYS 1 - 5	MEAN±S.D.	100.3 ± 17.5 [25]c	104.0 ± 13.6	102.9 ± 21.8 [28]c	98.1 ± 19.6 [25]c	96.4 ± 20.5 [25]c
DAYS 5 - 8	MEAN±S.D.	152.3 ± 21.9 [22]b,c	153.3 ± 15.8 [23]c	145.1 ± 27.2 [25]c	154.4 ± 22.6 [20]c	151.5 ± 30.6 [24]c
DAYS 8 - 11	MEAN±S.D.	175.9 ± 27.4 [19]b,c	176.6 ± 27.6 [17]b,c	173.7 ± 31.3 [24]c	176.7 ± 19.8 [20]c	168.3 ± 29.0 [23]c
DAYS 11 - 15d	MEAN±S.D.	194.2 ± 27.5 [24]b,c	197.9 ± 21.4 [21]b,c	193.2 ± 34.7 [27]c	194.2 ± 33.6	196.7 ± 22.4 [27]c
DAYS 1 - 15d	MEAN±S.D.	161.0 ± 18.7 [26]b,c	159.9 ± 13.8 [25]b,c	157.2 ± 26.4 [28]c	159.8 ± 26.2	155.5 ± 20.6

DAYS = DAYS OF LACTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes rats that were moribund sacrificed prior to cohabitation.
b. Excludes values for rats that were sacrificed or sacrificed due to no surviving pups.
c. Excludes values that were not recorded, as well as those associated with spillage.
d. Because it is presumed that the pups begin to consume maternal feed after day 15 of lactation, maternal feed consumption values were not tabulated on days 15 to 22 of lactation.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C14 (PAGE 1): MATING AND FERTILITY, ESTROUS CYCLING AND DAYS IN COHABITATION - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
ESTROUS CYCLING OBSERVATIONS						
PRECOHABITATION ESTROUS CYCLING						
RATS EVALUATED	N	29a	29a	30	30	30
ESTROUS STAGES/ 21 DAYS	MEAN±S.D.	5.2 ± 1.0	5.2 ± 0.6	5.0 ± 0.8	4.9 ± 1.0	5.2 ± 0.7
RATS WITH 6 OR MORE CONSECUTIVE DAYS OF DIESTRUS	N	2	0	0	1	0
RATS WITH 6 OR MORE CONSECUTIVE DAYS OF ESTRUS	N	0	0	2	1	1
ESTROUS STAGE AT SACRIFICE						
RATS EVALUATED	N	28b	28b	30	30	29b
DIESTRUS	N	7	9	13	11	8
PROESTRUS	N	21	16	14	16	20
ESTRUS	N	0	2	1	1	1
METESTRUS	N	0	1	2	2	0

a. Excludes rats that were moribund sacrificed prior to cohabitation.
b. Excludes values for rats that did not have a value recorded.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C14 (PAGE 2): MATING AND FERTILITY, ESTROUS CYCLING AND DAYS IN COHABITATION - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS IN COHABITATION	N	29a	29a	30	30	30
DAYS IN COHABITATION b	MEAN±S.D.	3.3 ± 2.6	1.9 ± 1.2*	2.4 ± 1.7 [29]	3.1 ± 2.4 [28]	2.6 ± 1.4 [29]
RATS THAT MATED	N(%)	29(100.0)	29(100.0)	30(100.0)	29(96.7)	30(100.0)
FERTILITY INDEX c	N/N	28/ 29	27/ 29	30/ 30	29/ 29	29/ 30
	(%)	(96.6)	(93.1)	(100.0)	(100.0)	(96.7)
RATS WITH CONFIRMED MATING DATES	N	29	29	29	27	29
RATS MATING d						
DAYS 1-7	N(%)	27(93.1)	29(100.0)	28(96.6)	27(100.0)	29(100.0)
DAYS 8-14	N(%)	2(6.9)	0(0.0)	1(3.4)	0(0.0)	0(0.0)
RATS PREGNANT/RATS IN COHABITATION	N/N	28/ 29	27/ 29	30/ 30	29/ 30	29/ 30
	(%)	(96.6)	(93.1)	(100.0)	(96.7)	(96.7)

[ ] = NUMBER OF VALUES AVERAGED
a. Excludes rats that were moribund sacrificed prior to cohabitation.
b. Restricted to rats with a confirmed mating date and rats that did not mate.
c. Number of pregnancies/number of rats that mated.
d. Restricted to rats with a confirmed mating date.
* Significantly different from the Group I value ($p \leq 0.05$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C15 (PAGE 1): NECROPSY OBSERVATIONS - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS EXAMINED a	N	30	30	30	30	30
MORIBUND SACRIFICED	N	1b	1c	0	0	0
SACRIFICED d	N	1e	1f	0	0	0
APPEARED NORMAL	N	29e	29f	29	30	30
KIDNEYS:						
LEFT, PELVIS, MARKED DILATION	N	0	0	1	0	0
LEFT FORELIMB:						
ULNA AND RADIUS, BROKEN	N	0	1c	0	0	0

a. Refer to the individual clinical observations table (Table C24) for external observations confirmed at necropsy.
b. Rat 13804 was moribund sacrificed on day 68 of study.
c. Rat 13836 was moribund sacrificed on day 59 of study.
d. The litters from dams 13822 in Group I and 13852 in Group II were mixed together. Both dams and litters were sacrificed because it was not possible to identify to which litter the pups belonged.
e. Rat 13822 was sacrificed on day 8 of lactation.
f. Rat 13852 was sacrificed on day 11 of lactation.

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TABLE C16 (PAGE 1): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	30	30	29a	30
PREGNANT	N	28	27	30	29	29
INCLUDED IN ANALYSES	N	27b	26b	29c	29	28b
TERMINAL BODY WEIGHT	MEAN±S.D.	345.0 ± 29.1	339.5 ± 23.6	351.4 ± 23.0	342.1 ± 26.1	345.0 ± 17.7
PITUITARY	MEAN±S.D.	0.018 ± 0.005 [26]d	0.019 ± 0.005	0.017 ± 0.004	0.016 ± 0.006	0.016 ± 0.006 [27]d
BRAIN	MEAN±S.D.	2.22 ± 0.13	2.21 ± 0.14	2.22 ± 0.13	2.22 ± 0.08	2.17 ± 0.11
LIVER	MEAN±S.D.	18.69 ± 2.49	17.97 ± 2.13	17.85 ± 1.78	17.25 ± 1.94	18.08 ± 1.71
KIDNEY LEFT	MEAN±S.D.	1.57 ± 0.16	1.58 ± 0.14	1.58 ± 0.18	1.52 ± 0.14	1.44 ± 0.10**
KIDNEY RIGHT	MEAN±S.D.	1.57 ± 0.18	1.61 ± 0.14	1.62 ± 0.16	1.55 ± 0.13	1.49 ± 0.10*
ADRENAL LEFT	MEAN±S.D.	0.045 ± 0.010	0.051 ± 0.009	0.048 ± 0.010	0.046 ± 0.007	0.046 ± 0.010
ADRENAL RIGHT	MEAN±S.D.	0.045 ± 0.007	0.046 ± 0.008	0.043 ± 0.006	0.042 ± 0.009	0.042 ± 0.010 [27]d
SPLEEN	MEAN±S.D.	0.67 ± 0.10	0.69 ± 0.09	0.71 ± 0.11	0.69 ± 0.09	0.72 ± 0.10
CERVIX	MEAN±S.D.	0.22 ± 0.12	0.19 ± 0.05	0.20 ± 0.08	0.20 ± 0.10	0.17 ± 0.06
OVARY LEFT	MEAN±S.D.	0.052 ± 0.011	0.055 ± 0.016	0.054 ± 0.014	0.049 ± 0.010	0.053 ± 0.016
OVARY RIGHT	MEAN±S.D.	0.053 ± 0.011	0.057 ± 0.018	0.057 ± 0.013	0.054 ± 0.012	0.049 ± 0.014
UTERUS NON-GRAVID	MEAN±S.D.	0.52 ± 0.14	0.59 ± 0.21	0.53 ± 0.15	0.58 ± 0.19	0.50 ± 0.11

[ ] = NUMBER OF VALUES AVERAGED
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Excludes rat 13900, which did not have organ weight values recorded.
b. Excludes values for rats that were sacrificed, moribund sacrificed or sacrificed due to no surviving pups.
c. Excludes dam 13862, which was pregnant but did not deliver a litter.
d. Excludes values that appeared incorrectly recorded.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE C17 (PAGE 1): RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	30	30	29a	30
PREGNANT	N	28	27	30	29	29
INCLUDED IN ANALYSES	N	27b	26b	29c	29	28b
TERMINAL BODY WEIGHT	MEAN±S.D.	345.0 ± 29.1	339.5 ± 23.6	351.4 ± 23.0	342.1 ± 26.1	345.0 ± 17.7
PITUITARY d	MEAN±S.D.	5.311 ± 1.260 [26]e	5.506 ± 1.457	4.933 ± 1.064	4.674 ± 2.089	4.547 ± 1.735 [27]e
BRAIN	MEAN±S.D.	0.648 ± 0.057	0.654 ± 0.054	0.634 ± 0.050	0.653 ± 0.053	0.630 ± 0.034
LIVER	MEAN±S.D.	5.405 ± 0.425	5.284 ± 0.422	5.088 ± 0.481*	5.047 ± 0.455**	5.244 ± 0.461
KIDNEY LEFT	MEAN±S.D.	0.455 ± 0.042	0.465 ± 0.041	0.449 ± 0.040	0.443 ± 0.032	0.418 ± 0.032**
KIDNEY RIGHT	MEAN±S.D.	0.456 ± 0.044	0.474 ± 0.042	0.461 ± 0.037	0.454 ± 0.032	0.431 ± 0.029*
ADRENAL LEFT d	MEAN±S.D.	13.162 ± 2.855	14.963 ± 2.401	13.614 ± 2.787	13.438 ± 2.221	13.312 ± 3.037
ADRENAL RIGHT d	MEAN±S.D.	13.042 ± 2.341	13.642 ± 2.274	12.230 ± 1.775	12.418 ± 2.418	12.042 ± 2.869 [27]e
SPLEEN	MEAN±S.D.	0.195 ± 0.026	0.204 ± 0.026	0.203 ± 0.029	0.200 ± 0.023	0.207 ± 0.028
CERVIX	MEAN±S.D.	0.063 ± 0.031	0.057 ± 0.014	0.058 ± 0.026	0.058 ± 0.027	0.049 ± 0.017
OVARY LEFT d	MEAN±S.D.	15.227 ± 3.484	16.053 ± 4.570	15.333 ± 4.080	14.289 ± 3.173	15.446 ± 4.566
OVARY RIGHT d	MEAN±S.D.	15.417 ± 2.965	16.886 ± 5.250	16.271 ± 3.379	15.903 ± 3.306	14.108 ± 3.631
UTERUS NON-GRAVID	MEAN±S.D.	0.154 ± 0.043	0.175 ± 0.063	0.151 ± 0.044	0.170 ± 0.049	0.146 ± 0.033

[ ] = NUMBER OF VALUES AVERAGED
ALL WEIGHTS WERE RECORDED IN GRAMS (G). RATIOS (%) = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Excludes rat 13900, which did not have organ weight values recorded.
b. Excludes values for rats that were sacrificed, moribund sacrificed or sacrificed due to no surviving pups.
c. Excludes dam 13862, which was pregnant but did not deliver a litter.
d. Value was multiplied by 1000.
e. Excludes values that appeared incorrectly recorded.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE C18 (PAGE 1): RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	30	30	29a	30
PREGNANT	N	28	27	30	29	29
INCLUDED IN ANALYSES	N	27b	26b	29c	29	28b
BRAIN WEIGHT	MEAN±S.D.	2.22 ± 0.13	2.21 ± 0.14	2.22 ± 0.13	2.22 ± 0.08	2.17 ± 0.11
PITUITARY	MEAN±S.D.	0.82 ± 0.20 [26]d	0.85 ± 0.23	0.78 ± 0.16	0.71 ± 0.27	0.72 ± 0.28 [27]d
LIVER	MEAN±S.D.	839.90 ±101.30	814.22 ± 93.64	806.07 ± 98.78	776.69 ± 90.72	834.10 ± 80.85
KIDNEY LEFT	MEAN±S.D.	70.57 ± 7.47	71.66 ± 7.89	71.24 ± 8.32	68.35 ± 6.17	66.42 ± 4.29*
KIDNEY RIGHT	MEAN±S.D.	70.80 ± 7.55	73.06 ± 7.36	73.00 ± 7.24	69.80 ± 6.03	68.59 ± 4.86
ADRENAL LEFT	MEAN±S.D.	2.03 ± 0.42	2.31 ± 0.44	2.14 ± 0.43	2.06 ± 0.30	2.11 ± 0.48
ADRENAL RIGHT	MEAN±S.D.	2.01 ± 0.33	2.10 ± 0.39	1.94 ± 0.31	1.91 ± 0.38	1.92 ± 0.46 [27]d
SPLEEN	MEAN±S.D.	30.28 ± 3.63	31.47 ± 4.70	32.14 ± 5.27	30.94 ± 3.74	33.18 ± 4.83
CERVIX	MEAN±S.D.	9.76 ± 5.09	8.80 ± 2.28	9.21 ± 3.79	9.00 ± 4.37	7.90 ± 2.68
OVARY LEFT	MEAN±S.D.	2.35 ± 0.49	2.48 ± 0.74	2.43 ± 0.65	2.19 ± 0.46	2.46 ± 0.76
OVARY RIGHT	MEAN±S.D.	2.40 ± 0.55	2.58 ± 0.78	2.58 ± 0.57	2.45 ± 0.54	2.25 ± 0.59
UTERUS NON-GRAVID	MEAN±S.D.	23.74 ± 6.45	26.97 ± 10.31	23.93 ± 6.55	26.16 ± 8.39	23.15 ± 5.23

[ ] = NUMBER OF VALUES AVERAGED
ALL WEIGHTS WERE RECORDED IN GRAMS (G). RATIOS (%) = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Excludes rat 13900, which did not have organ weight values recorded.
b. Excludes values for rats that were sacrificed, moribund sacrificed or sacrificed due to no surviving pups.
c. Excludes dam 13862, which was pregnant but did not deliver a litter.
d. Excludes values that appeared incorrectly recorded.
* Significantly different from the Group I value ($p \leq 0.05$).

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TABLE C19 (PAGE 1): NATURAL DELIVERY OBSERVATIONS - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS ASSIGNED TO NATURAL DELIVERY	N	29a	29a	30	30	30
PREGNANT	N(%)	28(96.6)	27(93.1)	30(100.0)	29(96.7)	29(96.7)
DELIVERED A LITTER	N(%)	28(100.0)	27(100.0)	29(96.7)	29(100.0)	29(100.0)
DURATION OF GESTATION b	MEAN±S.D.	22.6 ± 0.5	22.5 ± 0.5	22.8 ± 0.5	22.6 ± 0.6 [27]c	22.7 ± 0.5 [28]c
IMPLANTATION SITES	N	428	421	442	453	445
PER DELIVERED LITTER	MEAN±S.D.	15.3 ± 1.9	15.6 ± 2.1	15.2 ± 2.3	15.6 ± 2.0	15.3 ± 2.0
DAMS WITH STILLBORN PUPS	N(%)	3(10.7)	4(14.8)	5(17.2)	3(10.3)	4(13.8)
DAMS WITH NO LIVEBORN PUPS	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
GESTATION INDEX d	%	100.0	100.0	96.7	100.0	100.0
	N/N	28/ 28	27/ 27	29/ 30	29/ 29	29/ 29
DAMS WITH ALL PUPS DYING DAYS 1-4 POSTPARTUM	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(3.4)
DAMS WITH ALL PUPS DYING DAYS 5-21 POSTPARTUM	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)

[ ] = NUMBER OF VALUES AVERAGED

a. Excludes rats that were moribund sacrificed prior to cohabitation.

b. Calculated as the time (in days) elapsed between confirmed mating (arbitrarily defined as day 0) and the time (in days) the first pup was delivered.

c. Excludes values for rats that did not have a confirmed mating date.

d. Number of rats with live offspring/number of pregnant rats.

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TABLE C20 (PAGE 1): LITTER OBSERVATIONS (NATURALLY DELIVERED PUPS) - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
DELIVERED LITTERS WITH ONE OR MORE LIVEBORN PUPS	N	28	27	29	29	29
PUPS DELIVERED (TOTAL)	N	402	395	393	404	394
	MEAN±S.D.	14.4 ± 2.1	14.6 ± 2.2	13.6 ± 3.6	13.9 ± 3.0	13.6 ± 3.3
LIVEBORN	MEAN±S.D.	14.2 ± 2.2	14.2 ± 2.6	13.4 ± 3.6	13.8 ± 3.0	13.4 ± 3.3
	N(%)	397(98.8)	384(97.2)	388(98.7)	400(99.0)	388(98.5)
STILLBORN	MEAN±S.D.	0.1 ± 0.3	0.4 ± 1.4	0.2 ± 0.4	0.1 ± 0.4	0.2 ± 0.6
	N(%)	3(0.7)	10(2.5)	5(1.3)	4(1.0)	6(1.5)
UNKNOWN VITAL STATUS	N	2	1	0	0	0
PUPS FOUND DEAD OR PRESUMED CANNIBALIZED						
DAY 1	N/N(%)	2/397(0.5)	2/384(0.5)	3/388(0.8)	0/400(0.0)	3/388(0.8)
DAYS 2- 5	N/N(%)	7/395(1.8)	6/382(1.6)	7/385(1.8)	5/400(1.2)	11/385(2.8)
DAYS 6- 8	N/N(%)	1/388(0.2)	2/376(0.5)	5/378(1.3)*	2/395(0.5)	10/374(2.7)**
DAYS 9-15	N/N(%)	0/375(0.0)a	1/362(0.3)b	1/373(0.3)	3/393(0.8)	2/364(0.5)
DAYS 16-22	N/N(%)	0/375(0.0)a	0/361(0.0)b	1/372(0.3)	0/390(0.0)	0/362(0.0)
VIABILITY INDEX c	%	97.7	98.2	97.4	98.8	96.9
	N/N	388/397	377/384	378/388	395/400	376/388
LACTATION INDEX d	%	99.7	98.9	98.1*	98.7	96.3**
	N/N	375/376a	361/365b	371/378	390/395	362/376

DAY(S) = DAY(S) POSTPARTUM
a. Excludes litter 13822; all pups were sacrificed due to sacrifice of dam.
b. Excludes litter 13852; all pups were sacrificed due to sacrifice of dam.
c. Number of live pups on day 5 postpartum/Number of liveborn pups on day 1 postpartum.
d. Number of live pups on day 22 postpartum/Number of live pups on day 5 postpartum.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE C20 (PAGE 3): LITTER OBSERVATIONS (NATURALLY DELIVERED PUPS) - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
DELIVERED LITTERS WITH ONE OR MORE LIVEBORN PUPS	N	28	27	29	29	29
LIVE LITTER SIZE AT WEIGHING						
DAY 1	MEAN±S.D.	14.1 ± 2.2	14.1 ± 2.7	13.3 ± 3.6	13.8 ± 3.0	13.8 ± 2.5 [28]a
DAY 5	MEAN±S.D.	13.8 ± 2.1	13.9 ± 2.5	13.0 ± 3.4	13.6 ± 2.8	13.4 ± 2.8 [28]a
DAY 8	MEAN±S.D.	13.9 ± 2.0 [27]b	13.8 ± 2.5	12.9 ± 3.4	13.6 ± 2.9	13.0 ± 2.7 [28]a
DAY 15	MEAN±S.D.	13.9 ± 2.0 [27]b	13.9 ± 2.5 [26]b	12.8 ± 3.3	13.4 ± 2.8	12.9 ± 2.8 [28]a
DAY 22	MEAN±S.D.	13.9 ± 2.0 [27]b	13.9 ± 2.5 [26]b	12.8 ± 3.4	13.4 ± 2.8	12.9 ± 2.8 [28]a
PUP WEIGHT/LITTER (GRAMS)						
DAY 1	MEAN±S.D.	6.3 ± 0.5	6.0 ± 0.4*	6.2 ± 0.5	6.2 ± 0.4	5.7 ± 0.5** [28]a
DAY 5	MEAN±S.D.	9.4 ± 1.3	8.8 ± 0.8	9.5 ± 1.5	9.3 ± 0.9	8.5 ± 1.3** [28]a
DAY 8	MEAN±S.D.	13.3 ± 2.0 [27]b	12.7 ± 1.3	13.5 ± 2.2	13.0 ± 1.6	11.9 ± 2.1** [28]a
DAY 15	MEAN±S.D.	25.0 ± 4.0 [27]b	24.2 ± 2.8 [26]b	26.4 ± 4.7	24.8 ± 4.0	22.9 ± 4.3 [28]a
DAY 22	MEAN±S.D.	37.4 ± 6.5 [27]b	36.7 ± 5.5 [26]b	39.7 ± 8.3	38.8 ± 6.1	35.7 ± 7.0 [28]a

DAY = DAY POSTPARTUM
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes litter 13947, which had no surviving pups on day 1 of lactation.
b. Excludes litters in which the dam was sacrificed.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE C21 (PAGE 1): CLINICAL OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - SUMMARY - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP		I	II	III	IV	V
MATERNAL DOSAGE (MG/KG/DAY)		0	1	3	10	30
LITTERS EXAMINED (N)		28	27	29	29	29
TRANSIENT CLINICAL OBSERVATIONS: a		TOTAL FREQUENCY (DAYS X PUPS)/LITTERS WITH OBSERVATIONS				
COLD TO TOUCH	N/N	22/5	5/4	29/5	3/2	81/4
BRUISE b	N/N	0/0	0/0	0/0	6/1	12/4**
NO MILK IN STOMACH	N/N	1/1	0/0	0/0	3/2	2/2
UMBILICAL HERNIA	N/N	0/0	2/1	0/0	1/1	14/2
PALE	N/N	0/0	0/0	0/0	1/1	1/1
LEFT FORELIMB OR MOUTH: MASS	N/N	0/0	2/1	0/0	0/0	11/1
NOT NESTING	N/N	3/1	0/0	0/0	1/1	0/0
BACK: SCAB	N/N	0/0	0/0	0/0	1/1	0/0
RED PERIANAL SUBSTANCE	N/N	0/0	0/0	1/1	0/0	0/0
NOT NURSING	N/N	3/1	0/0	0/0	0/0	0/0
PERSISTENT CLINICAL OBSERVATIONS: a		TOTAL FREQUENCY (DAYS X PUPS)/LITTERS WITH OBSERVATIONS				
TIP OF TAIL MISSING	N/N	0/0	18/1	2/1	22/1	0/0
LEFT EYE: TRAUMATIZED CORNEA	N/N	0/0	0/0	0/0	2/1	0/0
TIP OF TAIL BLACK	N/N	0/0	0/0	20/1	0/0	0/0
HINDLIMBS ROTATED INWARD	N/N	0/0	22/1	0/0	0/0	0/0
NO TAIL PRESENT	N/N	0/0	22/1	0/0	0/0	0/0

STATISTICAL ANALYSES WERE RESTRICTED TO THE NUMBER OF LITTERS WITH OBSERVATIONS.
a. Tabulation restricted to adverse observations; all other pups appeared normal.
b. Located on the head, back, chest and/or lower midline.
** Significantly different from the vehicle control group value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C22 (PAGE 1): NECROPSY OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - SUMMARY - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP		I	II	III	IV	V
MATERNAL DOSAGE (MG/KG/DAY)		0	1	3	10	30
LITTERS EXAMINED	N	28	27	28	28	29
TOTAL PUPS STILLBORN OR FOUND DEAD a,b	N	6	8	10	8	17
STILLBORN	N	3	1	5	4	6
FOUND DEAD	N	3	7	5	4	11
NO MILK IN STOMACH c	N(%)	2(66.7)	2(28.6)	0(0.0)	2(50.0)	5(45.4)
PUPS SACRIFICED AND NECROPSIED ON DAYS 8, 11 AND 22 POSTPARTUM b						
LITTERS EVALUATED	N	28	27	28	28	28
PUPS EVALUATED	N	163	156	148	161	145
APPEARED NORMAL						
LITTER INCIDENCE	N(%)	28(100.0)	27(100.0)	28(100.0)	28(100.0)	27(96.4)
PUP INCIDENCE	N(%)	163(100.0)	156(100.0)	148(100.0)	161(100.0)	144(99.3)
KIDNEYS:						
RIGHT, PELVIS, MODERATE DILATION						
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(3.6)
PUP INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(0.7)

a. Restricted to pups in which complete necropsies were performed. Complete necropsies were not performed on pups in which autolysis or cannibalization precluded evaluation.
b. Refer to the individual pup clinical observations table (Table C39) for external clinical observations confirmed at necropsy.
c. Analysis restricted to pups found dead and necropsied.

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TABLE C23 (PAGE 1): PUP ORGAN WEIGHTS - SUMMARY - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP		I	II	III	IV	V
MATERNAL DOSAGE (MG/KG/DAY)		0	1	3	10	30
LITTERS EXAMINED	N	27	26	28	28	28
TERMINAL BODY WEIGHT						
WEIGHT/LITTER	MEAN±S.D.	36.84 ± 6.61 [25]a	35.52 ± 5.41 [22]a	39.21 ± 8.24 [26]a	36.68 ± 5.84 [24]a	34.25 ± 6.60 [22]a
MALE PUPS	MEAN±S.D.	38.26 ± 6.52 [24]a,b	36.82 ± 5.08 [22]a	40.01 ± 8.36 [22]a,b	37.78 ± 6.82 [24]a	35.53 ± 6.79 [21]a
FEMALE PUPS	MEAN±S.D.	35.63 ± 7.11 [25]a	34.23 ± 6.42 [22]a	37.92 ± 7.73 [24]a,c	35.59 ± 5.25 [24]a	33.22 ± 7.23 [21]a,c
BRAIN						
WEIGHT/LITTER	MEAN±S.D.	1.40 ± 0.10	1.43 ± 0.10	1.42 ± 0.11	1.40 ± 0.09	1.38 ± 0.12
MALE PUPS	MEAN±S.D.	1.42 ± 0.11 [26]b	1.45 ± 0.12	1.45 ± 0.13 [24]b	1.42 ± 0.12	1.40 ± 0.13 [26]b
FEMALE PUPS	MEAN±S.D.	1.38 ± 0.12	1.41 ± 0.10	1.40 ± 0.11 [26]c	1.38 ± 0.09	1.36 ± 0.11 [27]c
SPLEEN						
WEIGHT/LITTER	MEAN±S.D.	0.14 ± 0.05	0.12 ± 0.03	0.13 ± 0.05	0.14 ± 0.04	0.12 ± 0.04
MALE PUPS	MEAN±S.D.	0.15 ± 0.06 [26]b	0.12 ± 0.04	0.13 ± 0.06 [24]b	0.13 ± 0.05	0.11 ± 0.04 [26]b
FEMALE PUPS	MEAN±S.D.	0.13 ± 0.05	0.12 ± 0.04	0.13 ± 0.04 [26]c	0.14 ± 0.05	0.12 ± 0.04 [27]c
THYMUS						
WEIGHT/LITTER	MEAN±S.D.	0.16 ± 0.05	0.16 ± 0.04	0.14 ± 0.05	0.17 ± 0.05	0.14 ± 0.05
MALE PUPS	MEAN±S.D.	0.16 ± 0.05 [26]b	0.16 ± 0.04	0.14 ± 0.05 [24]b	0.17 ± 0.05	0.14 ± 0.05 [26]b
FEMALE PUPS	MEAN±S.D.	0.16 ± 0.06	0.15 ± 0.05	0.14 ± 0.04 [26]c	0.16 ± 0.05	0.14 ± 0.05 [27]c

ALL WEIGHTS WERE RECORDED IN GRAMS (G).
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for pups in which the terminal body weight could not be determined because pup identification was not recorded or appeared incorrectly recorded.
b. Excludes values for litter(s) that had no male pups examined.
c. Excludes values for litter(s) that had no female pups examined.

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TABLE C23 (PAGE 2): PUP ORGAN WEIGHTS - SUMMARY - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP		I	II	III	IV	V
MATERNAL DOSAGE (MG/KG/DAY)		0	1	3	10	30
LITTERS EXAMINED	N	27	26	28	28	28
INCLUDED IN ANALYSES	N	25a	22a	26a	24a	22a
RATIOS (%) OF BRAIN TO TERMINAL BODY WEIGHT						
WEIGHT/LITTER	MEAN±S.D.	3.93 ± 0.64	4.07 ± 0.43	3.77 ± 0.61	3.88 ± 0.48	4.11 ± 0.62
MALE PUPS	MEAN±S.D.	3.83 ± 0.63 [24]b	3.95 ± 0.36	3.75 ± 0.56 [22]b	3.82 ± 0.50	4.00 ± 0.51 [21]b
FEMALE PUPS	MEAN±S.D.	4.02 ± 0.70	4.18 ± 0.59	3.84 ± 0.65 [24]c	3.94 ± 0.58	4.23 ± 0.86 [21]c
RATIOS (%) OF SPLEEN TO TERMINAL BODY WEIGHT						
WEIGHT/LITTER	MEAN±S.D.	0.38 ± 0.11	0.33 ± 0.07	0.33 ± 0.10	0.36 ± 0.09	0.33 ± 0.06
MALE PUPS	MEAN±S.D.	0.40 ± 0.13 [24]b	0.33 ± 0.09	0.31 ± 0.11 [22]b	0.35 ± 0.11	0.31 ± 0.08 [21]b
FEMALE PUPS	MEAN±S.D.	0.37 ± 0.11	0.33 ± 0.09	0.34 ± 0.10 [24]c	0.38 ± 0.10	0.34 ± 0.07 [21]c
RATIOS (%) OF THYMUS TO TERMINAL BODY WEIGHT						
WEIGHT/LITTER	MEAN±S.D.	0.44 ± 0.12	0.42 ± 0.07	0.36 ± 0.09*	0.45 ± 0.12	0.39 ± 0.09
MALE PUPS	MEAN±S.D.	0.42 ± 0.11 [24]b	0.42 ± 0.09	0.35 ± 0.09 [22]b	0.46 ± 0.13	0.37 ± 0.11 [21]b
FEMALE PUPS	MEAN±S.D.	0.46 ± 0.16	0.42 ± 0.10	0.37 ± 0.10 [24]c	0.45 ± 0.13	0.41 ± 0.10 [21]c

ALL WEIGHTS WERE RECORDED IN GRAMS (G). RATIOS (%) = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

[ ] = NUMBER OF VALUES AVERAGED

a. Excludes values for pups in which the terminal body weight could not be determined because pup identification was not recorded or appeared incorrectly recorded.

b. Excludes values for litter(s) that had no male pups examined.

c. Excludes values for litter(s) that had no female pups examined.

* Significantly different from the Group I value ($p \leq 0.05$).

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TABLE C23 (PAGE 3): PUP ORGAN WEIGHTS - SUMMARY - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP		I	II	III	IV	V
MATERNAL DOSAGE (MG/KG/DAY)		0	1	3	10	30
LITTERS EXAMINED	N	27	26	28	28	28
RATIOS (%) OF SPLEEN TO BRAIN WEIGHT						
WEIGHT/LITTER	MEAN±S.D.	9.74 ± 3.30	8.34 ± 2.16	8.98 ± 3.17	9.64 ± 2.74	8.59 ± 2.48
MALE PUPS	MEAN±S.D.	10.42 ± 4.21 [26]a	8.60 ± 2.60	8.62 ± 3.75 [24]a	9.36 ± 3.05	8.02 ± 2.41 [26]a
FEMALE PUPS	MEAN±S.D.	9.26 ± 2.95	8.08 ± 2.74	8.94 ± 2.68 [26]b	9.91 ± 3.04	8.83 ± 2.50 [27]b
RATIOS (%) OF THYMUS TO BRAIN WEIGHT						
WEIGHT/LITTER	MEAN±S.D.	11.17 ± 3.28	10.80 ± 2.35	9.84 ± 2.94	11.88 ± 3.33	9.82 ± 2.86
MALE PUPS	MEAN±S.D.	11.02 ± 3.45 [26]a	10.95 ± 2.60	9.62 ± 3.24 [24]a	12.23 ± 3.71	9.46 ± 3.22 [26]a
FEMALE PUPS	MEAN±S.D.	11.46 ± 3.69	10.66 ± 3.07	9.92 ± 2.82 [26]b	11.53 ± 3.45	10.06 ± 3.02 [27]b

ALL WEIGHTS WERE RECORDED IN GRAMS (G). RATIOS (%) = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for litter(s) that had no male pups examined.
b. Excludes values for litter(s) that had no female pups examined.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C24 (PAGE 1): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP I		0 MG/KG/DAY
RAT #		DESCRIPTION
13801	DS(48- 56)	LOCALIZED ALOPECIA: LIMBS
	DS(59- 72)	LOCALIZED ALOPECIA: LIMBS
	DG(0- 20)	LOCALIZED ALOPECIA: LIMBS
	DL(1- 22)	LOCALIZED ALOPECIA: LIMBS a
13802	DL(5)	SOFT OR LIQUID FECES
	DL(14)	SOFT OR LIQUID FECES
13803		NO ADVERSE FINDINGS
13804	DS(68)	CHROMORHINORRHEA a
	DS(68)	CHROMODACRYORRHEA a
	DS(68)	PALATE: BROKEN a
	DS(68)	SWOLLEN SNOUT
	DS(68)	INCISORS: MISALIGNED
	DS(68)	MORIBUND SACRIFICED
13805		NO ADVERSE FINDINGS
13806	DS(15- 17)	INCISORS: MISSING/BROKEN
	DL(20- 21)	LOCALIZED ALOPECIA: LIMBS
13807		NO ADVERSE FINDINGS
13808	DS(37- 45)	INCISORS: MISSING/BROKEN
13809		NO ADVERSE FINDINGS
13810	DS(8- 71)	LOCALIZED ALOPECIA: LIMBS
	DG(0)	LOCALIZED ALOPECIA: LIMBS
13811		NO ADVERSE FINDINGS
13812		NO ADVERSE FINDINGS
13813		NO ADVERSE FINDINGS
13814	DL(18- 22)	RIGHT EAR: SWOLLEN a
13815		NO ADVERSE FINDINGS
13816	DL(9)	SOFT OR LIQUID FECES

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Observation confirmed at necropsy.

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TABLE C24 (PAGE 2): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP I		0 MG/KG/DAY
RAT #		DESCRIPTION
13817		NO ADVERSE FINDINGS
13818	DL(12)	SOFT OR LIQUID FECES
	DL(14)	SOFT OR LIQUID FECES
13819		NO ADVERSE FINDINGS
13820	DG(3- 21)	CHROMODACRYORRHEA
	DG(3- 21)	INCISORS: MISALIGNED
	DL(1- 22)	CHROMODACRYORRHEA a
	DL(1- 22)	INCISORS: MISALIGNED a
13821	DL(11- 12)	SOFT OR LIQUID FECES
13822	DS(15- 16)	LEFT FORELIMB: SCAB (0.5 CM X 0.5 CM)
	DS(22- 26)	RIGHT FORELIMB: SCAB (0.2 CM X 0.2 CM)
	DL(8)	SACRIFICED b
13823		NO ADVERSE FINDINGS
13824	DL(14)	SOFT OR LIQUID FECES
13825	DG(4- 21)	BOTH EARS: SWOLLEN
	DL(1- 22)	BOTH EARS: SWOLLEN a
13826		NO ADVERSE FINDINGS
13827	DG(3- 6)	LOCALIZED ALOPECIA: LIMBS
	DL(13- 22)	LOCALIZED ALOPECIA: LIMBS a
13828		NO ADVERSE FINDINGS
13829		NO ADVERSE FINDINGS
13830		NO ADVERSE FINDINGS

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Observation confirmed at necropsy.

b. The litters from dams 13822 in Group I and 13852 in Group II were mixed together. Both dams and litters were sacrificed because it was not possible to identify to which litter the pups belonged.

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TABLE C24 (PAGE 3): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP II		1 MG/KG/DAY
RAT #		DESCRIPTION
13831	DS(40- 45)	INCISORS: MISSING/BROKEN
13832		NO ADVERSE FINDINGS
13833		NO ADVERSE FINDINGS
13834		NO ADVERSE FINDINGS
13835		NO ADVERSE FINDINGS
13836	DS(57- 59)	LEFT FORELIMB AND FOREPAW: SWOLLEN a
	DS(59)	LEFT FORELIMB: FRACTURED
	DS(59)	MORIBUND SACRIFICED
13837	DL(17- 21)	LOCALIZED ALOPECIA: LIMBS
13838		NO ADVERSE FINDINGS
13839	DS(32- 71)	LOCALIZED ALOPECIA: LIMBS
	DG(0- 21)	LOCALIZED ALOPECIA: LIMBS
	DL(1- 22)	LOCALIZED ALOPECIA: LIMBS a
13840		NO ADVERSE FINDINGS
13841		NO ADVERSE FINDINGS
13842		NO ADVERSE FINDINGS
13843		NO ADVERSE FINDINGS
13844		NO ADVERSE FINDINGS
13845	DL(12)	SOFT OR LIQUID FECES
13846		NO ADVERSE FINDINGS
13847	DS(1- 5)	CHROMORHINORRHEA
	DS(7)	CHROMORHINORRHEA

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C24 (PAGE 4): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP II		1 MG/KG/DAY
RAT #		DESCRIPTION
13848		NO ADVERSE FINDINGS
13849		NO ADVERSE FINDINGS
13850		NO ADVERSE FINDINGS
13851		NO ADVERSE FINDINGS
13852	DL(11)	SACRIFICED b
13853		NO ADVERSE FINDINGS
13854		NO ADVERSE FINDINGS
13855		NO ADVERSE FINDINGS
13856	DG(16- 21)	LOWER MIDLINE: SCAB (0.5 CM X 0.2 CM)
	DL(4- 22)	RIGHT EAR: SWOLLEN a
	DL(8)	SOFT OR LIQUID FECES
	DL(12- 13)	SOFT OR LIQUID FECES
13857		NO ADVERSE FINDINGS
13858		NO ADVERSE FINDINGS
13859	DS(30- 32)	SOFT OR LIQUID FECES
13860	DS(59- 73)	LOCALIZED ALOPECIA: UNDERSIDE
	DG(0- 13)	LOCALIZED ALOPECIA: UNDERSIDE
	DG(20)	LOCALIZED ALOPECIA: UNDERSIDE
	DL(1- 22)	LOCALIZED ALOPECIA: UNDERSIDE a
	DL(8- 22)	LOCALIZED ALOPECIA: LIMBS a

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Observation confirmed at necropsy.

b. The litters from dams 13822 in Group I and 13852 in Group II were mixed together. Both dams and litters were sacrificed because it was not possible to identify to which litter the pups belonged.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C24 (PAGE 5): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP III		3 MG/KG/DAY
RAT #		DESCRIPTION
13861		NO ADVERSE FINDINGS
13862	DS(77-109)	BOTH EARS: SWOLLEN a
13863		NO ADVERSE FINDINGS
13864		NO ADVERSE FINDINGS
13865		NO ADVERSE FINDINGS
13866		NO ADVERSE FINDINGS
13867		NO ADVERSE FINDINGS
13868		NO ADVERSE FINDINGS
13869	DS(5)	CHROMORHINORRHEA
	DS(73)	LEFT HINDPAW: SWOLLEN
	DG(0- 17)	LEFT HINDPAW: SWOLLEN
	DG(4- 6)	LEFT HINDPAW: ABRASION (0.3 CM X 0.2 CM)
	DG(7- 10)	LEFT HINDPAW: SCAB (0.3 CM X 0.2 CM)
	DG(11- 17)	LOCALIZED ALOPECIA: LIMBS
	DL(4- 13)	RIGHT EYE: SWOLLEN
	DL(4- 22)	TRAUMATIZED CORNEA a
13870		NO ADVERSE FINDINGS
13871		NO ADVERSE FINDINGS
13872	DL(7- 8)	TEAT: SWOLLEN
13873		NO ADVERSE FINDINGS
13874	DL(22)	LOCALIZED ALOPECIA: LIMBS a

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
a. Observation confirmed at necropsy.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C24 (PAGE 6): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP III		3 MG/KG/DAY
RAT #		DESCRIPTION
13875	DS(8- 9)	CHROMORHINORRHEA
13876		NO ADVERSE FINDINGS
13877		NO ADVERSE FINDINGS
13878		NO ADVERSE FINDINGS
13879		NO ADVERSE FINDINGS
13880		NO ADVERSE FINDINGS
13881		NO ADVERSE FINDINGS
13882		NO ADVERSE FINDINGS
13883	DG(7- 21)	RIGHT EAR: SWOLLEN
13884	DS(55- 73)	INCISORS: MISALIGNED
	DS(68- 73)	CHROMODACRYORRHEA
	DG(0- 2)	CHROMODACRYORRHEA
	DG(0- 21)	INCISORS: MISALIGNED
	DL(1- 22)	INCISORS: MISALIGNED a
	DL(7- 22)	INCISORS: MISSING/BROKEN a
13885		NO ADVERSE FINDINGS
13886	DL(14- 15)	SOFT OR LIQUID FECES
13887	DS(2- 3)	CHROMORHINORRHEA
13888	DL(22)	LOCALIZED ALOPECIA: LIMBS
13889		NO ADVERSE FINDINGS
13890		NO ADVERSE FINDINGS

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C24 (PAGE 7): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP IV		10 MG/KG/DAY
RAT #		DESCRIPTION
13891		NO ADVERSE FINDINGS
13892	DG(2)	CHROMODACRYORRHEA
	DG(3- 20)	INCISORS: MISSING/BROKEN
	DL(1- 9)	INCISORS: MISSING/BROKEN
13893		NO ADVERSE FINDINGS
13894	DL(12- 14)	RIGHT AXILLA: MASS (2.5 CM X 1.0 CM X 1.0 CM)
13895	DG(19- 20)	INCISORS: MISSING/BROKEN
13896	DS(37- 49)	INCISORS: MISSING/BROKEN
	DS(58- 71)	CHROMODACRYORRHEA
	DS(58- 71)	INCISORS: MISALIGNED
	DG(0- 2)	CHROMODACRYORRHEA
	DG(0- 21)	INCISORS: MISALIGNED
	DL(1- 22)	INCISORS: MISALIGNED a
	DL(19- 22)	CHROMODACRYORRHEA a
13897	DS(7)	CHROMORHINORRHEA
	DG(11)	CHROMORHINORRHEA
13898	DG(7- 21)	RIGHT EAR: SWOLLEN
	DL(1- 22)	RIGHT EAR: SWOLLEN a
13899		NO ADVERSE FINDINGS
13900		NO ADVERSE FINDINGS
13901	DL(22)	RIGHT EAR: SWOLLEN a
13902		NO ADVERSE FINDINGS
13903		NO ADVERSE FINDINGS

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C24 (PAGE 8): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP IV		10 MG/KG/DAY
RAT #		DESCRIPTION
13904	DL(5)	SOFT OR LIQUID FECES
13905		NO ADVERSE FINDINGS
13906	DS(87- 95)	BOTH EARS: SWOLLEN
13907	DL(12- 16)	SOFT OR LIQUID FECES
13908	DG(14)	DRIED, RED PERINASAL SUBSTANCE
	DG(14)	BOTH FOREPAWS: DRIED, RED SUBSTANCE
	DL(14- 22)	RIGHT EAR: SWOLLEN a
13909		NO ADVERSE FINDINGS
13910		NO ADVERSE FINDINGS
13911		NO ADVERSE FINDINGS
13912	DG(5- 21)	LOCALIZED ALOPECIA: LIMBS
	DL(1- 22)	LOCALIZED ALOPECIA: LIMBS a
13913		NO ADVERSE FINDINGS
13914		NO ADVERSE FINDINGS
13915		NO ADVERSE FINDINGS
13916	DS(22- 28)	BACK: NUMEROUS SCABS
13917		NO ADVERSE FINDINGS
13918		NO ADVERSE FINDINGS
13919		NO ADVERSE FINDINGS
13920		NO ADVERSE FINDINGS

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C24 (PAGE 9): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP V		30 MG/KG/DAY
RAT #		DESCRIPTION
13921		NO ADVERSE FINDINGS
13922		NO ADVERSE FINDINGS
13923	DS(24)	UNGROOMED COAT
13924		NO ADVERSE FINDINGS
13925		NO ADVERSE FINDINGS
13926		NO ADVERSE FINDINGS
13927	DG(7- 21)	RIGHT EAR: SWOLLEN
	DL(1- 22)	RIGHT EAR: SWOLLEN a
13928	DL(6- 10)	RIGHT EAR: SWOLLEN
13929		NO ADVERSE FINDINGS
13930	DG(12- 21)	LOCALIZED ALOPECIA: LIMBS
	DL(1- 10)	LOCALIZED ALOPECIA: LIMBS
13931		NO ADVERSE FINDINGS
13932		NO ADVERSE FINDINGS
13933		NO ADVERSE FINDINGS
13934	DS(46- 54)	INCISORS: MISSING/BROKEN
13935	DG(4- 8)	LOCALIZED ALOPECIA: LIMBS
	DG(14)	CHROMORHINORRHEA
	DG(19- 21)	HEAD: MASS (0.7 CM X 0.5 CM X 0.3 CM)
	DL(1- 4)	HEAD: MASS (0.7 CM X 0.5 CM X 0.3 CM)
	DL(5- 11)	HEAD: SCAB (DID NOT EXCEED 0.5 CM X 0.5 CM)
	DL(12- 18)	LOCALIZED ALOPECIA: HEAD

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C24 (PAGE 10): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP V		30 MG/KG/DAY
RAT #		DESCRIPTION
13936		NO ADVERSE FINDINGS
13937		NO ADVERSE FINDINGS
13938		NO ADVERSE FINDINGS
13939	DL(13- 22)	CHROMODACRYORRHEA a
13940	DS(16- 17)	CHROMORHINORRHEA
13941		NO ADVERSE FINDINGS
13942		NO ADVERSE FINDINGS
13943	DL(12- 22)	LOCALIZED ALOPECIA: LIMBS a
13944		NO ADVERSE FINDINGS
13945		NO ADVERSE FINDINGS
13946	DG(9- 21)	BOTH EARS: SWOLLEN
	DL(1- 22)	BOTH EARS: SWOLLEN a
13947	DL(1)	SACRIFICED DUE TO NO SURVIVING PUPS
13948	DS(30- 50)	INCISORS: MISALIGNED
	DS(53- 73)	INCISORS: MISSING/BROKEN
	DS(53- 73)	INCISORS: MISALIGNED
	DG(0- 12)	INCISORS: MISSING/BROKEN
	DG(0- 20)	INCISORS: MISALIGNED
	DL(7- 22)	INCISORS: MISSING/BROKEN a
	DL(9- 22)	INCISORS: MISALIGNED a
13949		NO ADVERSE FINDINGS
13950	DL(8- 9)	LOCALIZED ALOPECIA: LIMBS

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C25 (PAGE 1): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAY	1	8	15	22	29	36	43	50	57	64	70a
RAT #	DOSAGE GROUP I				0 MG/KG/DAY						
13801	131.	149.	177.	187.	194.	205.	217.	227.	225.	238.	246.
13802	154.	183.	216.	240.	260.	262.	282.	297.	296.	293.	308.
13803	154.	177.	216.	227.	242.	256.	272.	283.	288.	301.	303.
13804	155.	187.	209.	227.	250.	257.	263.	270.	279.	281.	b
13805	141.	173.	194.	216.	256.	240.	248.	267.	275.	280.	278.
13806	155.	182.	200.	217.	229.	236.	245.	261.	258.	264.	268.
13807	149.	186.	215.	234.	254.	264.	275.	281.	290.	290.	301.
13808	145.	181.	204.	224.	239.	250.	256.	264.	266.	267.	270.
13809	140.	168.	190.	202.	218.	226.	237.	242.	245.	258.	253.
13810	154.	194.	225.	249.	261.	265.	279.	297.	296.	298.	309.
13811	145.	177.	200.	215.	214.	236.	238.	251.	266.	264.	271.
13812	152.	178.	195.	209.	224.	233.	241.	254.	262.	278.	278.
13813	136.	167.	187.	203.	218.	230.	240.	248.	255.	265.	266.
13814	155.	177.	204.	225.	240.	251.	257.	274.	274.	280.	280.
13815	147.	186.	214.	239.	256.	264.	283.	292.	308.	310.	315.
13816	152.	171.	197.	202.	223.	216.	227.	233.	239.	239.	239.
13817	138.	164.	187.	204.	213.	222.	226.	233.	227.	235.	239.
13818	156.	179.	212.	219.	229.	236.	236.	251.	253.	260.	264.
13819	143.	174.	195.	210.	222.	232.	236.	253.	256.	250.	261.
13820	134.	187.	216.	233.	251.	265.	278.	288.	293.	299.	300.
13821	144.	170.	196.	212.	227.	240.	251.	252.	261.	267.	268.
13822	151.	186.	215.	232.	254.	265.	273.	268.	278.	286.	283.
13823	148.	175.	199.	217.	240.	254.	263.	268.	279.	290.	292.
13824	154.	186.	216.	232.	248.	262.	284.	285.	296.	303.	299.
13825	142.	175.	193.	219.	237.	254.	260.	274.	283.	292.	288.
13826	160.	188.	216.	230.	248.	258.	261.	271.	288.	285.	292.
13827	147.	188.	214.	229.	253.	266.	277.	280.	290.	307.	298.
13828	153.	176.	196.	213.	226.	233.	236.	252.	263.	268.	273.
13829	145.	175.	185.	198.	209.	221.	227.	242.	249.	250.	252.
13830	153.	173.	188.	191.	200.	211.	216.	225.	229.	235.	234.

DAY = DAY OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.
b. Rat 13804 was moribund sacrificed on day 68 of study.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C25 (PAGE 2): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAY	1	8	15	22	29	36	43	50	57	64	70a
RAT #	DOSAGE GROUP II				1 MG/KG/DAY						
13831	139.	171.	193.	214.	219.	242.	260.	264.	259.	266.	273.
13832	159.	191.	219.	241.	249.	263.	263.	268.	269.	283.	283.
13833	147.	173.	205.	216.	233.	233.	249.	255.	258.	260.	267.
13834	150.	179.	204.	221.	230.	230.	249.	266.	269.	267.	274.
13835	142.	177.	197.	212.	224.	226.	242.	252.	255.	256.	268.
13836	155.	171.	188.	197.	207.	214.	217.	227.	237.	MORIBUND SACRIFICED ON DAY 59 OF STUDY	
13837	144.	163.	179.	195.	209.	217.	219.	230.	236.	244.	249.
13838	149.	179.	202.	222.	234.	251.	256.	275.	284.	300.	307.
13839	138.	166.	194.	210.	226.	227.	242.	254.	260.	263.	272.
13840	156.	185.	209.	225.	240.	242.	252.	260.	259.	264.	265.
13841	150.	174.	195.	215.	227.	235.	245.	258.	266.	272.	273.
13842	153.	176.	207.	213.	229.	235.	243.	250.	256.	258.	261.
13843	140.	162.	179.	185.	197.	205.	214.	215.	221.	227.	229.
13844	157.	189.	216.	234.	253.	262.	266.	276.	283.	286.	287.
13845	153.	179.	200.	207.	224.	230.	234.	241.	244.	251.	252.
13846	149.	167.	186.	198.	210.	221.	230.	250.	252.	256.	256.
13847	141.	175.	194.	211.	224.	238.	249.	260.	261.	274.	276.
13848	156.	185.	215.	227.	245.	257.	273.	280.	285.	292.	294.
13849	146.	176.	204.	220.	235.	253.	268.	283.	283.	297.	306.
13850	147.	176.	199.	212.	229.	243.	252.	267.	274.	278.	280.
13851	141.	167.	187.	202.	211.	223.	234.	237.	240.	251.	257.
13852	149.	172.	192.	211.	232.	240.	246.	257.	271.	283.	280.
13853	145.	176.	197.	214.	233.	244.	249.	262.	264.	271.	272.
13854	152.	190.	225.	249.	266.	272.	276.	288.	296.	302.	302.
13855	143.	177.	206.	233.	247.	254.	257.	267.	278.	278.	280.
13856	151.	174.	207.	227.	241.	251.	256.	268.	278.	284.	289.
13857	145.	172.	202.	215.	222.	233.	245.	254.	258.	267.	266.
13858	151.	174.	194.	210.	227.	235.	238.	244.	259.	265.	265.
13859	144.	171.	193.	204.	212.	216.	229.	235.	245.	241.	248.
13860	148.	171.	187.	195.	204.	210.	223.	231.	238.	251.	252.

DAY = DAY OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C25 (PAGE 3): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAY	1	8	15	22	29	36	43	50	57	64	70a
RAT #	DOSAGE GROUP III				3 MG/KG/DAY						
13861	130.	157.	177.	189.	198.	206.	213.	220.	232.	236.	236.
13862	161.	193.	227.	248.	269.	279.	290.	297.	302.	313.	315.
13863	149.	177.	207.	215.	222.	228.	239.	248.	251.	253.	264.
13864	149.	181.	207.	212.	234.	238.	254.	261.	261.	265.	265.
13865	141.	181.	202.	219.	236.	245.	244.	262.	282.	288.	291.
13866	161.	194.	223.	257.	277.	283.	307.	309.	325.	333.	334.
13867	149.	176.	199.	215.	230.	237.	250.	254.	256.	268.	269.
13868	146.	173.	203.	212.	223.	238.	250.	254.	264.	267.	269.
13869	145.	178.	210.	226.	249.	261.	272.	278.	290.	299.	290.
13870	154.	180.	200.	221.	237.	248.	260.	271.	277.	283.	283.
13871	148.	185.	209.	225.	238.	236.	239.	254.	256.	259.	273.
13872	154.	182.	207.	216.	233.	242.	253.	255.	266.	275.	276.
13873	142.	174.	192.	215.	221.	231.	241.	246.	252.	266.	263.
13874	156.	200.	234.	249.	278.	294.	309.	322.	321.	336.	337.
13875	143.	174.	190.	208.	225.	232.	240.	251.	263.	268.	267.
13876	155.	192.	220.	249.	278.	293.	306.	328.	338.	347.	351.
13877	144.	185.	214.	241.	256.	270.	293.	300.	308.	319.	326.
13878	149.	179.	205.	221.	233.	241.	252.	264.	267.	277.	289.
13879	144.	176.	195.	215.	222.	239.	248.	261.	270.	280.	280.
13880	155.	188.	216.	232.	253.	266.	281.	300.	314.	320.	327.
13881	146.	173.	192.	198.	213.	211.	224.	228.	240.	243.	248.
13882	158.	190.	220.	239.	258.	272.	281.	292.	292.	296.	306.
13883	152.	179.	197.	212.	226.	234.	238.	252.	262.	268.	270.
13884	150.	188.	216.	237.	248.	261.	272.	278.	286.	287.	296.
13885	147.	183.	208.	232.	245.	253.	258.	270.	281.	291.	297.
13886	155.	184.	210.	223.	236.	245.	251.	254.	260.	266.	269.
13887	144.	174.	200.	206.	218.	230.	235.	245.	246.	259.	257.
13888	153.	181.	209.	233.	248.	255.	265.	275.	286.	292.	298.
13889	148.	183.	210.	233.	248.	256.	264.	272.	283.	286.	289.
13890	150.	178.	208.	225.	241.	253.	263.	268.	275.	285.	282.

DAY = DAY OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C25 (PAGE 4): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAY	1	8	15	22	29	36	43	50	57	64	70a
RAT #	DOSAGE GROUP IV				10 MG/KG/DAY						
13891	136.	160.	178.	190.	210.	218.	227.	234.	234.	246.	243.
13892	160.	192.	215.	233.	250.	260.	268.	274.	289.	292.	294.
13893	155.	192.	225.	249.	273.	281.	286.	297.	305.	312.	321.
13894	152.	186.	214.	237.	252.	265.	283.	298.	301.	303.	320.
13895	141.	176.	208.	223.	236.	238.	248.	264.	262.	265.	265.
13896	157.	191.	215.	229.	247.	255.	270.	287.	290.	277.	283.
13897	151.	192.	225.	231.	251.	262.	276.	283.	293.	304.	310.
13898	159.	191.	220.	248.	264.	279.	287.	293.	299.	304.	310.
13899	140.	165.	185.	203.	210.	213.	223.	233.	239.	239.	244.
13900	155.	184.	210.	222.	237.	247.	255.	263.	266.	272.	272.
13901	150.	174.	197.	214.	225.	237.	250.	260.	255.	262.	267.
13902	145.	171.	196.	212.	227.	236.	253.	263.	274.	281.	286.
13903	140.	173.	198.	216.	229.	240.	251.	269.	276.	285.	295.
13904	151.	174.	185.	201.	214.	224.	232.	250.	246.	261.	271.
13905	149.	188.	207.	230.	249.	251.	267.	273.	278.	280.	291.
13906	153.	193.	216.	231.	248.	263.	271.	271.	282.	294.	296.
13907	140.	167.	190.	206.	227.	235.	241.	256.	263.	262.	269.
13908	155.	188.	212.	240.	260.	266.	274.	290.	293.	301.	303.
13909	147.	177.	200.	211.	229.	241.	249.	251.	261.	268.	268.
13910	151.	186.	219.	249.	258.	270.	282.	300.	300.	315.	323.
13911	145.	177.	202.	213.	231.	244.	252.	257.	263.	271.	275.
13912	159.	189.	211.	234.	248.	258.	263.	278.	283.	285.	294.
13913	142.	173.	199.	215.	229.	243.	252.	260.	258.	270.	276.
13914	153.	183.	212.	235.	250.	257.	264.	275.	284.	291.	301.
13915	148.	182.	204.	218.	236.	246.	246.	253.	264.	277.	263.
13916	156.	191.	215.	234.	247.	264.	278.	290.	287.	304.	312.
13917	146.	176.	218.	227.	237.	245.	251.	263.	270.	276.	277.
13918	154.	182.	206.	215.	228.	236.	245.	255.	257.	261.	260.
13919	143.	167.	196.	215.	226.	233.	244.	252.	253.	262.	269.
13920	150.	179.	199.	212.	224.	231.	247.	256.	260.	271.	273.

DAY = DAY OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C25 (PAGE 5): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAY	1	8	15	22	29	36	43	50	57	64	70a
RAT #	DOSAGE GROUP V				30 MG/KG/DAY						
13921	141.	174.	203.	224.	240.	244.	258.	270.	276.	279.	284.
13922	164.	191.	204.	219.	237.	239.	249.	263.	258.	261.	268.
13923	146.	178.	202.	216.	228.	238.	246.	261.	269.	270.	277.
13924	150.	180.	203.	221.	237.	243.	247.	261.	272.	277.	275.
13925	138.	169.	189.	199.	212.	220.	228.	230.	232.	239.	243.
13926	158.	190.	216.	228.	237.	238.	256.	267.	272.	272.	284.
13927	153.	181.	207.	232.	250.	246.	265.	270.	274.	269.	278.
13928	152.	183.	200.	216.	231.	245.	247.	270.	274.	281.	287.
13929	140.	163.	185.	198.	214.	220.	224.	235.	240.	243.	245.
13930	160.	191.	222.	233.	247.	253.	265.	275.	280.	276.	286.
13931	147.	178.	205.	207.	231.	238.	251.	257.	262.	271.	273.
13932	147.	169.	195.	213.	223.	224.	241.	248.	252.	255.	263.
13933	139.	173.	195.	212.	227.	223.	236.	245.	244.	250.	247.
13934	156.	186.	206.	215.	233.	247.	255.	258.	265.	276.	270.
13935	149.	181.	207.	217.	234.	239.	255.	258.	266.	268.	280.
13936	155.	188.	210.	225.	239.	245.	258.	256.	265.	279.	278.
13937	137.	167.	189.	199.	211.	222.	236.	242.	244.	253.	264.
13938	145.	174.	199.	220.	232.	235.	251.	258.	261.	257.	271.
13939	148.	185.	218.	230.	249.	250.	265.	275.	284.	283.	294.
13940	148.	185.	210.	230.	245.	254.	263.	266.	272.	268.	275.
13941	146.	181.	204.	224.	250.	258.	265.	272.	281.	285.	288.
13942	149.	176.	195.	209.	224.	235.	246.	258.	266.	257.	262.
13943	148.	179.	194.	207.	231.	235.	251.	253.	267.	271.	267.
13944	152.	173.	202.	217.	235.	234.	242.	256.	263.	258.	261.
13945	148.	178.	206.	229.	241.	248.	259.	271.	275.	276.	284.
13946	152.	178.	200.	210.	225.	233.	241.	247.	249.	254.	256.
13947	144.	179.	201.	218.	230.	234.	240.	249.	250.	255.	254.
13948	159.	182.	208.	223.	232.	249.	260.	266.	267.	278.	275.
13949	142.	173.	205.	217.	236.	244.	261.	274.	284.	293.	298.
13950	153.	180.	200.	214.	228.	235.	241.	252.	256.	272.	268.

DAY = DAY OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C26 (PAGE 1): MATERNAL BODY WEIGHTS - PRESUMED GESTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

PREGNANCY STATUS	DAY 0	7	10	14	18	21	25
RAT #	DOSAGE GROUP I			0 MG/KG/DAY			
13801 P	238.	276.	289.	310.	310.	350.	
13802 P	306.	352.	372.	380.	418.	468.	
13803 P	319.	348.	356.	378.	421.	464.	
13804 -	MORIBUND SACRIFICED ON DAY 68 OF STUDY						
13805 P	278.	324.	334.	352.	396.	421.	
13806 P	267.	305.	313.	334.	379.	318.	
13807 P	306.	324.	330.	354.	408.		
13808 P	272.	293.	298.	317.	361.	312.	
13809 P	276.	297.	308.	322.	a	397.	
13810 P	300.	340.	350.	365.	407.	458.	
13811 NP	264.	297.	301.	305.	304.	302.	309.
13812 P	275.	295.	307.	328.	362.	409.	
13813 P	279.	306.	328.	348.	381.	421.	
13814 P	290.	316.	325.	336.	360.	416.	
13815 P	324.	345.	366.	378.	411.	438.	
13816 P	238.	271.	284.	295.	338.	388.	
13817 P	241.	270.	281.	292.	340.	389.	
13818 P	266.	297.	312.	332.	376.	425.	
13819 P	261.	291.	300.	312.	360.	347.	
13820 P	292.	299.	319.	322.	362.	412.	
13821 P	268.	306.	308.	336.	374.	417.	
13822 P	292.	327.	330.	354.	385.	421.	
13823 P	302.	327.	342.	359.	385.	415.	
13824 P	299.	339.	350.	368.	407.	449.	
13825 P	290.	313.	327.	342.	385.	422.	
13826 P	290.	326.	325.	343.	405.	437.	
13827 P	311.	338.	339.	370.	414.	459.	
13828 P	274.	315.	320.	330.	370.	410.	
13829 P	252.	286.	291.	305.	349.	389.	
13830 P	243.	262.	273.	293.	326.	293.	

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Value was not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C26 (PAGE 2): MATERNAL BODY WEIGHTS - PRESUMED GESTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

PREGNANCY STATUS	DAY 0	7	10	14	18	21	25
RAT #	DOSAGE GROUP II			1 MG/KG/DAY			
13831 P	283.	323.	337.	354.	403.	438.	
13832 P	294.	324.	332.	348.	390.	447.	
13833 P	271.	291.	298.	306.	358.	404.	
13834 P	275.	298.	305.	315.	352.	388.	
13835 P	272.	296.	318.	329.	380.	429.	
13836 -	MORIBUND SACRIFICED ON DAY 59 OF STUDY						
13837 P	244.	275.	280.	303.	341.	303.	
13838 P	303.	333.	344.	366.	428.	467.	
13839 P	258.	292.	304.	314.	356.	390.	
13840 NP	260.	282.	288.	286.	282.	284.	287.
13841 P	278.	298.	309.	322.	374.	396.	
13842 P	262.	284.	289.	303.	353.	400.	
13843 P	224.	247.	258.	282.	312.	282.	
13844 P	287.	304.	312.	322.	379.	406.	
13845 P	245.	274.	290.	307.	352.	388.	
13846 P	253.	285.	296.	311.	359.	394.	
13847 P	271.	297.	303.	313.	370.	402.	
13848 P	295.	333.	341.	354.	408.	455.	
13849 P	298.	334.	341.	359.	389.	425.	
13850 P	276.	286.	320.	331.	377.	324.	
13851 NP	259.	267.	270.	270.	276.	275.	278.
13852 P	282.	308.	324.	335.	390.	413.	
13853 P	273.	306.	316.	330.	381.	303.	
13854 P	289.	328.	342.	353.	410.	455.	
13855 P	276.	310.	326.	337.	386.	339.	
13856 P	292.	321.	332.	348.	398.	417.	
13857 P	278.	303.	310.	329.	365.	417.	
13858 P	270.	293.	296.	306.	356.	309.	
13859 P	246.	268.	278.	294.	342.	378.	
13860 P	248.	278.	282.	297.	325.	335.	

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C26 (PAGE 3): MATERNAL BODY WEIGHTS - PRESUMED GESTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

PREGNANCY STATUS	DAY 0	7	10	14	18	21	25
RAT #	DOSAGE GROUP III			3 MG/KG/DAY			
13861 P	234.	257.	265.	282.	312.	339.	
13862 P	DID NOT DELIVER A LITTER						
13863 P	249.	281.	291.	312.	362.	416.	
13864 P	261.	296.	310.	328.	340.	358.	
13865 P	286.	339.	347.	363.	423.	420.	
13866 P	328.	358.	379.	397.	438.	488.	
13867 P	275.	296.	308.	326.	369.	416.	
13868 P	275.	302.	310.	335.	373.	407.	
13869 P	292.	304.	326.	356.	389.	437.	
13870 P	282.	307.	310.	336.	373.	399.	
13871 P	262.	294.	301.	319.	385.	351.	
13872 P	281.	311.	316.	335.	379.	417.	
13873 P	281.	289.	301.	310.	370.	424.	
13874 P	334.	366.	374.	390.	438.	487.	
13875 P	265.	301.	323.	338.	399.	436.	
13876 P	349.	385.	401.	422.	474.	520.	
13877 P	324.	357.	372.	391.	433.	482.	
13878 P	274.	293.	305.	323.	358.	388.	
13879 P	273.	304.	322.	334.	376.	411.	
13880 P	321.	364.	376.	404.	450.	496.	
13881 P	244.	277.	294.	306.	348.	355.	
13882 P	301.	335.	347.	374.	403.	433.	
13883 P	265.	302.	311.	320.	372.	409.	
13884 P	292.	314.	329.	340.	371.	403.	
13885 P	284.	320.	336.	352.	374.	367.	
13886 P	256.	287.	291.	310.	358.	372.	
13887 P	266.	290.	300.	318.	352.	390.	
13888 P	293.	320.	330.	347.	403.	430.	
13889 P	296.	325.	328.	341.	389.	343.	
13890 P	278.	320.	334.	348.	394.	432.	

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C26 (PAGE 4): MATERNAL BODY WEIGHTS - PRESUMED GESTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

PREGNANCY STATUS	DAY 0	7	10	14	18	21	25
RAT #	DOSAGE GROUP IV			10 MG/KG/DAY			
13891 P	246.	260.	273.	283.	316.	348.	
13892 P	301.	315.	325.	341.	388.	413.	
13893 P	319.	330.	337.	349.	396.	427.	
13894 P	305.	337.	355.	364.	414.	448.	
13895 P	261.	294.	302.	319.	333.	379.	
13896 P	248.	303.	322.	332.	367.	403.	
13897 P	316.	340.	351.	376.	411.	449.	
13898 P	300.	336.	355.	366.	417.	457.	
13899 P	246.	270.	271.	290.	336.	372.	
13900 NP	MATING NOT CONFIRMED						
13901 P	274.	310.	321.	339.	386.	432.	
13902 P	277.	305.	320.	328.	370.	418.	
13903 P	293.	309.	327.	339.	382.	419.	
13904 P	254.	299.	314.	339.	375.	411.	
13905 P	289.	327.	338.	352.	389.	430.	
13906 P	NO CONFIRMED MATING DATE						
13907 P	257.	288.	307.	325.	381.		
13908 P	302.	342.	356.	364.	387.	384.	
13909 P	273.	302.	316.	328.	371.	407.	
13910 P	309.	353.	366.	383.	424.	463.	
13911 P	269.	301.	316.	320.	364.	381.	
13912 P	284.	311.	321.	333.	375.	417.	
13913 P	271.	309.	326.	334.	364.	386.	
13914 P	296.	318.	323.	356.	410.	455.	
13915 P	269.	306.	312.	325.	369.	419.	
13916 P	307.	326.	349.	370.	418.	459.	
13917 P	NO CONFIRMED MATING DATE						
13918 P	268.	290.	305.	319.	359.	410.	
13919 P	250.	281.	289.	305.	357.	388.	
13920 P	267.	296.	315.	328.	368.	423.	

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C26 (PAGE 5): MATERNAL BODY WEIGHTS - PRESUMED GESTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

PREGNANCY STATUS	DAY 0	7	10	14	18	21	25
RAT #	DOSAGE GROUP V			30 MG/KG/DAY			
13921 P	276.	296.	310.	328.	390.	428.	
13922 P	257.	296.	303.	312.	323.	282.	
13923 P	273.	297.	304.	321.	373.	316.	
13924 P	268.	295.	298.	322.	370.	421.	
13925 P	241.	252.	265.	282.	327.	358.	
13926 P	272.	294.	317.	332.	380.	333.	
13927 P	277.	310.	319.	339.	386.	412.	
13928 P	284.	313.	317.	344.	400.	439.	
13929 NP	249.	252.	249.	254.	243.	243.	246.
13930 P	279.	311.	328.	341.	367.	427.	
13931 P	276.	302.	311.	330.	375.	388.	
13932 P	268.	287.	306.	284.	345.	368.	
13933 P	249.	268.	278.	285.	329.	373.	
13934 P	NO CONFIRMED MATING DATE						
13935 P	268.	291.	308.	314.	357.	402.	
13936 P	297.	309.	338.	359.	400.	430.	
13937 P	248.	268.	276.	295.	347.	393.	
13938 P	262.	286.	299.	308.	372.	310.	
13939 P	292.	307.	317.	327.	374.	407.	
13940 P	278.	310.	310.	328.	370.	414.	
13941 P	286.	315.	325.	346.	398.	450.	
13942 P	253.	292.	295.	319.	373.	411.	
13943 P	252.	299.	302.	316.	360.	381.	
13944 P	263.	289.	305.	312.	337.	375.	
13945 P	281.	309.	320.	331.	376.	395.	
13946 P	258.	281.	296.	314.	349.	375.	
13947 P	248.	278.	289.	293.	304.	306.	
13948 P	281.	297.	313.	320.	324.	368.	
13949 P	289.	316.	325.	346.	393.	348.	
13950 P	279.	296.	306.	325.	373.	368.	

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C27 (PAGE 1): MATERNAL BODY WEIGHTS - LACTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAY	1	5	8	11	15	22
DAM #	DOSAGE GROUP I			0 MG/KG/DAY		
13801	294.	287.	302.	309.	322.	338.
13802	365.	376.	386.	390.	396.	367.
13803	346.	366.	372.	372.	402.	366.
13804	MORIBUND SACRIFICED ON DAY 68 OF STUDY					
13805	320.	336.	346.	352.	370.	348.
13806	302.	308.	337.	a	341.	340.
13807	315.	344.	369.	376.	376.	367.
13808	302.	298.	316.	a	331.	286.
13809	298.	316.	348.	345.	354.	355.
13810	355.	357.	382.	389.	394.	370.
13811	NOT PREGNANT					
13812	299.	322.	337.	341.	354.	326.
13813	316.	342.	363.	390.	349.	393.
13814	301.	313.	a	343.	351.	359.
13815	340.	332.	332.	356.	367.	370.
13816	285.	294.	292.	321.	326.	320.
13817	272.	271.	a	293.	314.	302.
13818	296.	303.	a	336.	328.	376.
13819	299.	314.	331.	327.	321.	344.
13820	312.	337.	343.	369.	381.	317.
13821	304.	334.	352.	364.	344.	328.
13822	327.	342.	330.	SACRIFICED ON DAY 8 OF LACTATION		
13823	338.	348.	336.	364.	353.	339.
13824	330.	342.	351.	379.	400.	385.
13825	317.	318.	342.	355.	338.	350.
13826	328.	349.	341.	356.	380.	376.
13827	351.	347.	368.	394.	404.	377.
13828	306.	297.	328.	340.	351.	309.
13829	284.	280.	279.	324.	312.	301.
13830	265.	265.	a	303.	309.	306.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Value was not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C27 (PAGE 2): MATERNAL BODY WEIGHTS - LACTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAY	1	5	8	11	15	22
DAM #	DOSAGE GROUP II			1 MG/KG/DAY		
13831	321.	322.	a	375.	365.	361.
13832	342.	329.	373.	368.	380.	357.
13833	293.	307.	310.	343.	344.	343.
13834	294.	293.	304.	320.	316.	310.
13835	304.	326.	336.	336.	360.	318.
13836	MORIBUND SACRIFICED ON DAY 59 OF STUDY					
13837	289.	293.	307.	a	329.	359.
13838	335.	331.	355.	385.	382.	375.
13839	301.	314.	327.	335.	340.	361.
13840	NOT PREGNANT					
13841	290.	320.	312.	332.	362.	347.
13842	293.	306.	324.	338.	362.	351.
13843	260.	276.	287.	299.	301.	317.
13844	292.	315.	332.	331.	361.	368.
13845	283.	277.	298.	305.	323.	352.
13846	290.	292.	297.	276.	326.	336.
13847	289.	296.	314.	322.	338.	314.
13848	319.	335.	353.	385.	377.	331.
13849	314.	320.	a	349.	319.	336.
13850	320.	296.	322.	a	350.	341.
13851	NOT PREGNANT					
13852	322.	301.	317.	SACRIFICED ON DAY 11 OF LACTATION		
13853	296.	309.	322.	a	331.	331.
13854	340.	358.	375.	372.	379.	381.
13855	317.	338.	356.	371.	379.	330.
13856	318.	342.	358.	347.	386.	367.
13857	305.	328.	335.	358.	337.	295.
13858	301.	288.	325.	a	314.	338.
13859	282.	295.	a	320.	323.	316.
13860	277.	268.	a	299.	294.	293.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Value was not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C27 (PAGE 3): MATERNAL BODY WEIGHTS - LACTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAY	1	5	8	11	15	22
DAM #	DOSAGE GROUP III			3 MG/KG/DAY		
13861	275.	274.	285.	276.	305.	312.
13862	PREGNANT; DID NOT DELIVER A LITTER					
13863	297.	320.	336.	335.	334.	352.
13864	312.	310.	311.	344.	334.	335.
13865	340.	332.	339.	344.	364.	353.
13866	368.	366.	392.	406.	408.	401.
13867	293.	302.	322.	328.	355.	335.
13868	304.	308.	a	348.	354.	356.
13869	318.	337.	349.	361.	372.	357.
13870	319.	320.	330.	327.	366.	386.
13871	315.	313.	343.	323.	337.	366.
13872	308.	322.	335.	344.	353.	347.
13873	301.	324.	334.	355.	350.	346.
13874	368.	379.	a	401.	403.	368.
13875	309.	306.	327.	332.	360.	358.
13876	398.	413.	427.	438.	441.	399.
13877	373.	376.	a	388.	404.	383.
13878	309.	312.	335.	330.	352.	352.
13879	308.	329.	342.	337.	360.	328.
13880	368.	366.	366.	374.	377.	363.
13881	291.	298.	313.	321.	318.	323.
13882	332.	341.	a	381.	361.	355.
13883	303.	322.	343.	347.	331.	342.
13884	316.	335.	325.	347.	363.	368.
13885	323.	336.	340.	351.	349.	336.
13886	300.	299.	338.	364.	340.	322.
13887	295.	309.	316.	341.	322.	310.
13888	327.	303.	306.	339.	337.	335.
13889	333.	326.	352.	a	367.	340.
13890	312.	315.	336.	356.	357.	364.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Value was not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C27 (PAGE 4): MATERNAL BODY WEIGHTS - LACTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAY	1	5	8	11	15	22
DAM #	DOSAGE GROUP IV			10 MG/KG/DAY		
13891	264.	260.	275.	285.	285.	300.
13892	336.	334.	a	361.	364.	366.
13893	319.	330.	352.	380.	370.	332.
13894	332.	350.	371.	389.	399.	386.
13895	301.	310.	339.	352.	354.	334.
13896	311.	329.	334.	347.	363.	376.
13897	351.	338.	359.	368.	376.	361.
13898	350.	369.	405.	328.	408.	395.
13899	268.	284.	a	288.	308.	320.
13900	NOT PREGNANT; MATING NOT CONFIRMED					
13901	303.	313.	329.	348.	344.	350.
13902	304.	301.	322.	314.	333.	311.
13903	317.	339.	349.	356.	336.	318.
13904	306.	316.	342.	359.	364.	354.
13905	321.	338.	364.	350.	360.	351.
13906	316.	317.	337.	359.	352.	355.
13907	301.	308.	317.	315.	318.	337.
13908	343.	343.	343.	359.	374.	366.
13909	294.	317.	331.	347.	355.	356.
13910	350.	361.	382.	371.	381.	353.
13911	294.	276.	297.	320.	325.	327.
13912	316.	324.	337.	351.	341.	355.
13913	305.	321.	a	336.	363.	317.
13914	326.	340.	a	365.	371.	294.
13915	281.	293.	316.	346.	335.	323.
13916	356.	336.	a	379.	371.	376.
13917	312.	288.	a	325.	330.	327.
13918	290.	309.	335.	342.	336.	302.
13919	285.	287.	a	330.	324.	329.
13920	301.	315.	a	340.	308.	349.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Value was not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C27 (PAGE 5): MATERNAL BODY WEIGHTS - LACTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAY	1	5	8	11	15	22
DAM #	DOSAGE GROUP V			30 MG/KG/DAY		
13921	311.	310.	320.	346.	368.	357.
13922	274.	304.	307.	318.	334.	352.
13923	305.	287.	303.	a	325.	320.
13924	291.	316.	327.	342.	350.	341.
13925	273.	278.	298.	310.	311.	318.
13926	324.	320.	338.	349.	366.	353.
13927	289.	293.	298.	308.	334.	331.
13928	317.	330.	346.	358.	359.	368.
13929	NOT PREGNANT					
13930	318.	321.	325.	341.	369.	350.
13931	318.	300.	a	324.	339.	368.
13932	275.	297.	a	323.	331.	357.
13933	276.	285.	286.	293.	328.	326.
13934	303.	306.	322.	327.	327.	340.
13935	294.	313.	308.	313.	315.	318.
13936	321.	337.	353.	352.	360.	349.
13937	286.	303.	317.	311.	318.	306.
13938	298.	290.	301.	316.	343.	343.
13939	301.	308.	331.	342.	370.	349.
13940	304.	324.	316.	352.	351.	353.
13941	341.	353.	352.	304.	335.	383.
13942	298.	313.	334.	361.	345.	344.
13943	308.	316.	337.	350.	359.	349.
13944	291.	279.	302.	299.	336.	341.
13945	312.	a	341.	351.	360.	342.
13946	292.	312.	327.	338.	327.	353.
13947	273.	SACRIFICED DUE TO NO SURVIVING PUPS ON DAY 1 OF LACTATION				
13948	267.	289.	322.	338.	346.	323.
13949	345.	342.	359.	366.	374.	365.
13950	304.	298.	a	340.	357.	361.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Value was not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C28 (PAGE 1): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAYS	1- 8	8- 15	15- 22	22- 29	29- 36	36- 43	43- 50	50- 57	57- 64	64- 70a
RAT #	DOSAGE GROUP I			0 MG/KG/DAY						
13801	100.	188.	126.	109.	120.	124.	133.	119.	136.	119.
13802	132.	161.	168.	167.	160.	177.	181.	b	149.c	137.
13803	133.	158.	154.	156.	159.	151.	172.	150.	158.c	145.
13804	148.	148.	162.	162.	161.	159.	b	154.	156.	MORIBUND SACRIFICED ON DAY 68 OF STUDY
13805	111.	122.	154.	152.	150.	175.	177.	158.	162.	133.
13806	140.	143.	147.	146.	147.	154.	165.	144.	147.	133.
13807	133.	148.	152.	151.	159.	143.	158.	146.	145.	124.
13808	142.	158.	158.	160.	158.	156.	158.	144.	148.	123.
13809	131.	142.	143.	146.	140.	149.	152.	146.	151.	120.
13810	142.	156.	218.c	157.	167.	179.	176.	159.	174.	152.
13811	125.	133.	163.	140.	144.	141.	168.	152.	152.	119.
13812	126.	130.	154.	155.	147.	144.	154.	141.	172.	134.
13813	123.	143.	142.	146.	147.	160.	159.	157.	216.	133.
13814	125.	154.	160.	145.	145.	167.	169.	149.	151.	135.
13815	147.	156.	165.	174.	171.	183.	181.	177.	175.	141.
13816	164.	193.	126.	137.	123.	130.	132.	128.	130.	108.
13817	121.	123.	124.	123.	129.	117.	115.	110.	117.	b
13818	132.	149.	150.	141.	143.	140.	149.	143.	144.	117.
13819	126.	137.	138.	134.	147.	146.	161.	136.	138.	133.
13820	143.	158.	165.	b	184.	178.	191.	173.	163.	139.
13821	116.	137.	137.	136.	143.	b	143.	137.	144.	110.
13822	139.	144.	152.	153.	173.	150.	140.	138.	b	115.
13823	131.	144.	145.	145.	157.	149.	148.	148.	150.	123.
13824	130.	138.	154.	152.	149.	148.	202.	153.	148.	118.
13825	143.	144.	155.	157.	166.	163.	166.	163.	173.	127.
13826	140.	142.	139.	141.	144.	140.	145.	143.	139.	124.
13827	138.	149.	168.	173.	174.	166.	b	b	179.	145.
13828	114.	127.	b	b	117.	129.	147.	182.	140.	130.
13829	137.	133.	178.	184.	144.	142.	b	135.	153.	b
13830	124.	120.	129.	139.	122.	126.	138.	134.	126.	106.

DAYS = DAYS OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.
b. Spilled feed precluded the calculation of this value.
c. Value appeared incorrectly recorded and was excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C28 (PAGE 2): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAYS	1- 8	8- 15	15- 22	22- 29	29- 36	36- 43	43- 50	50- 57	57- 64	64- 70a
RAT #	DOSAGE GROUP II				1 MG/KG/DAY					
13831	139.	146.	148.	149.	166.	163.	b	181.	166.	123.
13832	134.	145.	146.	144.	148.	141.	141.	147.	146.	119.
13833	133.	145.	142.	145.	146.	156.	153.	150.	148.	135.
13834	158.	154.	172.	151.	145.	165.	178.	150.	146.	126.
13835	145.	142.	144.	140.	140.	148.	146.	141.	141.	125.
13836	125.	134.	134.	127.	134.	b	146.	141.	MORIBUND SACRIFICED ON DAY 59 OF STUDY	
13837	110.	117.	138.	123.	123.	122.	135.	129.	133.	120.
13838	127.	136.	141.	136.	147.	145.	159.	146.	158.	129.
13839	129.	136.	b	139.	145.	149.	148.	149.	151.	136.
13840	141.	160.	164.	149.	151.	151.	149.	143.	141.	114.
13841	136.	142.	151.	146.	142.	163.	160.	144.	141.	146.
13842	139.	156.	142.	155.	137.	160.	158.	134.	135.	102.
13843	131.	133.	129.	121.	139.	134.	138.	131.	129.	112.
13844	165.	176.	169.	176.	172.	176.	174.	169.	166.	136.
13845	139.	149.	144.	142.	138.	142.	148.	144.	147.	130.
13846	118.	125.	123.	125.	130.	134.	143.	134.	134.	106.
13847	109.	128.	140.	130.	137.	138.	142.	136.	136.	122.
13848	153.	149.	147.	150.	150.	147.	152.	152.	144.	122.
13849	134.	149.	149.	153.	166.	167.	166.	156.	168.	141.
13850	147.	203.	148.	182.	174.	163.	178.	190.	170.	130.
13851	124.	132.	146.	146.	155.	150.	134.	138.	142.	118.
13852	120.	130.	158.	140.	149.	141.	157.	160.	155.	132.
13853	135.	141.	146.	147.	148.	150.	153.	145.	154.	120.
13854	139.	155.	206.	173.	159.	156.	169.	165.	151.	127.
13855	139.	153.	160.	157.	151.	150.	154.	146.	148.	129.
13856	b	211.	149.	159.	166.	183.	164.	160.	159.	175.
13857	111.	146.	143.	130.	150.	142.	138.	138.	134.	111.
13858	170.	b	158.	151.	147.	150.	152.	156.	154.	137.
13859	133.	147.	139.	138.	139.	142.	138.	139.	149.	128.
13860	125.	128.	124.	125.	130.	138.	139.	143.	145.	114.

DAYS = DAYS OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.
b. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C28 (PAGE 3): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAYS	1- 8	8- 15	15- 22	22- 29	29- 36	36- 43	43- 50	50- 57	57- 64	64- 70a
RAT #	DOSAGE GROUP III				3 MG/KG/DAY					
13861	123.	136.	131.	136.	133.	136.	142.	142.	145.	119.
13862	149.	152.	169.	177.	160.	163.	168.	163.	167.	144.
13863	142.	154.	145.	143.	149.	161.	150.	145.	150.	133.
13864	132.	142.	139.	149.	147.	159.	154.	142.	153.	118.
13865	148.	147.	170.	159.	160.	153.	175.	174.	169.	142.
13866	159.	b	180.	191.	181.	194.	184.	176.	172.	142.
13867	135.	140.	144.	145.	141.	152.	136.	144.	156.	124.
13868	133.	148.	176.	157.	160.	167.	166.	164.	152.	133.
13869	145.	161.	166.	194.	162.	165.	173.	170.	159.	129.
13870	139.	155.	162.	158.	160.	172.	168.	167.	161.	112.
13871	128.	139.	143.	138.	131.	133.	132.	121.	129.	148.
13872	136.	161.	141.	144.	141.	147.	b	b	147.	111.
13873	124.	134.	124.	138.	134.	138.	136.	139.	145.	116.
13874	152.	163.	161.	170.	177.	175.	178.	168.	170.	146.
13875	130.	154.	150.	145.	152.	158.	158.	153.	148.	132.
13876	145.	164.	173.	178.	171.	196.	198.	188.	166.	141.
13877	150.	161.	168.	162.	174.	186.	167.	166.	168.	142.
13878	125.	145.	137.	148.	153.	146.	155.	145.	154.	126.
13879	131.	148.	147.	127.	145.	143.	158.	144.	146.	122.
13880	143.	160.	151.	162.	162.	170.	186.	176.	167.	137.
13881	127.	120.	131.	130.	115.	129.	127.	b	128.	104.
13882	140.	153.	161.	162.	171.	157.	163.	146.	166.	129.
13883	141.	145.	147.	142.	145.	149.	154.	160.	154.	127.
13884	158.	158.	154.	161.	160.	153.	153.	152.	147.	121.
13885	140.	141.	150.	142.	156.	143.	150.	157.	160.	128.
13886	136.	141.	142.	143.	145.	137.	139.	131.	138.	113.
13887	135.	159.	136.	137.	141.	136.	144.	135.	131.	110.
13888	139.	159.	174.	167.	154.	166.	163.	166.	162.	138.
13889	149.	160.	162.	166.	152.	158.	161.	157.	157.	130.
13890	149.	235.	250.c	213.	b	202.	184.	b	174.	144.

DAYS = DAYS OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.
b. Spilled feed precluded the calculation of this value.
c. Value appeared incorrectly recorded and was excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C28 (PAGE 4): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAYS	1- 8	8- 15	15- 22	22- 29	29- 36	36- 43	43- 50	50- 57	57- 64	64- 70a
RAT #	DOSAGE GROUP IV			10 MG/KG/DAY						
13891	129.	131.	165.	b	147.	143.	147.	139.	136.	109.
13892	152.	162.	179.	172.	167.	167.	176.	181.	162.	134.
13893	155.	178.	188.	193.	183.	182.	180.	174.	172.	144.
13894	145.	163.	169.	166.	174.	188.	193.	228.	186.	167.
13895	149.	163.	161.	163.	157.	153.	172.	157.	155.	131.
13896	139.	150.	156.	159.	164.	167.	180.	170.	121.	118.
13897	153.	166.	156.	155.	166.	159.	162.	158.	158.	128.
13898	147.	159.	167.	171.	179.	171.	175.	160.	158.	133.
13899	131.	140.	141.	135.	142.	146.	146.	148.	b	118.
13900	145.	148.	147.	151.	150.	156.	151.	151.	163.	120.
13901	125.	134.	137.	142.	147.	136.	138.	131.	138.	113.
13902	126.	142.	138.	137.	150.	154.	140.	147.	162.	b
13903	129.	163.	141.	142.	133.	149.	160.	154.	158.	129.
13904	116.	104.	145.	110.	109.	131.	141.	132.	137.	115.
13905	156.	178.	165.	170.	159.	187.	183.	172.	162.	147.
13906	167.	184.	177.	173.	b	163.	161.	167.	172.	139.
13907	121.	133.	149.	143.	141.	137.	140.	141.	128.	120.
13908	133.	140.	154.	156.	147.	159.	169.	155.	156.	129.
13909	124.	147.	136.	138.	133.	132.	130.	138.	139.	115.
13910	146.	160.	170.	166.	167.	165.	b	180.	171.	152.
13911	139.	143.	150.	154.	148.	142.	143.	136.	128.	116.
13912	144.	147.	163.	159.	157.	163.	168.	150.	151.	128.
13913	130.	152.	151.	155.	157.	159.	153.	144.	153.	118.
13914	133.	139.	159.	158.	161.	157.	162.	167.	166.	149.
13915	146.	151.	152.	156.	148.	136.	141.	161.	148.	110.
13916	143.	174.	155.	109.	188.	163.	166.	156.	168.	139.
13917	135.	168.	158.	185.	159.	b	b	b	151.	123.
13918	134.	156.	143.	122.	140.	145.	141.	142.	135.	108.
13919	123.	138.	148.	189.	150.	163.	144.	136.	145.	118.
13920	135.	144.	b	156.	144.	133.	148.	147.	158.	122.

DAYS = DAYS OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.
b. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C28 (PAGE 5): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAYS	1- 8	8- 15	15- 22	22- 29	29- 36	36- 43	43- 50	50- 57	57- 64	64- 70a
RAT #	DOSAGE GROUP V				30 MG/KG/DAY					
13921	144.	152.	155.	150.	142.	157.	159.	148.	147.	124.
13922	154.	149.	153.	161.	156.	167.	153.	146.	150.	127.
13923	149.	164.	163.	165.	167.	172.	191.	191.	170.	147.
13924	141.	162.	162.	157.	157.	156.	185.	179.	165.	140.
13925	128.	138.	136.	132.	135.	132.	130.	126.	126.	104.
13926	138.	146.	146.	150.	149.	163.	157.	149.	155.	133.
13927	126.	141.	151.	156.	143.	153.	152.	141.	140.	110.
13928	160.	145.	165.	130.	157.	156.	169.	147.	154.	129.
13929	120.	131.	128.	133.	138.	130.	131.	132.	137.	112.
13930	141.	152.	149.	139.	155.	160.	156.	161.	149.	122.
13931	138.	169.	b	b	140.	142.	149.	140.	142.	110.
13932	123.	139.	137.	138.	128.	144.	141.	136.	136.	120.
13933	154.	163.	133.	143.	181.	135.	139.	138.	134.	100.
13934	146.	155.	151.	162.	178.	161.	169.	163.	156.	123.
13935	144.	154.	148.	148.	152.	142.	150.	151.	143.	132.
13936	141.	142.	156.	150.	134.	136.	135.	143.	138.	118.
13937	121.	123.	136.	138.	133.	130.	124.	125.	135.	104.
13938	125.	131.	142.	137.	134.	143.	139.	135.	131.	113.
13939	144.	153.	b	174.	145.	150.	153.	145.	138.	127.
13940	134.	155.	c	143.	146.	144.	228.	150.	136.	117.
13941	b	182.	b	b	156.	163.	150.	b	153.	135.
13942	134.	144.	142.	141.	144.	151.	160.	156.	129.	120.
13943	140.	134.	141.	157.	140.	144.	144.	167.	144.	118.
13944	128.	162.	b	158.	142.	150.	149.	141.	138.	112.
13945	137.	150.	166.	151.	156.	169.	176.	163.	160.	137.
13946	125.	138.	131.	153.	b	145.	141.	133.	132.	109.
13947	134.	132.	133.	136.	123.	133.	129.	127.	121.	95.
13948	144.	149.	147.	144.	140.	161.	155.	151.	150.	119.
13949	131.	148.	149.	164.	158.	163.	161.	166.	162.	132.
13950	149.	154.	140.	141.	144.	b	145.	b	145.	122.

DAYS = DAYS OF STUDY
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Last value recorded before cohabitation.
b. Spilled feed precluded the calculation of this value.
c. Value was not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C29 (PAGE 1): MATERNAL FEED CONSUMPTION VALUES - PRESUMED GESTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

PREGNANCY STATUS	DAYS 0 - 7	7 - 10	10 - 14	14 - 18	18 - 21	21 - 25
RAT #	DOSAGE GROUP I			0 MG/KG/DAY		
13801 P	180.	82.	113.	79.	82.	
13802 P	221.	103.	135.	119.	73.	
13803 P	187.	93.	118.	110.	71.	
13804 -	MORIBUND SACRIFICED ON DAY 68 OF STUDY					
13805 P	208.	97.	134.	122.	67.	
13806 P	207.	81.	115.	110.		
13807 P	157.	66.	103.	102.		
13808 P	157.	72.	108.	116.		
13809 P	173.	66.	84.	91.	84.	
13810 P	218.	97.	131.	120.	79.	
13811 NP	180.	74.	108.	67.	55.	90.
13812 P	160.	85.	119.	113.	79.	
13813 P	207.	92.	125.	117.	76.	
13814 P	183.	79.	102.	90.	74.	
13815 P	187.	95.	117.	108.	63.	
13816 P	164.	72.	102.	102.	71.	
13817 P	a	67.	82.	94.	74.	
13818 P	173.	76.	102.	97.	75.	
13819 P	164.	81.	98.	113.	83.	
13820 P	133.	64.	92.	100.	65.	
13821 P	172.	76.	115.	91.	65.	
13822 P	182.	85.	114.	103.	68.	
13823 P	180.	85.	118.	106.	67.	
13824 P	197.	89.	124.	108.	61.	
13825 P	176.	78.	112.	104.	62.	
13826 P	168.	69.	100.	102.	64.	
13827 P	218.	96.	126.	119.	76.	
13828 P	204.	80.	113.	107.	66.	
13829 P	176.	72.	96.	94.	66.	
13830 P	153.	68.	99.	84.	58.	

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C29 (PAGE 2): MATERNAL FEED CONSUMPTION VALUES - PRESUMED GESTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

PREGNANCY STATUS	DAYS 0 - 7	7 - 10	10 - 14	14 - 18	18 - 21	21 - 25	
RAT #	DOSAGE GROUP II			1 MG/KG/DAY			
13831 P	215.	94.	120.	102.	74.		
13832 P	201.	81.	a	107.	70.		
13833 P	185.	72.	100.	114.	81.		
13834 P	177.	70.	95.	99.	68.		
13835 P	221.	85.	115.	113.	75.		
13836 -	MORIBUND SACRIFICED ON DAY 59 OF STUDY						
13837 P	170.	70.	99.	112.			
13838 P	176.	83.	115.	125.	82.		
13839 P	184.	79.	107.	111.	71.		
13840 NP	154.	68.	88.	77.	61.	79.	
13841 P	162.	73.	105.	a	58.		
13842 P	156.	71.	100.	104.	78.		
13843 P	166.	72.	107.	100.	69.		
13844 P	180.	90.	109.	115.	51.		
13845 P	180.	80.	112.	120.	65.		
13846 P	149.	76.	97.	110.	68.		
13847 P	159.	59.	78.	99.	69.		
13848 P	177.	78.	96.	118.	86.		
13849 P	202.	76.	111.	88.	63.		
13850 P	199.	80.	115.	114.			
13851 NP	150.	61.	80.	82.	50.	58.	
13852 P	180.	80.	102.	114.	70.		
13853 P	176.	77.	106.	108.			
13854 P	189.	89.	106.	101.	85.		
13855 P	177.	84.	105.	130.	73.		
13856 P	182.	79.	104.	107.	69.		
13857 P	182.	74.	99.	92.	56.		
13858 P	171.	77.	93.	98.			
13859 P	183.	68.	94.	94.	63.		
13860 P	160.	68.	88.	89.	55.		

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C29 (PAGE 3): MATERNAL FEED CONSUMPTION VALUES - PRESUMED GESTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

PREGNANCY STATUS	DAYS 0 - 7	7 - 10	10 - 14	14 - 18	18 - 21	21 - 25
RAT #	DOSAGE GROUP III			3 MG/KG/DAY		
13861 P	140.	76.	a	113.	66.	
13862 P	DID NOT DELIVER A LITTER					
13863 P	168.	82.	111.	110.	79.	
13864 P	a	89.	105.	82.	69.	
13865 P	224.	98.	125.	125.	71.	
13866 P	194.	87.	111.	101.	81.	
13867 P	178.	77.	103.	100.	80.	
13868 P	a	84.	118.	105.	70.	
13869 P	177.	93.	128.	116.	70.	
13870 P	173.	87.	128.	136.	82.	
13871 P	158.	72.	100.	106.	74.	
13872 P	173.	87.	112.	105.	71.	
13873 P	157.	68.	77.	95.	77.	
13874 P	194.	91.	123.	119.	83.	
13875 P	197.	93.	123.	122.	74.	
13876 P	193.	92.	136.	121.	94.	
13877 P	204.	99.	125.	116.	91.	
13878 P	158.	70.	101.	103.	83.	
13879 P	170.	83.	98.	110.	69.	
13880 P	202.	91.	128.	125.	73.	
13881 P	159.	79.	94.	106.	63.	
13882 P	214.	92.	136.	113.	66.	
13883 P	178.	76.	107.	110.	74.	
13884 P	217.	79.	103.	85.	67.	
13885 P	a	89.	120.	121.	55.	
13886 P	155.	66.	97.	104.	71.	
13887 P	176.	80.	120.	90.	68.	
13888 P	176.	86.	120.	117.	66.	
13889 P	196.	80.	109.	114.		
13890 P	208.	87.	123.	97.	74.	

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C29 (PAGE 4): MATERNAL FEED CONSUMPTION VALUES - PRESUMED GESTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

PREGNANCY STATUS	DAYS 0 - 7	7 - 10	10 - 14	14 - 18	18 - 21	21 - 25
RAT #	DOSAGE GROUP IV		10 MG/KG/DAY			
13891 P	139.	72.	93.	89.	64.	
13892 P	168.	72.	104.	110.	71.	
13893 P	167.	74.	97.	95.	59.	
13894 P	207.	a	130.	a	96.	
13895 P	202.	82.	108.	95.	57.	
13896 P	186.	84.	111.	107.	67.	
13897 P	172.	82.	115.	116.	75.	
13898 P	185.	99.	a	117.	80.	
13899 P	153.	69.	87.	99.	77.	
13900 NP	MATING NOT CONFIRMED					
13901 P	174.	70.	105.	105.	73.	
13902 P	165.	78.	91.	83.	83.	
13903 P	147.	75.	99.	107.	76.	
13904 P	170.	81.	108.	128.	71.	
13905 P	207.	92.	125.	107.	67.	
13906 P	NO CONFIRMED MATING DATE					
13907 P	164.	74.	94.	106.		
13908 P	193.	94.	115.	112.	46.	
13909 P	169.	74.	90.	97.	63.	
13910 P	208.	97.	132.	121.	77.	
13911 P	163.	81.	88.	93.	48.	
13912 P	173.	80.	106.	110.	76.	
13913 P	185.	94.	115.	97.	64.	
13914 P	170.	84.	114.	108.	76.	
13915 P	174.	79.	99.	103.	71.	
13916 P	175.	78.	112.	113.	83.	
13917 P	NO CONFIRMED MATING DATE					
13918 P	172.	73.	102.	95.	73.	
13919 P	157.	72.	81.	102.	68.	
13920 P	173.	82.	103.	101.	70.	

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C29 (PAGE 5): MATERNAL FEED CONSUMPTION VALUES - PRESUMED GESTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

PREGNANCY STATUS	DAYS 0 - 7	7 - 10	10 - 14	14 - 18	18 - 21	21 - 25
RAT #	DOSAGE GROUP V		30 MG/KG/DAY			
13921 P	164.	73.	104.	115.	75.	
13922 P	187.	87.	111.	99.	35.	
13923 P	196.	87.	95.	130.		
13924 P	196.	78.	128.	111.	75.	
13925 P	140.	63.	84.	95.	66.	
13926 P	176.	82.	116.	111.	78.	
13927 P	176.	86.	103.	101.	62.	
13928 P	181.	74.	108.	124.	77.	
13929 NP	135.	58.	84.	61.	48.	69.
13930 P	181.	82.	113.	108.	87.	
13931 P	176.	74.	106.	115.	71.	
13932 P	171.	80.	75.	104.	72.	
13933 P	139.	61.	86.	84.	65.	
13934 P	NO CONFIRMED MATING DATE					
13935 P	157.	72.	92.	95.	67.	
13936 P	165.	84.	119.	102.	67.	
13937 P	134.	63.	87.	98.	72.	
13938 P	149.	70.	94.	102.	71.	
13939 P	159.	76.	89.	102.	61.	
13940 P	169.	71.	95.	88.	68.	
13941 P	171.	85.	108.	115.	90.	
13942 P	167.	75.	106.	116.	72.	
13943 P	185.	79.	112.	110.	77.	
13944 P	183.	84.	105.	98.	80.	
13945 P	184.	88.	107.	101.	56.	
13946 P	164.	74.	103.	88.	66.	
13947 P	157.	75.	92.	90.	53.	
13948 P	155.	72.	96.	51.	72.	
13949 P	177.	83.	116.	113.	83.	
13950 P	a	68.	95.	97.	49.	

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C30 (PAGE 1): MATERNAL FEED CONSUMPTION VALUES - LACTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAY	1 - 5	5 - 8	8 - 11	11 - 13	13 - 15a
DAM #	DOSAGE GROUP I			0 MG/KG/DAY	
13801	86.	126.	165.	112.	143.
13802	171.	163.	215.	147.	138.
13803	152.	187.	126.	109.	141.
13804	MORIBUND SACRIFICED ON DAY 68 OF STUDY				
13805	b	b	207.	128.	152.
13806	135.	178.	229.	146.	168.
13807	161.	177.	208.	134.	156.
13808	116.	144.	188.	142.	139.
13809	156.	156.	b	148.	140.
13810	117.	167.	226.	153.	157.
13811	NOT PREGNANT				
13812	b	189.	198.	132.	98.
13813	173.	193.	229.	46.	300.
13814	130.	166.	214.	164.	174.
13815	101.	142.	147.	133.	160.
13816	148.	109.	165.	118.	b
13817	106.	134.	160.	125.	136.
13818	122.	169.	180.	85.	111.
13819	140.	148.	164.	69.	89.
13820	138.	151.	214.	137.	172.
13821	128.	171.	220.	134.	166.
13822	b	SACRIFICED ON DAY 8 OF LACTATION			
13823	122.	123.	153.	96.	144.
13824	145.	169.	210.	143.	170.
13825	101.	139.	193.	150.	157.
13826	141.	131.	122.	119.	139.
13827	117.	180.	b	177.	172.
13828	84.	149.	184.	138.	148.
13829	107.	85.	156.	118.	136.
13830	89.	148.	165.	87.	141.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. It is presumed that the pups begin to consume the maternal feed after day 15 of lactation.
b. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C30 (PAGE 2): MATERNAL FEED CONSUMPTION VALUES - LACTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAM #	DOSAGE GROUP II				1 MG/KG/DAY
	DAY 1 - 5	5 - 8	8 - 11	11 - 13	13 - 15a
13831	154.	204.	222.	153.	165.
13832	107.	159.	169.	133.	170.
13833	138.	154.	219.	135.	145.
13834	109.	127.	181.	124.	123.
13835	138.	171.	212.	140.	162.
13836	MORIBUND SACRIFICED ON DAY 59 OF STUDY				
13837	115.	136.	164.	128.	128.
13838	123.	168.	b	158.	173.
13839	137.	167.	183.	77.	121.
13840	NOT PREGNANT				
13841	129.	112.	131.	132.	151.
13842	140.	143.	190.	139.	137.
13843	121.	128.	152.	123.	131.
13844	162.	168.	174.	112.	b
13845	107.	139.	172.	138.	150.
13846	116.	131.	142.	117.	122.
13847	104.	119.	152.	107.	129.
13848	133.	178.	221.	135.	189.
13849	103.	140.	173.	120.	121.
13850	152.	117.	193.	139.	148.
13851	NOT PREGNANT				
13852	100.	127.	SACRIFICED ON DAY 11 OF LACTATION		
13853	129.	151.	194.	139.	138.
13854	147.	168.	172.	103.	118.
13855	158.	159.	205.	149.	160.
13856	145.	144.	121.	115.	154.
13857	127.	164.	201.	148.	155.
13858	114.	156.	205.	150.	146.
13859	132.	152.	102.	111.	134.
13860	103.	132.	154.	98.	144.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. It is presumed that the pups begin to consume the maternal feed after day 15 of lactation.
b. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C30 (PAGE 3): MATERNAL FEED CONSUMPTION VALUES - LACTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAY	1 - 5	5 - 8	8 - 11	11 - 13	13 - 15a
DAM #	DOSAGE GROUP III			3 MG/KG/DAY	
13861	93.	121.	141.	86.	122.
13862	PREGNANT; DID NOT DELIVER A LITTER				
13863	151.	178.	208.	92.	116.
13864	100.	126.	144.	111.	117.
13865	114.	129.	133.	93.	119.
13866	b	225.	276.	135.	195.
13867	148.	133.	148.	126.	159.
13868	131.	188.	216.	161.	187.
13869	138.	121.	171.	140.	159.
13870	109.	114.	141.	111.	122.
13871	117.	151.	148.	84.	104.
13872	151.	154.	166.	141.	157.
13873	169.	162.	199.	137.	b
13874	188.	209.	232.	161.	167.
13875	128.	161.	196.	146.	164.
13876	126.	155.	197.	145.	152.
13877	119.	159.	196.	159.	177.
13878	152.	157.	189.	130.	148.
13879	137.	152.	183.	115.	145.
13880	135.	127.	204.	141.	205.
13881	122.	131.	157.	127.	119.
13882	198.	194.	238.	155.	167.
13883	165.	181.	246.	124.	162.
13884	133.	118.	172.	141.	172.
13885	99.	87.	101.	62.	65.
13886	126.	153.	196.	128.	95.
13887	114.	130.	174.	128.	147.
13888	64.	92.	181.	140.	137.
13889	127.	173.	244.	167.	149.
13890	154.	166.	214.	160.	191.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. It is presumed that the pups begin to consume the maternal feed after day 15 of lactation.
b. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C30 (PAGE 4): MATERNAL FEED CONSUMPTION VALUES - LACTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAY	1 - 5	5 - 8	8 - 11	11 - 13	13 - 15a
DAM #	DOSAGE GROUP IV			10 MG/KG/DAY	
13891	b	138.	164.	139.	124.
13892	132.	152.	187.	143.	155.
13893	130.	150.	b	146.	151.
13894	b	156.	217.	142.	193.
13895	b	203.	227.	138.	169.
13896	128.	141.	175.	110.	123.
13897	101.	136.	186.	153.	179.
13898	133.	157.	171.	136.	151.
13899	130.	134.	133.	91.	118.
13900	NOT PREGNANT; MATING NOT CONFIRMED				
13901	127.	132.	190.	129.	165.
13902	112.	153.	186.	129.	164.
13903	140.	156.	173.	105.	158.
13904	123.	b	175.	b	161.
13905	133.	159.	170.	132.	158.
13906	139.	158.	208.	146.	168.
13907	149.	176.	160.	85.	99.
13908	94.	115.	136.	92.	99.
13909	115.	163.	167.	141.	166.
13910	157.	183.	185.	90.	127.
13911	76.	107.	162.	128.	137.
13912	131.	157.	184.	131.	132.
13913	148.	173.	198.	143.	162.
13914	154.	217.	198.	138.	156.
13915	137.	139.	190.	131.	168.
13916	b	191.	220.	149.	158.
13917	49.	107.	116.	88.	99.
13918	147.	173.	194.	137.	155.
13919	102.	124.	174.	122.	143.
13920	109.	126.	158.	57.	66.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. It is presumed that the pups begin to consume the maternal feed after day 15 of lactation.
b. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C30 (PAGE 5): MATERNAL FEED CONSUMPTION VALUES - LACTATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DAY	1 - 5	5 - 8	8 - 11	11 - 13	13 - 15a
DAM #	DOSAGE GROUP V			30 MG/KG/DAY	
13921	108.	120.	172.	114.	140.
13922	92.	97.	106.	82.	90.
13923	80.	116.	174.	95.	136.
13924	147.	149.	199.	148.	132.
13925	122.	135.	147.	126.	146.
13926	91.	147.	164.	144.	145.
13927	112.	123.	127.	103.	122.
13928	b	170.	217.	152.	171.
13929	NOT PREGNANT				
13930	121.	143.	158.	119.	138.
13931	68.	98.	126.	94.	111.
13932	124.	159.	168.	134.	142.
13933	b	94.	118.	103.	180.
13934	89.	249.	b	108.	183.
13935	135.	151.	203.	110.	126.
13936	139.	145.	152.	132.	153.
13937	158.	168.	168.	122.	158.
13938	92.	123.	126.	115.	133.
13939	103.	167.	221.	138.	162.
13940	121.	133.	166.	135.	130.
13941	140.	153.	198.	148.	141.
13942	157.	166.	201.	137.	144.
13943	131.	128.	166.	118.	127.
13944	140.	150.	108.	115.	142.
13945	141.	168.	184.	147.	136.
13946	137.	131.	166.	128.	141.
13947	SACRIFICED DUE TO NO SURVIVING PUPS ON DAY 1 OF LACTATION				
13948	118.	139.	170.	126.	151.
13949	120.	151.	193.	129.	155.
13950	88.	127.	171.	126.	136.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. It is presumed that the pups begin to consume the maternal feed after day 15 of lactation.
b. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C31 (PAGE 1): MATING AND FERTILITY, ESTROUS CYCLING AND DAYS IN COHABITATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT #	ESTROUS STAGES/ 21 DAYS	DAYS IN COHABITATION	MATING STATUS	MATING DATE	PREGNANCY STATUS	ESTROUS STAGE AT SACRIFICE
GROUP I		0 MG/KG/DAY				
13801	5	3	M	C	P	PRO
13802	6	2	M	C	P	PRO
13803	5	4	M	C	P	D
13804	5a	MORIBUND SACRIFICED ON DAY 68 OF STUDY				
13805	5	1	M	C	P	PRO
13806	4	1	M	C	P	PRO
13807	5	3	M	C	P	PRO
13808	5	1	M	C	P	PRO
13809	6	14	M	C	P	D
13810	5	2	M	C	P	PRO
13811	4b	1	M	C	NP	D
13812	3b	4	M	C	P	D
13813	6	4	M	C	P	D
13814	4	3	M	C	P	PRO
13815	5	4	M	C	P	PRO
13816	5	8	M	C	P	D
13817	6	3	M	C	P	PRO
13818	5	3	M	C	P	PRO
13819	5	2	M	C	P	PRO
13820	7	2	M	C	P	PRO
13821	6	4	M	C	P	PRO
13822	5	4	M	C	P	c
13823	6	4	M	C	P	PRO
13824	7	4	M	C	P	PRO
13825	3	4	M	C	P	PRO
13826	6	1	M	C	P	D
13827	6	4	M	C	P	PRO
13828	5	1	M	C	P	PRO
13829	5	1	M	C	P	PRO
13830	6	4	M	C	P	PRO

M = MATED C = CONFIRMED NC = NOT CONFIRMED P = PREGNANT NP = NOT PREGNANT
PRO = PROESTRUS E = ESTRUS MET = METESTRUS D = DIESTRUS

a. Rat 13804 was moribund sacrificed on day 68 of study (day 19 of estrous evaluation); values excluded from group averages and statistical analyses.
b. Six or more consecutive days of diestrus were observed.
c. Estrous stage was not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C31 (PAGE 2): MATING AND FERTILITY, ESTROUS CYCLING AND DAYS IN COHABITATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT #	ESTROUS STAGES/ 21 DAYS	DAYS IN COHABITATION	MATING STATUS	MATING DATE	PREGNANCY STATUS	ESTROUS STAGE AT SACRIFICE
GROUP II		1 MG/KG/DAY				
13831	5	3	M	C	P	PRO
13832	6	4	M	C	P	PRO
13833	5	2	M	C	P	PRO
13834	5	2	M	C	P	PRO
13835	5	2	M	C	P	PRO
13836	3a	MORIBUND SACRIFICED ON DAY 59 OF STUDY				
13837	6	1	M	C	P	PRO
13838	3	1	M	C	P	D
13839	5	2	M	C	P	D
13840	5	1	M	C	NP	E
13841	5	1	M	C	P	MET
13842	5	1	M	C	P	D
13843	6	4	M	C	P	PRO
13844	5	1	M	C	P	D
13845	5	1	M	C	P	D
13846	5	1	M	C	P	D
13847	5	1	M	C	P	PRO
13848	6	4	M	C	P	PRO
13849	5	3	M	C	P	PRO
13850	6	1	M	C	P	PRO
13851	6	1	M	C	NP	E
13852	5	1	M	C	P	b
13853	5	1	M	C	P	PRO
13854	5	1	M	C	P	D
13855	5	1	M	C	P	D
13856	5	1	M	C	P	D
13857	5	4	M	C	P	PRO
13858	5	1	M	C	P	PRO
13859	5	3	M	C	P	PRO
13860	6	4	M	C	P	PRO

M = MATED C = CONFIRMED NC = NOT CONFIRMED P = PREGNANT NP = NOT PREGNANT
PRO = PROESTRUS E = ESTRUS MET = METESTRUS D = DIESTRUS

a. Rat 13836 was moribund sacrificed on day 59 of study (day 11 of estrous evaluation); values excluded from group averages and statistical analyses.

b. Estrous stage was not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C31 (PAGE 3): MATING AND FERTILITY, ESTROUS CYCLING AND DAYS IN COHABITATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT #	ESTROUS STAGES/ 21 DAYS	DAYS IN COHABITATION	MATING STATUS	MATING DATE	PREGNANCY STATUS	ESTROUS STAGE AT SACRIFICE
GROUP III		3 MG/KG/DAY				
13861	4	1	M	C	P	D
13862	6	14	M	NC	P	PRO
13863	5	2	M	C	P	PRO
13864	5	5	M	C	P	D
13865	5	1	M	C	P	D
13866	4	2	M	C	P	D
13867	5	4	M	C	P	PRO
13868	6	4	M	C	P	PRO
13869	6	4	M	C	P	PRO
13870	5	1	M	C	P	PRO
13871	5	2	M	C	P	PRO
13872	6	4	M	C	P	D
13873	6	8	M	C	P	D
13874	4	2	M	C	P	PRO
13875	5	1	M	C	P	D
13876	5	1	M	C	P	MET
13877	5	3	M	C	P	D
13878	5	1	M	C	P	PRO
13879	6	1	M	C	P	E
13880	5	1	M	C	P	PRO
13881	5	1	M	C	P	D
13882	5a	3	M	C	P	D
13883	5	1	M	C	P	PRO
13884	5	4	M	C	P	PRO
13885	2b	1	M	C	P	PRO
13886	4b	1	M	C	P	D
13887	6	4	M	C	P	D
13888	5	1	M	C	P	D
13889	5	1	M	C	P	PRO
13890	6	4	M	C	P	MET

M = MATED C = CONFIRMED NC = NOT CONFIRMED P = PREGNANT NP = NOT PREGNANT
PRO = PROESTRUS E = ESTRUS MET = METESTRUS D = DIESTRUS
a. Estrous stage was not recorded on day 19 of estrous evaluation.
b. Six or more consecutive days of estrus were observed.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C31 (PAGE 4): MATING AND FERTILITY, ESTROUS CYCLING AND DAYS IN COHABITATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT #	ESTROUS STAGES/ 21 DAYS	DAYS IN COHABITATION	MATING STATUS	MATING DATE	PREGNANCY STATUS	ESTROUS STAGE AT SACRIFICE
GROUP IV		10 MG/KG/DAY				
13891	6	4	M	C	P	PRO
13892	6	4	M	C	P	PRO
13893	5	1	M	C	P	D
13894	5	2	M	C	P	MET
13895	5	2	M	C	P	D
13896	5	2	M	C	P	PRO
13897	6	4	M	C	P	PRO
13898	5	1	M	C	P	D
13899	5	3	M	C	P	PRO
13900	3a	14	DID NOT MATE	-	-	E
13901	5	4	M	C	P	PRO
13902	5	2	M	C	P	D
13903	5	3	M	C	P	PRO
13904	2	3	M	C	P	D
13905	4	4	M	C	P	PRO
13906	6	14	M	NC	P	PRO
13907	4	2	M	C	P	D
13908	5	1	M	C	P	D
13909	6	4	M	C	P	D
13910	5	2	M	C	P	PRO
13911	5	1	M	C	P	D
13912	5	2	M	C	P	PRO
13913	4b	3	M	C	P	PRO
13914	4	3	M	C	P	PRO
13915	6	4	M	C	P	MET
13916	5	3	M	C	P	D
13917	3	14	M	NC	P	PRO
13918	6	4	M	C	P	PRO
13919	5	3	M	C	P	PRO
13920	5	3	M	C	P	D

M = MATED C = CONFIRMED NC = NOT CONFIRMED P = PREGNANT NP = NOT PREGNANT
PRO = PROESTRUS E = ESTRUS MET = METESTRUS D = DIESTRUS
a. Six or more consecutive days of estrus were observed.
b. Six or more consecutive days of diestrus were observed.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C31 (PAGE 5): MATING AND FERTILITY, ESTROUS CYCLING AND DAYS IN COHABITATION - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT #	ESTROUS STAGES/ 21 DAYS	DAYS IN COHABITATION	MATING STATUS	MATING DATE	PREGNANCY STATUS	ESTROUS STAGE AT SACRIFICE
GROUP V		30 MG/KG/DAY				
13921	5	2	M	C	P	PRO
13922	5	2	M	C	P	D
13923	5	1	M	C	P	PRO
13924	6	1	M	C	P	D
13925	7	4	M	C	P	PRO
13926	5	2	M	C	P	PRO
13927	5	2	M	C	P	PRO
13928	5	1	M	C	P	PRO
13929	3a	3	M	C	NP	E
13930	5	2	M	C	P	PRO
13931	6	4	M	C	P	PRO
13932	5	3	M	C	P	PRO
13933	5	4	M	C	P	PRO
13934	6	14	M	NC	P	D
13935	5	2	M	C	P	PRO
13936	6	4	M	C	P	D
13937	5	3	M	C	P	PRO
13938	4	2	M	C	P	PRO
13939	5	2	M	C	P	D
13940	5	5	M	C	P	D
13941	5	1	M	C	P	PRO
13942	4	1	M	C	P	PRO
13943	5	1	M	C	P	PRO
13944	5	2	M	C	P	PRO
13945	5	6	M	C	P	D
13946	6	4	M	C	P	PRO
13947	5	1	M	C	P	b
13948	6	4	M	C	P	PRO
13949	5	3	M	C	P	D
13950	6	3	M	C	P	PRO

M = MATED C = CONFIRMED NC = NOT CONFIRMED P = PREGNANT NP = NOT PREGNANT
PRO = PROESTRUS E = ESTRUS MET = METESTRUS D = DIESTRUS
a. Six or more consecutive days of estrus were observed.
b. Estrous stage was not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C32 (PAGE 1): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
I					
0	13801	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13802	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13803	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	13804	DS 68	-	67	MORIBUND SACRIFICED ON DAY 68 OF STUDY. ALL TISSUES APPEARED NORMAL.
	13805	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13806	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13807	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13808	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13809	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	13810	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13811	DG 25	NP	95	ALL TISSUES APPEARED NORMAL.
	13812	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	13813	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	13814	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13815	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	13816	DL 22	P	119	ALL TISSUES APPEARED NORMAL.
	13817	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13818	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13819	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13820	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13821	DL 22	P	116	ALL TISSUES APPEARED NORMAL.

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
P = PREGNANT NP = NOT PREGNANT
a. Refer to the individual clinical observations table (Table C24) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C32 (PAGE 2): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
I 0	13822	DL 8	P	101	SACRIFICED ON DAY 8 OF LACTATION.b ALL TISSUES APPEARED NORMAL.
	13823	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	13824	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13825	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13826	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13827	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	13828	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13829	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13830	DL 22	P	114	ALL TISSUES APPEARED NORMAL.

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
P = PREGNANT NP = NOT PREGNANT
a. Refer to the individual clinical observations table (Table C24) for external observations confirmed at necropsy.
b. The litters from dams 13822 in Group I and 13852 in Group II were mixed together. Both dams and litters were sacrificed because it was not possible to identify to which litter the pups belonged.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C32 (PAGE 3): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
II					
1	13831	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13832	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13833	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13834	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13835	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13836	DS 59	-	59	MORIBUND SACRIFICED ON DAY 59 OF STUDY. LEFT FORELIMB: ULNA AND RADIUS, BROKEN. ALL OTHER TISSUES APPEARED NORMAL.
	13837	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13838	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13839	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13840	DG 25	NP	95	ALL TISSUES APPEARED NORMAL.
	13841	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13842	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13843	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13844	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13845	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13846	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13847	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13848	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13849	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13850	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13851	DG 25	NP	95	ALL TISSUES APPEARED NORMAL.

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
P = PREGNANT NP = NOT PREGNANT
a. Refer to the individual clinical observations table (Table C24) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C32 (PAGE 4): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
II					
1	13852	DL 11	P	102	SACRIFICED ON DAY 11 OF LACTATION.b ALL TISSUES APPEARED NORMAL.
	13853	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13854	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13855	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13856	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13857	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13858	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13859	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13860	DL 22	P	114	ALL TISSUES APPEARED NORMAL.

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
P = PREGNANT NP = NOT PREGNANT
a. Refer to the individual clinical observations table (Table C24) for external observations confirmed at necropsy.
b. The litters from dams 13822 in Group I and 13852 in Group II were mixed together. Both dams and litters were sacrificed because it was not possible to identify to which litter the pups belonged.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C32 (PAGE 5): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
III					
3	13861	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13862	DG 25	P	108	ALL TISSUES APPEARED NORMAL.b
	13863	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13864	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	13865	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13866	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13867	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	13868	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13869	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	13870	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13871	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13872	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	13873	DL 22	P	120	ALL TISSUES APPEARED NORMAL.
	13874	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13875	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13876	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13877	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13878	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13879	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13880	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13881	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13882	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13883	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13884	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	13885	DL 22	P	114	KIDNEYS: LEFT, PELVIS, MARKED DILATION. ALL OTHER TISSUES APPEARED NORMAL.
	13886	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13887	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	13888	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13889	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13890	DL 22	P	116	ALL TISSUES APPEARED NORMAL.

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
P = PREGNANT NP = NOT PREGNANT
a. Refer to the individual clinical observations table (Table C24) for external observations confirmed at necropsy.
b. Rat 13862 had one implantation site present.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C32 (PAGE 6): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
IV					
10	13891	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13892	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13893	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13894	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13895	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13896	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13897	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13898	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13899	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13900	DS109	NP	108	ALL TISSUES APPEARED NORMAL.
	13901	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	13902	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13903	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13904	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13905	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13906	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13907	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13908	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13909	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	13910	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13911	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13912	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13913	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13914	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13915	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	13916	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13917	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13918	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	13919	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13920	DL 22	P	115	ALL TISSUES APPEARED NORMAL.

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
P = PREGNANT NP = NOT PREGNANT
a. Refer to the individual clinical observations table (Table C24) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C32 (PAGE 7): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
V					
30	13921	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13922	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13923	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13924	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13925	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13926	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13927	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13928	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13929	DG 25	NP	97	ALL TISSUES APPEARED NORMAL.
	13930	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13931	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13932	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13933	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13934	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13935	DL 22	P	114	ALL TISSUES APPEARED NORMAL.
	13936	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	13937	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13938	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13939	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13940	DL 22	P	117	ALL TISSUES APPEARED NORMAL.
	13941	DL 22	P	112	ALL TISSUES APPEARED NORMAL.
	13942	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13943	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13944	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13945	DL 22	P	118	ALL TISSUES APPEARED NORMAL.
	13946	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	13947	DL 1	P	93	SACRIFICED DUE TO NO SURVIVING PUPS ON DAY 1 OF LACTATION. ALL TISSUES APPEARED NORMAL.
	13948	DL 22	P	115	ALL TISSUES APPEARED NORMAL.
	13949	DL 22	P	113	ALL TISSUES APPEARED NORMAL.
	13950	DL 22	P	114	ALL TISSUES APPEARED NORMAL.

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
P = PREGNANT NP = NOT PREGNANT
a. Refer to the individual clinical observations table (Table C24) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C33 (PAGE 1): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	PITUITARY		BRAIN		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT	
		ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a
DOSAGE GROUP I		0 MG/KG/DAY											
13801	338.	0.020	5.92	2.20	0.65	17.78	5.26	1.70	0.50	1.86	0.55	0.040	11.83
13802	367.	0.014b	3.81	2.30	0.63	21.16	5.76	1.92	0.52	2.08	0.57	0.043b	11.72
13803	366.	0.021	5.74	2.18	0.60	20.36	5.56	1.44	0.39	1.54	0.42	0.045	12.30
13804c	---	0.008	----	1.95	----	11.13	----	1.21	----	1.14	----	0.031	-----
13805	348.	0.013	3.74	2.22	0.64	16.85	4.84	1.85	0.53	1.64	0.47	0.042	12.07
13806	340.	0.019	5.59	2.13	0.63	20.35	5.98	1.61	0.47	1.48	0.44	0.051	15.00
13807	367.	0.106d	28.88d	2.39	0.65	19.10	5.20	1.45	0.40	1.58	0.43	0.072	19.62
13808	286.	0.013	4.54	2.27	0.79	13.72	4.80	1.45	0.51	1.55	0.54	0.047	16.43
13809	355.	0.015	4.22	2.08	0.58	18.47	5.20	1.27	0.36	1.31	0.37	0.037	10.42
13810	370.	0.031	8.38	2.27	0.61	20.44	5.52	1.74	0.47	1.67	0.45	0.067	18.11
13811e	---	0.130	----	2.10	----	13.44	----	1.35	----	1.31	----	0.035	-----
13812	326.	0.013	3.99	2.21	0.68	15.92	4.88	1.48	0.45	1.44	0.44	0.034	10.43
13813	393.	0.022	5.60	2.18	0.55	22.84	5.81	1.61	0.41	1.70	0.43	0.045	11.45
13814	359.	0.017	4.74	2.26	0.63	19.92	5.55	1.67	0.46	1.70	0.47	0.032	8.91
13815	370.	0.017	4.59	2.26	0.61	20.15	5.44	1.77	0.48	1.60	0.43	0.045	12.16
13816	320.	0.018	5.62	2.15	0.67	17.21	5.38	1.52	0.48	1.46	0.46	0.059	18.44
13817	302.	0.018	5.96	2.31	0.76	17.80	5.89	1.30	0.43	1.33	0.44	0.043	14.24
13818	376.	0.014	3.72	2.53	0.67	24.99	6.65	1.75	0.46	1.92	0.51	0.059	15.69
13819	344.	0.018	5.23	2.30	0.67	19.63	5.71	1.49	0.43	1.52	0.44	0.041	11.92
13820	317.	0.012	3.78	2.06	0.65	16.32	5.15	1.57	0.50	1.50	0.47	0.038	11.99
13821	328.	0.016	4.88	1.86	0.57	17.26	5.26	1.53	0.47	1.58	0.48	0.043	13.11
13822f	---	0.023	----	2.31	----	13.61	----	1.15	----	1.13	----	0.048	-----
13823	339.	0.018	5.31	2.30	0.68	17.43	5.14	1.45	0.43	1.54	0.45	0.035	10.32
13824	385.	0.016	4.16	2.31	0.60	20.80	5.40	1.60	0.42	1.61	0.42	0.040	10.39
13825	350.	0.018	5.14	2.19	0.62	16.81	4.80	1.58	0.45	1.47	0.42	0.047	13.43
13826	376.	0.027	7.18	2.21	0.59	21.80	5.80	1.74	0.46	1.71	0.45	0.046	12.23
13827	377.	0.025	6.63	2.40	0.64	18.52	4.91	1.49	0.40	1.53	0.40	0.056	14.85
13828	309.	0.022	7.12	2.28	0.74	16.69	5.40	1.50	0.48	1.43	0.46	0.050	16.18
13829	301.	0.015	4.98	2.07	0.69	15.27	5.07	1.34	0.44	1.32	0.44	0.041	13.62
13830	306.	0.023	7.52	2.18	0.71	17.04	5.57	1.51	0.49	1.44	0.47	0.026	8.50

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.
b. Fixed weight.
c. Rat 13804 was moribund sacrificed on day 68 of study; values excluded from group averages and statistical analyses.
d. Value appeared incorrectly recorded and was excluded from group averages and statistical analyses.
e. Rat was not pregnant; values excluded from group averages and statistical analyses.
f. Rat 13822 was sacrificed on day 8 of lactation; values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C33 (PAGE 2): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	ADRENAL RIGHT ABS. WT.	ADRENAL RIGHT REL. % TBW a	SPLEEN ABS. WT.	SPLEEN REL. % TBW	THYMUS ABS. WT.	THYMUS REL. % TBW	OVARY LEFT ABS. WT.	OVARY LEFT REL. % TBW a	OVARY RIGHT ABS. WT.	OVARY RIGHT REL. % TBW a	UTERUS NON-GRAVID ABS. WT.	UTERUS NON-GRAVID REL. % TBW
DOSAGE GROUP I		0 MG/KG/DAY											
13801	338.	0.042b	12.43	0.68	0.20	0.24	0.07	0.060b	17.75	0.072b	21.30	0.52	0.15
13802	367.	0.040b	10.90	0.78	0.21	0.70	0.19	0.047b	12.81	0.061b	16.62	0.54	0.15
13803	366.	0.038	10.38	0.72	0.20	0.18	0.05	0.061	16.67	0.036	9.84	0.51	0.14
13804c	---	0.032	-----	0.56	----	0.55	----	0.054	-----	0.061	-----	0.29	----
13805	348.	0.038	10.92	0.66	0.19	0.26	0.07	0.045	12.93	0.046	13.22	0.68	0.20
13806	340.	0.058	17.06	0.74	0.22	0.09	0.03	0.049	14.41	0.056	16.47	0.51	0.15
13807	367.	0.056	15.26	0.74	0.20	0.06	0.02	0.040	10.90	0.046	12.53	0.45	0.12
13808	286.	0.046	16.08	0.72	0.25	0.20	0.07	0.054	18.88	0.047	16.43	0.57	0.20
13809	355.	0.042	11.83	0.52	0.15	0.07	0.02	0.038	10.70	0.044	12.39	0.42	0.12
13810	370.	0.051	13.78	0.75	0.20	0.26	0.07	0.062	16.76	0.052	14.05	0.73	0.20
13811d	---	0.032	-----	0.73	----	0.46	----	0.033	-----	0.055	-----	0.54	----
13812	326.	0.037	11.35	0.53	0.16	0.14	0.04	0.046	14.11	0.042	12.88	0.48	0.15
13813	393.	0.047	11.96	0.60	0.15	0.28	0.07	0.055	13.99	0.056	14.25	0.63	0.16
13814	359.	0.050	13.93	0.73	0.20	0.21	0.06	0.041	11.42	0.064	17.83	0.51	0.14
13815	370.	0.041	11.08	0.86	0.23	0.23	0.06	0.038	10.27	0.062	16.76	0.58	0.16
13816	320.	0.051	15.94	0.52	0.16	0.26	0.08	0.047	14.69	0.047	14.69	0.47	0.15
13817	302.	0.041	13.58	0.55	0.18	0.13	0.04	0.043	14.24	0.036	11.92	0.52	0.17
13818	376.	0.057	15.16	0.75	0.20	0.15	0.04	0.070	18.62	0.051	13.56	0.05	0.01
13819	344.	0.040	11.63	0.73	0.21	0.19	0.06	0.044	12.79	0.042	12.21	0.51	0.15
13820	317.	0.047	14.83	0.66	0.21	0.17	0.05	0.040	12.62	0.051	16.09	0.54	0.17
13821	328.	0.042	12.80	0.57	0.17	0.22	0.07	0.058	17.68	0.072	21.95	0.61	0.18
13822e	---	0.059	-----	0.65	----	0.23	----	0.063	-----	0.076	-----	0.53	----
13823	339.	0.032	9.44	0.73	0.22	0.19	0.06	0.071	20.94	0.049	14.45	0.53	0.16
13824	385.	0.038	9.87	0.70	0.18	0.26	0.07	0.068	17.66	0.071	18.44	0.41	0.11
13825	350.	0.047b	13.43	0.74	0.21	0.26	0.07	0.052	14.86	0.053	15.14	0.65	0.18
13826	376.	0.043	11.44	0.62	0.16	0.18	0.05	0.056	14.89	0.073	19.41	0.30	0.08
13827	377.	0.047	12.47	0.81	0.21	0.36	0.10	0.049	13.00	0.069	18.30	0.65	0.17
13828	309.	0.050	16.18	0.70	0.23	0.22	0.07	0.080	25.89	0.054	17.48	0.54	0.17
13829	301.	0.054	17.94	0.54	0.18	0.17	0.06	0.054	17.94	0.048	15.95	0.48	0.16
13830	306.	0.032	10.46	0.57	0.19	0.19	0.06	0.042	13.72	0.037	12.09	0.77	0.25

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.
b. Fixed weight.
c. Rat 13804 was moribund sacrificed on day 68 of study; values excluded from group averages and statistical analyses.
d. Rat was not pregnant; values excluded from group averages and statistical analyses.
e. Rat 13822 was sacrificed on day 8 of lactation; values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C33 (PAGE 3): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	PITUITARY		BRAIN		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT	
		ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a
DOSAGE GROUP II		1 MG/KG/DAY											
13831	361.	0.026	7.20	2.17	0.60	21.35	5.91	1.63	0.45	1.67	0.46	0.048	13.30
13832	357.	0.015	4.20	2.31	0.65	18.12	5.08	1.48	0.41	1.51	0.42	0.049	13.72
13833	343.	0.019	5.54	2.23	0.65	17.51	5.10	1.48	0.43	1.57	0.46	0.055	16.03
13834	310.	0.013	4.19	2.26	0.73	16.32	5.26	1.32	0.42	1.38	0.44	0.040	12.90
13835	318.	0.019	5.97	2.38	0.75	20.02	6.30	1.74	0.55	1.61	0.51	0.059	18.55
13836b	---	0.017	----	1.91	----	10.07	----	1.28	----	1.24	----	0.038	-----
13837	359.	0.024	6.68	2.07	0.58	20.19	5.62	1.49	0.42	1.60	0.44	0.049	13.65
13838	375.	0.021	5.60	2.45	0.65	18.97	5.06	1.73	0.46	1.80	0.48	0.050	13.33
13839	361.	0.013	3.60	2.30	0.64	19.83	5.49	1.58	0.44	1.57	0.43	0.055	15.24
13840c	---	0.018	----	1.98	----	11.67	----	1.28	----	1.52	----	0.053	-----
13841	347.	0.016	4.61	2.18	0.63	18.14	5.23	1.75	0.50	1.81	0.52	0.077	22.19
13842	351.	0.017	4.84	2.20	0.63	18.85	5.37	1.62	0.46	1.73	0.49	0.052	14.81
13843	317.	0.015	4.73	2.20	0.69	14.05	4.43	1.41	0.44	1.51	0.48	0.039	12.30
13844	368.	0.023	6.25	2.18	0.59	22.15	6.02	1.86	0.50	1.86	0.50	0.061	16.58
13845	352.	0.026	7.39	2.40	0.68	19.06	5.41	1.56	0.44	1.67	0.47	0.047	13.35
13846	336.	0.013	3.87	2.26	0.67	16.47	4.90	1.64	0.49	1.49	0.44	0.050	14.88
13847	314.	0.019	6.05	2.26	0.72	16.51	5.26	1.51	0.48	1.68	0.54	0.033	10.51
13848	331.	0.018	5.44	1.75	0.53	15.39	4.65	1.67	0.50	1.58	0.48	0.051	15.41
13849	336.	0.027	8.04	2.20	0.65	18.37	5.47	1.57	0.47	1.50	0.45	0.039	11.61
13850	341.	0.020	5.86	2.39	0.70	19.60	5.75	1.79	0.52	1.87	0.55	0.058	17.01
13851c	---	0.017	----	1.91	----	10.61	----	1.19	----	1.16	----	0.034	-----
13852d	---	0.017	----	2.15	----	13.39	----	1.32	----	1.28	----	0.058	-----
13853	331.	0.018	5.44	2.03	0.61	16.88	5.10	1.64	0.50	1.63	0.49	0.053	16.01
13854	381.	0.014	3.67	2.32	0.61	20.77	5.45	1.70	0.45	1.80	0.47	0.059	15.48
13855	330.	0.018	5.45	2.23	0.68	15.43	4.68	1.39	0.42	1.29	0.39	0.040	12.12
13856	367.	0.025	6.81	2.19	0.60	18.95	5.16	1.43	0.39	1.49	0.40	0.059	16.08
13857	295.	0.009	3.05	2.04	0.69	15.95	5.41	1.29	0.44	1.53	0.52	0.044	14.92
13858	338.	0.011	3.25	2.15	0.64	17.69	5.23	1.60	0.47	1.53	0.45	0.057	16.86
13859	316.	0.024	7.59	2.10	0.66	16.36	5.18	1.58	0.50	1.59	0.50	0.050	15.82
13860	293.	0.023	7.85	2.22	0.76	14.25	4.86	1.57	0.54	1.58	0.54	0.048	16.38

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.
b. Rat 13836 was moribund sacrificed on day 59 of study; values excluded from group averages and statistical analyses.
c. Rat was not pregnant; values excluded from group averages and statistical analyses.
d. Rat 13852 was sacrificed on day 11 of lactation; values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C33 (PAGE 4): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	ADRENAL RIGHT ABS. WT.	ADRENAL RIGHT REL. % TBW a	SPLEEN ABS. WT.	SPLEEN REL. % TBW	THYMUS ABS. WT.	THYMUS REL. % TBW	OVARY LEFT ABS. WT.	OVARY LEFT REL. % TBW a	OVARY RIGHT ABS. WT.	OVARY RIGHT REL. % TBW a	UTERUS NON-GRAVID ABS. WT.	UTERUS NON-GRAVID REL. % TBW
DOSAGE GROUP II		1 MG/KG/DAY											
13831	361.	0.040	11.08	0.74	0.20	0.14	0.04	0.072	19.94	0.065	18.00	0.58	0.16
13832	357.	0.040	11.20	0.79	0.22	0.14	0.04	0.051	14.28	0.041	11.48	0.62	0.17
13833	343.	0.052	15.16	0.72	0.21	0.24	0.07	0.050	14.58	0.065	18.95	0.41	0.12
13834	310.	0.038	12.26	0.67	0.22	0.15	0.05	0.050	16.13	0.074	23.87	0.37	0.12
13835	318.	0.046	14.46	0.64	0.20	0.21	0.07	0.037	11.64	0.045	14.15	0.50	0.16
13836b	---	0.039	-----	0.49	----	0.34	----	0.049	-----	0.057	-----	0.53	----
13837	359.	0.042	11.70	0.81	0.22	0.29	0.08	0.055	15.32	0.065	18.10	1.10	0.31
13838	375.	0.055	14.67	0.66	0.18	0.20	0.05	0.062	16.53	0.050	13.33	0.60	0.16
13839	361.	0.051	14.13	0.82	0.23	0.21	0.06	0.046	12.74	0.051	14.13	0.48	0.13
13840c	---	0.049	-----	0.59	----	0.35	----	0.064	-----	0.064	-----	0.59	----
13841	347.	0.060	17.29	0.65	0.19	0.18	0.05	0.066	19.02	0.111	31.99	0.55	0.16
13842	351.	0.046	13.10	0.67	0.19	0.22	0.06	0.077	21.94	0.050	14.24	0.75	0.21
13843	317.	0.030	9.46	0.54	0.17	0.19	0.06	0.047	14.83	0.057	17.98	0.63	0.20
13844	368.	0.047	12.77	0.79	0.21	0.15	0.04	0.042	11.41	0.051	13.86	0.51	0.14
13845	352.	0.049	13.92	0.51	0.14	0.17	0.05	0.094	26.70	0.102	28.98	0.32	0.09
13846	336.	0.042	12.50	0.48	0.14	0.14	0.04	0.037	11.01	0.036	10.71	0.64	0.19
13847	314.	0.034	10.83	0.71	0.23	0.24	0.08	0.054	17.20	0.060	19.11	0.72	0.23
13848	331.	0.046	13.90	0.61	0.18	0.21	0.06	0.049	14.80	0.046	13.90	0.36	0.11
13849	336.	0.035	10.42	0.68	0.20	0.10	0.03	0.034	10.12	0.043	12.80	0.43	0.13
13850	341.	0.050	14.66	0.64	0.19	0.20	0.06	0.034	9.97	0.066	19.35	0.84	0.25
13851c	---	0.039	-----	0.60	----	0.27	----	0.033	-----	0.039	-----	1.24	----
13852d	---	0.043	-----	0.59	----	0.24	----	0.049	-----	0.066	-----	0.45	----
13853	331.	0.061	18.43	0.70	0.21	0.22	0.07	0.082	24.77	0.037	11.18	1.23	0.37
13854	381.	0.052	13.65	0.83	0.22	0.29	0.08	0.075	19.68	0.043	11.29	0.54	0.14
13855	330.	0.048	14.54	0.78	0.24	0.16	0.05	0.077	23.33	0.066	20.00	0.64	0.19
13856	367.	0.059	16.08	0.79	0.22	0.22	0.06	0.045	12.26	0.055	14.99	0.52	0.14
13857	295.	0.036	12.20	0.69	0.23	0.21	0.07	0.032	10.85	0.041	13.90	0.47	0.16
13858	338.	0.043	12.72	0.71	0.21	0.22	0.06	0.053	15.68	0.062	18.34	0.47	0.14
13859	316.	0.050	15.82	0.75	0.24	0.13	0.04	0.046	14.56	0.044	13.92	0.43	0.14
13860	293.	0.052	17.75	0.62	0.21	0.20	0.07	0.053	18.09	0.060	20.48	0.70	0.24

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.
b. Rat 13836 was moribund sacrificed on day 59 of study; values excluded from group averages and statistical analyses.
c. Rat was not pregnant; values excluded from group averages and statistical analyses.
d. Rat 13852 was sacrificed on day 11 of lactation; values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C33 (PAGE 5): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	PITUITARY		BRAIN		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT	
		ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a
DOSAGE GROUP III		3 MG/KG/DAY											
13861	312.	0.014	4.49	2.11	0.68	17.99	5.77	1.59	0.51	1.58	0.51	0.044	14.10
13862b	---	0.014	----	2.16	----	15.04	----	1.58	----	1.66	----	0.033	-----
13863	352.	0.014	3.98	2.12	0.60	20.98	5.96	1.48	0.42	1.67	0.47	0.044	12.50
13864	335.	0.011	3.28	2.03	0.60	16.43	4.90	1.33	0.40	1.35	0.40	0.039	11.64
13865	353.	0.014	3.97	2.28	0.64	17.78	5.04	1.53	0.43	1.59	0.45	0.049	13.88
13866	401.	0.018	4.49	1.94	0.48	20.32	5.07	1.86	0.46	1.75	0.44	0.031	7.73
13867	335.	0.014	4.18	2.19	0.65	15.19	4.53	1.54	0.46	1.56	0.46	0.052	15.52
13868	356.	0.028	7.86	2.22	0.62	18.68	5.25	1.69	0.47	1.77	0.50	0.073	20.50
13869	357.	0.016	4.48	2.25	0.63	17.99	5.04	1.63	0.46	1.62	0.45	0.045	12.60
13870	386.	0.020	5.18	2.36	0.61	21.82	5.65	2.11	0.55	2.03	0.52	0.048	12.44
13871	366.	0.014	3.82	2.30	0.63	19.76	5.40	1.55	0.42	1.65	0.45	0.065	17.76
13872	347.	0.022	6.34	2.33	0.67	17.22	4.96	1.44	0.41	1.48	0.43	0.050	14.41
13873	346.	0.016	4.62	2.15	0.62	17.19	4.97	1.54	0.44	1.64	0.47	0.065	18.79
13874	368.	0.023	6.25	2.46	0.67	15.63	4.25	1.61	0.44	1.70	0.46	0.050	13.59
13875	358.	0.018	5.03	2.07	0.58	18.99	5.30	1.48	0.41	1.58	0.44	0.056	15.64
13876	399.	0.020	5.01	2.48	0.62	17.31	4.34	1.84	0.46	1.88	0.47	0.047	11.78
13877	383.	0.024	6.27	2.29	0.60	17.66	4.61	1.79	0.47	1.81	0.47	0.044	11.49
13878	352.	0.017	4.83	2.22	0.63	18.85	5.36	1.78	0.50	1.77	0.50	0.045	12.78
13879	328.	0.020	6.10	2.37	0.72	17.67	5.39	1.61	0.49	1.69	0.52	0.044	13.41
13880	363.	0.016	4.41	2.29	0.63	17.99	4.96	1.39	0.38	1.52	0.42	0.032	8.82
13881	323.	0.022	6.81	2.24	0.69	18.95	5.87	1.57	0.49	1.60	0.50	0.045	13.93
13882	355.	0.018	5.07	2.35	0.66	18.41	5.18	1.57	0.44	1.47	0.41	0.052	14.65
13883	342.	0.011	3.22	2.26	0.66	18.20	5.32	1.49	0.44	1.63	0.48	0.040	11.70
13884	368.	0.019	5.16	2.07	0.56	18.27	4.96	1.40	0.38	1.37	0.37	0.048	13.04
13885	336.	0.014	4.17	2.23	0.66	13.77	4.10	1.72	0.51	1.60	0.48	0.044	13.10
13886	322.	0.019	5.90	2.24	0.70	16.87	5.24	1.37	0.42	1.58	0.49	0.051	15.84
13887	310.	0.015	4.84	2.14	0.69	15.59	5.03	1.31	0.42	1.31	0.42	0.030	9.68
13888	335.	0.015	4.48	2.25	0.67	19.46	5.81	1.50	0.45	1.61	0.48	0.048	14.33
13889	340.	0.015	4.41	2.25	0.66	14.98	4.40	1.46	0.43	1.44	0.42	0.059	17.35
13890	364.	0.016	4.40	2.00	0.55	17.82	4.90	1.67	0.46	1.75	0.48	0.043	11.81

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Rat 13862 was pregnant, but did not deliver a litter; values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C33 (PAGE 6): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	ADRENAL RIGHT		SPLEEN		THYMUS		OVARY LEFT		OVARY RIGHT		UTERUS NON-GRAVID	
		ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW
DOSAGE GROUP III		3 MG/KG/DAY											
13861	312.	0.032	10.26	0.66	0.21	0.10	0.03	0.035	11.22	0.024	7.69	0.32	0.10
13862b	---	0.032	-----	0.80	----	0.51	----	0.040	-----	0.054	----	0.83	----
13863	352.	0.047	13.35	0.72	0.20	0.19	0.05	0.042	11.93	0.050	14.20	0.54	0.15
13864	335.	0.037	11.04	0.60	0.18	0.12	0.04	0.045	13.43	0.047	14.03	0.47	0.14
13865	353.	0.045	12.75	0.63	0.18	0.18	0.05	0.047	13.31	0.051	14.45	0.51	0.14
13866	401.	0.043	10.72	0.85	0.21	0.23	0.06	0.066	16.46	0.074	18.45	0.48	0.12
13867	335.	0.043	12.84	0.76	0.23	0.20	0.06	0.064	19.10	0.053	15.82	0.50	0.15
13868	356.	0.050	14.04	0.64	0.18	0.12	0.03	0.046	12.92	0.049	13.76	0.46	0.13
13869	357.	0.043	12.04	0.49	0.14	0.14	0.04	0.049	13.72	0.058	16.25	0.38	0.11
13870	386.	0.043	11.14	0.90	0.23	0.35	0.09	0.069	17.88	0.079	20.47	0.72	0.19
13871	366.	0.048	13.11	0.89	0.24	0.19	0.05	0.037	10.11	0.059	16.12	0.40	0.11
13872	347.	0.041	11.82	0.69	0.20	0.16	0.05	0.050	14.41	0.047	13.54	0.44	0.13
13873	346.	0.055	15.90	1.02	0.29	0.18	0.05	0.074	21.39	0.068	19.65	0.44	0.13
13874	368.	0.045	12.23	0.72	0.20	0.16	0.04	0.056	15.22	0.074	20.11	0.39	0.10
13875	358.	0.046	12.85	0.56	0.16	0.19	0.05	0.054	15.08	0.058	16.20	0.56	0.16
13876	399.	0.037	9.27	0.64	0.16	0.22	0.06	0.061	15.29	0.069	17.29	0.69	0.17
13877	383.	0.050	13.05	0.75	0.20	0.30	0.08	0.046	12.01	0.051	13.32	0.62	0.16
13878	352.	0.039	11.08	0.70	0.20	0.09	0.02	0.031	8.81	0.046	13.07	0.66	0.19
13879	328.	0.035	10.67	0.69	0.21	0.30	0.09	0.077	23.48	0.087	26.52	0.50	0.15
13880	363.	0.035	9.64	0.78	0.21	0.19	0.05	0.045	12.40	0.049	13.50	0.78	0.21
13881	323.	0.049	15.17	0.65	0.20	0.12	0.04	0.049	15.17	0.053	16.41	0.20	0.06
13882	355.	0.049	13.80	0.60	0.17	0.12	0.03	0.056	15.77	0.062	17.46	0.76	0.21
13883	342.	0.038	11.11	0.75	0.22	0.25	0.07	0.093	27.19	0.060	17.54	0.52c	0.15
13884	368.	0.038	10.33	0.66	0.18	0.22	0.06	0.059	16.03	0.078	21.20	0.44	0.12
13885	336.	0.040	11.90	0.78	0.23	0.43	0.13	0.055	16.37	0.058	17.26	0.59	0.18
13886	322.	0.037	11.49	0.68	0.21	0.17	0.05	0.064	19.88	0.053	16.46	0.73	0.23
13887	310.	0.030	9.68	0.75	0.24	0.29	0.09	0.035	11.29	0.046	14.84	0.77	0.25
13888	335.	0.050	14.92	0.72	0.21	0.40	0.12	0.049	14.63	0.049	14.63	0.67	0.20
13889	340.	0.051	15.00	0.70	0.20	0.16	0.05	0.039	11.47	0.059	17.35	0.31	0.09
13890	364.	0.049	13.46	0.68	0.19	0.17	0.05	0.068	18.68	0.052	14.28	0.57	0.16

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Rat 13862 was pregnant, but did not deliver a litter; values excluded from group averages and statistical analyses.

c. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C33 (PAGE 7): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	PITUITARY		BRAIN		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT	
		ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a
DOSAGE GROUP IV		10 MG/KG/DAY											
13891	300.	0.013	4.33	2.26	0.75	15.62	5.21	1.36	0.45	1.34	0.45	0.048	16.00
13892	366.	0.023	6.28	2.20	0.60	21.99	6.01	1.75	0.48	1.83	0.50	0.047	12.84
13893	332.	0.022	6.63	2.19	0.66	16.27	4.90	1.42	0.43	1.47	0.44	0.038	11.44
13894	386.	0.017	4.40	2.28	0.59	16.90	4.38	1.83	0.47	1.81	0.47	0.058	15.02
13895	334.	0.018	5.39	2.17	0.65	17.85	5.34	1.46	0.44	1.56	0.47	0.041	12.28
13896	376.	0.016	4.26	2.16	0.57	18.63	4.95	1.60	0.42	1.64	0.44	0.045	11.97
13897	361.	0.006	1.66	2.15	0.60	17.38	4.81	1.73	0.48	1.75	0.48	0.043	11.91
13898	395.	0.018	4.56	2.27	0.57	22.41	5.67	1.60	0.40	1.69	0.43	0.060	15.19
13899	320.	0.010	3.12	2.19	0.68	18.65	5.83	1.57	0.49	1.62	0.51	0.042	13.12
13900b	---	-----	----	----	----	-----	----	----	----	----	----	-----	-----
13901	350.	0.016	4.57	2.32	0.66	14.85	4.24	1.51	0.43	1.56	0.44	0.048	13.71
13902	311.	0.012	3.86	2.11	0.68	17.66	5.68	1.38	0.44	1.40	0.45	0.036	11.58
13903	318.	0.012	3.77	2.02	0.64	15.13	4.76	1.31	0.41	1.38	0.43	0.048	15.09
13904	354.	0.009	2.54	2.39	0.68	15.55	4.39	1.61	0.45	1.63	0.46	0.044	12.43
13905	351.	0.018	5.13	2.14	0.61	17.49	4.98	1.42	0.40	1.52	0.43	0.053	15.10
13906	355.	0.012	3.38	2.18	0.61	19.00	5.35	1.73	0.49	1.50	0.42	0.039	10.98
13907	337.	0.007	2.08	2.24	0.66	18.99	5.64	1.38	0.41	1.35	0.40	0.061	18.10
13908	366.	0.011	3.00	2.22	0.61	16.18	4.42	1.49	0.41	1.55	0.42	0.045	12.30
13909	356.	0.013	3.65	2.16	0.61	16.55	4.65	1.46	0.41	1.50	0.42	0.041	11.52
13910	353.	0.016	4.53	2.20	0.62	18.53	5.25	1.56	0.44	1.63	0.46	0.050	14.16
13911	327.	0.015	4.59	2.26	0.69	16.78	5.13	1.58	0.48	1.59	0.49	0.042	12.84
13912	355.	0.016	4.51	2.24	0.63	16.86	4.75	1.61	0.45	1.66	0.47	0.040	11.27
13913	317.	0.022	6.94	2.24	0.71	15.08	4.76	1.35	0.42	1.52	0.48	0.047	14.83
13914	294.	0.035	11.90	2.29	0.78	15.28	5.20	1.54	0.52	1.58	0.54	0.060	20.41
13915	323.	0.012	3.72	2.10	0.65	14.92	4.62	1.40	0.43	1.51	0.47	0.040	12.38
13916	376.	0.013	3.46	2.40	0.64	18.53	4.93	1.61	0.43	1.60	0.42	0.038	10.11
13917	327.	0.022	6.73	2.31	0.71	17.29	5.29	1.55	0.47	1.44	0.44	0.046	14.07
13918	302.	0.021	6.95	2.22	0.74	14.35	4.75	1.30	0.43	1.39	0.46	0.042	13.91
13919	329.	0.025	7.60	2.30	0.70	17.02	5.17	1.32	0.40	1.34	0.41	0.045	13.68
13920	349.	0.007	2.00	2.28	0.65	18.54	5.31	1.63	0.47	1.62	0.46	0.040	11.46

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Rat was not pregnant; values were not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C33 (PAGE 8): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	ADRENAL RIGHT ABS. WT.	ADRENAL RIGHT REL. % TBW a	SPLEEN ABS. WT.	SPLEEN REL. % TBW	THYMUS ABS. WT.	THYMUS REL. % TBW	OVARY LEFT ABS. WT.	OVARY LEFT REL. % TBW a	OVARY RIGHT ABS. WT.	OVARY RIGHT REL. % TBW a	UTERUS NON-GRAVID ABS. WT.	UTERUS NON-GRAVID REL. % TBW
DOSAGE GROUP IV		10 MG/KG/DAY											
13891	300.	0.042	14.00	0.61	0.20	0.11	0.04	0.035	11.67	0.044	14.67	0.41	0.14
13892	366.	0.048	13.11	0.80	0.22	0.30	0.08	0.057	15.57	0.054	14.75	0.99	0.27
13893	332.	0.048	14.46	0.58	0.17	0.21	0.06	0.033	9.94	0.050	15.06	0.55	0.16
13894	386.	0.057	14.77	0.77	0.20	0.33	0.08	0.047	12.18	0.086	22.28	1.03	0.27
13895	334.	0.034	10.18	0.77	0.23	0.31	0.09	0.056	16.77	0.054	16.17	0.40	0.12
13896	376.	0.040	10.64	0.69	0.18	0.20	0.05	0.048	12.76	0.048	12.76	0.51	0.14
13897	361.	0.043	11.91	0.70	0.19	0.18	0.05	0.047	13.02	0.041	11.36	0.49	0.14
13898	395.	0.072	18.23	0.92	0.23	0.16	0.04	0.040	10.13	0.057	14.43	0.56	0.14
13899	320.	0.034	10.62	0.74	0.23	0.13	0.04	0.047	14.69	0.046	14.38	0.44	0.14
13900b	---	-----	-----	----	----	----	----	-----	-----	-----	-----	----	----
13901	350.	0.039	11.14	0.72	0.20	0.17	0.05	0.058	16.57	0.061	17.43	0.39	0.11
13902	311.	0.034	10.93	0.55	0.18	0.19	0.06	0.037	11.90	0.058	18.65	0.49	0.16
13903	318.	0.030	9.43	0.57	0.18	0.12	0.04	0.032	10.06	0.058	18.24	0.51	0.16
13904	354.	0.045	12.71	0.76	0.21	0.31	0.09	0.048	13.56	0.065	18.36	0.62	0.18
13905	351.	0.049	13.96	0.62	0.18	0.27	0.08	0.057	16.24	0.074	21.08	0.50	0.14
13906	355.	0.038	10.70	0.64	0.18	0.15	0.04	0.044	12.39	0.048	13.52	0.57	0.16
13907	337.	0.045	13.35	0.70	0.21	0.06	0.02	0.062	18.40	0.066	19.58	0.37	0.11
13908	366.	0.040	10.93	0.76	0.21	0.54	0.15	0.066	18.03	0.065	17.76	1.09	0.30
13909	356.	0.038	10.67	0.71	0.20	0.16	0.04	0.033	9.27	0.057	16.01	0.55	0.15
13910	353.	0.047	13.31	0.65	0.18	0.16	0.04	0.063	17.85	0.052	14.73	0.45	0.13
13911	327.	0.035	10.70	0.70	0.21	0.23	0.07	0.051	15.60	0.028	8.56	0.71	0.22
13912	355.	0.043	12.11	0.67	0.19	0.16	0.04	0.040	11.27	0.053	14.93	0.81	0.23
13913	317.	0.040	12.62	0.80	0.25	0.19	0.06	0.063	19.87	0.059	18.61	0.66	0.21
13914	294.	0.059	20.07	0.69	0.23	0.17	0.06	0.051	17.35	0.053	18.03	0.44	0.15
13915	323.	0.045	13.93	0.67	0.21	0.29	0.09	0.054	16.72	0.071	21.98	0.69	0.21
13916	376.	0.038	10.11	0.69	0.18	0.14	0.04	0.033	8.78	0.050	13.30	0.61	0.16
13917	327.	0.038	11.62	0.68	0.21	0.20	0.06	0.061	18.65	0.052	15.90	0.46	0.14
13918	302.	0.038	12.58	0.65	0.22	0.18	0.06	0.046	15.23	0.049	16.22	0.57	0.19
13919	329.	0.040	12.16	0.48	0.14	0.09	0.03	0.056	17.02	0.038	11.55	0.52	0.16
13920	349.	0.032	9.17	0.66	0.19	0.08	0.02	0.045	12.89	0.038	10.89	0.47	0.13

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Rat was not pregnant; values were not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C33 (PAGE 9): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	PITUITARY		BRAIN		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT	
		ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a
DOSAGE GROUP V		30 MG/KG/DAY											
13921	357.	0.019	5.32	2.33	0.65	19.21	5.38	1.54	0.43	1.59	0.44	0.052	14.56
13922	352.	0.010	2.84	2.16	0.61	16.31	4.63	1.37	0.39	1.37	0.39	0.038	10.80
13923	320.	0.012	3.75	2.15	0.67	20.04	6.26	1.41	0.44	1.38	0.43	0.042	13.12
13924	341.	0.020	5.86	2.11	0.62	20.95	6.14	1.47	0.43	1.61	0.47	0.053	15.54
13925	318.	0.009	2.83	2.12	0.67	15.19	4.78	1.31	0.41	1.34	0.42	0.040	12.58
13926	353.	0.027	7.65	2.19	0.62	20.53	5.82	1.63	0.46	1.58	0.45	0.071	20.11
13927	331.	0.011	3.32	2.07	0.62	18.60	5.62	1.47	0.44	1.60	0.48	0.069	20.84
13928	368.	0.028	7.61	2.30	0.62	18.93	5.14	1.58	0.43	1.60	0.43	0.050	13.59
13929b	---	0.015	----	1.94	----	12.06	----	1.20	----	1.27	----	0.039	-----
13930	350.	0.019	5.43	2.24	0.64	20.69	5.91	1.47	0.42	1.62	0.46	0.039	11.14
13931	368.	0.022	5.98	2.09	0.57	19.14	5.20	1.29	0.35	1.33	0.36	0.042	11.41
13932	357.	0.016	4.48	2.18	0.61	20.55	5.76	1.53	0.43	1.53	0.43	0.051	14.28
13933	326.	0.018	5.52	1.99	0.61	17.15	5.26	1.28	0.39	1.43	0.44	0.045	13.80
13934	340.	0.012	3.53	2.16	0.64	15.00	4.41	1.42	0.42	1.50	0.44	0.039	11.47
13935	318.	0.010	3.14	2.08	0.65	17.57	5.52	1.39	0.44	1.46	0.46	0.053	16.67
13936	349.	0.017	4.87	2.29	0.66	18.04	5.17	1.37	0.39	1.38	0.40	0.053	15.19
13937	306.	0.005	1.63	2.03	0.66	16.74	5.47	1.51	0.49	1.40	0.46	0.029	9.48
13938	343.	0.016	4.66	2.25	0.66	19.00	5.54	1.58	0.46	1.63	0.48	0.056	16.33
13939	349.	0.016	4.58	2.29	0.66	16.45	4.71	1.49	0.43	1.51	0.43	0.039	11.17
13940	353.	0.030	8.50	2.24	0.63	18.92	5.36	1.34	0.38	1.46	0.41	0.048	13.60
13941	383.	0.017	4.44	2.39	0.62	19.38	5.06	1.55	0.40	1.65	0.43	0.045	11.75
13942	344.	0.006	1.74	2.19	0.64	17.21	5.00	1.46	0.42	1.37	0.40	0.030	8.72
13943	349.	0.011	3.15	2.30	0.66	17.70	5.07	1.52	0.44	1.45	0.42	0.034	9.74
13944	341.	0.092c	26.98c	2.01	0.59	16.38	4.80	1.43	0.42	1.53	0.45	0.056	16.42
13945	342.	0.021	6.14	2.29	0.67	17.42	5.09	1.45	0.42	1.57	0.46	0.051	14.91
13946	353.	0.009	2.55	2.04	0.58	17.13	4.85	1.22	0.34	1.33	0.38	0.032	9.06
13947d	---	0.015	----	2.05	----	11.28	----	1.18	----	1.11	----	0.048	-----
13948	323.	0.017	5.26	2.20	0.68	15.10	4.67	1.35	0.42	1.36	0.42	0.044	13.62
13949	365.	0.013	3.56	2.09	0.57	18.90	5.18	1.53	0.42	1.55	0.42	0.046	12.60
13950	361.	0.016	4.43	2.02	0.56	18.17	5.03	1.39	0.38	1.52	0.42	0.037	10.25

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.
b. Rat was not pregnant; values excluded from group averages and statistical analyses.
c. Value appeared incorrectly recorded and was excluded from group averages and statistical analyses.
d. Rat 13947 was sacrificed due to no surviving pups on day 1 of lactation; values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C33 (PAGE 10): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	TERMINAL BODY WEIGHT	ADRENAL RIGHT ABS. WT.	ADRENAL RIGHT REL. % TBW a	SPLEEN ABS. WT.	SPLEEN REL. % TBW	THYMUS ABS. WT.	THYMUS REL. % TBW	OVARY LEFT ABS. WT.	OVARY LEFT REL. % TBW a	OVARY RIGHT ABS. WT.	OVARY RIGHT REL. % TBW a	UTERUS NON-GRAVID ABS. WT.	UTERUS NON-GRAVID REL. % TBW
DOSAGE GROUP V		30 MG/KG/DAY											
13921	357.	0.042	11.76	0.71	0.20	0.15	0.04	0.069	19.33	0.033	9.24	0.54	0.15
13922	352.	0.041	11.65	0.72	0.20	0.08	0.02	0.073	20.74	0.060	17.04	0.52	0.15
13923	320.	0.041	12.81	0.74	0.23	0.10	0.03	0.030	9.38	0.020	6.25	0.45	0.14
13924	341.	0.045	13.20	0.52	0.15	0.16	0.05	0.106	31.08	0.055	16.13	0.40	0.12
13925	318.	0.033	10.38	0.56	0.18	0.10	0.03	0.040	12.58	0.043	13.52	0.40	0.12
13926	353.	0.049	13.88	0.90	0.25	0.19	0.05	0.061	17.28	0.070	19.83	0.47	0.13
13927	331.	0.052	15.71	0.79	0.24	0.20	0.06	0.062	18.73	0.058	17.52	0.27	0.08
13928	368.	0.036	9.78	0.84	0.23	0.20	0.05	0.049	13.32	0.060	16.30	0.60	0.16
13929b	---	0.033	----	0.46	----	0.24	----	0.036	----	0.028	-----	0.86	----
13930	350.	0.037	10.57	0.80	0.23	0.13	0.04	0.034	9.71	0.047	13.43	0.46	0.13
13931	368.	0.039	10.60	0.82	0.22	0.20	0.05	0.056	15.22	0.050	13.59	0.58	0.16
13932	357.	0.046	12.88	0.62	0.17	0.15	0.04	0.041	11.48	0.049	13.72	0.56	0.16
13933	326.	0.060	18.40	0.66	0.20	0.28	0.08	0.052	15.95	0.036	11.04	0.51	0.16
13934	340.	0.029	8.53	0.68	0.20	0.22	0.06	0.052	15.29	0.043	12.65	0.51	0.15
13935	318.	0.056	17.61	0.61	0.19	0.06	0.02	0.056	17.61	0.046	14.46	0.76	0.24
13936	349.	0.044	12.61	0.74	0.21	0.05	0.01	0.055	15.76	0.040	11.46	0.56	0.16
13937	306.	0.031	10.13	0.50	0.16	0.17	0.06	0.059	19.28	0.030	9.80	0.49	0.16
13938	343.	0.049	14.28	0.83	0.24	0.19	0.06	0.050	14.58	0.039	11.37	0.43	0.12
13939	349.	0.037	10.60	0.75	0.21	0.21	0.06	0.055	15.76	0.074	21.20	0.43	0.12
13940	353.	0.039	11.05	0.66	0.19	0.15	0.04	0.033	9.35	0.039	11.05	0.60	0.17
13941	383.	0.059	15.40	0.71	0.18	0.21	0.05	0.056	14.62	0.086	22.45	0.45	0.12
13942	344.	0.035	10.17	0.70	0.20	0.21	0.06	0.027	7.85	0.060	17.44	0.54	0.16
13943	349.	0.042	12.03	0.75	0.21	0.15	0.04	0.059	16.90	0.052	14.90	0.51	0.15
13944	341.	0.052	15.25	0.82	0.24	0.21	0.06	0.066	19.35	0.054	15.84	0.57	0.17
13945	342.	0.039	11.40	0.69	0.20	0.28	0.08	0.047	13.74	0.050	14.62	0.28	0.08
13946	353.	0.024	6.80	0.89	0.25	0.17	0.05	0.058	16.43	0.044	12.46	0.45	0.13
13947c	---	0.040	----	0.66	----	0.26	----	0.085	----	0.058	-----	2.00	----
13948	323.	0.810d	250.77d	0.80	0.25	0.22	0.07	0.035	10.84	0.047	14.55	0.65	0.20
13949	365.	0.023	6.30	0.62	0.17	0.17	0.05	0.050	13.70	0.038	10.41	0.39	0.11
13950	361.	0.041	11.36	0.72	0.20	0.18	0.05	0.060	16.62	0.046	12.74	0.65	0.18

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.
b. Rat was not pregnant; values excluded from group averages and statistical analyses.
c. Rat 13947 was sacrificed due to no surviving pups on day 1 of lactation; values excluded from group averages and statistical analyses.
d. Value appeared incorrectly recorded and was excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C34 (PAGE 1): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	BRAIN WEIGHT	PITUITARY		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
DOSAGE GROUP I		0 MG/KG/DAY											
13801	2.20	0.020	0.91	17.78	808.18	1.70	77.27	1.86	84.54	0.040	1.82	0.042a	1.91
13802	2.30	0.014a	0.61	21.16	920.00	1.92	83.48	2.08	90.43	0.043a	1.87	0.040a	1.74
13803	2.18	0.021	0.96	20.36	933.94	1.44	66.06	1.54	70.64	0.045	2.06	0.038	1.74
13804b	1.95	0.008	----	11.13	------	1.21	-----	1.14	-----	0.031	----	0.032	----
13805	2.22	0.013	0.58	16.85	759.01	1.85	83.33	1.64	73.87	0.042	1.89	0.038	1.71
13806	2.13	0.019	0.89	20.35	955.40	1.61	75.59	1.48	69.48	0.051	2.39	0.058	2.72
13807	2.39	0.106c	4.44c	19.10	799.16	1.45	60.67	1.58	66.11	0.072	3.01	0.056	2.34
13808	2.27	0.013	0.57	13.72	604.40	1.45	63.88	1.55	68.28	0.047	2.07	0.046	2.03
13809	2.08	0.015	0.72	18.47	887.98	1.27	61.06	1.31	62.98	0.037	1.78	0.042	2.02
13810	2.27	0.031	1.36	20.44	900.44	1.74	76.65	1.67	73.57	0.067	2.95	0.051	2.25
13811d	2.10	0.130	----	13.44	------	1.35	-----	1.31	-----	0.035	----	0.032	----
13812	2.21	0.013	0.59	15.92	720.36	1.48	66.97	1.44	65.16	0.034	1.54	0.037	1.67
13813	2.18	0.022	1.01	22.84	1047.71	1.61	73.85	1.70	77.98	0.045	2.06	0.047	2.16
13814	2.26	0.017	0.75	19.92	881.42	1.67	73.89	1.70	75.22	0.032	1.42	0.050	2.21
13815	2.26	0.017	0.75	20.15	891.59	1.77	78.32	1.60	70.80	0.045	1.99	0.041	1.81
13816	2.15	0.018	0.84	17.21	800.46	1.52	70.70	1.46	67.91	0.059	2.74	0.051	2.37
13817	2.31	0.018	0.78	17.80	770.56	1.30	56.28	1.33	57.58	0.043	1.86	0.041	1.77
13818	2.53	0.014	0.55	24.99	987.75	1.75	69.17	1.92	75.89	0.059	2.33	0.057	2.25
13819	2.30	0.018	0.78	19.63	853.48	1.49	64.78	1.52	66.09	0.041	1.78	0.040	1.74
13820	2.06	0.012	0.58	16.32	792.23	1.57	76.21	1.50	72.82	0.038	1.84	0.047	2.28
13821	1.86	0.016	0.86	17.26	927.96	1.53	82.26	1.58	84.95	0.043	2.31	0.042	2.26
13822e	2.31	0.023	----	13.61	------	1.15	-----	1.13	-----	0.048	----	0.059	----
13823	2.30	0.018	0.78	17.43	757.83	1.45	63.04	1.54	66.96	0.035	1.52	0.032	1.39
13824	2.31	0.016	0.69	20.80	900.43	1.60	69.26	1.61	69.70	0.040	1.73	0.038	1.64
13825	2.19	0.018	0.82	16.81	767.58	1.58	72.15	1.47	67.12	0.047	2.15	0.047a	2.15
13826	2.21	0.027	1.22	21.80	986.42	1.74	78.73	1.71	77.38	0.046	2.08	0.043	1.94
13827	2.40	0.025	1.04	18.52	771.67	1.49	62.08	1.53	63.75	0.056	2.33	0.047	1.96
13828	2.28	0.022	0.96	16.69	732.02	1.50	65.79	1.43	62.72	0.050	2.19	0.050	2.19
13829	2.07	0.015	0.72	15.27	737.68	1.34	64.73	1.32	63.77	0.041	1.98	0.054	2.61
13830	2.18	0.023	1.06	17.04	781.65	1.51	69.27	1.44	66.06	0.026	1.19	0.032	1.47

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Fixed weight.
b. Rat 13804 was moribund sacrificed on day 68 of study; values excluded from group averages and statistical analyses.
c. Value appeared incorrectly recorded and was excluded from group averages and statistical analyses.
d. Rat was not pregnant; values excluded from group averages and statistical analyses.
e. Rat 13822 was sacrificed on day 8 of lactation; values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C34 (PAGE 2): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	BRAIN WEIGHT	SPLEEN ABS. WT.	SPLEEN REL. % BRW	THYMUS ABS. WT.	THYMUS REL. % BRW	OVARY LEFT ABS. WT.	OVARY LEFT REL. % BRW	OVARY RIGHT ABS. WT.	OVARY RIGHT REL. % BRW	UTERUS NON-GRAVID ABS. WT.	UTERUS NON-GRAVID REL. % BRW
DOSAGE GROUP I		0 MG/KG/DAY									
13801	2.20	0.68	30.91	0.24	10.91	0.060a	2.73	0.072a	3.27	0.52	23.64
13802	2.30	0.78	33.91	0.70	30.43	0.047a	2.04	0.061a	2.65	0.54	23.48
13803	2.18	0.72	33.03	0.18	8.26	0.061	2.80	0.036	1.65	0.51	23.39
13804b	1.95	0.56	-----	0.55	----	0.054	----	0.061	----	0.29	-----
13805	2.22	0.66	29.73	0.26	11.71	0.045	2.03	0.046	2.07	0.68	30.63
13806	2.13	0.74	34.74	0.09	4.22	0.049	2.30	0.056	2.63	0.51	23.94
13807	2.39	0.74	30.96	0.06	2.51	0.040	1.67	0.046	1.92	0.45	18.83
13808	2.27	0.72	31.72	0.20	8.81	0.054	2.38	0.047	2.07	0.57	25.11
13809	2.08	0.52	25.00	0.07	3.36	0.038	1.83	0.044	2.12	0.42	20.19
13810	2.27	0.75	33.04	0.26	11.45	0.062	2.73	0.052	2.29	0.73	32.16
13811c	2.10	0.73	-----	0.46	----	0.033	----	0.055	----	0.54	-----
13812	2.21	0.53	23.98	0.14	6.33	0.046	2.08	0.042	1.90	0.48	21.72
13813	2.18	0.60	27.52	0.28	12.84	0.055	2.52	0.056	2.57	0.63	28.90
13814	2.26	0.73	32.30	0.21	9.29	0.041	1.81	0.064	2.83	0.51	22.57
13815	2.26	0.86	38.05	0.23	10.18	0.038	1.68	0.062	2.74	0.58	25.66
13816	2.15	0.52	24.19	0.26	12.09	0.047	2.19	0.047	2.19	0.47	21.86
13817	2.31	0.55	23.81	0.13	5.63	0.043	1.86	0.036	1.56	0.52	22.51
13818	2.53	0.75	29.64	0.15	5.93	0.070	2.77	0.051	2.02	0.05	1.98
13819	2.30	0.73	31.74	0.19	8.26	0.044	1.91	0.042	1.83	0.51	22.17
13820	2.06	0.66	32.04	0.17	8.25	0.040	1.94	0.051	2.48	0.54	26.21
13821	1.86	0.57	30.64	0.22	11.83	0.058	3.12	0.072	3.87	0.61	32.80
13822d	2.31	0.65	-----	0.23	----	0.063	----	0.076	----	0.53	-----
13823	2.30	0.73	31.74	0.19	8.26	0.071	3.09	0.049	2.13	0.53	23.04
13824	2.31	0.70	30.30	0.26	11.26	0.068	2.94	0.071	3.07	0.41	17.75
13825	2.19	0.74	33.79	0.26	11.87	0.052	2.37	0.053	2.42	0.65	29.68
13826	2.21	0.62	28.05	0.18	8.14	0.056	2.53	0.073	3.30	0.30	13.57
13827	2.40	0.81	33.75	0.36	15.00	0.049	2.04	0.069	2.88	0.65	27.08
13828	2.28	0.70	30.70	0.22	9.65	0.080	3.51	0.054	2.37	0.54	23.68
13829	2.07	0.54	26.09	0.17	8.21	0.054	2.61	0.048	2.32	0.48	23.19
13830	2.18	0.57	26.15	0.19	8.72	0.042	1.93	0.037	1.70	0.77	35.32

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Fixed weight.
b. Rat 13804 was moribund sacrificed on day 68 of study; values excluded from group averages and statistical analyses.
c. Rat was not pregnant; values excluded from group averages and statistical analyses.
d. Rat 13822 was sacrificed on day 8 of lactation; values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C34 (PAGE 3): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	BRAIN WEIGHT	PITUITARY		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
DOSAGE GROUP II		1 MG/KG/DAY											
13831	2.17	0.026	1.20	21.35	983.87	1.63	75.12	1.67	76.96	0.048	2.21	0.040	1.84
13832	2.31	0.015	0.65	18.12	784.42	1.48	64.07	1.51	65.37	0.049	2.12	0.040	1.73
13833	2.23	0.019	0.85	17.51	785.20	1.48	66.37	1.57	70.40	0.055	2.47	0.052	2.33
13834	2.26	0.013	0.58	16.32	722.12	1.32	58.41	1.38	61.06	0.040	1.77	0.038	1.68
13835	2.38	0.019	0.80	20.02	841.18	1.74	73.11	1.61	67.65	0.059	2.48	0.046	1.93
13836a	1.91	0.017	----	10.07	------	1.28	-----	1.24	-----	0.038	----	0.039	----
13837	2.07	0.024	1.16	20.19	975.36	1.49	71.98	1.60	77.29	0.049	2.37	0.042	2.03
13838	2.45	0.021	0.86	18.97	774.28	1.73	70.61	1.80	73.47	0.050	2.04	0.055	2.24
13839	2.30	0.013	0.56	19.83	862.17	1.58	68.70	1.57	68.26	0.055	2.39	0.051	2.22
13840b	1.98	0.018	----	11.67	------	1.28	-----	1.52	-----	0.053	----	0.049	----
13841	2.18	0.016	0.73	18.14	832.11	1.75	80.28	1.81	83.03	0.077	3.53	0.060	2.75
13842	2.20	0.017	0.77	18.85	856.82	1.62	73.64	1.73	78.64	0.052	2.36	0.046	2.09
13843	2.20	0.015	0.68	14.05	638.64	1.41	64.09	1.51	68.64	0.039	1.77	0.030	1.36
13844	2.18	0.023	1.06	22.15	1016.06	1.86	85.32	1.86	85.32	0.061	2.80	0.047	2.16
13845	2.40	0.026	1.08	19.06	794.17	1.56	65.00	1.67	69.58	0.047	1.96	0.049	2.04
13846	2.26	0.013	0.58	16.47	728.76	1.64	72.57	1.49	65.93	0.050	2.21	0.042	1.86
13847	2.26	0.019	0.84	16.51	730.53	1.51	66.81	1.68	74.34	0.033	1.46	0.034	1.50
13848	1.75	0.018	1.03	15.39	879.43	1.67	95.43	1.58	90.28	0.051	2.91	0.046	2.63
13849	2.20	0.027	1.23	18.37	835.00	1.57	71.36	1.50	68.18	0.039	1.77	0.035	1.59
13850	2.39	0.020	0.84	19.60	820.08	1.79	74.90	1.87	78.24	0.058	2.43	0.050	2.09
13851b	1.91	0.017	----	10.61	------	1.19	-----	1.16	-----	0.034	----	0.039	----
13852c	2.15	0.017	----	13.39	------	1.32	-----	1.28	-----	0.058	----	0.043	----
13853	2.03	0.018	0.89	16.88	831.53	1.64	80.79	1.63	80.30	0.053	2.61	0.061	3.00
13854	2.32	0.014	0.60	20.77	895.26	1.70	73.28	1.80	77.59	0.059	2.54	0.052	2.24
13855	2.23	0.018	0.81	15.43	691.93	1.39	62.33	1.29	57.85	0.040	1.79	0.048	2.15
13856	2.19	0.025	1.14	18.95	865.30	1.43	65.30	1.49	68.04	0.059	2.69	0.059	2.69
13857	2.04	0.009	0.44	15.95	781.86	1.29	63.24	1.53	75.00	0.044	2.16	0.036	1.76
13858	2.15	0.011	0.51	17.69	822.79	1.60	74.42	1.53	71.16	0.057	2.65	0.043	2.00
13859	2.10	0.024	1.14	16.36	779.05	1.58	75.24	1.59	75.71	0.050	2.38	0.050	2.38
13860	2.22	0.023	1.04	14.25	641.89	1.57	70.72	1.58	71.17	0.048	2.16	0.052	2.34

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Rat 13836 was moribund sacrificed on day 59 of study; values excluded from group averages and statistical analyses.

b. Rat was not pregnant; values excluded from group averages and statistical analyses.

c. Rat 13852 was sacrificed on day 11 of lactation; values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C34 (PAGE 4): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	BRAIN WEIGHT	SPLEEN ABS. WT.	SPLEEN REL. % BRW	THYMUS ABS. WT.	THYMUS REL. % BRW	OVARY LEFT ABS. WT.	OVARY LEFT REL. % BRW	OVARY RIGHT ABS. WT.	OVARY RIGHT REL. % BRW	UTERUS NON-GRAVID ABS. WT.	UTERUS NON-GRAVID REL. % BRW
DOSAGE GROUP II		1 MG/KG/DAY									
13831	2.17	0.74	34.10	0.14	6.45	0.072	3.32	0.065	3.00	0.58	26.73
13832	2.31	0.79	34.20	0.14	6.06	0.051	2.21	0.041	1.77	0.62	26.84
13833	2.23	0.72	32.29	0.24	10.76	0.050	2.24	0.065	2.91	0.41	18.38
13834	2.26	0.67	29.65	0.15	6.64	0.050	2.21	0.074	3.27	0.37	16.37
13835	2.38	0.64	26.89	0.21	8.82	0.037	1.55	0.045	1.89	0.50	21.01
13836a	1.91	0.49	-----	0.34	----	0.049	----	0.057	----	0.53	-----
13837	2.07	0.81	39.13	0.29	14.01	0.055	2.66	0.065	3.14	1.10	53.14
13838	2.45	0.66	26.94	0.20	8.16	0.062	2.53	0.050	2.04	0.60	24.49
13839	2.30	0.82	35.65	0.21	9.13	0.046	2.00	0.051	2.22	0.48	20.87
13840b	1.98	0.59	-----	0.35	----	0.064	----	0.064	----	0.59	-----
13841	2.18	0.65	29.82	0.18	8.26	0.066	3.03	0.111	5.09	0.55	25.23
13842	2.20	0.67	30.45	0.22	10.00	0.077	3.50	0.050	2.27	0.75	34.09
13843	2.20	0.54	24.54	0.19	8.64	0.047	2.14	0.057	2.59	0.63	28.64
13844	2.18	0.79	36.24	0.15	6.88	0.042	1.93	0.051	2.34	0.51	23.39
13845	2.40	0.51	21.25	0.17	7.08	0.094	3.92	0.102	4.25	0.32	13.33
13846	2.26	0.48	21.24	0.14	6.19	0.037	1.64	0.036	1.59	0.64	28.32
13847	2.26	0.71	31.42	0.24	10.62	0.054	2.39	0.060	2.65	0.72	31.86
13848	1.75	0.61	34.86	0.21	12.00	0.049	2.80	0.046	2.63	0.36	20.57
13849	2.20	0.68	30.91	0.10	4.54	0.034	1.54	0.043	1.95	0.43	19.54
13850	2.39	0.64	26.78	0.20	8.37	0.034	1.42	0.066	2.76	0.84	35.15
13851b	1.91	0.60	-----	0.27	----	0.033	----	0.039	----	1.24	-----
13852c	2.15	0.59	-----	0.24	----	0.049	----	0.066	----	0.45	-----
13853	2.03	0.70	34.48	0.22	10.84	0.082	4.04	0.037	1.82	1.23	60.59
13854	2.32	0.83	35.78	0.29	12.50	0.075	3.23	0.043	1.85	0.54	23.28
13855	2.23	0.78	34.98	0.16	7.17	0.077	3.45	0.066	2.96	0.64	28.70
13856	2.19	0.79	36.07	0.22	10.04	0.045	2.05	0.055	2.51	0.52	23.74
13857	2.04	0.69	33.82	0.21	10.29	0.032	1.57	0.041	2.01	0.47	23.04
13858	2.15	0.71	33.02	0.22	10.23	0.053	2.46	0.062	2.88	0.47	21.86
13859	2.10	0.75	35.71	0.13	6.19	0.046	2.19	0.044	2.10	0.43	20.48
13860	2.22	0.62	27.93	0.20	9.01	0.053	2.39	0.060	2.70	0.70	31.53

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Rat 13836 was moribund sacrificed on day 59 of study; values excluded from group averages and statistical analyses.

b. Rat was not pregnant; values excluded from group averages and statistical analyses.

c. Rat 13852 was sacrificed on day 11 of lactation; values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C34 (PAGE 5): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	BRAIN WEIGHT	PITUITARY		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
DOSAGE GROUP III		3 MG/KG/DAY											
13861	2.11	0.014	0.66	17.99	852.61	1.59	75.36	1.58	74.88	0.044	2.08	0.032	1.52
13862a	2.16	0.014	----	15.04	------	1.58	-----	1.66	-----	0.033	----	0.032	----
13863	2.12	0.014	0.66	20.98	989.62	1.48	69.81	1.67	78.77	0.044	2.08	0.047	2.22
13864	2.03	0.011	0.54	16.43	809.36	1.33	65.52	1.35	66.50	0.039	1.92	0.037	1.82
13865	2.28	0.014	0.61	17.78	779.82	1.53	67.10	1.59	69.74	0.049	2.15	0.045	1.97
13866	1.94	0.018	0.93	20.32	1047.42	1.86	95.88	1.75	90.21	0.031	1.60	0.043	2.22
13867	2.19	0.014	0.64	15.19	693.61	1.54	70.32	1.56	71.23	0.052	2.37	0.043	1.96
13868	2.22	0.028	1.26	18.68	841.44	1.69	76.13	1.77	79.73	0.073	3.29	0.050	2.25
13869	2.25	0.016	0.71	17.99	799.56	1.63	72.44	1.62	72.00	0.045	2.00	0.043	1.91
13870	2.36	0.020	0.85	21.82	924.58	2.11	89.41	2.03	86.02	0.048	2.03	0.043	1.82
13871	2.30	0.014	0.61	19.76	859.13	1.55	67.39	1.65	71.74	0.065	2.83	0.048	2.09
13872	2.33	0.022	0.94	17.22	739.06	1.44	61.80	1.48	63.52	0.050	2.14	0.041	1.76
13873	2.15	0.016	0.74	17.19	799.53	1.54	71.63	1.64	76.28	0.065	3.02	0.055	2.56
13874	2.46	0.023	0.93	15.63	635.36	1.61	65.45	1.70	69.10	0.050	2.03	0.045	1.83
13875	2.07	0.018	0.87	18.99	917.39	1.48	71.50	1.58	76.33	0.056	2.70	0.046	2.22
13876	2.48	0.020	0.81	17.31	697.98	1.84	74.19	1.88	75.81	0.047	1.90	0.037	1.49
13877	2.29	0.024	1.05	17.66	771.18	1.79	78.16	1.81	79.04	0.044	1.92	0.050	2.18
13878	2.22	0.017	0.76	18.85	849.10	1.78	80.18	1.77	79.73	0.045	2.03	0.039	1.76
13879	2.37	0.020	0.84	17.67	745.57	1.61	67.93	1.69	71.31	0.044	1.86	0.035	1.48
13880	2.29	0.016	0.70	17.99	785.59	1.39	60.70	1.52	66.38	0.032	1.40	0.035	1.53
13881	2.24	0.022	0.98	18.95	845.98	1.57	70.09	1.60	71.43	0.045	2.01	0.049	2.19
13882	2.35	0.018	0.76	18.41	783.40	1.57	66.81	1.47	62.55	0.052	2.21	0.049	2.08
13883	2.26	0.011	0.49	18.20	805.31	1.49	65.93	1.63	72.12	0.040	1.77	0.038	1.68
13884	2.07	0.019	0.92	18.27	882.61	1.40	67.63	1.37	66.18	0.048	2.32	0.038	1.84
13885	2.23	0.014	0.63	13.77	617.49	1.72	77.13	1.60	71.75	0.044	1.97	0.040	1.79
13886	2.24	0.019	0.85	16.87	753.12	1.37	61.16	1.58	70.54	0.051	2.28	0.037	1.65
13887	2.14	0.015	0.70	15.59	728.50	1.31	61.21	1.31	61.21	0.030	1.40	0.030	1.40
13888	2.25	0.015	0.67	19.46	864.89	1.50	66.67	1.61	71.56	0.048	2.13	0.050	2.22
13889	2.25	0.015	0.67	14.98	665.78	1.46	64.89	1.44	64.00	0.059	2.62	0.051	2.27
13890	2.00	0.016	0.80	17.82	891.00	1.67	83.50	1.75	87.50	0.043	2.15	0.049	2.45

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Rat 13862 was pregnant, but did not deliver a litter; values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C34 (PAGE 6): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	BRAIN WEIGHT	SPLEEN		THYMUS		OVARY LEFT		OVARY RIGHT		UTERUS NON-GRAVID	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
DOSAGE GROUP III		3 MG/KG/DAY									
13861	2.11	0.66	31.28	0.10	4.74	0.035	1.66	0.024	1.14	0.32	15.16
13862a	2.16	0.80	-----	0.51	----	0.040	----	0.054	----	0.83	-----
13863	2.12	0.72	33.96	0.19	8.96	0.042	1.98	0.050	2.36	0.54	25.47
13864	2.03	0.60	29.56	0.12	5.91	0.045	2.22	0.047	2.32	0.47	23.15
13865	2.28	0.63	27.63	0.18	7.89	0.047	2.06	0.051	2.24	0.51	22.37
13866	1.94	0.85	43.81	0.23	11.86	0.066	3.40	0.074	3.81	0.48	24.74
13867	2.19	0.76	34.70	0.20	9.13	0.064	2.92	0.053	2.42	0.50	22.83
13868	2.22	0.64	28.83	0.12	5.40	0.046	2.07	0.049	2.21	0.46	20.72
13869	2.25	0.49	21.78	0.14	6.22	0.049	2.18	0.058	2.58	0.38	16.89
13870	2.36	0.90	38.14	0.35	14.83	0.069	2.92	0.079	3.35	0.72	30.51
13871	2.30	0.89	38.70	0.19	8.26	0.037	1.61	0.059	2.56	0.40	17.39
13872	2.33	0.69	29.61	0.16	6.87	0.050	2.14	0.047	2.02	0.44	18.88
13873	2.15	1.02	47.44	0.18	8.37	0.074	3.44	0.068	3.16	0.44	20.46
13874	2.46	0.72	29.27	0.16	6.50	0.056	2.28	0.074	3.01	0.39	15.85
13875	2.07	0.56	27.05	0.19	9.18	0.054	2.61	0.058	2.80	0.56	27.05
13876	2.48	0.64	25.81	0.22	8.87	0.061	2.46	0.069	2.78	0.69	27.82
13877	2.29	0.75	32.75	0.30	13.10	0.046	2.01	0.051	2.23	0.62	27.07
13878	2.22	0.70	31.53	0.09	4.05	0.031	1.40	0.046	2.07	0.66	29.73
13879	2.37	0.69	29.11	0.30	12.66	0.077	3.25	0.087	3.67	0.50	21.10
13880	2.29	0.78	34.06	0.19	8.30	0.045	1.96	0.049	2.14	0.78	34.06
13881	2.24	0.65	29.02	0.12	5.36	0.049	2.19	0.053	2.37	0.20	8.93
13882	2.35	0.60	25.53	0.12	5.11	0.056	2.38	0.062	2.64	0.76	32.34
13883	2.26	0.75	33.18	0.25	11.06	0.093	4.12	0.060	2.65	0.52b	23.01
13884	2.07	0.66	31.88	0.22	10.63	0.059	2.85	0.078	3.77	0.44	21.26
13885	2.23	0.78	34.98	0.43	19.28	0.055	2.47	0.058	2.60	0.59	26.46
13886	2.24	0.68	30.36	0.17	7.59	0.064	2.86	0.053	2.37	0.73	32.59
13887	2.14	0.75	35.05	0.29	13.55	0.035	1.64	0.046	2.15	0.77.	35.98
13888	2.25	0.72	32.00	0.40	17.78	0.049	2.18	0.049	2.18	0.67	29.78
13889	2.25	0.70	31.11	0.16	7.11	0.039	1.73	0.059	2.62	0.31	13.78
13890	2.00	0.68	34.00	0.17	8.50	0.068	3.40	0.052	2.60	0.57	28.50

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Rat 13862 was pregnant, but did not deliver a litter; values excluded from group averages and statistical analyses.
b. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C34 (PAGE 7): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	BRAIN WEIGHT	PITUITARY		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
DOSAGE GROUP IV		10 MG/KG/DAY											
13891	2.26	0.013	0.58	15.62	691.15	1.36	60.18	1.34	59.29	0.048	2.12	0.042	1.86
13892	2.20	0.023	1.04	21.99	999.54	1.75	79.54	1.83	83.18	0.047	2.14	0.048	2.18
13893	2.19	0.022	1.00	16.27	742.92	1.42	64.84	1.47	67.12	0.038	1.74	0.048	2.19
13894	2.28	0.017	0.74	16.90	741.23	1.83	80.26	1.81	79.38	0.058	2.54	0.057	2.50
13895	2.17	0.018	0.83	17.85	822.58	1.46	67.28	1.56	71.89	0.041	1.89	0.034	1.57
13896	2.16	0.016	0.74	18.63	862.50	1.60	74.07	1.64	75.92	0.045	2.08	0.040	1.85
13897	2.15	0.006	0.28	17.38	808.37	1.73	80.46	1.75	81.40	0.043	2.00	0.043	2.00
13898	2.27	0.018	0.79	22.41	987.22	1.60	70.48	1.69	74.45	0.060	2.64	0.072	3.17
13899	2.19	0.010	0.46	18.65	851.60	1.57	71.69	1.62	73.97	0.042	1.92	0.034	1.55
13900a	----	-----	----	-----	------	----	-----	----	-----	-----	----	-----	----
13901	2.32	0.016	0.69	14.85	640.09	1.51	65.09	1.56	67.24	0.048	2.07	0.039	1.68
13902	2.11	0.012	0.57	17.66	836.97	1.38	65.40	1.40	66.35	0.036	1.71	0.034	1.61
13903	2.02	0.012	0.59	15.13	749.01	1.31	64.85	1.38	68.32	0.048	2.38	0.030	1.48
13904	2.39	0.009	0.38	15.55	650.63	1.61	67.36	1.63	68.20	0.044	1.84	0.045	1.88
13905	2.14	0.018	0.84	17.49	817.29	1.42	66.36	1.52	71.03	0.053	2.48	0.049	2.29
13906	2.18	0.012	0.55	19.00	871.56	1.73	79.36	1.50	68.81	0.039	1.79	0.038	1.74
13907	2.24	0.007	0.31	18.99	847.77	1.38	61.61	1.35	60.27	0.061	2.72	0.045	2.01
13908	2.22	0.011	0.50	16.18	728.83	1.49	67.12	1.55	69.82	0.045	2.03	0.040	1.80
13909	2.16	0.013	0.60	16.55	766.20	1.46	67.59	1.50	69.44	0.041	1.90	0.038	1.76
13910	2.20	0.016	0.73	18.53	842.27	1.56	70.91	1.63	74.09	0.050	2.27	0.047	2.14
13911	2.26	0.015	0.66	16.78	742.48	1.58	69.91	1.59	70.35	0.042	1.86	0.035	1.55
13912	2.24	0.016	0.71	16.86	752.68	1.61	71.88	1.66	74.11	0.040	1.78	0.043	1.92
13913	2.24	0.022	0.98	15.08	673.21	1.35	60.27	1.52	67.86	0.047	2.10	0.040	1.78
13914	2.29	0.035	1.53	15.28	667.25	1.54	67.25	1.58	69.00	0.060	2.62	0.059	2.58
13915	2.10	0.012	0.57	14.92	710.48	1.40	66.67	1.51	71.90	0.040	1.90	0.045	2.14
13916	2.40	0.013	0.54	18.53	772.08	1.61	67.08	1.60	66.67	0.038	1.58	0.038	1.58
13917	2.31	0.022	0.95	17.29	748.48	1.55	67.10	1.44	62.34	0.046	1.99	0.038	1.64
13918	2.22	0.021	0.94	14.35	646.40	1.30	58.56	1.39	62.61	0.042	1.89	0.038	1.71
13919	2.30	0.025	1.09	17.02	740.00	1.32	57.39	1.34	58.26	0.045	1.96	0.040	1.74
13920	2.28	0.007	0.31	18.54	813.16	1.63	71.49	1.62	71.05	0.040	1.75	0.032	1.40

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Rat was not pregnant; values were not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C34 (PAGE 8): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	BRAIN WEIGHT	SPLEEN ABS. WT.	SPLEEN REL. % BRW	THYMUS ABS. WT.	THYMUS REL. % BRW	OVARY LEFT ABS. WT.	OVARY LEFT REL. % BRW	OVARY RIGHT ABS. WT.	OVARY RIGHT REL. % BRW	UTERUS NON-GRAVID ABS. WT.	UTERUS NON-GRAVID REL. % BRW
DOSAGE GROUP IV		10 MG/KG/DAY									
13891	2.26	0.61	26.99	0.11	4.87	0.035	1.55	0.044	1.95	0.41	18.14
13892	2.20	0.80	36.36	0.30	13.64	0.057	2.59	0.054	2.45	0.99	45.00
13893	2.19	0.58	26.48	0.21	9.59	0.033	1.51	0.050	2.28	0.55	25.11
13894	2.28	0.77	33.77	0.33	14.47	0.047	2.06	0.086	3.77	1.03	45.18
13895	2.17	0.77	35.48	0.31	14.28	0.056	2.58	0.054	2.49	0.40	18.43
13896	2.16	0.69	31.94	0.20	9.26	0.048	2.22	0.048	2.22	0.51	23.61
13897	2.15	0.70	32.56	0.18	8.37	0.047	2.19	0.041	1.91	0.49	22.79
13898	2.27	0.92	40.53	0.16	7.05	0.040	1.76	0.057	2.51	0.56	24.67
13899	2.19	0.74	33.79	0.13	5.94	0.047	2.15	0.046	2.10	0.44	20.09
13900a	----	----	-----	----	----	-----	----	-----	----	----	-----
13901	2.32	0.72	31.03	0.17	7.33	0.058	2.50	0.061	2.63	0.39	16.81
13902	2.11	0.55	26.07	0.19	9.00	0.037	1.75	0.058	2.75	0.49	23.22
13903	2.02	0.57	28.22	0.12	5.94	0.032	1.58	0.058	2.87	0.51	25.25
13904	2.39	0.76	31.80	0.31	12.97	0.048	2.01	0.065	2.72	0.62	25.94
13905	2.14	0.62	28.97	0.27	12.62	0.057	2.66	0.074	3.46	0.50	23.36
13906	2.18	0.64	29.36	0.15	6.88	0.044	2.02	0.048	2.20	0.57	26.15
13907	2.24	0.70	31.25	0.06	2.68	0.062	2.77	0.066	2.95	0.37	16.52
13908	2.22	0.76	34.23	0.54	24.32	0.066	2.97	0.065	2.93	1.09	49.10
13909	2.16	0.71	32.87	0.16	7.41	0.033	1.53	0.057	2.64	0.55	25.46
13910	2.20	0.65	29.54	0.16	7.27	0.063	2.86	0.052	2.36	0.45	20.45
13911	2.26	0.70	30.97	0.23	10.18	0.051	2.26	0.028	1.24	0.71	31.42
13912	2.24	0.67	29.91	0.16	7.14	0.040	1.78	0.053	2.37	0.81	36.16
13913	2.24	0.80	35.71	0.19	8.48	0.063	2.81	0.059	2.63	0.66	29.46
13914	2.29	0.69	30.13	0.17	7.42	0.051	2.23	0.053	2.31	0.44	19.21
13915	2.10	0.67	31.90	0.29	13.81	0.054	2.57	0.071	3.38	0.69	32.86
13916	2.40	0.69	28.75	0.14	5.83	0.033	1.38	0.050	2.08	0.61	25.42
13917	2.31	0.68	29.44	0.20	8.66	0.061	2.64	0.052	2.25	0.46	19.91
13918	2.22	0.65	29.28	0.18	8.11	0.046	2.07	0.049	2.21	0.57	25.68
13919	2.30	0.48	20.87	0.09	3.91	0.056	2.43	0.038	1.65	0.52	22.61
13920	2.28	0.66	28.95	0.08	3.51	0.045	1.97	0.038	1.67	0.47	20.61

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Rat was not pregnant; values were not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C34 (PAGE 9): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	BRAIN WEIGHT	PITUITARY		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
DOSAGE GROUP V			30 MG/KG/DAY										
13921	2.33	0.019	0.82	19.21	824.46	1.54	66.09	1.59	68.24	0.052	2.23	0.042	1.80
13922	2.16	0.010	0.46	16.31	755.09	1.37	63.42	1.37	63.42	0.038	1.76	0.041	1.90
13923	2.15	0.012	0.56	20.04	932.09	1.41	65.58	1.38	64.19	0.042	1.95	0.041	1.91
13924	2.11	0.020	0.95	20.95	992.89	1.47	69.67	1.61	76.30	0.053	2.51	0.045	2.13
13925	2.12	0.009	0.42	15.19	716.51	1.31	61.79	1.34	63.21	0.040	1.89	0.033	1.56
13926	2.19	0.027	1.23	20.53	937.44	1.63	74.43	1.58	72.15	0.071	3.24	0.049	2.24
13927	2.07	0.011	0.53	18.60	898.55	1.47	71.01	1.60	77.29	0.069	3.33	0.052	2.51
13928	2.30	0.028	1.22	18.93	823.04	1.58	68.70	1.60	69.56	0.050	2.17	0.036	1.56
13929a	1.94	0.015	----	12.06	------	1.20	-----	1.27	-----	0.039	----	0.033	----
13930	2.24	0.019	0.85	20.69	923.66	1.47	65.62	1.62	72.32	0.039	1.74	0.037	1.65
13931	2.09	0.022	1.05	19.14	915.79	1.29	61.72	1.33	63.64	0.042	2.01	0.039	1.87
13932	2.18	0.016	0.73	20.55	942.66	1.53	70.18	1.53	70.18	0.051	2.34	0.046	2.11
13933	1.99	0.018	0.90	17.15	861.81	1.28	64.32	1.43	71.86	0.045	2.26	0.060	3.02
13934	2.16	0.012	0.56	15.00	694.44	1.42	65.74	1.50	69.44	0.039	1.80	0.029	1.34
13935	2.08	0.010	0.48	17.57	844.71	1.39	66.83	1.46	70.19	0.053	2.55	0.056	2.69
13936	2.29	0.017	0.74	18.04	787.77	1.37	59.82	1.38	60.26	0.053	2.31	0.044	1.92
13937	2.03	0.005	0.25	16.74	824.63	1.51	74.38	1.40	68.96	0.029	1.43	0.031	1.53
13938	2.25	0.016	0.71	19.00	844.44	1.58	70.22	1.63	72.44	0.056	2.49	0.049	2.18
13939	2.29	0.016	0.70	16.45	718.34	1.49	65.06	1.51	65.94	0.039	1.70	0.037	1.62
13940	2.24	0.030	1.34	18.92	844.64	1.34	59.82	1.46	65.18	0.048	2.14	0.039	1.74
13941	2.39	0.017	0.71	19.38	810.88	1.55	64.85	1.65	69.04	0.045	1.88	0.059	2.47
13942	2.19	0.006	0.27	17.21	785.84	1.46	66.67	1.37	62.56	0.030	1.37	0.035	1.60
13943	2.30	0.011	0.48	17.70	769.56	1.52	66.09	1.45	63.04	0.034	1.48	0.042	1.83
13944	2.01	0.092b	4.58b	16.38	814.92	1.43	71.14	1.53	76.12	0.056	2.79	0.052	2.59
13945	2.29	0.021	0.92	17.42	760.70	1.45	63.32	1.57	68.56	0.051	2.23	0.039	1.70
13946	2.04	0.009	0.44	17.13	839.70	1.22	59.80	1.33	65.20	0.032	1.57	0.024	1.18
13947c	2.05	0.015	----	11.28	------	1.18	-----	1.11	-----	0.048	----	0.040	----
13948	2.20	0.017	0.77	15.10	686.36	1.35	61.36	1.36	61.82	0.044	2.00	0.810b	36.82b
13949	2.09	0.013	0.62	18.90	904.31	1.53	73.20	1.55	74.16	0.046	2.20	0.023	1.10
13950	2.02	0.016	0.79	18.17	899.50	1.39	68.81	1.52	75.25	0.037	1.83	0.041	2.03

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Rat was not pregnant; values excluded from group averages and statistical analyses.

b. Value appeared incorrectly recorded and was excluded from group averages and statistical analyses.

c. Rat 13947 was sacrificed due to no surviving pups on day 1 of lactation; values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C34 (PAGE 10): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - P GENERATION FEMALE RATS

RAT NUMBER	BRAIN WEIGHT	SPLEEN ABS. WT.	SPLEEN REL. % BRW	THYMUS ABS. WT.	THYMUS REL. % BRW	OVARY LEFT ABS. WT.	OVARY LEFT REL. % BRW	OVARY RIGHT ABS. WT.	OVARY RIGHT REL. % BRW	UTERUS NON-GRAVID ABS. WT.	UTERUS NON-GRAVID REL. % BRW
DOSAGE GROUP V		30 MG/KG/DAY									
13921	2.33	0.71	30.47	0.15	6.44	0.069	2.96	0.033	1.42	0.54	23.18
13922	2.16	0.72	33.33	0.08	3.70	0.073	3.38	0.060	2.78	0.52	24.07
13923	2.15	0.74	34.42	0.10	4.65	0.030	1.40	0.020	0.93	0.45	20.93
13924	2.11	0.52	24.64	0.16	7.58	0.106	5.02	0.055	2.61	0.40	18.96
13925	2.12	0.56	26.42	0.10	4.72	0.040	1.89	0.043	2.03	0.40	18.87
13926	2.19	0.90	41.10	0.19	8.68	0.061	2.78	0.070	3.20	0.47	21.46
13927	2.07	0.79	38.16	0.20	9.66	0.062	3.00	0.058	2.80	0.27	13.04
13928	2.30	0.84	36.52	0.20	8.70	0.049	2.13	0.060	2.61	0.60	26.09
13929a	1.94	0.46	-----	0.24	----	0.036	----	0.028	----	0.86	-----
13930	2.24	0.80	35.71	0.13	5.80	0.034	1.52	0.047	2.10	0.46	20.54
13931	2.09	0.82	39.23	0.20	9.57	0.056	2.68	0.050	2.39	0.58	27.75
13932	2.18	0.62	28.44	0.15	6.88	0.041	1.88	0.049	2.25	0.56	25.69
13933	1.99	0.66	33.16	0.28	14.07	0.052	2.61	0.036	1.81	0.51	25.63
13934	2.16	0.68	31.48	0.22	10.18	0.052	2.41	0.043	1.99	0.51	23.61
13935	2.08	0.61	29.33	0.06	2.88	0.056	2.69	0.046	2.21	0.76	36.54
13936	2.29	0.74	32.31	0.05	2.18	0.055	2.40	0.040	1.75	0.56	24.45
13937	2.03	0.50	24.63	0.17	8.37	0.059	2.91	0.030	1.48	0.49	24.14
13938	2.25	0.83	36.89	0.19	8.44	0.050	2.22	0.039	1.73	0.43	19.11
13939	2.29	0.75	32.75	0.21	9.17	0.055	2.40	0.074	3.23	0.43	18.78
13940	2.24	0.66	29.46	0.15	6.70	0.033	1.47	0.039	1.74	0.60	26.78
13941	2.39	0.71	29.71	0.21	8.79	0.056	2.34	0.086	3.60	0.45	18.83
13942	2.19	0.70	31.96	0.21	9.59	0.027	1.23	0.060	2.74	0.54	24.66
13943	2.30	0.75	32.61	0.15	6.52	0.059	2.56	0.052	2.26	0.51	22.17
13944	2.01	0.82	40.80	0.21	10.45	0.066	3.28	0.054	2.69	0.57	28.36
13945	2.29	0.69	30.13	0.28	12.23	0.047	2.05	0.050	2.18	0.28	12.23
13946	2.04	0.89	43.63	0.17	8.33	0.058	2.84	0.044	2.16	0.45	22.06
13947b	2.05	0.66	-----	0.26	----	0.085	----	0.058	----	2.00	-----
13948	2.20	0.80	36.36	0.22	10.00	0.035	1.59	0.047	2.14	0.65	29.54
13949	2.09	0.62	29.66	0.17	8.13	0.050	2.39	0.038	1.82	0.39	18.66
13950	2.02	0.72	35.64	0.18	8.91	0.060	2.97	0.046	2.28	0.65	32.18

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % BRW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Rat was not pregnant; values excluded from group averages and statistical analyses.

b. Rat 13947 was sacrificed due to no surviving pups on day 1 of lactation; values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C35 (PAGE 1): NATURAL DELIVERY, IMPLANTATION SITES, AND PUP VIABILITY AND SEX - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP I 0 MG/KG/DAY

RAT/ LITTER NUMBER	DURATION OF GESTATION (DAYS) N	LITTER DELIVERED LIVE BORN N	STILL-BORN N	TOTAL BORN N	NUMBER OF LIVE PUPS AT COMPLETION OF DAY POSTPARTUM 1 M	1 F	5 M	5 F	8 M	8 F	15 M	15 F	22 M	22 F	TOTAL IMPLAN-TATIONS N
13801	22	9	0	9	4	5	4	5	4	5	4	5	4	5	11
13802	22	14	0	14	8	6	8	6	8	6	8	6	8	6	14
13803	23	16	0	16	6	10	6	10	6	9	6	9	6	9	16
13804	MORIBUND SACRIFICED ON DAY 68 OF STUDY														
13805	23	13	0	13	6	7	6	7	6	7	6	7	6	7	13
13806	22	17	0	17	6	11	5	11	5	11	5	11	5	11	17
13807	22	17	0	17	8	9	8	9	8	9	8	9	8	9	17
13808	22	12	1	13	6	6	6	6	6	6	6	6	6	6	16
13809	23	13	0	13	9	4	9	4	9	4	9	4	9	4	14
13810	23	14(1)	1	15	5	8	4	8	4	8	4	8	4	8	18
13811	NOT PREGNANT														
13812	23	14	0	14	9	5	9	5	9	5	9	5	9	5	15
13813	23	12	0	13[1]	5	7	5	7	5	7	5	7	5	7	16
13814	22	17	0	17	11	6	11	5	11	5	11	5	11	5	18
13815	23	15	0	15	10	5	10	5	10	5	10	5	10	5	16
13816	23	15	0	16[1]	5	10	5	10	5	10	5	10	5	10	17
13817	23	15	0	15	8	7	8	6	8	6	8	6	8	6	16
13818	23	16	0	16	8	8	8	6	8	6	8	6	8	6	17
13819	22	13(1)	0	13	4	8	4	8	4	8	4	8	4	8	14
13820	23	14	0	14	5	9	5	9	5	9	5	9	5	9	16
13821	22	17	0	17	8	9	8	9	8	9	8	9	8	9	17
13822a	23	12	0	12	3	9	3	9	3	9	-	-	-	-	12
13823	23	9	0	9	4	5	4	5	4	5	4	5	4	5	11
13824	23	16	0	16	8	8	8	8	8	8	8	8	8	8	16
13825	23	15	0	15	2	13	2	13	2	13	2	13	2	13	15
13826	23	16	0	16	8	8	8	8	8	8	8	8	8	8	16
13827	23	16	0	16	10	6	9	6	9	6	9	6	9	6	16
13828	23	14	0	14	5	9	5	9	5	9	5	9	5	9	16
13829	22	13	0	13	8	5	8	5	8	5	8	5	8	5	13
13830	22	13	1	14	7	6	7	6	7	6	7	6	7	6	15

M = MALE F = FEMALE
( ) = NUMBER OF PUPS DYING PRIOR TO WEIGHING ON DAY 1 POSTPARTUM.
[ ] = NUMBER OF PUPS IN WHICH CANNIBALIZATION AND/OR AUTOLYSIS PRECLUDED THE DETERMINATION OF VIABILITY.
a. Dam 13822 was sacrificed on day 8 of lactation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C35 (PAGE 2): NATURAL DELIVERY, IMPLANTATION SITES, AND PUP VIABILITY AND SEX - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP II 1 MG/KG/DAY

RAT/ LITTER NUMBER	DURATION OF GESTATION (DAYS) N	LITTER DELIVERED LIVE BORN N	STILL-BORN N	TOTAL BORN N	NUMBER OF LIVE PUPS AT COMPLETION OF DAY POSTPARTUM 1 M	1 F	5 M	5 F	8 M	8 F	15 M	15 F	22 M	22 F	TOTAL IMPLAN-TATIONS N
13831	22	17	0	17	13	4	13	4	13	4	13	4	13	4	17
13832	23	14	0	14	10	4	10	4	10	4	10	4	10	4	16
13833	22	15	0	15	6	9	6	8	6	8	6	8	6	8	17
13834	22	13	0	13	4	9	4	9	4	9	4	9	4	9	15
13835	22	18	0	18	6	12	6	10	6	10	6	10	6	10	18
13836	MORIBUND SACRIFICED ON DAY 59 OF STUDY														
13837	22	11	1	12	5	6	5	6	5	6	5	6	5	6	13
13838	23	18	0	18	7	11	7	10	7	10	7	10	7	10	20
13839	23	12	0	12	6	6	6	6	6	6	6	6	6	6	13
13840	NOT PREGNANT														
13841	22	11(1)	0	12[1]	5	5	5	5	5	5	5	5	5	5	14
13842	22	13	0	13	6	7	6	7	5	7	5	7	5	7	14
13843	22	10	0	10	5	5	5	5	5	5	5	5	5	5	10
13844	23	17	0	17	6	11	6	11	6	10	6	10	6	10	17
13845	23	12	0	12	7	5	7	5	7	5	7	5	7	5	13
13846	23	14	0	14	7	7	7	6	7	6	7	6	7	6	14
13847	23	8	7	15	4	4	4	4	4	4	4	4	4	4	17
13848	23	16	0	16	12	4	12	4	12	4	12	4	12	4	17
13849	23	16	0	16	11	5	11	5	11	5	11	5	11	5	17
13850	22	12	1	13	6	6	6	6	6	6	6	6	6	6	15
13851	NOT PREGNANT														
13852a	23	12	0	12	8	4	8	4	8	4	-	-	-	-	15
13853	22	17	0	17	10	7	10	7	10	7	10	7	10	7	17
13854	23	17	0	17	11	6	11	6	11	6	11	6	11	6	17
13855	22	16(1)	0	16	9	6	9	5	9	5	9	5	9	5	17
13856	22	16	0	16	9	7	9	7	9	7	9	7	9	7	17
13857	23	14	1	15	4	10	4	10	4	10	4	10	4	10	15
13858	22	17	0	17	9	8	9	8	9	8	9	8	9	8	17
13859	23	15	0	15	6	9	6	9	6	9	6	8	6	8	15
13860	22	13	0	13	9	4	9	4	9	4	9	4	9	4	14

M = MALE F = FEMALE
( ) = NUMBER OF PUPS DYING PRIOR TO WEIGHING ON DAY 1 POSTPARTUM.
[ ] = NUMBER OF PUPS IN WHICH CANNIBALIZATION AND/OR AUTOLYSIS PRECLUDED THE DETERMINATION OF VIABILITY.
a. Dam 13852 was sacrificed on day 11 of lactation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C35 (PAGE 3): NATURAL DELIVERY, IMPLANTATION SITES, AND PUP VIABILITY AND SEX - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP III 3 MG/KG/DAY

RAT/ LITTER NUMBER	DURATION OF GESTATION (DAYS) N	LITTER DELIVERED LIVE BORN N	STILL-BORN N	TOTAL BORN N	NUMBER OF LIVE PUPS AT COMPLETION OF DAY POSTPARTUM 1 M	1 F	5 M	5 F	8 M	8 F	15 M	15 F	22 M	22 F	TOTAL IMPLAN-TATIONS N
13861	23	10	0	10	8	2	8	2	8	2	8	2	8	2	12
13862	PREGNANT; DID NOT DELIVER A LITTER														
13863	23	16	0	16	5	11	5	10	5	10	5	10	5	10	17
13864	23	6	1	7	4	2	4	2	4	2	4	2	4	2	13
13865	22	17(1)	0	17	7	9	7	9	7	9	7	9	7	9	17
13866	23	18	0	18	8	10	8	10	8	9	7	9	7	9	18
13867	23	15	1	16	9	6	9	6	7	5	7	5	7	5	16
13868	22	16	0	16	8	8	8	8	8	8	8	8	8	8	16
13869	23	16	0	16	7	9	7	8	7	8	7	8	7	8	16
13870	23	8	0	8	2	6	2	6	2	6	2	6	2	6	11
13871	22	15	0	15	5	10	4	9	4	8	4	8	4	7	16
13872	23	17	0	17	9	8	9	8	9	8	9	8	9	8	17
13873	23	17	0	17	8	9	8	8	8	8	8	8	8	8	18
13874	23	17	0	17	5	12	5	11	5	11	5	11	5	11	18
13875	23	16	0	16	8	8	8	8	8	8	8	8	8	8	17
13876	23	14(1)	1	15	7	6	7	6	7	6	7	6	7	6	18
13877	23	13	1	14	7	6	7	6	7	6	7	6	7	6	17
13878	23	9	0	9	2	7	2	7	2	7	2	7	2	7	11
13879	23	11	0	11	6	5	6	5	6	5	6	5	6	5	14
13880	23	13	0	13	9	4	9	4	9	4	9	4	9	4	16
13881	22	11	0	11	6	5	6	5	6	5	6	5	6	5	12
13882	22	16	0	16	10	6	10	5	10	5	10	5	10	5	16
13883	23	15(1)	0	15	7	7	7	7	7	7	7	7	7	7	15
13884	23	11	0	11	6	5	6	5	6	5	6	5	6	5	11
13885	24	3	0	3	2	1	2	1	2	1	2	1	2	1	16
13886	22	12	0	12	7	5	7	5	7	5	7	5	7	5	13
13887	23	11	0	11	8	3	8	3	8	3	8	3	8	3	13
13888	23	14	1	15	2	12	2	12	2	12	2	12	2	12	16
13889	22	16	0	16	10	6	10	6	10	6	10	6	10	6	16
13890	23	15	0	15	1	14	1	14	1	14	1	14	1	14	16

M = MALE F = FEMALE
( ) = NUMBER OF PUPS DYING PRIOR TO WEIGHING ON DAY 1 POSTPARTUM.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C35 (PAGE 4): NATURAL DELIVERY, IMPLANTATION SITES, AND PUP VIABILITY AND SEX - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP IV 10 MG/KG/DAY

RAT/ LITTER NUMBER	DURATION OF GESTATION (DAYS) N	LITTER DELIVERED LIVE BORN N	STILL-BORN N	TOTAL BORN N	NUMBER OF LIVE PUPS AT COMPLETION OF DAY POSTPARTUM 1 M	1 F	5 M	5 F	8 M	8 F	15 M	15 F	22 M	22 F	TOTAL IMPLAN-TATIONS N
13891	23	10	1	11	4	6	4	6	4	6	4	6	4	6	13
13892	22	15	1	16	7	8	7	8	7	8	7	8	7	8	17
13893	22	15	0	15	7	8	7	8	7	8	7	8	7	8	15
13894	23	14	0	14	7	7	6	7	6	7	6	7	6	7	15
13895	22	15	0	15	11	4	11	4	11	4	11	4	11	4	17
13896	23	12	0	12	5	7	5	7	5	7	5	7	5	7	12
13897	23	12	0	12	6	6	6	6	6	6	6	6	6	6	13
13898	23	17	0	17	7	10	7	9	7	9	7	9	7	9	18
13899	22	11	0	11	6	5	6	5	6	5	6	5	6	5	16
13900	NOT PREGNANT; MATING NOT CONFIRMED														
13901	23	16	0	16	7	9	7	9	7	8	7	8	7	8	16
13902	23	15	0	15	7	8	7	8	7	8	7	8	7	8	15
13903	23	14	0	14	4	10	4	10	4	10	4	10	4	10	17
13904	23	14	0	14	9	5	9	5	9	5	9	5	9	5	16
13905	23	16	0	16	5	11	5	11	5	11	5	11	5	11	16
13906	a	14	2	16	6	8	5	8	5	7	5	7	5	7	16
13907	21	16	0	16	10	6	10	6	10	6	10	6	10	6	18
13908	23	4	0	4	2	2	2	2	2	2	2	2	2	2	13
13909	23	14	0	14	5	9	5	9	5	9	5	9	5	9	16
13910	22	15	0	15	6	9	6	9	6	9	6	9	6	9	18
13911	23	12	0	12	8	4	8	4	8	4	8	4	8	4	13
13912	22	14	0	14	7	7	7	7	7	7	7	7	7	7	15
13913	22	13	0	13	7	6	7	6	7	6	7	6	7	6	15
13914	23	18	0	18	8	10	8	9	8	9	8	9	8	9	19
13915	23	17	0	17	9	8	9	8	9	8	9	8	9	8	17
13916	23	16	0	16	7	9	7	9	7	9	7	9	7	9	17
13917	a	7	0	7	3	4	3	4	3	4	3	4	3	4	11
13918	23	14	0	14	5	9	5	9	5	9	5	9	5	9	15
13919	22	14	0	14	6	8	6	8	6	8	6	8	6	8	17
13920	23	16	0	16	7	9	7	8	7	8	6	6	6	6	17

M = MALE F = FEMALE

a. Dam did not have a confirmed mating date, which precludes the calculation of the duration of gestation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C35 (PAGE 5): NATURAL DELIVERY, IMPLANTATION SITES, AND PUP VIABILITY AND SEX - INDIVIDUAL DATA - P GENERATION FEMALE RATS

DOSAGE GROUP V 30 MG/KG/DAY

RAT/ LITTER NUMBER	DURATION OF GESTATION (DAYS) N	LITTER DELIVERED LIVE BORN N	STILL-BORN N	TOTAL BORN N	NUMBER OF LIVE PUPS AT COMPLETION OF DAY POSTPARTUM 1 M	1 F	5 M	5 F	8 M	8 F	15 M	15 F	22 M	22 F	TOTAL IMPLAN-TATIONS N
13921	23	15	0	15	9	6	9	6	8	6	8	6	8	6	15
13922	22	9(2)	0	9	5	2	4	-	4	-	4	-	4	-	13
13923	22	14	0	14	7	7	7	7	7	7	7	7	7	7	16
13924	23	17	0	17	10	7	10	7	10	7	10	7	10	7	17
13925	23	13	0	13	6	7	6	7	6	7	6	7	6	7	13
13926	22	14	1	15	8	6	8	6	8	6	8	6	8	6	19
13927	23	16	0	16	7	9	7	9	7	8	7	8	7	8	17
13928	23	16	0	16	6	10	5	10	4	10	4	10	4	10	18
13929	NOT PREGNANT														
13930	22	18	0	18	9	9	9	8	8	7	8	7	8	7	19
13931	22	15	0	15	8	7	8	6	6	4	6	4	6	4	15
13932	23	14	0	14	8	6	8	6	8	6	8	6	8	6	14
13933	23	13	0	13	5	8	5	8	5	8	5	8	5	8	13
13934	a	15	0	15	3	12	2	12	2	11	1	11	1	11	18
13935	23	15	0	15	7	8	7	8	7	8	7	8	7	8	15
13936	23	14	0	14	11	3	11	3	11	3	11	3	11	3	15
13937	23	15	0	15	6	9	6	9	6	9	6	9	6	9	15
13938	22	16	0	16	8	8	7	8	7	8	7	8	7	8	17
13939	23	14	1	15	7	7	7	7	7	7	7	7	7	7	16
13940	23	15	0	15	6	9	6	9	6	9	6	9	6	9	15
13941	23	13	1	14	9	4	9	4	9	4	9	4	9	4	14
13942	23	16	0	16	11	5	11	5	11	5	11	5	11	5	17
13943	23	7	0	7	2	5	2	5	2	5	2	5	2	5	13
13944	22	12	0	12	4	8	3	8	3	8	3	7	3	7	13
13945	23	14	0	14	9	5	9	5	9	5	9	5	9	5	16
13946	23	11	0	11	5	6	5	6	5	6	5	6	5	6	11
13947b	24	1(1)	0	1	-	-	-	-	-	-	-	-	-	-	15
13948	22	12	0	12	7	5	7	4	7	4	7	4	7	4	17
13949	22	13	0	13	9	4	9	4	9	4	9	4	9	4	14
13950	22	11	3	14	6	5	6	4	6	4	6	4	6	4	15

M = MALE F = FEMALE
( ) = NUMBER OF PUPS DYING PRIOR TO WEIGHING ON DAY 1 POSTPARTUM.
a. Dam did not have a confirmed mating date, which precludes the calculation of the duration of gestation.
b. Dam 13947 was sacrificed due to no surviving pups on day 1 of lactation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C36 (PAGE 1): PUP BODY WEIGHT LITTER AVERAGES FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION LITTERS

MATERNAL DOSAGE GROUP I 0 MG/KG/DAY

RAT/ LITTER NUMBER	DAY 1			DAY 5			DAY 8			DAY 15			DAY 22		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
13801	5.5	5.3	5.4	8.8	8.5	8.6	13.2	13.2	13.2	29.2	28.7	28.9	45.6	43.6	44.4
13802	6.9	6.2	6.6	12.1	11.2	11.7	17.5	16.8	17.2	30.8	30.1	30.5	43.9	41.9	43.0
13803	7.4	7.0	7.1	11.3	10.8	11.0	15.8	15.4	15.6	23.2	23.0	23.1	42.0	40.8	41.3
13804	MORIBUND SACRIFICED ON DAY 68 OF STUDY														
13805	7.2	6.8	7.0	10.6	10.0	10.3	15.4	14.0	14.6	28.8	26.4	27.5	45.7	41.4	43.4
13806	5.8	5.7	5.7	8.3	8.2	8.2	11.9	12.2	12.1	24.4	24.6	24.5	33.9	34.4	34.2
13807	6.3	6.0	6.2	9.1	8.8	9.0	12.2	12.0	12.1	23.1	23.0	23.0	25.6	24.8	25.2
13808	6.5	5.8	6.2	10.2	9.9	10.0	14.5	14.3	14.4	29.7	29.3	29.5	40.9	40.2	40.5
13809	6.7	6.2	6.5	9.9	9.2	9.7	13.9	13.0	13.6	28.4	26.5	27.8	36.0	34.2	35.5
13810	6.4	6.0	6.1	9.8	9.4	9.6	14.7	14.0	14.2	31.2	29.8	30.3	45.6	42.7	43.6
13811	NOT PREGNANT														
13812	6.5	6.4	6.5	10.5	10.4	10.4	15.3	15.0	15.2	27.2	26.4	26.9	43.3	41.2	42.6
13813	7.4	7.0	7.2	11.6	11.6	11.6	17.2	17.0	17.1	32.2	31.1	31.6	43.8	43.3	43.5
13814	5.8	5.2	5.6	8.0	7.4	7.8	11.1	10.5	10.9	22.8	21.5	22.4	34.0	32.6	33.5
13815	5.8	5.5	5.7	8.2	7.9	8.1	11.2	10.5	10.9	21.0	19.8	20.6	32.8	31.0	32.2
13816	6.5	6.1	6.3	8.9	8.4	8.6	11.5	10.9	11.1	20.0	17.4	18.3	33.1	29.3	30.6
13817	6.8	6.4	6.6	9.3	8.6	9.0	12.6	12.0	12.4	23.9	22.7	23.4	38.2	37.0	37.7
13818	6.2	5.5	5.8	7.4	7.0	7.2	11.0	9.8	10.5	18.4	16.9	17.8	28.6	26.6	27.8
13819	6.3	5.5	5.8	9.7	8.4	8.8	13.6	12.3	12.8	21.0	19.6	20.1	30.5	28.9	29.4
13820	6.7	6.2	6.4	9.0	8.7	8.8	13.5	12.1	12.6	26.9	24.7	25.5	26.8	29.0	28.2
13821	5.7	5.3	5.5	9.5	8.9	9.2	14.0	13.0	13.5	26.3	25.0	25.6	40.5	38.5	39.5
13822	7.2	6.7	6.8	12.1	11.3	11.5	SACRIFICED ON DAY 8 OF LACTATION								
13823	7.0	6.9	6.9	12.8	12.8	12.8	18.8	18.7	18.7	33.2	32.9	33.0	54.0	53.3	53.6
13824	6.6	6.1	6.4	9.7	8.9	9.3	13.2	12.8	13.0	25.8	24.7	25.2	40.4	39.1	39.7
13825	6.4	6.3	6.3	8.1	8.2	8.1	12.0	11.9	11.9	24.8	23.7	23.9	35.5	34.2	34.3
13826	6.8	6.2	6.5	9.9	9.0	9.5	12.9	12.2	12.6	20.0	18.2	19.1	32.0	28.7	30.4
13827	6.4	5.6	6.1	9.6	9.1	9.4	13.9	13.3	13.6	26.2	25.1	25.7	41.7	39.9	41.0
13828	6.6	6.3	6.4	8.7	8.4	8.5	12.5	12.0	12.2	25.4	24.5	24.8	41.3	39.3	40.0
13829	6.7	6.3	6.5	10.0	9.5	9.8	11.9	11.1	11.6	23.8	21.4	22.9	41.2	37.5	39.8
13830	5.5	5.3	5.4	8.0	7.8	7.9	11.4	11.6	11.5	22.7	22.7	22.7	35.5	35.1	35.3

M = MALE F = FEMALE T = TOTAL (SUM OF PUP WEIGHTS/NUMBER OF LIVE PUPS) DAY = DAY POSTPARTUM
ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C36 (PAGE 2): PUP BODY WEIGHT LITTER AVERAGES FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION LITTERS

MATERNAL DOSAGE GROUP II 1 MG/KG/DAY

RAT/ LITTER NUMBER	DAY 1			DAY 5			DAY 8			DAY 15			DAY 22		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
13831	6.3	5.9	6.2	9.4	8.6	9.2	13.1	12.3	12.9	25.1	24.2	24.9	34.6	32.6	34.1
13832	6.8	6.5	6.7	9.9	9.8	9.9	14.2	13.7	14.0	25.4	23.9	25.0	41.8	39.1	41.0
13833	5.7	5.6	5.6	9.0	8.7	8.8	12.8	12.2	12.4	26.2	25.1	25.6	43.0	40.0	41.3
13834	6.3	5.9	6.0	10.0	9.5	9.7	14.0	13.7	13.8	26.6	25.6	25.9	37.3	35.9	36.3
13835	6.0	5.4	5.6	8.7	8.2	8.4	12.9	12.2	12.5	25.4	23.8	24.4	35.9	32.8	34.0
13836	MORIBUND SACRIFICED ON DAY 59 OF STUDY														
13837	6.2	5.7	5.9	8.5	7.8	8.1	12.6	11.7	12.1	26.4	25.4	25.8	39.6	37.6	38.5
13838	6.5	5.8	6.1	9.1	8.2	8.6	13.3	11.6	12.3	25.3	23.3	24.2	36.7	34.0	35.1
13839	6.6	6.4	6.5	9.4	10.1	9.7	15.5	14.3	14.9	24.7	22.9	23.8	36.1	33.1	34.6
13840	NOT PREGNANT														
13841	5.9	5.6	5.8	9.4	9.1	9.2	12.7	12.5	12.6	23.7	22.5	23.1	41.6	39.2	40.4
13842	6.1	5.9	6.0	8.5	8.1	8.3	12.9	12.1	12.4	27.0	24.6	25.6	40.5	36.6	38.2
13843	6.7	5.9	6.3	8.0	7.2	7.6	11.2	10.1	10.6	23.7	22.7	23.2	34.5	32.4	33.4
13844	6.0	5.7	5.8	7.8	7.2	7.4	11.8	10.5	11.0	21.7	19.8	20.5	35.4	29.1	31.4
13845	6.7	6.6	6.7	9.7	9.8	9.7	13.8	14.1	13.9	27.8	28.8	28.2	43.1	43.3	43.2
13846	6.1	5.6	5.8	9.2	8.6	9.0	12.6	12.2	12.4	23.4	22.2	22.8	35.3	32.7	34.1
13847	5.7	5.9	5.8	10.5	10.1	10.3	15.8	15.0	15.4	31.9	31.3	31.6	54.6	52.3	53.4
13848	6.7	6.2	6.6	9.4	9.0	9.3	13.7	13.3	13.6	26.0	25.4	25.8	42.6	39.7	41.8
13849	6.2	5.9	6.1	8.2	7.7	8.1	11.4	11.0	11.3	21.2	20.5	21.0	26.2	26.0	26.2
13850	5.9	5.5	5.7	8.5	8.2	8.3	12.0	11.1	11.5	25.2	24.1	24.6	38.0	34.9	36.4
13851	NOT PREGNANT														
13852	6.3	6.2	6.3	9.3	9.2	9.3	13.3	13.6	13.4	SACRIFICED ON DAY 11 OF LACTATION					
13853	5.2	4.6	5.0	7.8	7.6	7.7	11.1	10.8	10.9	21.9	20.2	21.2	32.7	29.9	31.5
13854	6.1	6.0	6.1	9.4	9.0	9.2	13.5	12.6	13.2	20.0	18.2	19.3	29.5	27.2	28.7
13855	5.7	5.5	5.6	9.6	9.4	9.6	14.3	14.4	14.4	28.4	28.0	28.2	39.2	38.8	39.0
13856	5.7	5.1	5.4	9.2	8.1	8.7	13.2	11.8	12.6	21.0	18.8	20.0	33.5	28.7	31.4
13857	6.8	6.3	6.4	10.2	9.8	9.9	14.9	14.4	14.6	27.4	26.6	26.9	43.0	40.6	41.3
13858	5.5	5.2	5.3	7.8	7.5	7.6	11.1	11.2	11.2	23.0	22.6	22.8	33.2	33.6	33.4
13859	6.1	5.7	5.9	8.6	8.3	8.4	12.6	11.8	12.2	22.7	22.1	22.4	40.4	39.2	39.7
13860	5.7	5.7	5.7	8.5	8.4	8.5	11.9	12.2	12.0	23.4	22.8	23.2	36.7	37.5	37.0

M = MALE F = FEMALE T = TOTAL (SUM OF PUP WEIGHTS/NUMBER OF LIVE PUPS) DAY = DAY POSTPARTUM
ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C36 (PAGE 3): PUP BODY WEIGHT LITTER AVERAGES FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION LITTERS

MATERNAL DOSAGE GROUP III 3 MG/KG/DAY

RAT/ LITTER NUMBER	DAY 1			DAY 5			DAY 8			DAY 15			DAY 22		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
13861	6.0	5.5	5.9	9.8	9.0	9.6	14.2	12.9	14.0	26.8	26.0	26.7	34.6	33.6	34.4
13862	PREGNANT; DID NOT DELIVER A LITTER														
13863	6.0	5.5	5.7	9.3	9.1	9.2	13.8	13.6	13.7	22.0	22.0	22.0	32.1	31.4	31.6
13864	6.4	6.4	6.4	11.4	11.3	11.4	18.3	18.5	18.4	38.8	38.2	38.6	59.6	60.6	60.0
13865	5.4	5.4	5.4	8.4	8.5	8.4	11.5	11.6	11.6	19.0	18.6	18.8	29.9	29.0	29.4
13866	6.6	6.2	6.3	8.9	8.5	8.7	10.8	10.4	10.6	22.2	21.4	21.8	35.1	31.7	33.2
13867	6.0	5.9	5.9	6.5	6.8	6.7	9.6	9.6	9.6	20.8	21.2	20.9	29.4	29.1	29.3
13868	5.7	5.4	5.6	9.2	8.6	8.9	13.5	12.7	13.1	26.0	25.9	25.9	34.4	33.9	34.1
13869	6.4	6.1	6.3	8.3	8.1	8.2	10.8	10.6	10.7	20.7	18.0	19.3	31.9	27.7	29.6
13870	7.2	6.6	6.8	9.2	9.1	9.2	13.2	13.1	13.1	27.9	28.0	27.9	39.6	40.1	40.0
13871	6.3	6.0	6.1	7.9	7.5	7.6	12.2	11.8	11.9	19.7	19.0	19.2	28.0	28.3	28.2
13872	5.7	5.4	5.6	7.7	7.5	7.6	11.2	10.7	11.0	21.4	20.2	20.8	31.0	28.7	29.9
13873	6.2	5.9	6.0	8.6	8.8	8.7	12.5	13.2	12.8	23.3	24.5	23.9	35.1	35.4	35.2
13874	7.3	6.3	6.6	11.7	10.2	10.6	17.2	14.7	15.5	32.1	28.2	29.4	50.7	44.5	46.4
13875	6.1	6.0	6.0	8.9	8.6	8.7	12.5	12.5	12.5	25.4	24.0	24.7	37.3	37.4	37.3
13876	6.6	6.2	6.4	10.2	9.9	10.1	15.7	15.0	15.4	30.1	29.0	29.6	48.2	45.9	47.1
13877	7.1	6.4	6.7	9.8	8.3	9.1	13.5	12.0	12.8	30.0	27.0	28.6	46.2	41.6	44.1
13878	7.5	7.3	7.4	9.9	10.6	10.4	14.8	15.4	15.3	31.2	32.0	31.9	48.8	48.4	48.5
13879	7.1	6.7	6.9	11.6	11.4	11.5	15.7	16.0	15.8	31.8	31.2	31.5	48.4	48.7	48.6
13880	6.7	6.4	6.6	11.7	11.6	11.7	15.5	15.3	15.4	29.6	30.2	29.7	48.3	47.9	48.2
13881	6.5	6.0	6.2	11.0	10.0	10.5	15.4	14.5	15.0	29.3	29.3	29.3	39.7	38.1	39.0
13882	5.8	5.2	5.6	9.5	8.9	9.3	14.4	13.1	14.0	27.2	26.2	26.9	41.6	39.2	40.8
13883	6.8	6.6	6.7	10.3	10.3	10.3	14.6	14.8	14.7	27.2	27.5	27.3	46.3	46.4	46.3
13884	6.5	6.1	6.3	9.8	8.9	9.4	12.0	11.1	11.6	28.2	26.4	27.4	43.2	39.5	41.5
13885	7.4	7.4	7.4	13.9	13.7	13.8	19.0	18.5	18.9	33.8	32.0	33.2	53.5	53.5	53.5
13886	6.3	6.2	6.3	9.4	9.3	9.3	13.9	13.4	13.7	25.8	24.4	25.2	42.9	40.2	41.8
13887	6.3	5.9	6.2	11.2	10.2	10.9	16.0	15.1	15.7	32.2	30.2	31.7	50.8	47.3	49.9
13888	6.6	6.1	6.2	9.2	8.7	8.8	11.2	10.8	10.9	25.1	22.3	22.7	36.4	30.7	31.5
13889	5.6	5.3	5.5	8.7	7.8	8.3	12.5	11.8	12.2	26.3	24.7	25.7	35.6	32.2	34.3
13890	6.5	5.9	5.9	9.5	9.1	9.1	13.6	12.6	12.7	26.9	24.8	24.9	43.1	38.1	38.5

M = MALE F = FEMALE T = TOTAL (SUM OF PUP WEIGHTS/NUMBER OF LIVE PUPS) DAY = DAY POSTPARTUM
ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C36 (PAGE 4): PUP BODY WEIGHT LITTER AVERAGES FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION LITTERS

MATERNAL DOSAGE GROUP IV 10 MG/KG/DAY

RAT/ LITTER NUMBER	DAY 1			DAY 5			DAY 8			DAY 15			DAY 22		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
13891	6.9	6.8	6.9	11.1	10.8	10.9	15.4	15.3	15.3	30.5	29.2	29.7	48.6	45.8	46.9
13892	5.8	5.6	5.7	9.0	8.6	8.8	13.0	12.4	12.7	25.4	24.5	24.9	39.2	37.0	38.0
13893	6.7	6.1	6.4	10.4	9.8	10.1	14.9	13.9	14.4	26.9	25.6	26.2	43.0	41.0	41.9
13894	6.7	5.9	6.3	8.6	7.6	8.1	12.6	11.1	11.8	25.7	23.1	24.3	38.5	34.9	36.6
13895	5.5	5.4	5.5	7.9	8.0	7.9	12.0	12.4	12.1	24.9	26.0	25.2	38.4	39.2	38.6
13896	6.8	6.3	6.6	10.5	9.8	10.1	14.8	14.2	14.5	26.5	24.7	25.5	42.2	38.1	39.8
13897	7.0	6.5	6.7	10.1	9.5	9.8	14.3	14.1	14.2	29.8	28.3	29.1	46.8	43.0	44.9
13898	6.4	5.9	6.1	8.9	8.4	8.6	12.0	10.9	11.4	22.3	20.7	21.4	29.9	27.5	28.6
13899	6.4	5.9	6.2	10.0	9.4	9.7	13.5	12.7	13.1	21.7	20.1	21.0	34.8	32.5	33.8
13900	NOT PREGNANT; MATING NOT CONFIRMED														
13901	6.3	5.9	6.1	7.8	7.0	7.3	10.5	9.3	9.9	22.2	19.8	20.9	31.7	28.7	30.1
13902	6.7	6.7	6.7	9.9	9.2	9.5	13.7	12.7	13.2	26.6	23.9	25.2	42.4	39.2	40.7
13903	6.7	6.7	6.7	10.9	10.7	10.8	14.6	14.4	14.5	26.0	25.6	25.7	40.3	41.0	40.8
13904	6.8	6.3	6.6	9.8	9.1	9.6	11.6	10.0	11.0	19.6	17.3	18.8	35.1	31.5	33.8
13905	6.1	5.3	5.6	9.7	9.0	9.2	14.3	13.2	13.6	25.3	23.9	24.3	38.0	37.4	37.6
13906	6.3	6.0	6.1	10.0	9.5	9.7	15.1	14.8	15.0	30.5	30.3	30.4	48.3	48.1	48.2
13907	5.7	5.4	5.6	8.6	8.2	8.4	12.4	12.1	12.3	18.6	18.2	18.5	27.9	27.0	27.6
13908	7.2	7.0	7.1	11.2	11.2	11.2	16.7	16.4	16.5	36.3	36.0	36.1	55.4	55.0	55.2
13909	5.6	5.5	5.5	8.7	8.6	8.6	12.8	12.5	12.6	24.2	23.5	23.7	39.4	38.3	38.7
13910	6.1	5.8	5.9	10.0	10.0	10.0	14.9	14.9	14.9	22.1	23.4	22.9	36.8	37.5	37.2
13911	6.5	6.2	6.4	9.7	9.4	9.6	12.5	12.0	12.4	26.6	25.6	26.2	42.4	41.1	42.0
13912	5.9	5.4	5.7	8.7	8.0	8.3	12.6	11.5	12.0	25.8	24.4	25.1	39.5	37.8	38.7
13913	6.1	5.7	5.9	10.4	9.8	10.1	15.1	14.3	14.8	29.1	28.6	28.9	45.4	43.2	44.4
13914	5.9	5.7	5.8	8.8	8.5	8.6	12.0	11.7	11.8	23.5	22.9	23.2	32.5	31.9	32.2
13915	6.2	6.0	6.0	8.9	8.8	8.8	12.0	11.8	11.9	22.1	21.3	21.7	36.2	34.2	35.3
13916	6.2	5.8	6.0	8.8	8.0	8.3	13.2	12.1	12.6	27.6	24.3	25.7	44.4	39.0	41.4
13917	6.6	6.3	6.4	10.0	9.2	9.5	13.7	13.1	13.3	28.1	27.3	27.6	43.9	43.5	43.7
13918	6.4	6.1	6.2	10.3	9.6	9.9	15.7	14.6	15.0	29.0	27.1	27.8	44.6	40.8	42.2
13919	6.1	5.9	6.0	9.6	8.6	9.1	11.9	10.6	11.2	24.0	21.8	22.7	39.0	35.7	37.1
13920	6.3	6.1	6.2	8.8	8.3	8.5	10.3	10.0	10.1	16.9	15.2	16.1	31.8	30.0	30.9

M = MALE F = FEMALE T = TOTAL (SUM OF PUP WEIGHTS/NUMBER OF LIVE PUPS) DAY = DAY POSTPARTUM
ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C36 (PAGE 5): PUP BODY WEIGHT LITTER AVERAGES FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION LITTERS

MATERNAL DOSAGE GROUP V 30 MG/KG/DAY

RAT/ LITTER NUMBER	DAY 1			DAY 5			DAY 8			DAY 15			DAY 22		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
13921	6.3	5.6	6.1	8.7	7.6	8.3	11.8	10.2	11.1	23.8	20.4	22.3	40.0	33.3	37.1
13922	4.3	4.0	4.2	6.7	---	6.7	9.0	---	9.0	22.2	---	22.2	39.0	---	39.0
13923	6.0	5.6	5.8	8.4	8.2	8.3	11.1	10.8	10.9	21.0	19.4	20.2	32.6	30.2	31.4
13924	5.8	5.8	5.8	8.5	8.0	8.3	12.3	11.1	11.8	22.4	20.7	21.7	33.0	29.9	31.7
13925	6.0	5.5	5.7	7.9	7.4	7.7	10.4	10.5	10.5	20.3	20.4	20.4	33.2	32.8	33.0
13926	5.5	5.2	5.4	7.3	7.2	7.2	11.0	10.8	10.9	23.3	23.0	23.2	32.8	32.0	32.5
13927	5.7	5.4	5.6	8.9	8.1	8.4	11.5	11.3	11.4	15.3	14.3	14.8	24.8	23.2	23.9
13928	6.9	6.4	6.6	9.1	8.5	8.7	13.1	11.6	12.0	26.9	25.0	25.5	41.6	38.3	39.2
13929	NOT PREGNANT														
13930	5.7	5.2	5.4	6.6	6.1	6.4	9.8	9.0	9.4	19.2	18.8	19.1	24.8	23.2	24.1
13931	5.2	5.0	5.1	6.2	6.0	6.1	7.1	6.8	7.0	17.2	16.6	16.9	26.1	25.7	25.9
13932	6.1	5.6	5.9	8.7	8.0	8.4	12.5	11.5	12.0	23.0	22.2	22.6	33.4	32.6	33.0
13933	6.6	6.0	6.2	9.4	9.0	9.1	12.0	11.6	11.7	17.2	17.2	17.2	28.5	27.6	27.9
13934	5.3	5.3	5.3	6.5	6.9	6.8	7.9	9.7	9.4	15.4	20.0	19.6	29.4	32.5	32.3
13935	5.6	5.4	5.5	8.9	8.4	8.6	12.4	11.5	12.0	22.0	20.7	21.3	33.6	32.0	32.8
13936	5.8	5.4	5.7	9.6	9.2	9.6	13.6	13.3	13.6	25.1	23.9	24.9	41.2	37.3	40.4
13937	7.3	6.8	7.0	11.2	10.6	10.9	15.3	14.4	14.7	26.0	24.2	24.9	41.7	40.4	40.9
13938	5.6	5.4	5.4	7.1	7.1	7.1	10.1	10.3	10.2	17.0	17.1	17.0	27.0	27.6	27.3
13939	5.6	5.5	5.5	8.6	8.3	8.4	13.0	12.4	12.7	25.6	24.2	24.8	41.4	39.9	40.6
13940	5.7	5.4	5.5	9.1	8.4	8.7	12.4	11.3	11.7	23.4	21.3	22.2	32.2	29.1	30.3
13941	6.2	5.9	6.1	9.7	9.1	9.5	13.6	13.0	13.4	24.7	22.8	24.1	39.4	35.1	38.1
13942	5.8	5.4	5.6	9.3	8.9	9.2	13.4	13.0	13.2	24.1	23.4	23.9	36.3	35.5	36.0
13943	7.2	6.7	6.8	12.6	11.4	11.7	18.7	16.4	17.1	36.5	35.8	36.0	57.4	54.1	55.0
13944	5.8	5.5	5.6	7.0	6.5	6.7	10.2	9.2	9.5	22.2	21.5	21.7	37.3	34.8	35.5
13945	5.5	5.7	5.6	9.4	9.6	9.5	13.9	14.0	13.9	25.7	25.3	25.5	39.3	39.4	39.4
13946	6.5	6.1	6.3	10.2	9.4	9.8	15.0	14.0	14.4	30.0	27.8	28.8	44.8	42.4	43.5
13947	SACRIFICED DUE TO NO SURVIVING PUPS ON DAY 1 OF LACTATION														
13948	5.9	5.5	5.7	8.8	8.1	8.6	12.8	11.4	12.3	26.4	25.1	26.0	43.2	40.8	42.3
13949	5.6	5.4	5.5	9.2	8.8	9.1	13.3	12.6	13.1	27.8	27.2	27.6	42.2	40.1	41.6
13950	6.0	5.5	5.8	9.2	9.0	9.1	13.4	13.3	13.4	28.2	27.2	27.8	45.2	44.7	45.0

M = MALE F = FEMALE T = TOTAL (SUM OF PUP WEIGHTS/NUMBER OF LIVE PUPS) DAY = DAY POSTPARTUM
ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 1): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP I							0 MG/KG/DAY						POSTPARTUM DAY 1				
13801	5.5	5.5	5.2	5.9	5.1	5.4	5.6	5.3	5.1									
13802	7.0	6.8	7.1	6.7	7.0	7.1	6.7	7.0	5.8	5.9	6.6	6.7	5.9	6.1				
13803	7.6	6.6	7.6	8.7	5.4	8.3	7.8	7.2	6.4	7.4	6.0	7.7	8.0	5.6	6.8	6.6		
13804	MORIBUND SACRIFICED ON DAY 68 OF STUDY																	
13805	7.1	6.5	6.9	7.4	7.4	7.8	6.7	6.1	7.3	6.7	7.3	6.7	6.7					
13806	5.9	5.6	6.0	5.9	6.2	5.1	5.5	5.1	6.0	5.8	5.4	5.5	6.1	5.5	6.1	5.5	6.0	
13807	6.7	6.8	6.1	6.2	6.1	6.0	6.4	6.0	6.5	6.2	6.0	6.0	6.6	6.4	5.4	5.4	5.8	
13808	7.1	6.6	6.5	5.9	6.4	6.6	MS	5.7	5.4	6.8	5.8	5.8	5.2					
13809	6.4	6.7	6.1	6.6	7.1	6.6	7.0	6.6	6.9	6.4	6.2	6.2	5.8					
13810	6.6	6.5	6.1	6.7	6.1	MS	5.9	6.1	6.5	5.6	5.6	6.4	5.7	5.9	FD 1			
13811	NOT PREGNANT																	
13812	6.2	6.2	6.7	6.2	6.7	6.9	6.4	6.5	6.7	6.2	6.2	6.3	6.6	6.7				
13813	7.5	7.5	8.1	6.0	8.1	7.5	6.7	7.2	6.9	7.6	6.9	6.4	UU					
13814	5.7	5.9	5.9	5.8	6.2	5.4	5.4	5.8	6.2	5.3	6.1	5.8	4.8	5.4	5.5	5.5	4.0	
13815	5.7	5.9	6.0	5.4	5.6	6.1	5.9	5.7	6.2	5.3	5.5	5.3	5.6	5.9	5.4			
13816	6.5	6.4	6.9	6.2	6.7	6.3	6.3	6.0	5.8	6.2	6.4	5.8	6.3	6.0	6.2	UU		
13817	7.2	7.0	6.9	6.8	6.6	7.1	6.9	6.0	6.4	6.3	7.1	5.7	6.5	6.0	6.5			
13818	5.9	6.1	6.3	5.6	6.4	6.4	6.4	6.2	5.5	5.8	5.5	5.1	5.1	5.5	5.8	5.4		
13819	6.0	6.2	6.3	6.6	MD 1	5.6	5.5	5.3	5.4	5.7	5.7	5.9	4.9					
13820	6.2	7.2	6.4	7.1	6.5	6.1	5.7	6.3	6.2	5.7	6.6	6.4	6.1	6.4				
13821	5.9	5.7	5.4	6.0	6.0	5.6	5.4	5.3	5.2	5.6	5.5	4.9	5.8	5.0	5.4	5.3	5.0	
13822	7.1	7.5	7.1	6.6	7.2	6.9	6.5	6.7	6.4	6.7	6.6	6.5						
13823	7.5	6.9	6.7	7.0	7.0	6.7	6.4	7.0	7.2									
13824	7.0	6.6	6.3	7.0	6.6	6.9	6.3	6.4	6.3	6.2	5.9	6.8	5.6	5.4	6.1	6.5		
13825	6.2	6.5	6.3	6.7	6.2	6.0	6.6	5.7	5.7	6.6	6.1	7.0	6.1	6.1	6.5			
13826	7.3	6.2	6.2	6.4	6.7	6.7	7.4	7.2	6.3	6.4	6.8	6.2	6.0	5.8	6.3	5.9		
13827	6.9	6.1	6.5	6.4	6.3	6.2	6.5	5.8	7.1	6.5	6.0	6.3	3.4	6.5	5.5	6.1		
13828	7.1	6.3	6.5	6.8	6.5	6.6	6.3	6.5	6.7	5.6	6.6	6.1	5.9	6.5				
13829	6.7	6.7	6.3	6.7	6.5	7.3	6.5	6.7	6.0	5.9	6.6	6.3	6.5					
13830	5.7	5.4	5.4	5.3	5.4	5.8	5.3	MS	5.4	5.2	5.5	5.1	4.7	5.7				

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 2): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP II							1 MG/KG/DAY						POSTPARTUM DAY 1				
13831	5.9	6.3	6.6	6.5	5.9	6.9	6.3	6.4	6.1	6.7	6.3	6.1	6.1	5.6	6.4	6.1	5.4	
13832	7.0	6.6	7.0	6.6	7.5	7.1	6.6	6.8	6.2	6.7	6.8	6.2	6.5	6.5				
13833	6.3	5.8	5.8	6.1	5.2	5.2	5.5	5.6	6.1	5.8	4.9	5.6	5.8	5.4	5.6			
13834	6.4	6.6	6.7	5.6	6.2	6.4	5.2	5.5	6.8	5.6	6.0	5.8	5.4					
13835	5.7	6.5	6.0	5.8	6.0	6.1	4.2	5.8	5.5	5.7	5.6	6.0	4.4	5.2	5.4	5.6	5.6	5.4
13836	MORIBUND SACRIFICED ON DAY 59 OF STUDY																	
13837	6.2	5.6	6.3	6.3	6.4	5.1	5.6	5.8	6.2	6.2	5.3	FS						
13838	6.2	6.4	6.5	6.6	7.1	6.3	6.4	5.7	6.1	5.6	5.9	5.0	6.3	5.9	6.5	5.7	5.9	5.6
13839	6.9	6.3	6.6	6.3	7.0	6.5	6.4	5.8	6.6	6.5	6.8	6.1						
13840	NOT PREGNANT																	
13841	5.9	5.8	5.5	6.5	5.9	5.8	5.9	5.6	5.7	4.9	FD	UU						
13842	5.8	6.7	6.1	5.8	6.2	6.0	6.7	5.7	5.7	5.5	5.7	6.0	5.8					
13843	6.5	6.8	6.4	6.6	7.0	5.7	5.2	6.1	5.8	6.5								
13844	6.4	5.8	6.0	6.2	6.0	5.8	5.3	5.7	5.5	5.7	5.5	5.8	6.1	6.3	5.5	5.5	5.7	
13845	6.8	6.9	6.9	6.9	6.3	6.8	6.6	6.5	6.7	6.5	6.1	7.1						
13846	5.9	6.3	6.0	6.4	5.8	6.2	6.3	6.1	5.8	5.9	5.8	3.5	5.9	6.1				
13847	6.4	6.0	5.3	MS	MS	MS	MS	5.2	5.7	6.1	5.9	6.0	FS	FS	FS			
13848	6.8	6.6	6.9	6.3	6.6	6.7	7.0	6.4	6.3	6.6	7.3	7.1	6.1	6.4	6.4	5.9		
13849	6.7	6.1	6.1	5.4	6.5	6.4	5.8	6.8	5.6	6.3	6.3	6.1	5.9	6.0	5.6	6.1		
13850	5.9	5.9	5.9	6.0	6.1	5.8	5.0	5.4	5.5	6.0	5.5	5.7	FS					
13851	NOT PREGNANT																	
13852	6.5	5.5	7.0	6.2	6.5	6.2	6.7	6.1	6.0	6.6	6.2	5.8						
13853	4.9	5.2	5.2	5.3	5.1	4.8	5.4	5.5	5.1	5.1	4.7	4.9	3.7	4.5	5.0	4.9	4.9	
13854	6.3	6.8	5.9	6.2	5.9	6.4	6.3	6.1	6.4	5.9	5.4	5.4	6.6	6.3	5.9	5.6	6.1	
13855	5.8	4.8	5.8	5.7	6.2	6.0	5.6	5.9	5.9	5.1	5.4	5.6	5.5	5.4	6.1	FD 1		
13856	5.8	5.8	6.0	5.7	5.5	5.4	5.2	6.3	5.4	4.7	5.0	5.5	5.0	4.4	5.4	5.5		
13857	6.7	6.8	6.6	7.2	5.9	6.7	5.8	6.0	6.5	6.4	5.7	6.5	6.5	6.7	FS			
13858	5.7	5.0	5.5	5.5	5.6	5.6	5.1	5.2	6.2	5.3	5.2	5.1	5.1	5.0	5.0	5.6	5.0	
13859	6.0	6.3	5.8	6.3	6.0	6.3	5.5	5.8	5.3	5.7	6.0	5.8	5.7	5.5	5.9			
13860	5.4	6.2	5.5	5.7	5.7	6.0	5.8	5.8	5.4	5.7	5.4	5.7	5.9					

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 3): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP III							3 MG/KG/DAY						POSTPARTUM DAY 1				
13861	6.3	5.7	5.8	6.2	6.2	6.0	6.0	6.2	5.1	5.9								
13862	PREGNANT; DID NOT DELIVER A LITTER																	
13863	5.7	6.5	6.0	5.7	6.3	5.8	6.1	5.9	3.5	5.3	5.5	5.6	5.8	5.7	5.7	5.5		
13864	7.1	6.8	5.9	5.8	6.4	6.4	FS											
13865	5.3	5.6	4.3	5.6	5.7	5.1	5.9	MD 1	4.9	5.4	5.7	5.8	5.4	5.6	5.5	5.1	4.8	
13866	6.2	6.1	6.5	6.3	6.7	6.8	7.4	6.5	6.1	6.2	6.1	6.2	6.2	6.4	6.1	6.1	6.2	5.9
13867	6.5	5.7	6.1	6.2	5.8	5.1	6.3	5.6	6.5	MS	5.6	6.0	5.8	5.8	5.7	6.3		
13868	5.5	5.6	6.1	5.7	5.5	5.5	5.8	5.7	5.5	5.7	5.3	5.1	5.0	5.7	5.6	5.5		
13869	6.4	6.2	7.0	6.2	6.2	6.1	7.1	6.4	6.7	6.1	5.7	6.0	6.1	6.0	6.1	6.1		
13870	7.0	7.5	7.2	6.6	6.2	6.1	6.5	7.0										
13871	6.4	5.9	6.3	6.6	6.2	5.7	6.0	6.2	6.3	6.0	6.3	6.0	6.0	4.7	6.3			
13872	5.1	5.7	5.8	5.6	6.3	5.6	6.0	5.7	5.7	6.4	5.6	6.0	5.0	4.7	5.0	5.2	5.7	
13873	6.0	5.9	7.1	6.0	4.7	6.6	6.5	6.5	6.1	5.5	6.0	6.3	5.5	5.7	5.6	6.2	6.2	
13874	7.4	7.8	7.4	6.9	7.2	6.6	6.4	6.4	6.5	6.4	6.9	5.8	7.0	6.7	6.7	6.2	4.5	
13875	6.5	6.6	6.3	5.0	6.1	5.7	6.1	6.5	6.3	5.9	5.7	5.6	5.5	6.2	6.3	6.4		
13876	6.5	6.6	6.1	6.8	6.9	6.6	6.5	6.2	6.7	6.1	5.6	6.1	6.5	FS	FD 1			
13877	7.3	7.1	7.2	7.3	6.5	7.0	7.1	6.0	6.1	6.5	6.7	6.7	6.2	FS				
13878	7.7	7.3	7.5	7.3	7.7	6.6	7.3	7.4	7.4									
13879	7.0	7.4	6.7	6.7	7.5	7.5	6.8	6.1	6.2	7.2	7.0							
13880	6.6	7.4	7.4	6.4	6.6	7.2	6.7	6.9	5.5	6.3	6.8	6.0	6.3					
13881	5.3	6.9	7.1	6.4	6.6	6.7	6.0	5.9	5.4	6.1	6.4							
13882	5.3	5.6	6.1	5.9	5.9	6.0	5.5	6.1	5.5	5.7	4.8	5.0	6.3	5.3	5.6	4.4		
13883	6.7	6.3	7.5	6.9	6.1	6.6	7.3	6.3	5.9	7.2	7.2	6.1	6.6	6.7	FD 1			
13884	7.2	6.6	6.5	5.4	7.0	6.4	6.6	5.0	6.2	6.4	6.3							
13885	6.9	8.0	7.4															
13886	6.3	5.9	6.7	6.3	6.1	6.5	6.4	5.8	6.6	6.0	6.2	6.4						
13887	6.4	6.4	6.5	5.9	6.8	6.1	5.9	6.3	5.7	6.0	6.1							
13888	7.0	6.1	6.0	5.7	6.1	6.0	6.1	6.1	6.1	6.6	6.4	6.1	6.6	5.7	FS			
13889	5.7	5.7	5.7	5.4	5.9	5.7	5.7	5.0	5.3	5.7	5.3	5.3	5.7	5.2	4.9	5.2		
13890	6.5	6.1	5.6	6.0	5.4	5.9	6.1	5.2	6.0	6.7	6.0	5.7	6.3	6.0	5.5			

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 4): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP IV							10 MG/KG/DAY				POSTPARTUM DAY 1						
13891	6.7	6.9	6.9	7.2	MS	7.2	6.8	6.5	6.7	6.8	7.0							
13892	6.1	5.8	5.9	5.8	5.8	5.6	5.6	5.7	6.1	5.5	5.4	5.4	5.3	6.1	5.1	FS		
13893	7.0	6.5	6.8	6.2	6.7	6.5	7.3	5.5	5.6	5.6	6.0	6.2	6.6	6.9	6.6			
13894	6.5	7.2	5.8	6.9	6.3	6.4	7.7	5.9	4.4	6.0	6.5	6.3	6.2	6.0				
13895	5.7	6.2	5.4	5.1	5.6	4.2	5.5	5.8	6.3	5.2	5.9	5.3	5.3	5.6	5.2			
13896	5.9	7.0	7.1	6.9	7.3	6.5	6.9	6.7	6.1	6.0	6.3	5.9						
13897	7.4	7.3	7.0	6.6	6.8	6.7	7.2	6.5	5.8	6.3	6.2	6.9						
13898	6.3	6.8	6.8	6.3	6.8	6.0	5.6	6.5	5.7	6.3	5.8	5.4	6.2	5.5	5.7	6.0	6.3	
13899	6.4	6.4	6.3	6.4	6.0	6.6	6.3	6.0	5.9	5.6	5.9							
13900	NOT PREGNANT; MATING NOT CONFIRMED																	
13901	6.4	6.0	6.4	6.4	6.5	6.7	5.7	5.7	6.2	5.6	5.3	6.2	6.2	5.9	5.9	6.3		
13902	6.5	6.6	7.1	6.7	6.6	7.4	6.1	7.4	6.4	6.2	6.9	6.5	6.4	6.9	6.6			
13903	6.3	6.5	6.7	7.3	6.8	7.0	6.7	7.4	7.0	6.3	5.3	6.5	7.3	6.7				
13904	7.4	7.1	5.9	6.8	7.2	7.1	6.5	7.1	6.4	6.1	6.5	6.2	6.2	6.3				
13905	6.7	6.0	4.6	7.3	6.0	5.1	5.6	5.0	4.8	5.7	5.3	5.1	4.9	5.3	6.3	5.6		
13906	5.7	6.7	5.8	6.7	6.0	6.7	MS	MS	6.3	5.6	6.2	6.0	6.5	5.3	6.4	5.8		
13907	5.9	5.8	5.9	5.8	5.5	6.1	5.1	5.5	5.5	5.6	5.7	4.8	5.3	5.6	5.5	5.3		
13908	7.5	6.9	5.9	8.1														
13909	5.6	5.9	5.8	5.1	5.4	5.2	5.8	5.5	5.4	5.9	5.9	5.5	5.5	5.0				
13910	5.3	6.2	6.3	6.7	6.7	5.5	5.7	6.0	5.5	6.0	6.0	5.7	5.7	6.1	5.5			
13911	6.5	6.5	6.5	6.7	6.6	6.5	6.3	6.7	6.3	6.4	5.8	6.4						
13912	5.9	6.7	5.7	5.1	6.0	6.5	5.7	5.5	5.2	5.4	5.3	5.4	5.4	5.5				
13913	6.2	6.3	6.0	6.1	5.9	6.0	6.2	6.4	5.3	5.9	5.9	5.4	5.3					
13914	6.0	5.6	5.3	6.1	5.9	5.9	6.7	5.6	6.3	6.0	6.2	5.5	6.0	5.4	5.7	5.2	5.3	5.7
13915	6.3	6.5	6.1	5.5	6.6	5.8	5.8	6.8	6.0	5.4	5.9	5.9	5.9	6.1	5.9	6.2	6.3	
13916	6.5	6.1	6.8	6.4	6.1	5.6	6.1	5.8	5.7	5.9	5.8	5.9	5.4	6.3	6.1	5.8		
13917	6.3	7.0	6.6	6.0	6.1	6.9	6.1											
13918	6.6	6.3	6.4	6.1	6.5	6.6	5.5	6.7	6.4	6.3	5.8	6.1	5.6	5.7				
13919	6.2	6.0	6.5	6.3	5.6	6.0	6.3	5.9	5.8	4.9	6.6	5.4	5.8	6.6				
13920	7.1	6.5	6.6	6.6	4.9	6.4	6.2	5.9	5.7	6.4	6.0	6.1	5.7	6.1	6.6	6.1		

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 5): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP V							30 MG/KG/DAY						POSTPARTUM DAY 1				
13921	6.5	6.0	6.0	6.5	6.1	5.8	7.5	6.5	6.2	5.5	6.2	6.2	5.0	5.6	5.4			
13922	3.9	4.1	4.4	4.7	4.5	MD 1	MD 1	4.3	3.8									
13923	5.3	6.0	6.3	6.5	5.9	6.3	5.8	5.3	6.2	5.8	5.5	5.3	5.6	5.9				
13924	6.0	6.1	6.1	5.2	5.9	5.4	5.5	5.9	6.0	6.4	6.3	5.7	5.8	6.1	5.8	5.4	5.2	
13925	6.8	6.3	6.3	4.7	5.5	6.4	5.6	4.9	6.0	5.3	5.8	5.5	5.5					
13926	5.4	5.8	5.7	5.5	5.0	5.0	5.5	5.8	MS	4.8	5.2	5.0	5.3	5.3	5.7			
13927	6.1	5.3	5.7	6.0	5.4	6.1	5.6	5.9	5.7	5.5	4.4	5.5	5.1	6.0	5.6	5.4		
13928	6.9	6.8	6.6	7.3	6.5	7.1	6.4	6.8	6.0	7.2	6.0	5.9	6.1	6.7	6.0	6.6		
13929	NOT PREGNANT																	
13930	5.4	5.5	5.0	5.8	5.6	6.1	6.0	6.0	5.9	5.3	5.5	4.9	4.4	5.2	5.4	5.7	5.1	5.1
13931	5.2	5.6	5.5	5.7	5.3	4.9	5.4	4.4	4.7	5.1	5.2	4.5	5.2	5.1	5.1			
13932	6.4	5.6	6.6	6.2	6.3	6.0	5.9	5.9	5.3	5.6	5.6	5.7	5.9	5.6				
13933	6.6	6.2	6.6	6.9	6.7	6.5	6.6	6.2	5.8	5.4	5.6	5.6	6.4					
13934	5.7	5.1	5.1	5.2	5.9	5.3	5.4	5.4	4.8	5.5	5.2	5.4	5.6	5.4	4.4			
13935	5.6	5.7	5.9	5.4	5.6	5.4	5.8	5.7	5.7	5.3	4.9	5.3	5.1	5.3	5.9			
13936	6.2	5.9	6.1	6.4	6.0	6.4	5.3	6.1	6.1	5.4	4.2	5.4	5.8	4.9				
13937	7.5	7.8	6.9	7.2	7.4	6.9	7.3	6.7	7.2	7.4	7.1	6.4	6.6	6.2	6.7			
13938	5.8	6.0	5.3	5.6	5.6	5.4	5.2	5.5	5.4	5.0	5.7	5.3	5.6	5.3	5.3	5.3		
13939	5.6	6.0	5.9	5.1	5.8	5.3	5.2	5.9	5.4	5.7	4.7	5.3	5.9	5.5	FS			
13940	5.7	5.2	5.6	6.0	5.9	5.6	6.2	5.2	4.8	5.4	5.7	5.3	5.8	5.2	5.5			
13941	5.2	6.7	5.6	6.3	6.2	6.3	7.0	6.1	6.6	6.3	5.9	6.0	5.4	FS				
13942	6.0	5.8	5.6	5.0	6.2	6.2	5.7	6.1	5.2	5.6	6.1	5.4	5.4	5.3	5.6	5.3		
13943	7.7	6.6	6.1	7.0	7.0	5.9	7.7											
13944	5.8	5.6	6.0	6.0	5.5	5.5	5.4	5.6	6.1	5.5	5.2	5.5						
13945	5.5	5.6	5.8	5.5	5.5	5.4	5.3	5.6	5.4	5.4	5.8	5.8	5.7	5.6				
13946	6.7	6.6	6.4	6.4	6.2	6.0	5.9	6.1	6.1	6.4	6.2							
13947	SACRIFICED DUE TO NO SURVIVING PUPS ON DAY 1 OF LACTATION																	
13948	6.6	5.2	6.1	6.1	5.6	6.3	5.7	5.3	5.7	5.4	5.6	5.3						
13949	5.5	5.4	5.2	5.5	6.3	5.8	5.4	5.2	6.0	5.3	5.3	5.4	5.6					
13950	5.8	6.2	6.2	6.0	5.8	5.7	MS	5.3	5.5	5.2	6.0	5.6	FS	FS				

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 6): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP I							0 MG/KG/DAY						POSTPARTUM DAY 5				
13801	9.5	8.1	9.2	8.4	7.9	8.5	9.2	8.2	8.5									
13802	12.0	12.4	12.5	12.2	12.2	12.2	11.4	11.6	11.9	10.7	11.9	11.6	10.9	10.1				
13803	11.3	9.6	9.4	11.8	11.4	14.1	10.7	12.1	7.1	10.7	12.1	12.0	9.3	11.8	11.8	10.5		
13804	MORIBUND SACRIFICED ON DAY 68 OF STUDY																	
13805	10.2	10.3	11.7	10.1	10.6	10.8	9.8	10.0	10.1	9.9	11.1	9.0	10.1					
13806	7.7	8.7	8.2	8.7	8.3	MM 3	8.6	8.4	8.1	8.4	7.7	8.4	7.6	8.0	8.4	8.2	8.5	
13807	9.5	9.4	9.2	9.0	9.3	9.0	9.2	8.5	9.6	8.6	8.4	7.9	8.9	8.1	9.8	8.6	9.2	
13808	10.7	10.5	9.4	10.4	10.6	9.3	MS	9.8	10.7	9.6	10.1	9.0	10.1					
13809	9.7	10.2	9.8	10.6	9.6	10.4	10.2	9.0	9.6	9.3	8.6	9.3	9.6					
13810	10.3	10.3	9.9	8.9	MD 3	MS	8.4	9.7	9.2	9.2	10.5	9.6	9.6	9.0	FD 1			
13811	NOT PREGNANT																	
13812	10.6	9.6	9.1	10.7	10.7	10.1	10.6	11.2	11.6	10.6	10.4	9.9	10.1	10.9				
13813	12.6	12.4	11.5	11.7	9.6	10.4	10.9	11.6	12.7	11.3	11.7	12.3	UU					
13814	7.8	8.3	7.6	8.4	7.9	8.2	8.1	9.0	8.0	8.7	6.6	7.2	8.1	7.2	7.7	6.7	FM 2	
13815	8.7	8.4	8.6	7.9	7.6	8.3	7.6	8.3	8.4	8.2	7.7	8.3	7.5	8.5	7.4			
13816	9.0	9.1	8.5	9.4	8.6	8.9	8.5	8.0	8.9	8.1	8.2	8.2	8.3	8.9	8.2	UU		
13817	9.3	9.2	9.3	9.7	9.4	8.4	9.7	9.3	8.6	9.0	8.6	8.8	8.9	8.0	FD 2			
13818	7.3	7.8	7.3	7.9	7.8	7.6	6.4	7.3	7.1	7.2	6.2	6.8	7.6	7.2	FM 4	FD 2		
13819	10.4	9.4	9.1	9.9	MD 1	8.8	9.2	9.2	7.5	8.3	6.8	8.0	9.2					
13820	9.3	8.6	9.9	8.4	8.7	9.5	8.5	8.4	7.5	9.7	8.3	8.8	9.2	8.3				
13821	10.7	9.7	9.6	8.9	8.8	8.9	9.9	9.5	9.0	8.9	9.5	8.6	8.7	8.8	8.6	9.7	8.5	
13822	11.6	12.1	12.5	11.7	11.4	11.3	11.1	11.6	11.8	10.6	11.2	10.9						
13823	13.1	13.3	12.0	12.6	13.3	12.4	12.8	12.7	12.8									
13824	10.2	9.6	9.8	9.9	9.5	9.2	8.5	11.0	8.9	9.0	8.6	9.2	9.3	9.0	9.2	7.8		
13825	8.3	7.9	9.0	7.6	8.2	9.0	8.6	7.3	8.3	7.6	6.6	7.9	8.2	8.6	9.1			
13826	9.9	8.5	10.6	10.2	10.2	10.1	9.8	9.8	9.2	8.9	8.4	9.0	9.6	9.5	9.4	8.4		
13827	9.8	8.9	9.7	9.5	10.4	9.4	9.4	9.7	MM 2	9.4	9.1	9.1	9.3	9.3	8.8	8.9		
13828	9.1	8.0	8.7	8.9	8.6	9.1	8.5	8.4	7.9	8.3	8.5	7.2	8.6	8.7				
13829	10.1	8.9	9.7	10.3	9.8	10.2	9.9	10.8	9.0	9.1	9.1	10.3	10.0					
13830	8.4	7.7	7.9	8.3	7.4	8.3	7.8	MS	8.3	7.7	7.9	7.2	7.7	8.0				

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 7): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP II							1 MG/KG/DAY						POSTPARTUM DAY 5				
13831	9.6	9.0	9.6	9.7	9.8	8.6	9.5	8.8	9.2	9.8	9.6	10.5	8.6	9.4	9.0	7.5	8.6	
13832	10.2	10.6	10.7	9.7	8.0	10.4	10.4	9.2	10.4	9.6	9.3	10.7	10.1	9.1				
13833	9.2	8.6	9.4	8.1	9.8	9.0	9.3	9.1	9.3	8.1	9.1	7.6	9.1	8.3	FM 3			
13834	9.0	10.3	10.6	10.1	10.3	10.1	9.4	9.2	8.7	9.2	9.8	9.8	9.1					
13835	9.4	8.7	8.6	8.2	9.1	8.3	8.6	8.5	8.3	6.9	8.0	8.3	9.1	8.0	8.1	8.0	FD 3	FD 2
13836	MORIBUND SACRIFICED ON DAY 59 OF STUDY																	
13837	8.5	9.2	8.5	8.0	8.1	8.0	8.0	8.0	7.0	7.2	8.9	FS						
13838	9.9	9.5	8.8	8.3	8.9	8.9	9.4	8.2	8.5	8.8	8.7	8.4	6.0	9.0	8.0	8.2	8.7	FD 4
13839	10.4	10.3	9.3	8.7	10.0	7.4	9.0	10.0	10.2	9.9	10.8	10.8						
13840	NOT PREGNANT																	
13841	8.7	10.4	9.9	9.1	8.9	9.7	9.5	9.0	7.8	9.4	FD	UU						
13842	8.7	7.9	6.9	9.7	9.8	7.9	7.7	8.4	8.4	7.4	7.8	7.7	9.1					
13843	7.9	7.6	8.3	8.0	8.4	7.2	6.5	6.8	7.4	8.1								
13844	7.3	7.9	6.9	7.3	8.7	8.5	8.3	8.2	7.0	7.3	8.0	6.2	5.9	7.0	6.7	7.0	8.0	
13845	10.6	9.6	9.2	8.5	10.2	9.9	10.0	10.0	9.1	10.1	9.9	9.8						
13846	8.9	10.1	8.9	8.3	9.5	9.6	9.5	9.3	8.5	8.7	8.5	8.3	8.5	FM 2				
13847	10.6	9.9	10.7	MS	MS	MS	MS	10.7	10.1	11.1	9.6	9.6	FS	FS	FS			
13848	9.8	10.2	9.5	8.5	8.6	8.8	10.2	8.6	9.2	9.1	10.2	10.4	9.1	8.8	9.0	9.3		
13849	8.9	8.2	8.4	7.7	7.8	8.3	8.3	8.9	8.3	8.5	7.3	7.5	7.9	8.1	7.6	7.5		
13850	8.9	8.1	8.4	8.5	8.7	8.6	7.6	8.4	7.6	8.1	8.1	9.1	FS					
13851	NOT PREGNANT																	
13852	8.5	9.4	9.3	9.8	10.2	10.0	8.3	9.0	9.7	9.4	9.4	8.4						
13853	7.8	8.5	7.7	8.1	7.2	7.0	8.5	8.5	8.0	7.1	8.2	7.3	7.9	7.9	7.2	7.2	7.4	
13854	8.5	9.0	9.4	8.7	9.5	9.4	10.1	9.3	10.1	9.2	9.7	9.8	9.1	9.6	8.8	8.0	8.7	
13855	10.0	9.5	10.2	9.7	10.1	7.6	9.1	10.5	10.2	9.7	9.2	9.7	8.4	9.9	FD 5	FD 1		
13856	8.7	8.6	9.0	9.7	9.3	9.7	8.9	10.0	8.7	9.1	7.3	8.7	7.0	8.5	7.5	8.9		
13857	9.7	10.7	10.3	10.3	10.0	9.4	9.8	10.0	9.3	10.0	10.0	9.9	10.2	9.2	FS			
13858	7.4	7.9	7.5	8.6	8.3	8.0	8.0	7.0	7.3	8.3	7.8	7.6	7.6	7.8	7.4	6.9	6.8	
13859	9.0	8.2	8.8	8.8	8.1	8.4	8.6	8.3	7.2	8.5	7.7	8.9	8.4	8.2	8.7			
13860	8.9	9.1	8.0	8.2	8.3	8.7	7.7	9.0	8.7	8.0	8.7	8.5	8.5					

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 8): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP III							3 MG/KG/DAY						POSTPARTUM DAY 5				
13861	10.5	10.2	10.6	10.4	8.3	9.4	8.7	10.3	7.7	10.4								
13862	PREGNANT; DID NOT DELIVER A LITTER																	
13863	9.4	9.0	9.2	9.1	10.0	9.7	8.8	9.5	9.4	9.0	8.4	8.8	9.5	8.1	9.5	FM 3		
13864	10.7	12.4	12.2	10.4	12.1	10.5	FS											
13865	9.2	9.2	7.9	8.6	6.5	8.7	8.6	MD 1	9.4	8.8	9.3	8.2	8.8	8.1	8.8	7.7	7.3	
13866	10.2	8.1	8.1	9.3	9.2	9.0	8.8	8.4	8.9	8.7	8.6	8.1	8.3	8.4	8.1	8.3	8.9	8.8
13867	6.1	7.4	6.9	7.1	7.3	6.9	7.1	4.5	5.6	MS	7.1	6.5	6.5	7.2	7.3	6.5		
13868	9.9	8.3	8.9	9.8	9.3	8.6	10.1	8.9	8.5	8.7	8.4	8.4	8.4	8.5	8.4	9.3		
13869	7.6	8.7	8.5	8.7	9.3	7.3	8.3	8.3	8.6	7.7	8.5	8.2	8.6	7.5	7.5	FD 4		
13870	9.3	9.2	8.4	8.5	7.5	10.4	10.0	10.0										
13871	8.8	7.5	7.4	8.0	MD 3	8.6	7.9	8.0	7.9	7.2	7.7	7.3	4.8	7.8	FD 4			
13872	7.6	7.6	7.9	7.4	8.0	7.6	7.7	8.0	7.6	8.7	7.9	7.4	7.6	7.7	6.9	6.8	6.7	
13873	8.9	5.7	9.4	9.1	10.2	9.0	7.3	8.8	7.8	9.1	8.7	8.6	8.4	9.1	9.4	9.5	FM 4	
13874	10.8	12.4	11.5	11.9	11.7	10.3	8.5	10.4	10.5	9.6	10.1	11.1	9.9	10.5	10.8	10.3	FD 2	
13875	10.1	8.9	8.7	9.0	9.3	9.6	9.0	6.7	9.1	7.8	9.9	9.3	7.1	9.2	8.5	7.5		
13876	10.0	10.4	10.1	10.3	10.0	10.6	10.3	9.6	9.3	10.8	10.1	9.8	10.0	FS	FD 1			
13877	9.6	9.3	10.6	9.8	10.3	9.4	9.3	8.3	8.9	8.3	8.3	7.4	8.6	FS				
13878	10.5	9.3	11.1	11.3	10.4	11.3	9.2	10.5	10.3									
13879	11.2	11.5	12.2	11.9	11.5	11.6	11.3	11.8	10.7	11.3	11.9							
13880	12.1	12.3	9.7	13.0	12.2	12.5	11.7	11.1	11.0	11.4	10.9	11.2	12.8					
13881	11.6	11.5	11.4	8.9	10.4	11.9	10.5	9.9	10.4	10.0	9.3							
13882	9.1	8.6	9.8	9.9	9.2	9.5	10.0	9.9	10.2	8.9	10.8	8.1	10.2	7.3	8.1	FD 3		
13883	9.6	11.5	10.6	11.2	9.9	9.3	10.2	9.8	10.8	11.5	10.2	10.9	8.9	9.9	FD 1			
13884	10.3	10.3	9.8	10.6	9.9	7.9	9.1	10.0	9.8	9.6	6.2							
13885	14.3	13.5	13.7															
13886	10.0	9.0	9.1	9.4	8.8	9.5	9.7	9.5	10.4	8.1	8.6	9.9						
13887	11.0	11.0	10.7	11.5	11.1	11.2	10.9	11.8	11.1	9.6	9.8							
13888	9.0	9.5	9.0	9.5	8.5	8.6	8.3	9.2	8.6	8.7	8.7	8.7	8.3	8.8	FS			
13889	7.8	8.9	9.3	8.7	8.6	8.1	8.7	9.1	8.7	8.8	7.9	7.9	7.8	7.2	7.6	8.3		
13890	9.5	10.1	8.4	9.7	9.0	9.5	8.8	9.0	9.5	9.6	9.0	9.9	5.9	9.7	9.1			

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FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 9): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP IV							10 MG/KG/DAY						POSTPARTUM DAY 5				
13891	10.0	11.5	11.2	11.6	MS	10.9	10.8	11.3	10.2	10.2	11.2							
13892	9.4	8.8	8.6	9.2	9.4	9.1	8.7	9.0	9.3	8.4	8.9	8.5	8.2	7.9	8.6	FS		
13893	10.8	10.4	9.4	9.9	11.1	11.2	9.8	9.6	9.9	9.6	9.1	11.1	9.1	9.0	10.9			
13894	10.8	7.6	8.9	8.0	8.0	8.6	MM 4	8.2	8.6	7.4	8.5	8.2	7.5	4.9				
13895	9.4	9.3	7.9	6.9	6.6	8.7	7.5	8.1	9.8	5.1	7.2	8.0	8.0	7.2	8.6			
13896	10.6	9.6	10.7	10.6	11.1	9.2	9.5	9.2	10.3	10.5	9.7	10.4						
13897	11.3	9.4	10.2	9.8	9.2	10.9	10.1	10.2	9.3	10.1	8.6	8.5						
13898	8.8	9.2	9.8	9.9	8.4	7.6	8.7	8.5	8.8	8.9	8.1	7.7	8.6	7.7	8.9	8.2	FD 3	
13899	10.1	9.6	10.6	10.1	10.1	9.4	8.7	9.3	8.8	10.8	9.4							
13900	NOT PREGNANT; MATING NOT CONFIRMED																	
13901	7.8	8.1	8.0	7.8	8.0	7.7	7.1	7.5	7.1	7.2	6.8	6.0	7.5	6.3	7.4	6.9		
13902	10.1	9.7	9.1	10.5	9.7	9.7	10.5	8.7	9.0	9.5	9.5	9.5	9.8	9.2	8.6			
13903	10.3	11.3	11.6	10.4	10.6	11.8	11.2	8.2	10.8	11.4	11.7	10.6	10.4	10.3				
13904	10.0	9.2	10.5	10.0	10.7	9.6	9.0	10.0	9.6	9.1	9.2	9.2	9.6	8.6				
13905	11.3	10.1	6.6	9.7	11.0	8.5	9.7	9.2	8.4	11.0	8.1	9.1	8.6	7.7	9.0	9.7		
13906	10.8	10.2	9.3	10.7	8.8	MD 3	MS	MS	9.9	10.8	9.5	10.0	9.3	7.9	8.6	10.2		
13907	9.1	8.8	8.5	8.3	9.2	9.0	8.5	6.9	8.1	9.2	7.7	8.6	8.6	8.2	8.6	7.7		
13908	11.7	10.7	12.4	10.0														
13909	8.7	8.7	8.2	9.0	9.0	8.9	8.4	8.1	7.9	9.1	8.6	8.9	8.8	8.9				
13910	8.5	10.8	10.2	10.6	9.3	10.7	8.5	10.4	9.8	9.9	10.3	10.7	10.4	11.2	9.2			
13911	9.3	9.3	9.9	9.7	9.7	10.0	10.2	9.6	9.5	9.6	9.6	9.1						
13912	8.2	7.8	9.3	8.8	9.5	8.2	9.1	7.8	8.3	8.5	8.6	7.5	6.8	8.3				
13913	9.6	10.2	10.0	10.8	10.9	10.5	10.5	11.6	10.6	10.3	8.7	8.6	8.7					
13914	7.9	8.8	8.2	9.0	8.8	8.8	9.8	9.0	8.1	8.4	8.3	9.2	8.9	8.1	8.9	7.9	8.8	FM 3
13915	9.6	8.3	9.0	9.2	9.2	8.2	9.2	9.5	8.2	9.1	8.8	8.4	9.1	8.6	9.1	8.6	8.4	
13916	9.4	8.3	8.9	7.9	9.4	9.3	8.7	8.2	8.3	8.5	7.4	8.1	7.4	7.6	7.4	8.7		
13917	9.7	10.2	10.0	9.5	10.2	8.2	8.8											
13918	9.6	10.3	11.3	9.6	10.6	10.3	10.3	9.9	8.8	9.7	9.3	8.7	10.1	9.7				
13919	9.3	9.7	9.5	9.9	9.2	10.3	9.4	9.4	9.1	7.9	8.2	7.5	8.9	8.8				
13920	7.3	9.2	9.0	8.3	8.9	8.9	9.7	8.7	8.2	8.8	8.6	8.2	8.8	7.0	8.0	FD 3		

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
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SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 10): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP V							30 MG/KG/DAY						POSTPARTUM DAY 5				
13921	8.4	7.1	9.2	9.3	9.6	9.7	9.0	8.9	7.3	7.3	8.5	7.9	5.4	8.2	8.3			
13922	7.0	5.8	6.8	7.3	MM 2	MD 1	MD 1	FM 2	FM 2									
13923	8.8	7.6	8.2	8.1	8.4	9.2	8.8	7.6	8.0	8.6	7.5	8.2	8.7	9.1				
13924	8.9	9.0	9.0	8.7	7.7	7.4	7.9	9.0	8.4	8.7	8.6	8.1	8.5	6.4	7.8	7.8	8.8	
13925	8.7	6.7	8.7	7.1	7.7	8.7	7.3	7.6	7.1	6.9	8.1	7.1	8.1					
13926	7.4	6.9	7.6	7.3	7.7	6.3	8.0	7.4	MS	7.4	6.4	8.0	6.9	7.1	7.2			
13927	9.1	9.4	8.6	9.1	8.7	8.2	9.0	8.6	8.4	9.2	8.9	5.4	8.0	7.7	7.8	9.0		
13928	8.5	9.1	10.4	9.0	8.3	MD 3	8.6	9.3	9.0	8.0	7.6	7.5	9.4	8.9	7.6	8.7		
13929	NOT PREGNANT																	
13930	7.1	6.1	6.7	7.2	6.6	8.0	6.5	5.2	6.5	3.9	6.7	6.5	5.9	6.8	6.1	6.6	6.1	FM 5
13931	6.9	7.1	4.8	6.6	6.1	5.3	6.5	6.7	5.9	6.3	6.1	6.1	5.7	5.9	FM 2			
13932	8.3	8.7	8.2	8.9	8.5	8.7	9.2	8.8	7.6	7.9	8.1	7.9	8.1	8.4				
13933	9.3	10.1	9.8	8.2	9.6	9.3	8.2	8.3	8.7	9.8	9.1	9.1	9.3					
13934	6.2	6.8	MM 4	7.4	7.0	6.5	7.2	6.2	7.5	5.4	7.2	6.2	7.6	7.5	7.3			
13935	8.7	8.8	9.3	8.9	8.9	9.2	8.4	6.6	8.2	8.4	8.7	8.8	9.0	8.3	9.3			
13936	10.6	8.5	10.2	10.0	10.1	9.9	10.3	10.0	10.7	7.5	8.4	7.9	9.5	10.1				
13937	10.9	11.5	11.4	11.1	11.2	11.1	9.6	10.7	11.5	11.6	10.4	9.7	10.6	10.6	11.0			
13938	7.0	6.5	7.6	7.4	6.7	7.0	7.6	MD 2	6.8	7.6	6.7	7.0	7.7	6.8	7.1	7.0		
13939	7.4	8.5	8.9	8.9	8.4	8.6	9.5	7.8	9.0	8.3	8.2	8.9	6.8	9.2	FS			
13940	8.8	9.4	8.8	8.9	8.9	9.7	9.5	9.1	8.0	8.1	9.1	7.0	8.3	8.9	8.1			
13941	10.3	10.6	10.6	8.6	9.9	9.7	9.7	9.7	8.5	7.9	9.5	9.4	9.6	FS				
13942	9.0	9.5	9.7	9.8	10.1	9.8	9.4	6.8	10.1	9.0	8.9	8.6	8.5	9.6	9.1	8.7		
13943	12.1	13.1	11.7	13.8	9.2	11.9	10.3											
13944	6.9	6.6	7.6	MM 5	5.3	6.6	6.3	5.7	7.5	6.2	7.5	7.2						
13945	9.1	9.5	9.8	9.3	9.5	9.4	9.2	9.6	9.6	9.8	9.2	9.3	9.7	9.8				
13946	11.2	9.6	10.0	9.9	10.4	9.4	9.6	9.0	9.2	9.5	9.6							
13947	SACRIFICED DUE TO NO SURVIVING PUPS ON DAY 1 OF LACTATION																	
13948	9.6	8.3	8.5	8.7	9.6	9.2	8.1	7.6	8.3	7.7	8.7	FM 3						
13949	9.0	10.0	9.6	8.9	8.6	9.1	9.3	9.1	9.6	8.6	8.8	9.1	8.8					
13950	10.2	8.2	9.5	9.6	8.9	8.7	MS	10.0	8.6	8.7	8.8	FD 2	FS	FS				

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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 11): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP I							0 MG/KG/DAY						POSTPARTUM DAY 8				
13801	13.1	13.4	12.9	13.2	13.2	12.3	12.8	14.2	13.3									
13802	17.2	18.1	18.2	17.8	17.5	16.1	17.1	17.7	17.6	16.1	17.7	18.0	15.3	16.2				
13803	16.3	15.3	16.0	19.9	13.3	13.9	17.2	16.8	12.8	FM 7	14.9	17.0	16.0	14.2	14.1	16.0		
13804	MORIBUND SACRIFICED ON DAY 68 OF STUDY																	
13805	16.5	16.0	14.9	14.7	14.7	15.4	13.7	13.2	13.8	12.8	14.4	15.0	15.1					
13806	12.6	11.3	10.6	11.7	13.1	MM 3	12.3	12.2	12.3	11.8	12.0	11.7	11.6	11.8	12.0	13.7	12.7	
13807	13.0	12.6	10.9	13.0	11.6	11.6	12.9	12.0	11.7	13.8	13.3	10.8	11.8	10.6	12.6	11.2	12.7	
13808	14.2	15.2	15.0	15.7	13.4	13.4	MS	14.7	13.4	13.9	14.0	15.0	14.7					
13809	15.1	13.9	14.0	14.2	13.2	12.4	14.8	14.6	13.3	13.8	12.9	11.7	13.4					
13810	14.2	15.3	13.7	15.5	MD 3	MS	14.8	12.3	14.2	13.7	14.4	15.4	14.0	13.0	FD 1			
13811	NOT PREGNANT																	
13812	16.0	15.9	14.6	15.4	15.8	14.6	14.1	16.5	15.1	15.0	15.5	14.8	14.3	15.6				
13813	17.5	18.1	17.4	14.6	18.5	17.0	16.9	15.2	16.5	18.4	17.0	18.0	UU					
13814	11.3	10.8	10.9	11.5	9.1	12.1	10.5	12.2	10.8	11.2	11.7	11.2	11.7	8.0	10.6	11.0	FM 2	
13815	12.0	10.0	11.6	11.4	11.5	10.9	11.3	10.4	10.4	12.1	11.4	9.2	10.3	10.3	11.3			
13816	12.6	11.9	11.2	11.2	10.8	10.6	11.7	10.0	10.1	11.3	11.3	10.6	11.8	11.0	10.7	UU		
13817	12.6	12.9	13.1	12.5	13.0	12.9	11.8	12.0	12.5	10.8	12.6	12.3	11.9	12.0	FD 2			
13818	10.6	11.2	9.1	11.3	12.0	11.4	10.9	11.2	9.0	10.5	11.4	8.6	9.6	9.7	FM 4	FD 2		
13819	13.1	14.2	14.0	13.2	MD 1	12.0	12.9	10.7	13.4	13.8	10.4	13.4	12.0					
13820	14.5	13.4	11.9	13.4	14.1	13.0	13.8	13.1	11.2	12.0	12.3	11.5	11.5	10.3				
13821	13.0	13.8	14.4	15.5	14.2	12.9	15.2	12.9	13.9	12.8	12.1	13.9	13.6	12.8	12.8	12.0	13.4	
13822	MX 8	MX 8	MX 8	FX 8	FX 8	FX 8	FX 8	FX 8	FX 8	FX 8	FX 8	FX 8						
13823	18.4	19.3	19.3	18.0	18.8	18.6	18.4	19.9	18.0									
13824	12.9	14.2	14.9	13.7	13.2	10.8	13.5	12.2	13.1	12.3	12.9	13.1	13.4	11.4	13.6	12.6		
13825	12.0	11.9	12.6	11.8	12.0	12.1	11.8	12.3	13.1	11.6	11.4	13.1	10.8	9.9	12.5			
13826	13.3	13.6	9.7	13.8	14.6	13.4	13.3	11.6	11.2	12.9	13.4	12.2	12.5	12.2	11.4	12.0		
13827	14.5	13.3	13.7	13.9	14.6	15.2	13.6	13.5	MM 2	12.7	14.1	12.7	13.1	12.6	13.6	13.5		
13828	13.0	12.8	13.0	12.9	11.0	12.8	12.7	9.4	10.5	12.3	12.0	13.5	12.6	12.3				
13829	11.8	10.3	11.8	12.0	12.2	12.6	11.5	12.7	10.7	10.9	10.6	12.1	11.1					
13830	11.6	12.1	11.1	12.5	10.4	10.4	11.9	MS	12.2	11.7	11.1	11.1	11.1	12.1				

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 12): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP II								1 MG/KG/DAY					POSTPARTUM DAY 8				
13831	13.2	13.4	13.8	12.7	14.0	14.1	12.5	12.3	15.2	14.4	11.1	11.7	12.1	13.8	13.0	11.2	11.1	
13832	13.8	13.2	15.2	14.6	13.5	13.0	15.1	14.3	14.7	14.4	13.1	15.7	14.3	11.7				
13833	12.9	13.1	14.0	12.0	12.9	11.8	11.6	12.7	13.0	13.2	12.3	10.5	11.4	13.0	FM 3			
13834	12.9	14.5	14.5	14.2	13.6	13.1	14.1	12.5	13.6	14.1	14.7	14.0	13.7					
13835	12.6	12.7	12.9	13.4	13.2	12.5	11.6	12.8	12.8	11.7	13.7	10.8	11.4	12.8	12.2	12.7	FD 3	FD 2
13836	MORIBUND SACRIFICED ON DAY 59 OF STUDY																	
13837	13.4	11.8	13.1	12.2	12.6	11.8	10.7	12.0	10.9	13.1	11.9	FS						
13838	14.8	11.9	13.0	13.6	12.8	13.2	13.9	12.5	12.6	12.4	11.8	7.0	12.0	12.1	11.8	13.0	11.1	FD 4
13839	13.9	16.2	16.4	15.0	15.7	15.9	14.7	15.4	14.4	12.0	15.5	13.9						
13840	NOT PREGNANT																	
13841	12.7	13.7	14.1	11.8	11.4	10.7	12.4	13.2	13.1	13.0	FD	UU						
13842	14.1	12.6	12.0	14.3	11.7	MD 7	12.9	13.3	11.1	12.1	10.5	12.4	12.2					
13843	11.1	11.7	10.4	11.0	11.9	9.4	12.0	10.3	8.7	10.0								
13844	13.8	10.9	12.3	10.5	10.7	12.3	12.2	10.1	11.5	9.7	10.2	9.6	9.7	12.4	11.3	8.6	FD 8	
13845	14.0	14.5	11.9	13.9	13.1	14.6	14.5	14.4	14.3	14.6	14.3	13.0						
13846	12.4	13.2	12.3	12.1	13.3	11.9	13.3	13.3	12.7	12.5	11.2	11.5	12.0	FM 2				
13847	16.1	16.0	15.0	MS	MS	MS	MS	16.1	15.5	15.9	14.0	14.7	FS	FS	FS			
13848	14.7	14.8	13.4	14.0	12.8	15.0	13.1	12.2	13.7	12.9	14.0	13.5	12.5	13.6	13.4	13.6		
13849	12.4	11.6	12.0	11.2	12.2	9.6	12.3	12.6	10.1	11.0	11.0	11.9	11.2	10.5	11.5	10.1		
13850	12.4	11.8	12.1	11.7	11.8	12.0	10.8	11.1	11.0	11.9	9.6	12.0	FS					
13851	NOT PREGNANT																	
13852	13.8	13.6	13.6	13.2	13.2	14.7	12.2	12.4	12.9	13.5	14.1	13.8						
13853	12.5	11.3	10.8	10.6	10.8	11.5	11.2	9.9	9.7	12.4	10.1	10.6	10.3	9.9	10.5	11.7	12.2	
13854	13.5	14.4	13.2	14.7	13.5	13.5	13.2	13.3	11.3	14.8	12.8	13.5	12.9	10.5	12.3	14.2	12.0	
13855	14.9	14.6	15.6	12.1	14.0	14.5	14.8	14.9	13.7	15.8	15.2	14.5	12.7	13.9	FD 5	FD 1		
13856	12.8	13.1	14.6	12.5	14.6	12.7	13.3	12.3	12.7	10.2	12.4	13.8	10.5	12.4	10.7	12.5		
13857	13.9	15.1	14.8	15.7	13.3	13.9	13.6	14.4	14.1	15.4	16.3	15.6	14.0	13.7	FS			
13858	10.2	11.7	10.4	11.0	9.5	11.7	11.1	13.4	11.2	11.2	12.3	11.1	10.5	10.9	11.0	11.8	10.8	
13859	13.3	13.2	12.6	11.6	12.4	12.7	11.7	12.7	12.1	9.6	12.6	12.2	9.6	13.3	12.7			
13860	12.3	12.0	12.0	11.9	11.9	12.3	12.2	11.1	11.7	13.2	11.1	12.6	12.0					

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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C20 (PAGE 2): LITTER OBSERVATIONS (NATURALLY DELIVERED PUPS) - SUMMARY - P GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)		I 0	II 1	III 3	IV 10	V 30
DELIVERED LITTERS WITH ONE OR MORE LIVEBORN PUPS	N	28	27	29	29	29
SURVIVING PUPS/LITTER a						
DAY 1 b	MEAN±S.D.	14.2 ± 2.2	14.2 ± 2.6	13.4 ± 3.6	13.8 ± 3.0	13.4 ± 3.3
DAY 5	MEAN±S.D.	13.8 ± 2.1	13.9 ± 2.5	13.0 ± 3.4	13.6 ± 2.8	12.9 ± 3.7
DAY 8	MEAN±S.D.	13.9 ± 2.0 [27]c	13.8 ± 2.5	12.9 ± 3.4	13.6 ± 2.8	12.6 ± 3.6
DAY 15	MEAN±S.D.	13.9 ± 2.0 [27]c	13.9 ± 2.5 [26]c	12.8 ± 3.3	13.4 ± 2.8	12.5 ± 3.6
DAY 22	MEAN±S.D.	13.9 ± 2.0 [27]c	13.9 ± 2.5 [26]c	12.8 ± 3.4	13.4 ± 2.8	12.5 ± 3.6
PERCENT MALE PUPS PER NUMBER OF PUPS SEXED						
DAY 1 b	MEAN±S.D.	46.9 ± 13.2	52.2 ± 13.6	48.6 ± 17.5	47.1 ± 10.2	49.9 ± 16.9
DAY 5	MEAN±S.D.	47.0 ± 13.9	53.1 ± 13.3	49.1 ± 17.6	47.1 ± 10.2	52.4 ± 17.2 [28]d
DAY 8	MEAN±S.D.	47.8 ± 13.4 [27]c	53.0 ± 13.3	49.3 ± 17.4	47.3 ± 10.1	52.4 ± 17.3 [28]d
DAY 15	MEAN±S.D.	47.8 ± 13.4 [27]c	52.6 ± 13.2 [26]c	49.2 ± 17.5	47.4 ± 10.1	52.2 ± 17.8 [28]d
DAY 22	MEAN±S.D.	47.8 ± 13.4 [27]c	52.6 ± 13.2 [26]c	49.2 ± 17.4	47.4 ± 10.1	52.2 ± 17.8 [28]d

DAY = DAY POSTPARTUM
[ ] = NUMBER OF VALUES AVERAGED
a. Average number of live pups per litter, including litters with no surviving pups.
b. Includes pups born alive, found dead on day 1 postpartum.
c. Excludes litters in which the dam was sacrificed.
d. Excludes litter 13947, which had no surviving pups on day 1 of lactation.

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TABLE C37 (PAGE 13): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP III							3 MG/KG/DAY						POSTPARTUM DAY 8				
13861	15.3	12.1	12.2	15.7	14.0	15.4	14.4	14.8	15.2	10.6								
13862	PREGNANT; DID NOT DELIVER A LITTER																	
13863	14.5	12.8	13.7	14.2	14.0	13.4	13.3	14.0	13.8	14.6	12.0	13.4	12.7	14.7	13.8	FM 3		
13864	16.8	19.8	17.3	19.4	19.3	17.7	FS											
13865	9.5	11.8	11.8	12.4	12.2	12.3	10.6	MD 1	11.7	10.9	12.5	13.0	11.9	11.7	9.6	13.0	10.5	
13866	9.7	10.6	9.9	12.7	10.8	11.7	10.0	11.3	11.1	11.9	10.6	10.8	8.8	9.2	11.1	11.2	9.3	FD 8
13867	11.1	10.7	10.1	8.0	9.4	9.1	9.0	MD 7	MD 6	MS	10.4	9.9	9.9	9.3	8.7	FD 6		
13868	13.8	14.3	13.8	14.6	11.9	12.3	14.0	13.4	12.5	13.3	12.1	13.1	12.9	12.8	12.9	12.2		
13869	10.4	11.1	11.8	11.1	11.0	9.8	10.7	10.2	10.8	10.8	9.8	10.8	11.3	10.6	10.7	FD 4		
13870	13.3	13.0	14.6	12.4	15.1	14.5	11.5	10.6										
13871	13.1	11.4	12.2	11.9	MD 3	12.0	12.3	11.5	11.1	11.9	12.0	12.0	11.7	FM 7	FD 4			
13872	10.6	10.0	12.4	11.1	11.5	11.6	11.2	11.1	11.6	12.6	9.1	10.7	10.6	11.2	11.3	11.1	8.7	
13873	13.3	11.5	13.7	9.9	13.5	15.5	13.9	8.8	11.3	12.3	13.5	15.1	12.8	13.1	13.6	13.5	FM 4	
13874	16.6	17.5	17.5	16.3	18.0	15.8	14.8	11.9	15.9	15.5	13.4	15.7	15.4	14.3	14.6	14.8	FD 2	
13875	12.7	12.3	14.0	14.4	12.6	12.7	12.2	8.9	13.0	13.7	11.0	14.1	11.2	13.9	11.8	11.0		
13876	15.2	15.0	15.5	15.3	15.9	16.4	16.4	14.7	14.7	13.8	16.4	15.5	14.8	FS	FD 1			
13877	12.5	12.9	14.4	15.3	12.9	14.1	12.7	13.1	11.6	10.7	10.8	12.5	13.0	FS				
13878	14.1	15.6	16.2	15.4	15.0	16.0	13.7	16.4	15.0									
13879	16.4	18.0	13.3	16.1	15.3	15.3	16.2	15.6	16.1	15.3	16.8							
13880	16.0	16.6	16.3	16.2	16.2	15.7	13.0	15.1	14.3	16.0	15.0	15.2	14.9					
13881	15.8	15.8	13.0	16.7	14.7	16.5	15.3	14.9	14.4	13.3	14.7							
13882	14.3	14.4	14.4	15.1	15.1	14.8	15.1	12.7	14.9	13.0	11.8	15.9	15.1	12.1	10.7	FD 3		
13883	14.6	15.9	14.0	14.2	12.3	14.5	16.4	14.4	12.9	15.6	16.0	16.1	14.8	14.1	FD 1			
13884	8.6	12.7	11.1	12.8	12.5	14.3	12.7	12.3	12.6	11.1	6.9							
13885	19.4	18.7	18.5															
13886	14.0	13.8	13.7	14.7	13.9	13.9	13.4	13.2	14.4	14.1	14.2	11.1						
13887	16.9	16.0	15.5	15.3	15.6	16.0	15.7	16.9	16.3	14.3	14.6							
13888	10.9	11.6	11.1	10.7	11.5	10.7	10.9	10.6	10.3	10.5	11.2	10.8	10.7	10.7	FS			
13889	12.3	13.4	13.2	11.3	12.5	11.5	12.5	13.3	12.1	12.7	11.6	12.0	11.1	11.7	12.5	11.8		
13890	13.6	13.4	13.5	10.9	12.7	12.9	14.0	12.3	13.2	12.5	13.1	13.8	13.2	13.6	7.4			

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TABLE C37 (PAGE 14): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP IV						10 MG/KG/DAY							POSTPARTUM DAY 8				
13891	15.2	13.8	16.3	16.3	MS	15.4	15.9	14.3	16.1	14.5	15.5							
13892	12.8	13.1	12.3	13.9	13.0	13.7	12.2	11.7	11.9	11.1	13.6	12.7	12.0	13.9	12.5	FS		
13893	14.5	15.5	15.4	16.5	14.3	15.1	13.0	13.9	13.2	13.1	15.7	13.3	15.0	12.5	14.5			
13894	15.1	12.5	11.1	13.0	11.5	12.5	MM 4	11.1	10.9	11.9	12.1	11.8	12.8	7.1				
13895	12.8	10.2	14.6	8.3	11.7	13.7	13.9	11.3	12.4	9.2	13.9	12.3	13.4	12.1	11.9			
13896	13.3	15.6	14.5	15.4	15.4	13.1	15.2	14.1	14.6	14.3	14.0	14.4						
13897	15.6	14.1	14.7	14.3	14.4	12.9	13.2	13.2	13.7	15.0	14.6	15.1						
13898	12.1	13.7	10.3	11.8	11.8	13.4	11.0	11.8	11.8	9.9	11.0	11.6	10.1	9.8	10.7	11.4	FD 3	
13899	13.5	14.3	13.4	13.5	13.6	12.6	13.4	12.1	12.6	12.7	12.6							
13900	NOT PREGNANT; MATING NOT CONFIRMED																	
13901	10.7	9.9	10.7	10.3	10.3	11.3	10.2	10.6	10.0	9.1	8.0	9.6	9.1	9.1	9.1	10.6		
13902	13.6	13.6	12.7	14.4	14.6	14.0	13.2	14.4	12.8	13.0	12.5	10.7	13.2	11.8	13.4			
13903	15.2	16.0	14.9	12.3	15.3	11.1	12.8	15.2	15.4	14.4	15.4	14.2	14.6	16.1				
13904	12.5	11.0	10.2	12.6	11.3	7.9	12.4	12.1	14.1	8.8	10.0	11.9	9.7	9.7				
13905	16.1	9.8	16.8	13.3	15.5	12.5	11.6	16.5	14.2	11.2	15.1	12.8	13.8	13.3	13.2	11.3		
13906	14.3	16.4	15.0	15.8	14.0	MD 3	MS	MS	15.8	15.2	14.6	15.0	13.3	15.6	14.4	FD 8		
13907	10.8	11.8	13.6	12.2	13.4	13.1	11.8	13.4	12.2	12.1	12.2	11.8	11.6	13.3	11.0	12.7		
13908	16.4	17.0	14.5	18.2														
13909	12.9	13.1	13.5	12.5	11.9	11.7	13.2	12.8	13.2	12.7	11.5	12.7	12.7	12.3				
13910	15.8	15.8	15.3	15.4	13.7	13.2	14.0	14.0	14.5	14.4	15.6	16.2	15.5	14.8	15.0			
13911	12.3	12.7	12.2	11.8	13.2	13.4	12.7	11.9	12.1	11.6	12.1	12.3						
13912	13.1	11.9	12.6	13.4	11.0	13.8	12.4	11.5	10.2	12.4	11.5	11.5	11.9	11.4				
13913	15.0	15.7	13.7	15.6	15.6	15.3	15.1	12.5	15.2	16.3	16.3	13.1	12.6					
13914	12.2	13.1	13.0	11.3	11.8	13.2	11.4	10.1	12.3	12.6	12.5	12.5	11.4	10.0	10.9	12.3	10.7	FM 3
13915	11.3	13.3	10.8	11.3	12.0	12.3	11.7	13.0	12.2	11.7	12.8	11.3	12.6	12.0	10.8	11.5	11.5	
13916	13.5	14.4	12.0	14.6	12.9	12.1	12.9	12.5	11.9	12.1	12.5	13.0	12.1	11.1	12.6	10.8		
13917	13.4	12.9	14.7	13.2	14.6	13.1	11.4											
13918	16.7	14.5	15.0	16.1	16.1	15.1	14.5	14.4	12.8	14.0	15.9	15.1	14.4	14.9				
13919	11.3	12.4	12.4	11.5	11.7	12.2	11.7	11.6	11.1	9.9	8.4	9.9	11.1	11.1				
13920	9.3	10.9	10.3	11.1	11.2	8.7	10.5	10.7	8.1	10.2	10.0	10.6	9.7	10.7	10.0	FD 3		

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SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 15): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP V								30 MG/KG/DAY					POSTPARTUM DAY 8				
13921	13.4	8.3	12.7	8.0	13.3	13.5	12.7	12.9	MM 6	12.8	12.1	10.9	12.7	5.5	6.9			
13922	9.7	9.4	7.2	9.5	MM 2	MD 1	MD 1	FM 2	FM 2									
13923	10.7	10.2	10.8	11.4	11.0	11.2	12.2	10.7	11.5	10.8	10.1	11.0	10.8	10.5				
13924	13.6	12.6	11.0	12.8	13.0	11.3	12.6	10.4	12.4	12.9	13.0	11.9	11.8	11.3	10.2	8.3	11.1	
13925	13.2	9.7	9.0	9.4	12.9	8.3	10.9	12.2	7.8	12.5	8.1	10.3	11.8					
13926	9.2	11.3	11.3	11.2	12.1	10.0	11.4	11.9	MS	10.4	12.2	11.0	11.0	9.3	10.7			
13927	11.3	10.3	12.1	12.5	11.9	11.7	10.8	10.8	10.7	11.7	11.4	11.7	10.5	12.0	11.3	FD 7		
13928	12.5	12.9	14.1	12.9	MD 8	MD 3	13.4	11.7	10.5	11.6	11.7	12.6	10.7	11.5	12.0	9.8		
13929	NOT PREGNANT																	
13930	9.8	10.8	10.6	9.7	9.8	10.0	7.2	10.4	MD 8	8.5	9.0	8.7	9.0	8.4	9.9	9.9	FD 6	FM 5
13931	7.2	6.9	5.3	7.7	7.5	8.0	MD 8	MD 6	6.4	6.8	6.9	7.0	FD 6	FD 6	FM 2			
13932	12.9	12.4	11.6	13.8	12.2	12.1	12.1	12.6	11.8	11.4	12.0	11.8	11.2	10.8				
13933	12.0	10.7	12.0	13.0	12.1	12.1	12.3	12.0	12.3	11.2	10.8	11.5	10.4					
13934	7.8	8.0	MM 4	9.9	10.3	7.3	11.0	8.2	11.1	10.2	8.9	10.4	8.1	11.7	FM 6			
13935	11.7	12.0	13.4	12.3	11.6	12.8	13.3	12.9	12.0	10.5	12.5	12.4	11.7	8.7	11.5			
13936	11.5	14.3	14.6	15.0	12.3	11.5	14.5	13.0	14.7	14.1	14.6	13.7	12.0	14.2				
13937	15.4	16.2	15.4	15.3	14.7	14.7	15.5	15.2	15.1	13.5	14.5	14.1	13.5	14.0	13.9			
13938	11.1	10.3	9.6	9.5	10.1	9.0	11.0	MD 2	9.8	9.8	10.5	11.2	9.7	10.1	10.1	10.9		
13939	13.3	13.7	13.7	13.4	12.1	12.3	12.6	12.7	12.9	12.4	12.4	11.0	13.5	12.2	FS			
13940	13.3	11.8	12.4	12.3	11.6	12.7	10.5	12.5	11.6	12.0	10.1	12.6	10.5	11.2	10.6			
13941	14.1	12.1	12.3	13.7	14.3	14.1	14.5	14.1	13.4	13.5	13.5	11.6	13.3	FS				
13942	12.0	14.1	14.8	14.0	13.1	9.0	14.3	13.3	14.5	14.5	13.4	12.4	11.8	13.9	13.6	13.1		
13943	17.4	20.0	18.0	17.4	15.2	13.7	17.8											
13944	10.3	11.1	9.1	MM 5	11.3	9.2	11.0	6.0	9.4	7.7	9.4	9.6						
13945	14.3	13.9	13.4	13.5	13.6	14.3	14.1	14.4	13.6	14.7	13.4	13.5	14.4	14.1				
13946	14.2	15.3	14.7	16.2	14.5	14.1	13.1	14.1	14.2	13.9	14.4							
13947	SACRIFICED DUE TO NO SURVIVING PUPS ON DAY 1 OF LACTATION																	
13948	13.6	11.4	13.6	13.9	12.0	11.6	13.9	11.4	10.4	11.8	12.0	FM 3						
13949	12.6	14.5	13.0	13.4	13.6	13.0	12.7	13.0	14.0	12.5	12.9	12.7	12.2					
13950	13.3	13.0	14.8	12.9	14.3	12.4	MS	13.0	14.8	12.4	12.9	FD 2	FS	FS				

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 16): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP I							0 MG/KG/DAY					POSTPARTUM DAY 15					
13801	28.6	30.0	29.2	29.0	27.6	30.3	29.1	28.0	28.6									
13802	31.6	30.8	31.4	29.8	31.4	33.1	30.6	28.1	31.0	27.7	32.3	29.0	29.3	31.3				
13803	27.0	23.0	23.6	21.3	21.1	23.1	22.6	24.4	23.2	FM 7	21.4	22.8	23.2	24.8	21.9	22.8		
13804	MORIBUND SACRIFICED ON DAY 68 OF STUDY																	
13805	28.3	29.4	28.5	27.5	28.9	29.9	26.8	26.0	29.6	25.5	27.8	25.0	24.5					
13806	26.1	23.1	23.3	25.3	24.3	MM 3	23.6	22.8	27.1	25.4	25.6	23.9	24.6	25.2	23.6	24.7	23.9	
13807	24.7	24.3	24.3	25.1	22.8	22.4	23.2	17.7	25.2	23.1	23.2	23.1	25.3	21.8	22.1	23.3	20.4	
13808	30.5	30.6	29.2	27.4	31.1	29.3	MS	30.6	29.2	30.9	29.1	28.0	27.9					
13809	27.8	29.2	26.1	30.0	29.0	28.2	27.2	28.7	29.1	26.3	25.0	27.8	27.0					
13810	31.7	29.6	32.1	31.2	MD 3	MS	29.2	31.8	29.1	29.9	31.3	27.1	29.5	30.9	FD 1			
13811	NOT PREGNANT																	
13812	28.2	28.6	26.0	26.6	26.7	27.8	27.7	27.1	26.2	25.5	25.7	26.9	26.9	26.9				
13813	33.9	31.4	32.7	33.2	29.7	33.0	30.9	30.5	30.7	29.0	32.6	31.2	UU					
13814	22.6	23.8	23.3	25.3	24.6	24.9	21.9	23.1	18.3	22.5	20.7	22.5	22.4	18.8	23.3	20.4	FM 2	
13815	21.6	20.6	21.3	20.8	21.9	19.8	20.5	21.6	19.9	22.4	22.6	19.1	19.5	16.5	21.5			
13816	21.6	20.6	19.2	19.5	19.2	15.5	16.3	19.6	16.2	20.0	16.8	15.6	20.0	19.6	14.7	UU		
13817	25.5	23.3	23.9	22.0	24.9	24.1	24.0	23.6	21.8	22.5	23.1	23.1	23.4	22.5	FD 2			
13818	20.8	17.6	20.4	18.8	20.6	16.5	15.5	17.0	16.6	17.8	17.8	16.1	14.8	18.4	FM 4	FD 2		
13819	22.1	22.3	20.4	19.1	MD 1	18.1	18.6	20.5	20.3	19.3	20.1	20.8	19.2					
13820	26.9	26.1	26.3	28.2	26.8	24.9	24.8	25.5	24.9	22.4	26.7	22.0	24.9	26.5				
13821	28.7	26.0	27.5	22.6	30.9	24.5	24.4	26.1	23.1	23.8	27.1	22.9	28.3	25.6	23.9	25.3	25.4	
13822	MX 8	MX 8	MX 8	FX 8	FX 8	FX 8	FX 8	FX 8	FX 8	FX 8	FX 8	FX 8						
13823	32.3	32.4	34.3	33.6	32.3	34.6	31.8	32.9	33.0									
13824	25.8	27.0	28.9	20.3	25.3	26.2	23.8	28.7	25.1	26.2	23.3	26.8	21.8	25.3	24.6	24.2		
13825	24.8	24.7	23.8	24.1	22.6	24.5	25.2	20.8	24.8	24.3	21.7	24.8	22.7	25.8	23.3			
13826	22.3	21.5	20.5	16.4	21.9	19.3	23.2	14.9	16.0	16.6	16.9	18.9	18.7	20.1	17.9	20.6		
13827	27.9	23.9	25.7	27.4	23.3	26.2	27.1	28.2	MM 2	25.8	25.8	25.6	24.9	23.9	25.4	25.1		
13828	25.6	21.8	25.3	28.0	26.5	20.0	24.4	26.0	22.3	24.6	27.3	24.4	26.0	25.5				
13829	25.2	25.0	23.3	23.8	23.0	23.6	24.3	22.4	20.5	23.3	20.0	18.6	24.8					
13830	23.1	23.2	22.7	24.2	21.6	22.8	21.4	MS	23.0	24.3	22.8	21.7	22.6	21.7				

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 17): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP II							1 MG/KG/DAY						POSTPARTUM DAY 15				
13831	26.3	25.4	23.0	27.1	24.8	26.5	26.2	26.4	26.6	26.1	22.0	23.4	23.1	22.6	24.6	21.9	27.7	
13832	25.9	24.1	26.0	26.4	22.6	25.8	24.9	27.2	24.0	27.0	27.0	23.5	23.1	22.0				
13833	26.5	25.8	25.7	25.0	26.2	27.9	25.9	26.6	24.2	25.1	22.4	26.7	24.9	24.8	FM 3			
13834	27.6	26.4	25.6	26.9	25.8	25.5	26.1	26.6	24.6	26.8	24.6	26.3	24.5					
13835	24.6	24.0	27.4	26.4	26.2	24.1	25.6	23.5	25.7	24.7	20.2	25.4	22.5	22.0	26.2	22.0	FD 3	FD 2
13836	MORIBUND SACRIFICED ON DAY 59 OF STUDY																	
13837	27.2	25.7	27.3	25.1	26.6	27.7	25.8	24.0	24.2	25.6	25.2	FS						
13838	25.4	24.3	24.8	23.8	28.1	25.7	25.1	24.9	24.8	23.7	24.3	13.9	25.9	24.2	24.6	23.2	23.9	FD 4
13839	24.5	26.4	24.7	24.3	24.2	24.2	23.6	23.2	24.8	17.4	23.6	25.0						
13840	NOT PREGNANT																	
13841	23.9	26.1	20.1	24.7	23.5	25.1	17.5	25.6	20.8	23.4	FD	UU						
13842	25.8	23.8	29.6	26.5	29.5	MD 7	23.0	22.6	24.4	24.4	25.0	27.3	25.9					
13843	24.4	22.7	23.7	24.0	23.9	22.1	25.0	22.0	21.3	23.1								
13844	19.6	25.6	22.9	20.2	22.0	20.0	21.6	20.4	19.5	18.9	22.0	19.7	17.1	22.7	18.3	17.6	FD 8	
13845	29.6	27.5	30.0	27.9	28.7	22.7	28.3	28.6	30.1	28.8	27.3	29.3						
13846	23.4	22.8	23.9	23.4	25.2	24.1	20.7	23.1	21.3	22.2	20.5	23.1	23.0	FM 2				
13847	29.9	32.2	33.0	MS	MS	MS	MS	32.6	31.6	29.7	32.1	31.7	FS	FS	FS			
13848	24.1	24.0	25.6	24.9	29.4	27.8	25.6	28.8	24.3	25.7	26.2	25.7	24.4	23.3	27.9	25.8		
13849	22.6	20.8	20.2	21.5	20.5	21.2	19.7	22.6	22.5	21.7	20.4	21.0	22.1	19.0	21.1	19.2		
13850	24.9	25.9	25.1	25.2	24.9	25.0	23.6	24.2	22.8	24.9	25.5	23.5	FS					
13851	NOT PREGNANT																	
13852	MX11	MX11	MX11	MX11	MX11	MX11	MX11	MX11	FX11	FX11	FX11	FX11						
13853	21.1	22.6	24.5	24.5	18.9	23.3	21.2	19.9	21.4	21.5	24.1	19.1	19.8	22.4	19.0	18.7	18.7	
13854	21.3	19.6	21.0	20.7	19.2	20.9	18.6	17.9	22.2	19.6	18.9	16.5	18.8	17.5	18.7	18.5	19.0	
13855	29.2	30.8	29.1	28.8	28.6	27.3	28.5	27.6	25.6	30.4	26.1	27.0	29.9	26.5	FD 5	FD 1		
13856	22.9	20.1	23.0	21.0	20.6	19.4	20.5	21.4	19.9	16.5	20.2	22.5	19.4	15.5	20.2	17.3		
13857	27.4	27.3	26.7	28.2	26.5	24.4	27.4	25.3	26.1	27.7	26.6	29.6	26.7	26.2	FS			
13858	25.5	21.7	24.5	23.6	24.9	24.2	21.8	19.8	21.2	21.6	23.3	19.1	22.9	23.9	21.3	24.7	23.7	
13859	22.0	23.6	23.7	22.4	22.3	22.2	19.5	21.9	22.2	23.0	22.9	22.0	22.8	22.6	FD11			
13860	24.2	24.0	22.2	24.8	23.5	23.7	22.7	22.9	22.3	22.2	24.1	21.0	23.9					

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FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
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TABLE C37 (PAGE 18): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP III						3 MG/KG/DAY							POSTPARTUM DAY 15				
13861	28.3	28.0	24.8	26.9	25.6	24.5	28.6	28.1	28.0	24.0								
13862	PREGNANT; DID NOT DELIVER A LITTER																	
13863	21.7	22.6	22.2	21.7	21.6	19.8	22.1	22.5	23.1	20.6	22.5	22.1	23.6	22.3	21.7	FM 3		
13864	40.5	40.3	36.3	38.2	38.1	38.2	FS											
13865	18.1	20.2	17.2	19.6	18.9	19.5	19.7	MD 1	17.5	18.9	20.0	15.3	18.8	18.8	19.8	20.2	17.7	
13866	23.2	26.8	21.0	24.7	21.5	14.4	23.9	MD15	25.9	23.3	19.1	10.4	19.7	22.7	26.7	24.5	20.3	FD 8
13867	21.7	20.2	21.8	22.2	17.9	20.2	21.3	MD 7	MD 6	MS	21.7	21.1	20.0	20.8	22.3	FD 6		
13868	27.2	27.3	25.1	27.7	29.5	20.5	24.1	26.4	26.0	26.4	26.4	27.2	24.7	26.3	23.1	26.9		
13869	21.4	20.2	19.6	22.1	19.5	21.1	21.3	20.8	21.0	15.2	15.4	18.6	15.1	18.6	19.5	FD 4		
13870	29.1	26.7	25.4	30.8	25.7	31.1	30.3	24.4										
13871	19.1	18.5	21.0	20.2	MD 3	20.2	18.8	18.4	20.3	20.3	20.1	17.0	17.0	FM 7	FD 4			
13872	22.9	22.4	20.3	20.3	22.6	23.2	20.1	21.2	19.5	20.1	19.5	22.6	21.2	19.9	21.9	19.3	17.2	
13873	19.9	23.9	29.6	20.1	25.8	26.3	24.4	16.3	20.6	26.0	24.1	25.2	24.9	24.5	26.2	24.7	FM 4	
13874	31.8	31.8	32.2	32.3	32.4	25.9	29.9	29.0	28.2	27.1	26.7	28.6	30.3	27.8	28.0	28.9	FD 2	
13875	24.4	24.4	25.9	27.5	28.9	18.9	28.9	24.4	22.5	22.4	26.9	19.8	26.5	22.3	25.6	25.7		
13876	31.2	31.8	30.8	28.7	29.2	28.8	30.1	29.7	29.7	28.8	25.5	29.9	30.4	FS	FD 1			
13877	29.8	29.9	29.8	32.5	30.0	29.1	28.9	27.3	28.0	27.3	26.6	26.2	26.7	FS				
13878	30.4	32.0	33.8	32.8	31.7	32.6	30.0	31.7	31.8									
13879	32.6	32.5	32.0	31.6	28.8	33.0	31.0	31.2	31.4	33.1	29.3							
13880	30.7	29.8	32.0	29.7	30.2	32.4	28.0	24.8	28.4	30.0	29.2	31.3	30.1					
13881	29.8	31.1	30.1	28.6	27.9	28.5	28.4	29.5	28.2	30.8	29.6							
13882	27.8	27.5	25.1	27.2	25.9	29.4	24.6	28.0	28.3	28.7	22.8	23.7	30.2	25.0	29.1	FD 3		
13883	28.1	23.6	30.6	24.7	28.3	29.6	25.2	26.5	26.2	30.5	29.2	29.4	27.4	23.4	FD 1			
13884	32.3	29.1	30.8	26.1	23.1	28.0	30.2	27.5	28.5	28.5	17.2							
13885	33.1	34.6	32.0															
13886	25.5	27.5	25.7	26.0	25.2	25.4	25.4	24.7	25.3	21.9	25.3	25.0						
13887	31.4	31.7	31.8	31.2	34.0	33.8	32.6	31.5	29.3	32.3	29.0							
13888	25.3	24.9	22.0	21.7	23.8	21.7	21.4	22.1	24.0	24.1	19.8	22.9	20.5	23.8	FS			
13889	25.8	25.7	24.8	24.9	25.8	28.7	27.0	27.7	26.8	25.6	24.9	25.1	26.8	22.7	24.6	24.3		
13890	26.9	25.6	25.4	24.3	26.5	12.8	22.4	24.0	27.7	26.8	25.6	25.6	27.0	26.6	26.6			

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 19): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP IV							10 MG/KG/DAY						POSTPARTUM DAY 15				
13891	31.0	32.3	30.0	28.7	MS	29.3	29.7	29.0	28.0	30.2	28.7							
13892	27.8	26.1	24.0	26.8	23.0	24.6	25.3	23.6	24.4	24.0	25.0	23.0	25.8	25.4	25.0	FS		
13893	27.5	26.5	28.6	25.3	29.1	25.7	25.9	27.0	24.4	23.3	27.8	23.7	26.3	24.3	27.6			
13894	26.3	26.1	24.0	25.0	28.6	24.0	MM 4	23.8	24.3	24.3	25.1	17.6	23.3	23.4				
13895	28.6	28.3	12.7	22.4	28.2	28.6	24.1	25.4	19.2	28.0	28.3	26.7	25.7	26.2	25.4			
13896	27.9	23.9	25.8	27.5	27.5	23.6	24.4	25.5	25.6	26.0	21.2	26.9						
13897	30.2	30.8	27.9	30.0	32.2	28.0	26.9	30.5	29.0	27.1	27.8	28.6						
13898	22.1	18.2	21.6	25.3	21.1	23.5	24.4	19.2	22.6	20.2	20.8	21.6	21.1	19.1	18.4	23.0	FD 3	
13899	22.7	22.4	21.8	22.6	20.8	20.0	19.1	19.3	20.4	19.9	21.9							
13900	NOT PREGNANT; MATING NOT CONFIRMED																	
13901	21.9	23.1	20.0	23.8	23.1	21.9	21.7	19.4	15.6	18.8	22.6	22.6	20.3	19.0	20.0	FD 7		
13902	26.9	27.8	26.6	24.9	26.1	28.6	25.7	23.7	25.4	23.4	25.6	24.5	23.8	24.4	20.3			
13903	27.8	26.4	26.8	22.8	21.8	25.6	28.0	26.1	25.8	26.4	24.3	26.8	28.8	22.9				
13904	20.8	20.2	21.5	15.2	22.1	20.4	17.8	20.7	18.2	17.2	20.3	13.6	16.7	18.5				
13905	23.9	28.2	27.5	27.1	19.7	21.7	23.7	23.0	26.2	23.6	21.4	22.5	22.7	25.2	27.0	25.9		
13906	32.2	31.2	30.1	28.4	30.6	MD 3	MS	MS	27.3	29.8	30.9	29.9	30.4	31.6	32.2	FD 8		
13907	18.7	17.7	18.0	16.0	20.7	18.3	19.5	18.1	19.1	20.2	17.9	19.0	16.9	18.6	17.0	19.9		
13908	35.1	37.5	33.1	38.8														
13909	25.0	24.7	23.3	23.1	24.9	25.2	23.3	25.1	24.1	21.6	22.7	22.7	21.8	24.8				
13910	23.6	20.0	23.8	22.0	22.1	21.0	22.1	24.0	24.3	25.0	22.3	24.4	22.4	22.5	24.1			
13911	28.9	27.7	25.6	27.3	27.0	26.0	24.2	25.7	25.4	26.5	25.5	25.0						
13912	25.9	26.1	24.2	25.6	24.2	25.9	29.0	24.5	23.3	21.8	25.1	25.1	25.7	25.5				
13913	30.7	29.3	28.4	27.7	29.9	28.3	29.6	32.2	26.0	30.8	25.9	26.5	30.0					
13914	22.1	25.2	20.1	25.1	22.5	21.8	25.7	25.5	21.8	22.2	21.9	20.2	25.8	23.8	22.8	24.3	23.2	FM 3
13915	22.5	19.3	24.8	21.6	22.4	22.6	22.7	18.6	24.6	21.3	20.2	21.8	21.0	22.2	20.9	21.3	21.9	
13916	29.3	24.7	26.3	25.4	27.5	30.4	29.5	26.0	23.7	21.2	26.1	22.1	25.6	23.4	25.8	24.9		
13917	28.2	25.8	30.2	28.2	25.8	30.0	25.1											
13918	31.9	30.3	26.5	27.2	29.2	26.4	28.4	28.4	26.9	28.0	27.3	26.7	27.2	24.3				
13919	22.8	24.4	24.9	23.1	23.4	25.2	22.3	20.0	18.1	24.7	18.8	22.3	23.6	24.7				
13920	17.3	17.9	17.4	14.1	17.5	17.4	MD 9	11.9	16.8	16.4	16.1	15.0	15.1	FD 9	FD 9	FD 3		

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 20): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP V								30 MG/KG/DAY					POSTPARTUM DAY 15				
13921	26.3	16.4	28.0	26.7	25.6	26.4	26.9	13.7	MM 6	24.7	23.8	25.6	10.0	13.1	25.5			
13922	23.0	23.8	23.8	18.3	MM 2	MD 1	MD 1	FM 2	FM 2									
13923	21.3	20.8	21.1	21.9	20.7	21.0	20.0	19.5	20.0	20.7	19.7	20.1	19.1	17.1				
13924	22.8	23.9	21.1	24.5	20.6	25.3	17.8	20.9	23.5	23.2	21.3	22.6	24.4	19.0	19.3	15.5	23.1	
13925	18.3	21.1	18.8	25.3	13.9	24.5	14.7	15.2	21.0	22.5	23.2	23.7	22.4					
13926	24.9	23.9	23.8	23.8	24.1	22.3	23.8	19.9	MS	22.9	23.5	23.1	24.6	21.1	23.0			
13927	15.9	15.6	15.1	13.8	17.1	14.5	15.0	15.3	14.3	16.5	14.6	14.7	13.7	12.8	12.6	FD 7		
13928	26.7	26.8	27.7	26.4	MD 8	MD 3	26.8	25.8	24.6	24.7	23.8	23.6	27.6	21.7	25.0	26.1		
13929	NOT PREGNANT																	
13930	20.6	19.4	20.4	13.9	19.6	20.8	19.1	20.2	MD 8	19.3	19.6	16.5	19.0	19.6	18.4	19.6	FD 6	FM 5
13931	18.2	19.9	15.9	11.9	19.8	17.2	MD 8	MD 6	17.2	16.7	14.9	17.5	FD 6	FD 6	FM 2			
13932	23.4	22.0	23.6	22.7	22.8	23.9	22.9	22.4	21.2	22.8	20.8	23.3	23.0	22.2				
13933	18.2	18.5	16.1	15.4	18.0	15.5	16.7	17.6	16.3	16.8	19.3	17.7	18.1					
13934	15.4	MM12	MM 4	24.2	20.9	23.1	25.4	15.1	21.0	14.5	13.0	18.1	20.3	24.6	FM 6			
13935	22.0	20.7	24.1	19.7	22.1	22.8	22.6	20.2	14.9	21.8	19.4	22.5	23.0	21.8	22.1			
13936	26.5	27.1	27.0	22.9	26.2	25.6	23.0	26.2	26.2	22.6	23.2	22.9	23.4	25.3				
13937	26.8	26.6	26.2	24.9	25.3	26.0	26.9	22.9	24.5	21.8	24.7	22.7	24.0	24.9	25.8			
13938	17.5	16.9	14.3	18.8	17.5	17.9	16.3	MD 2	16.8	17.0	17.2	17.7	17.6	17.7	16.7	15.9		
13939	27.0	24.1	26.1	26.5	24.5	24.0	26.7	23.6	24.6	25.6	23.4	24.9	22.3	24.7	FS			
13940	22.8	23.6	25.8	22.8	21.9	23.7	23.0	21.6	21.1	19.8	22.2	22.7	18.4	20.7	22.4			
13941	25.7	25.7	24.2	25.8	23.4	24.0	24.9	22.9	25.4	19.9	23.5	24.2	23.4	FS				
13942	23.2	22.8	26.2	28.1	25.0	24.5	25.9	26.5	25.8	20.8	16.4	23.6	22.8	27.2	20.3	23.0		
13943	37.1	35.9	36.8	40.5	36.6	31.0	34.3											
13944	20.4	24.1	22.1	MM 5	21.6	24.3	20.7	24.9	20.9	16.5	21.4	FM10						
13945	25.2	25.3	25.3	26.3	26.4	25.4	25.0	25.9	26.4	24.1	25.5	24.3	25.3	27.1				
13946	31.8	30.4	29.8	29.3	28.6	28.4	28.2	27.7	27.9	27.6	26.8							
13947	SACRIFICED DUE TO NO SURVIVING PUPS ON DAY 1 OF LACTATION																	
13948	27.1	28.1	27.9	27.6	24.6	25.5	24.4	25.4	24.9	27.1	23.1	FM 3						
13949	27.0	28.2	27.0	28.2	27.4	27.1	27.8	28.4	29.4	27.5	27.3	27.3	26.7					
13950	28.9	28.6	28.4	30.3	25.7	27.5	MS	26.9	26.1	27.0	29.0	FD 2	FS	FS				

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 21): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP I							0 MG/KG/DAY					POSTPARTUM DAY 22					
13801	45.0	44.6	47.5	45.2	40.6	42.5	44.3	46.3	44.1									
13802	44.3	45.4	43.0	43.1	46.5	40.5	44.7	43.5	37.3	41.3	44.9	42.1	44.4	41.6				
13803	43.9	40.0	40.7	40.6	48.3	38.8	42.1	36.9	44.5	FM 7	42.5	42.0	41.9	39.7	38.9	38.4		
13804	MORIBUND SACRIFICED ON DAY 68 OF STUDY																	
13805	48.1	44.9	46.6	46.3	45.3	43.2	41.0	43.0	38.3	45.2	39.0	40.0	43.4					
13806	32.7	35.4	32.1	35.0	34.4	MM 3	34.2	32.4	33.4	36.4	32.8	35.5	31.4	33.7	35.3	36.2	36.6	
13807	27.4	26.4	26.8	20.1	25.4	26.5	26.2	26.1	24.8	23.5	26.0	24.8	23.4	27.3	25.2	22.3	25.8	
13808	40.9	41.1	42.8	36.6	39.5	44.4	MS	39.8	42.2	36.4	37.7	43.2	41.8					
13809	32.2	38.5	36.9	35.9	34.6	36.5	37.3	35.3	37.3	34.5	36.2	32.4	33.8					
13810	48.3	45.4	43.4	45.1	MD 3	MS	43.5	41.2	45.3	41.4	43.1	41.7	41.6	43.5	FD 1			
13811	NOT PREGNANT																	
13812	43.2	42.0	41.4	44.7	41.9	42.5	44.9	40.7	48.6	39.6	41.5	42.4	40.1	42.4				
13813	43.9	40.1	44.2	45.2	45.8	44.0	39.5	46.4	43.1	40.6	42.9	46.6	UU					
13814	37.1	31.8	36.4	35.3	38.8	35.5	32.7	33.2	31.9	34.1	26.9	36.5	32.9	32.5	34.5	26.6	FM 2	
13815	36.2	33.4	32.8	33.8	32.2	33.5	31.7	31.6	30.8	32.4	34.9	28.4	34.0	31.3	26.5			
13816	32.8	32.2	31.8	34.4	34.4	25.6	32.5	27.9	30.9	27.3	29.1	27.1	32.4	30.4	29.9	UU		
13817	36.0	36.2	39.9	37.9	41.0	37.5	36.7	40.7	33.3	39.7	36.7	38.2	37.1	36.8	FD 2			
13818	31.9	24.3	27.1	31.8	28.1	31.2	28.9	25.8	28.5	26.0	27.3	26.5	24.6	26.6	FM 4	FD 2		
13819	31.7	29.1	30.6	30.6	MD 1	30.0	29.8	27.8	27.8	29.9	26.4	29.6	29.8					
13820	27.2	25.0	26.1	27.8	27.7	20.8	23.4	21.8	25.7	36.4	32.1	34.2	33.4	32.8				
13821	36.4	43.0	48.9	40.6	35.0	36.9	44.7	38.7	35.1	40.6	43.1	39.2	39.6	35.7	39.7	37.5	36.4	
13822	MX 8	MX 8	MX 8	FX 8	FX 8	FX 8	FX 8	FX 8	FX 8	FX 8	FX 8	FX 8						
13823	57.2	53.3	52.0	53.4	52.9	53.0	54.1	55.1	51.3									
13824	31.7	49.1	40.5	43.7	40.7	41.7	37.0	38.4	37.0	33.3	37.6	41.1	41.2	40.2	38.8	43.7		
13825	36.1	34.9	29.1	35.9	34.6	32.7	36.1	34.3	32.9	31.1	37.4	35.6	36.4	33.4	34.6			
13826	26.4	34.9	32.0	27.7	31.8	33.3	35.2	35.1	23.6	28.8	27.8	33.9	27.2	29.9	30.1	28.0		
13827	42.5	40.3	39.8	45.0	37.9	42.4	42.9	43.7	MM 2	41.1	42.1	37.5	40.6	41.2	38.3	39.7		
13828	39.3	35.8	47.0	42.2	42.0	40.8	41.1	35.8	40.7	32.5	40.2	42.7	39.6	40.2				
13829	42.8	42.0	45.5	40.6	39.0	38.2	40.8	40.6	32.8	42.4	42.5	33.5	36.5					
13830	38.5	34.6	35.3	36.7	35.0	33.2	35.4	MS	32.9	35.8	36.9	38.0	34.2	32.7				

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 22): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP II							1 MG/KG/DAY						POSTPARTUM DAY 22				
13831	39.4	36.2	30.8	33.6	34.3	32.1	41.4	33.6	30.6	32.6	35.6	33.1	36.5	32.6	32.6	28.7	36.7	
13832	40.3	45.0	43.3	42.3	45.2	46.0	37.6	35.3	40.1	43.4	39.8	44.0	37.0	35.5				
13833	50.2	40.0	40.9	43.0	40.5	43.7	39.1	38.8	40.7	39.9	43.7	36.0	40.0	41.8	FM 3			
13834	36.2	40.5	34.5	38.0	37.3	34.0	31.8	37.7	32.4	41.2	34.3	36.7	37.7					
13835	36.7	35.2	36.9	33.0	35.7	37.8	34.4	30.4	35.6	30.5	33.5	31.1	37.3	28.7	35.7	31.0	FD 3	FD 2
13836	MORIBUND SACRIFICED ON DAY 59 OF STUDY																	
13837	37.8	39.4	41.1	38.5	41.1	36.1	41.6	37.6	37.6	38.1	34.9	FS						
13838	36.0	41.6	37.8	33.3	37.6	32.8	38.0	36.6	21.7	35.0	35.8	34.7	33.0	34.9	36.0	34.6	37.7	FD 4
13839	37.0	36.1	32.6	37.5	34.0	39.3	40.0	39.0	22.0	32.7	31.9	33.0						
13840	NOT PREGNANT																	
13841	46.5	45.2	36.3	38.8	41.4	37.0	33.0	44.3	39.5	42.2	FD	UU						
13842	37.2	43.4	39.0	43.4	39.4	MD 7	34.2	33.7	37.2	37.1	39.2	37.7	37.2					
13843	35.1	33.2	35.3	34.6	34.3	33.7	30.1	34.0	30.6	33.5								
13844	42.9	32.0	33.6	34.5	37.3	32.0	30.1	30.5	26.9	26.5	29.7	34.8	28.4	27.6	27.8	28.4	FD 8	
13845	45.3	33.8	45.1	42.7	42.7	48.4	43.6	44.5	43.3	40.4	45.6	42.8						
13846	36.2	37.2	35.7	31.2	35.1	35.3	36.3	31.0	35.8	28.8	32.9	33.7	34.1	FM 2				
13847	55.0	51.4	55.4	MS	MS	MS	MS	56.6	50.4	52.7	53.5	52.5	FS	FS	FS			
13848	39.3	43.8	43.3	40.9	43.2	43.1	42.7	39.2	49.5	45.0	37.9	43.1	40.6	41.1	38.4	38.6		
13849	27.5	26.5	23.7	25.3	26.3	28.1	25.5	24.3	25.6	28.4	27.6	29.6	26.7	23.6	24.9	25.3		
13850	37.4	37.7	38.4	39.0	37.3	38.5	33.8	35.6	38.0	34.6	33.4	33.8	FS					
13851	NOT PREGNANT																	
13852	MX11	MX11	MX11	MX11	MX11	MX11	MX11	MX11	FX11	FX11	FX11	FX11						
13853	33.4	37.8	32.2	32.9	31.4	35.0	33.7	28.3	29.7	32.4	32.8	34.1	29.8	28.1	27.5	27.1	30.0	
13854	30.1	26.5	35.2	28.8	29.6	29.5	29.6	25.9	30.8	29.2	29.7	30.3	23.8	29.0	25.4	27.3	27.1	
13855	40.2	38.9	34.0	42.0	39.5	38.8	39.3	39.4	40.4	37.0	36.7	39.9	39.6	40.8	FD 5	FD 1		
13856	32.9	31.6	29.8	38.6	32.7	33.6	33.0	35.5	34.0	22.7	31.1	25.6	29.9	36.0	31.8	23.6		
13857	39.6	44.1	43.9	44.2	42.7	41.2	38.6	42.3	41.4	41.5	39.8	38.4	41.8	38.3	FS			
13858	30.5	35.3	33.8	33.2	35.2	32.7	31.3	34.6	32.1	33.6	30.6	30.7	33.2	35.7	36.4	36.2	32.3	
13859	37.4	40.3	39.6	40.1	43.4	41.5	40.1	35.9	39.0	42.7	38.5	38.3	38.6	40.7	FD11			
13860	33.9	36.6	39.5	37.3	37.5	35.4	36.1	39.0	35.4	38.7	38.3	35.9	37.0					

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 23): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP III							3 MG/KG/DAY						POSTPARTUM DAY 22				
13861	32.8	33.1	32.0	36.5	36.2	36.8	36.0	33.8	32.0	35.2								
13862	PREGNANT; DID NOT DELIVER A LITTER																	
13863	32.2	30.8	32.5	32.1	33.0	30.3	33.9	34.3	30.5	28.6	30.2	27.3	34.6	33.0	31.5	FM 3		
13864	57.8	60.2	61.1	59.3	61.5	59.8	FS											
13865	26.9	29.5	30.9	30.4	28.5	31.9	31.4	MD 1	26.2	27.7	30.3	28.6	25.3	30.7	30.8	31.5	29.8	
13866	18.1	35.8	36.3	39.3	33.8	43.5	39.1	MD15	10.4	38.6	27.6	30.3	37.9	34.0	38.3	32.4	35.8	FD 8
13867	26.2	30.2	28.0	29.4	29.9	31.2	30.9	MD 7	MD 6	MS	30.0	27.7	28.2	28.2	31.6	FD 6		
13868	37.6	33.8	26.6	37.4	34.5	35.6	34.3	35.2	33.0	32.8	33.3	34.9	34.5	32.1	35.6	35.0		
13869	27.0	33.3	29.7	31.7	33.7	33.0	34.8	23.2	29.8	24.1	27.2	29.0	31.6	33.9	22.7	FD 4		
13870	41.6	37.7	36.3	44.6	37.7	44.4	42.3	35.5										
13871	26.9	26.1	32.3	26.8	MD 3	31.4	23.6	29.9	26.6	27.9	29.4	29.1	FD20	FM 7	FD 4			
13872	30.7	34.1	27.8	29.5	29.8	30.8	32.2	33.7	30.6	33.4	27.0	27.6	27.7	30.1	30.0	26.7	27.1	
13873	39.1	24.5	29.8	35.3	31.0	39.5	41.9	39.4	40.1	35.6	36.8	28.3	36.8	34.0	34.3	37.2	FM 4	
13874	49.1	50.0	48.5	51.3	54.7	44.0	43.4	42.5	40.6	47.0	50.1	46.1	46.0	42.2	42.6	45.1	FD 2	
13875	41.2	33.0	35.3	28.9	38.1	37.3	44.4	40.1	31.8	31.0	39.9	40.7	44.4	33.5	42.9	35.0		
13876	49.0	50.3	47.2	50.2	47.0	45.3	48.1	41.1	47.0	45.0	48.7	46.4	47.2	FS	FD 1			
13877	48.5	47.2	43.9	45.8	46.7	45.6	46.0	42.2	32.9	41.2	42.5	43.7	47.4	FS				
13878	48.9	48.8	52.3	51.8	42.4	48.0	52.3	46.7	45.2									
13879	48.7	50.2	48.0	46.1	48.8	48.8	51.6	47.9	48.9	47.7	47.4							
13880	45.0	40.0	44.8	47.6	49.9	52.6	47.1	52.8	55.2	52.0	42.9	47.4	49.3					
13881	41.4	40.1	39.1	39.1	37.7	40.9	40.8	37.2	37.6	36.3	38.8							
13882	37.6	44.0	37.4	39.3	42.2	43.9	46.3	43.3	41.6	40.5	34.1	34.8	44.5	37.3	45.1	FD 3		
13883	43.6	47.3	48.0	41.9	45.9	44.4	52.9	48.0	38.2	45.8	51.4	51.4	42.3	47.6	FD 1			
13884	36.4	51.3	42.3	43.5	39.9	46.1	27.4	43.1	41.9	44.0	40.9							
13885	55.5	51.5	53.5															
13886	43.9	38.8	40.3	44.3	42.4	47.9	42.6	40.6	44.2	41.0	41.4	33.9						
13887	47.7	49.9	52.4	51.7	53.8	50.4	50.0	50.7	45.3	50.3	46.3							
13888	36.3	36.5	31.4	30.7	29.7	29.6	30.2	31.3	25.9	34.2	32.7	30.7	29.7	32.5	FS			
13889	35.4	34.4	32.2	34.1	35.8	34.1	36.9	38.9	35.0	39.1	32.1	35.1	31.7	32.3	32.4	29.6		
13890	43.1	39.0	20.4	31.1	42.3	40.5	42.5	38.8	42.0	38.2	35.6	38.6	42.0	38.9	44.0	.		

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FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-SACRIFICED DUE TO SACRIFICE OF DAM
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 24): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP IV							10 MG/KG/DAY						POSTPARTUM DAY 22				
13891	47.8	51.6	49.0	46.0	MS	47.2	44.1	46.1	45.5	47.8	43.8							
13892	36.8	38.7	35.3	41.1	44.3	39.5	38.5	37.9	37.8	36.3	37.8	35.7	37.4	36.5	36.7	FS		
13893	44.1	39.1	46.4	46.1	42.2	42.5	40.9	41.2	38.7	44.0	37.8	42.0	43.4	37.0	43.5			
13894	40.2	36.9	35.9	46.0	34.9	36.9	MM 4	26.9	37.0	37.3	35.7	38.9	34.2	34.5				
13895	40.1	30.3	33.0	22.7	41.0	42.2	43.6	39.2	43.8	45.5	41.3	39.9	39.6	40.0	37.3			
13896	44.5	41.7	39.8	44.3	40.7	37.6	40.6	39.0	37.1	33.9	37.4	41.0						
13897	44.9	48.6	48.5	48.8	44.4	45.6	41.0	42.2	45.5	42.3	43.1	44.1						
13898	23.7	33.2	27.9	28.9	32.9	29.0	33.6	25.1	24.0	28.5	25.4	28.1	29.9	29.6	28.1	29.0	FD 3	
13899	32.4	35.1	34.4	32.8	37.1	36.9	32.5	32.2	30.5	35.8	31.7							
13900	NOT PREGNANT; MATING NOT CONFIRMED																	
13901	28.3	30.6	35.5	29.3	30.7	34.7	32.7	30.8	22.5	28.4	25.9	31.8	29.5	32.8	27.6	FD 7		
13902	39.7	43.3	42.2	44.3	41.9	41.5	43.7	42.6	31.9	40.1	40.2	38.8	39.6	42.3	37.9			
13903	39.6	40.4	38.8	42.3	42.0	40.9	36.4	46.4	42.4	41.8	44.1	44.7	38.4	32.4				
13904	28.1	31.3	38.9	35.6	36.9	36.2	34.0	37.3	37.4	26.9	36.3	30.3	31.5	32.3				
13905	38.4	29.2	44.2	42.3	36.1	44.8	36.6	32.2	34.9	34.9	33.5	34.2	41.0	37.0	41.0	41.6		
13906	49.8	47.4	50.3	48.1	45.9	MD 3	MS	MS	46.3	43.0	48.3	50.1	46.5	52.1	50.5	FD 8		
13907	26.7	30.9	23.2	26.4	30.4	28.3	25.7	28.1	30.3	29.2	26.9	25.4	31.6	28.5	25.9	23.4		
13908	51.3	59.5	59.5	50.5														
13909	36.1	42.5	37.3	41.4	39.8	38.4	39.1	41.8	33.6	41.4	37.1	39.2	35.6	38.7				
13910	32.3	39.5	36.0	36.2	35.8	40.9	36.6	38.0	35.3	35.3	36.1	38.0	38.0	41.2	39.0			
13911	39.0	43.4	43.4	40.3	42.5	46.3	41.3	43.3	40.7	39.8	43.0	40.9						
13912	39.3	35.7	39.7	43.6	40.0	38.4	39.9	40.8	36.8	38.7	37.4	35.3	37.1	38.9				
13913	43.2	44.8	46.2	44.1	46.9	47.0	45.9	48.2	37.2	40.8	41.0	49.6	42.6					
13914	29.3	35.9	29.8	34.4	29.3	33.3	33.4	34.4	32.2	30.6	28.9	35.0	26.5	37.0	32.2	32.7	32.1	FM 3
13915	27.8	39.5	31.8	36.6	37.0	34.9	41.6	38.6	38.5	33.4	37.8	33.8	35.8	35.0	34.9	29.3	33.3	
13916	40.7	47.2	43.2	39.7	49.3	46.0	44.9	42.6	32.8	40.5	40.2	37.6	39.6	37.4	38.9	41.6		
13917	41.3	44.3	46.2	40.8	48.0	41.5	43.6											
13918	46.7	40.0	45.3	46.3	44.8	40.5	37.1	43.1	41.7	43.5	38.4	42.7	39.1	41.3				
13919	38.2	39.6	40.0	39.6	38.1	38.4	30.2	29.7	32.9	40.2	41.9	36.1	37.3	37.4				
13920	26.9	32.5	32.3	33.6	32.6	33.1	MD 9	32.2	23.7	29.9	30.9	31.7	31.5	FD 9	FD 9	FD 3		

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NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C37 (PAGE 25): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RAT/ LITTER #	MATERNAL DOSAGE GROUP V							30 MG/KG/DAY						POSTPARTUM DAY 22				
13921	41.8	27.6	23.2	46.1	47.0	45.6	46.5	42.1	MM 6	40.7	13.6	19.5	40.6	41.7	43.9			
13922	42.0	40.9	40.4	32.8	MM 2	MD 1	MD 1	FM 2	FM 2									
13923	31.5	33.4	33.5	33.0	31.9	31.6	33.6	29.6	28.4	29.4	30.7	30.7	30.3	32.5				
13924	33.5	32.3	30.2	29.8	28.6	34.5	34.3	34.3	37.2	35.4	25.2	30.7	32.3	26.1	34.3	32.6	27.9	
13925	32.9	31.0	40.8	40.8	31.0	23.0	24.0	36.7	26.2	37.2	38.2	32.8	34.7					
13926	34.6	33.2	33.3	30.0	32.3	34.4	30.9	34.0	MS	32.3	34.9	28.7	31.9	31.2	32.8			
13927	25.3	27.1	23.9	22.3	24.0	25.4	25.7	18.9	20.6	24.7	27.6	22.5	22.5	23.4	25.3	FD 7		
13928	42.1	40.7	40.3	43.1	MD 8	MD 3	43.2	36.8	34.7	38.2	38.4	40.7	36.6	37.7	38.8	37.6		
13929	NOT PREGNANT																	
13930	19.3	24.2	25.6	26.4	27.3	25.2	25.1	25.3	MD 8	25.2	21.4	21.3	25.2	24.9	20.5	24.3	FD 6	FM 5
13931	19.9	28.3	24.9	29.3	26.3	27.7	MD 8	MD 6	25.2	26.2	26.4	24.9	FD 6	FD 6	FM 2			
13932	31.3	33.4	34.9	36.5	31.5	33.1	33.6	32.7	31.0	32.7	31.2	33.7	33.1	33.9				
13933	27.9	26.7	25.5	29.6	32.6	27.5	26.7	27.6	24.6	29.8	26.9	30.0	27.6					
13934	29.4	MM12	MM 4	24.9	27.3	35.7	26.8	33.3	33.9	35.2	30.6	38.5	33.7	38.1	FM 6			
13935	31.6	30.7	36.1	34.3	36.3	33.4	32.9	30.4	21.5	33.4	31.3	35.6	33.5	35.7	34.7			
13936	38.2	45.2	38.0	37.6	44.1	38.5	44.3	42.4	42.6	39.4	43.2	35.2	40.4	36.4				
13937	40.0	41.2	44.9	43.5	41.5	39.0	40.0	42.8	38.6	40.4	42.0	40.4	38.1	41.3	39.9			
13938	21.7	28.0	29.2	25.3	28.9	30.0	26.1	MD 2	31.4	25.9	26.4	27.3	26.0	28.1	26.0	29.5		
13939	42.1	42.4	38.4	40.1	38.1	44.3	44.3	41.1	37.6	41.6	38.8	39.6	38.5	42.0	FS			
13940	35.7	34.0	30.0	30.2	31.0	32.0	26.8	28.7	26.2	27.3	31.8	30.7	31.0	27.2	32.1			
13941	42.1	38.5	36.8	38.5	39.8	42.4	41.4	39.6	35.9	31.9	36.3	35.2	37.1	FS				
13942	40.7	24.3	35.7	32.6	38.9	39.3	38.0	35.5	34.3	40.0	39.9	30.4	36.1	35.5	40.1	35.4		
13943	57.5	57.2	46.9	61.7	51.9	53.6	56.4											
13944	35.1	39.7	37.2	MM 5	27.9	34.1	36.5	34.7	37.3	38.3	34.6	FM10						
13945	37.6	38.7	41.5	38.7	39.0	39.7	39.5	39.3	40.0	40.0	39.3	37.0	42.8	38.0				
13946	43.2	44.1	46.2	44.5	45.8	40.9	43.1	41.7	43.1	42.3	43.2							
13947	SACRIFICED DUE TO NO SURVIVING PUPS ON DAY 1 OF LACTATION																	
13948	48.4	40.2	46.1	43.4	44.8	39.9	39.9	41.7	37.1	41.9	42.4	FM 3						
13949	44.2	40.8	40.9	42.9	43.0	42.3	41.5	43.6	40.9	42.2	40.1	39.9	38.3					
13950	44.1	40.7	47.3	44.2	47.5	47.4	MS	45.4	44.7	42.0	46.6	FD 2	FS	FS				

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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C38 (PAGE 1): PUP VITAL STATUS AND SEX FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT/ LITTER #	MATERNAL DOSAGE GROUP I									0 MG/KG/DAY													
13801	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A							
13802	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A
13803	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	FM	7	F	A	F	A	F	A	F	A	F	A
13804	MORIBUND SACRIFICED ON DAY 68 OF STUDY																						
13805	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A
13806	M	A	M	A	M	A	M	A	M	A	MM	3	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A
13807	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A
13808	M	A	M	A	M	A	M	A	M	A	M	A	M	S	F	A	F	A	F	A	F	A	F	A				
13809	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A				
13810	M	A	M	A	M	A	M	A	MD	3	M	S	F	A	F	A	F	A	F	A	F	A	F	A	F	A	FD	1
13811	NOT PREGNANT																						
13812	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A				
13813	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	U	U				
13814	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	FM	2
13815	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A		
13816	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	U	U
13817	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	FD	2		
13818	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	FM	4	FD	2
13819	M	A	M	A	M	A	MD	1	F	A	F	A	F	A	F	A	F	A	F	A	F	A						
13820	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A				
13821	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A
13822	MX	8	MX	8	MX	8	FX	8	FX	8	FX	8	FX	8	FX	8	FX	8	FX	8	FX	8	FX	8				
13823	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A												
13824	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A
13825	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A		
13826	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A
13827	M	A	M	A	M	A	M	A	M	A	M	A	M	A	MM	2	M	A	F	A	F	A	F	A	F	A	F	A
13828	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A				
13829	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A						
13830	M	A	M	A	M	A	M	A	M	A	M	A	M	S	F	A	F	A	F	A	F	A						

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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C38 (PAGE 2): PUP VITAL STATUS AND SEX FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT/ LITTER #	MATERNAL DOSAGE GROUP II										1 MG/KG/DAY												
13831	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A
13832	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A				
13833	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	FM	3		
13834	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A				
13835	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	FD	3	FD	2
13836	MORIBUND SACRIFICED ON DAY 59 OF STUDY																						
13837	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	S				
13838	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	FD	4		
13839	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A				
13840	NOT PREGNANT																						
13841	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	D	U	U				
13842	M	A	M	A	M	A	M	A	M	D	7	F	A	F	A	F	A	F	A	F	A			
13843	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A								
13844	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	FD	8		
13845	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A				
13846	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	FM	2		
13847	M	A	M	A	M	A	M	S	M	S	M	S	M	S	M	A	F	A	F	A	F	A	F	S	F	S	F	S
13848	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A		
13849	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A		
13850	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	S				
13851	NOT PREGNANT																						
13852	MX11		MX11		MX11		MX11		MX11		MX11		MX11		MX11		FX11		FX11		FX11		FX11	
13853	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A
13854	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A
13855	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	FD	5	FD	1
13856	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A		
13857	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	S				
13858	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A
13859	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	FD	11				
13860	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A						

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TABLE C38 (PAGE 3): PUP VITAL STATUS AND SEX FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT/ LITTER #	MATERNAL DOSAGE GROUP III										3 MG/KG/DAY												
13861	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A					
13862	PREGNANT; DID NOT DELIVER A LITTER																						
13863	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	FM 3
13864	M	A	M	A	M	A	M	A	F	A	F	A	F	S									
13865	M	A	M	A	M	A	M	A	M	A	M	A	MD 1	F	A	F	A	F	A	F	A	F	A
13866	M	A	M	A	M	A	M	A	M	A	M	A	MD15	F	A	F	A	F	A	F	A	F	A FD 8
13867	M	A	M	A	M	A	M	A	M	A	M	A	MD 7	MD 6	M	S	F	A	F	A	F	A	FD 6
13868	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F A
13869	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	FD 4
13870	M	A	M	A	F	A	F	A	F	A	F	A	F	A									
13871	M	A	M	A	M	A	M	A	MD 3	F	A	F	A	F	A	F	A	F	A	FD20	FM 7	FD 4	
13872	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F A
13873	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	FM 4
13874	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	FD 2
13875	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F A
13876	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	S	FD 1
13877	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	S	
13878	M	A	M	A	F	A	F	A	F	A	F	A	F	A									
13879	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A					
13880	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	
13881	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A					
13882	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	FD 3
13883	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	FD 1
13884	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A					
13885	M	A	M	A	F	A																	
13886	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A			
13887	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A			
13888	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F S
13889	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F A
13890	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F A

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TABLE C38 (PAGE 4): PUP VITAL STATUS AND SEX FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT/ LITTER #	MATERNAL DOSAGE GROUP IV									10 MG/KG/DAY													
13891	M A	M A	M A	M A	M S	F A	F A	F A	F A	F A	F A												
13892	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F S							
13893	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A							
13894	M A	M A	M A	M A	M A	M A	M A	MM 4	F A	F A	F A	F A	F A	F A	F A								
13895	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A							
13896	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A											
13897	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A											
13898	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A FD 3						
13899	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A												
13900	NOT PREGNANT; MATING NOT CONFIRMED																						
13901	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A FD 7							
13902	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A							
13903	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A								
13904	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A									
13905	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A						
13906	M A	M A	M A	M A	M A MD 3		M S	M S	F A	F A	F A	F A	F A	F A	F A	F A FD 8							
13907	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A							
13908	M A	M A	F A	F A																			
13909	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A								
13910	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A								
13911	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A										
13912	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A									
13913	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A										
13914	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A FM 3					
13915	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A						
13916	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A							
13917	M A	M A	M A	F A	F A	F A	F A																
13918	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A									
13919	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A									
13920	M A	M A	M A	M A	M A	M A MD 9		F A	F A	F A	F A	F A	F A	F A FD 9	FD 9	FD 3							

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TABLE C38 (PAGE 5): PUP VITAL STATUS AND SEX FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT/ LITTER #	MATERNAL DOSAGE GROUP V									30 MG/KG/DAY													
13921	M	A	M	A	M	A	M	A	M	A	M	A	M	A	MM 6	F	A	F	A	F	A	F	A	F	A
13922	M	A	M	A	M	A	M	A	MM 2	MD 1	MD 1	FM 2	FM 2										
13923	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	
13924	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A
13925	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	
13926	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	S	F	A	F	A	F	A	F	A	F	A	
13927	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	FD 7
13928	M	A	M	A	M	A	MD 8	MD 3	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	
13929	NOT PREGNANT																						
13930	M	A	M	A	M	A	M	A	M	A	M	A	M	A	MD 8	F	A	F	A	F	A	F	A	F	A	F	A	FD 6	FM 5
13931	M	A	M	A	M	A	M	A	M	A	MD 8	MD 6	F	A	F	A	F	A	F	A	FD 6	FD 6	FM 2						
13932	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A					
13933	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A							
13934	M	A	MM12	MM 4	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	FM 6				
13935	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A			
13936	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A			
13937	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A			
13938	M	A	M	A	M	A	M	A	M	A	M	A	MD 2	F	A	F	A	F	A	F	A	F	A	F	A	F	A		
13939	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	S			
13940	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A			
13941	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	S					
13942	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	
13943	M	A	M	A	F	A	F	A	F	A	F	A																	
13944	M	A	M	A	M	A	MM 5	F	A	F	A	F	A	F	A	F	A	F	A	FM10									
13945	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A					
13946	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A													
13947	FD 1																						
13948	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	FM 3								
13949	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A					
13950	M	A	M	A	M	A	M	A	M	A	M	S	F	A	F	A	F	A	F	A	FD 2	F	S	F	S				

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TABLE C39 (PAGE 1): CLINICAL OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY (S) POSTPARTUM	OBSERVATIONS a
I 0	13807	5	3/17 PUPS: COLD TO TOUCH; NOT NESTING; NOT NURSING.
	13817	1	1/15 PUPS: COLD TO TOUCH; NO MILK IN STOMACH.
	13820	5	1/14 PUPS: COLD TO TOUCH.
	13824	2	16/16 PUPS: COLD TO TOUCH.
	13827	1	1/16 PUPS: COLD TO TOUCH.
II 1	13833	8, 9	1/14 PUPS: UMBILICAL HERNIA.
	13837	1	1/12 PUPS: COLD TO TOUCH.
	13839	1-22	1/12 PUPS: NO TAIL PRESENT b; HINDLIMBS ROTATED INWARD.
		4	1/12 PUPS: COLD TO TOUCH.
	13849	3	1/16 PUPS: COLD TO TOUCH.
	13850	1	2/13 PUPS: COLD TO TOUCH.
		5-22	1/12 PUPS: TIP OF TAIL MISSING.
	13852	5- 6	1/12 PUPS: LEFT FORELIMB, MASS (0.3 CM IN DIAMETER).

NIPPLE EXAMINATIONS FOR ALL MALE PUPS APPEARED NORMAL.
a. Tabulation restricted to adverse observations; all other pups appeared normal.
b. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C39 (PAGE 2): CLINICAL OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY (S) POSTPARTUM	OBSERVATIONS a
III			
3	13868	1	16/16 PUPS: COLD TO TOUCH.
	13873	7	1/16 PUPS: COLD TO TOUCH.
	13877	3	1/13 PUPS: COLD TO TOUCH.
	13878	1	9/ 9 PUPS: COLD TO TOUCH.
	13887	1-20	1/11 PUPS: TIP OF TAIL BLACK.
		21,22	1/11 PUPS: TIP OF TAIL MISSING.b
	13888	12	1/14 PUPS: RED PERIANAL SUBSTANCE.
	13889	7	2/16 PUPS: COLD TO TOUCH.
IV			
10	13894	1- 4	1/14 PUPS: TIP OF TAIL MISSING.
		5-22	1/13 PUPS: TIP OF TAIL MISSING.
	13895	1- 6	1/15 PUPS: BRUISE, BACK (DID NOT EXCEED 2.0 CM X 1.0 CM).
	13898	5	1/16 PUPS: COLD TO TOUCH.
	13905	21,22	1/16 PUPS: LEFT EYE, TRAUMATIZED CORNEA.b
	13906	7	1/13 PUPS: PALE; NO MILK IN STOMACH; NOT NESTING.
	13912	5	1/14 PUPS: SCAB, BACK (0.2 CM IN DIAMETER).
		12	1/14 PUPS: UMBILICAL HERNIA.
	13914	1,2	1/18 PUPS: COLD TO TOUCH; NO MILK IN STOMACH.

NIPPLE EXAMINATIONS FOR ALL MALE PUPS APPEARED NORMAL.
a. Tabulation restricted to adverse observations; all other pups appeared normal.
b. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C39 (PAGE 3): CLINICAL OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY (S) POSTPARTUM	OBSERVATIONS a	
V 30	13921	12-22	1/14 PUPS:	MOUTH, MASS (DID NOT EXCEED 0.2 CM X 0.3 CM X 0.1 CM).
	13922	1	1/ 9 PUPS:	COLD TO TOUCH.
		15-19	1/ 9 PUPS:	UMBILICAL HERNIA.
	13927	4- 7	1/16 PUPS:	BACK, BRUISE (DID NOT EXCEED 1.0 CM X 0.5 CM).
		8- 9	1/15 PUPS:	BACK, BRUISE (0.2 CM IN DIAMETER).
	13930	1, 2	18/18 PUPS:	COLD TO TOUCH.
		3	3/18 PUPS:	COLD TO TOUCH.
		4	18/18 PUPS:	COLD TO TOUCH.
		5	1/18 PUPS:	BACK, BRUISE (0.5 CM IN DIAMETER).
		12-20	1/15 PUPS:	UMBILICAL HERNIA.
	13931	1	1/15 PUPS:	NO MILK IN STOMACH.
		4,5	1/14 PUPS:	BACK, BRUISE (1.0 CM X 0.5 CM).
	13934	1,2	1/15 PUPS:	HEAD, BRUISE (0.5 CM IN DIAMETER), BACK, BRUISE (2.0 CM X 1.0 CM).
		3	1/15 PUPS:	HEAD AND BACK, BRUISE (1.0 CM IN DIAMETER), CHEST AND LOWER MIDLINE, BRUISE (2.5 CM X 1.5 CM); COLD TO TOUCH.
	13944	9	1/11 PUPS:	PALE; NO MILK IN STOMACH.
	13948	3	11/12 PUPS:	COLD TO TOUCH.
		4	11/11 PUPS:	COLD TO TOUCH.

NIPPLE EXAMINATIONS FOR ALL MALE PUPS APPEARED NORMAL.
a. Tabulation restricted to adverse observations; all other pups appeared normal.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C40 (PAGE 1): NECROPSY OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY POSTPARTUM	OBSERVATIONS a
I 0	13801	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13802	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13803	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13805	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13806	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13807	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13808	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13809	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13810	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL. 1 PUP: FOUND DEAD. NO MILK IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		3	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13812	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13813	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13814	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13815	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13816	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13817	2	1 PUP: FOUND DEAD. NO MILK IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.

a. Complete necropsies were not performed on pups in which autolysis or cannibalization precluded evaluation. Refer to the individual pup clinical observations table (Table C39) for external clinical observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C40 (PAGE 2): NECROPSY OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY POSTPARTUM	OBSERVATIONS a
I (Cont.) 0	13818	2	1 PUP: FOUND DEAD. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13819	1	1 PUP: FOUND DEAD. NO MILK IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13820	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13821	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13822	8b	ALL PUPS EXAMINED APPEARED NORMAL.
	13823	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13824	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13825	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13826	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13827	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13828	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13829	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13830	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.

a. Complete necropsies were not performed on pups in which autolysis or cannibalization precluded evaluation. Refer to the individual pup clinical observations table (Table C39) for external clinical observations confirmed at necropsy.
b. The litters from dams 13822 in Group I and 13852 in Group II were mixed together. Both dams and litters were sacrificed because it was not possible to identify to which litter the pups belonged.

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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C40 (PAGE 3): NECROPSY OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY POSTPARTUM	OBSERVATIONS a
II			
1	13831	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13832	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13833	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13834	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13835	2	1 PUP: FOUND DEAD. NO MILK IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		3	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13837	1	1 PUP: STILLBORN. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13838	4	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13839	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13841	1	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13842	7	1 PUP: FOUND DEAD. NO MILK IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13843	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13844	8	1 PUP: FOUND DEAD. NO MILK IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13845	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13846	22	ALL PUPS EXAMINED APPEARED NORMAL.

a. Complete necropsies were not performed on pups in which autolysis or cannibalization precluded evaluation. Refer to the individual pup clinical observations table (Table C39) for external clinical observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C40 (PAGE 4): NECROPSY OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY POSTPARTUM	OBSERVATIONS a
II (Cont.)			
1	13847	1	7 PUPS: STILLBORN. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13848	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13849	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13850	1	1 PUP: STILLBORN. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13852	11b	ALL PUPS EXAMINED APPEARED NORMAL.
	13853	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13854	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13855	1	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		5	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13856	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13857	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13858	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13859	11	1 PUP: FOUND DEAD. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13860	22	ALL PUPS EXAMINED APPEARED NORMAL.

a. Complete necropsies were not performed on pups in which autolysis or cannibalization precluded evaluation. Refer to the individual pup clinical observations table (Table C39) for external clinical observations confirmed at necropsy.
b. The litters from dams 13822 in Group I and 13852 in Group II were mixed together. Both dams and litters were sacrificed because it was not possible to identify to which litter the pups belonged.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C40 (PAGE 5): NECROPSY OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY POSTPARTUM	OBSERVATIONS a
III 3	13861	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13863	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13864	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13865	1	1 PUP: FOUND DEAD. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13866	8	1 PUP: FOUND DEAD. NO MILK IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		15	1 PUP: FOUND DEAD. NO MILK IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13867	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		6	1 PUP: FOUND DEAD. NO MILK IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
			1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		7	1 PUP: FOUND DEAD. NO MILK IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13868	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13869	4	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13870	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13871	3	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		4	1 PUP: FOUND DEAD. NO MILK IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		20	1 PUP: FOUND DEAD. NO MILK IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.

a. Complete necropsies were not performed on pups in which autolysis or cannibalization precluded evaluation. Refer to the individual pup clinical observations table (Table C39) for external clinical observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C40 (PAGE 6): NECROPSY OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY POSTPARTUM	OBSERVATIONS a
III (Cont.)			
3	13872	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13873	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13874	2	1 PUP: FOUND DEAD. NO MILK IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13875	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13876	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL. 1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13877	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13878	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13879	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13880	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13881	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13882	3	1 PUP: FOUND DEAD. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13883	1	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13884	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13886	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13887	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13888	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13889	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13890	22	ALL PUPS EXAMINED APPEARED NORMAL.

a. Complete necropsies were not performed on pups in which autolysis or cannibalization precluded evaluation. Refer to the individual pup clinical observations table (Table C39) for external clinical observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C40 (PAGE 7): NECROPSY OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY POSTPARTUM	OBSERVATIONS a
IV			
10	13891	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13892	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13893	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13894	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13895	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13896	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13897	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13898	3	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13899	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13901	7	1 PUP: FOUND DEAD. NO MILK IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13902	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13903	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13904	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13905	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13906	1	2 PUPS: STILLBORN. ALL TISSUES APPEARED NORMAL.
		3	1 PUP: FOUND DEAD. NO MILK IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		8	1 PUP: FOUND DEAD. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13907	22	ALL PUPS EXAMINED APPEARED NORMAL.

a. Complete necropsies were not performed on pups in which autolysis or cannibalization precluded evaluation. Refer to the individual pup clinical observations table (Table C39) for external clinical observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C40 (PAGE 8): NECROPSY OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY POSTPARTUM	OBSERVATIONS a
IV (Cont.)			
10	13909	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13910	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13911	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13912	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13913	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13914	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13915	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13916	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13917	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13918	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13919	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13920	3	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		9	2 PUPS: FOUND DEAD. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
			1 PUP: FOUND DEAD. NO MILK IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.

a. Complete necropsies were not performed on pups in which autolysis or cannibalization precluded evaluation. Refer to the individual pup clinical observations table (Table C39) for external clinical observations confirmed at necropsy.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C40 (PAGE 9): NECROPSY OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY POSTPARTUM	OBSERVATIONS a
V 30	13921	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13922	1	2 PUPS: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13923	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13924	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13925	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13926	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13927	7	1 PUP: FOUND DEAD. NO MILK IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13928	3	1 PUP: FOUND DEAD. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		8	1 PUP: FOUND DEAD. NO MILK IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13930	6	1 PUP: FOUND DEAD. NO MILK IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		8	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13931	6	2 PUPS: FOUND DEAD. NO MILK IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
			1 PUP: FOUND DEAD. NO MILK IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		8	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13932	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13933	22	ALL PUPS EXAMINED APPEARED NORMAL.

a. Complete necropsies were not performed on pups in which autolysis or cannibalization precluded evaluation. Refer to the individual pup clinical observations table (Table C39) for external clinical observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C40 (PAGE 10): NECROPSY OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY POSTPARTUM	OBSERVATIONS a
V (Cont.)			
30	13934	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13935	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13936	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13937	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13938	2	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13939	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13940	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13941	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	13942	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13943	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13944	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13945	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13946	22	1 PUP: KIDNEYS, RIGHT, PELVIS, MODERATE DILATION. ALL OTHER TISSUES APPEARED NORMAL. ALL OTHER PUPS APPEARED NORMAL.
	13947	1	1 PUP: FOUND DEAD. NO MILK IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
	13948	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13949	22	ALL PUPS EXAMINED APPEARED NORMAL.
	13950	1	3 PUPS: STILLBORN. ALL TISSUES APPEARED NORMAL.
		2	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.

a. Complete necropsies were not performed on pups in which autolysis or cannibalization precluded evaluation. Refer to the individual pup clinical observations table (Table C39) for external clinical observations confirmed at necropsy.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C41 (PAGE 1): PUP ORGAN WEIGHTS - INDIVIDUAL DATA - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP I 0 MG/KG/DAY

RAT/ LITTER NUMBER	BRAIN			SPLEEN			THYMUS			TERMINAL BODY WEIGHT		
	M	F	T	M	F	T	M	F	T	M	F	T
13801	1.67	1.53	1.60	0.27	0.21	0.24	0.21	0.23	0.22	44.6	42.5	43.6
13802	1.58	1.48	1.53	0.10	0.15	0.12	0.19	0.16	0.18	43.0	41.3	42.2
13803	1.35	1.43	1.39	0.11	0.13	0.12	0.17	0.21	0.19	a	a	a
13804	MORIBUND SACRIFICED ON DAY 68 OF STUDY											
13805	1.31	1.20	1.26	0.19	0.11	0.15	0.26	0.16	0.21	46.6	41.0	43.8
13806	1.45	1.41	1.43	0.12	0.14	0.13	0.13	0.14	0.14	32.1	31.4	31.8
13807	1.27	1.23	1.25	0.09	0.06	0.08	0.07	0.07	0.07	a	a	a
13808	1.45	1.63	1.54	0.18	0.21	0.20	0.22	0.28	0.25	40.9	39.8	40.4
13809	1.40	1.41	1.40	0.14	0.12	0.13	0.11	0.13	0.12	35.9	33.8	34.8
13810	1.47	1.40	1.44	0.17	0.17	0.17	0.21	0.25	0.23	43.4	43.1	43.2
13811	NOT PREGNANT											
13812	1.36	1.29	1.32	0.11	0.10	0.10	0.08	0.14	0.11	43.2	40.1	41.6
13813	1.38	1.48	1.43	0.13	0.14	0.14	0.14	0.14	0.14	43.9	44.0	44.0
13814	1.38	1.33	1.36	0.13	0.08	0.10	0.15	0.15	0.15	38.8	32.5	35.6
13815	1.36	1.34	1.35	0.05	0.05	0.05	0.13	0.08	0.10	33.8	28.4	31.1
13816	1.20	1.16	1.18	0.17	0.14	0.16	0.13	0.12	0.12	32.8	27.3	30.0
13817	1.59	1.54	1.56	0.14	0.13	0.14	0.12	0.13	0.12	37.9	36.7	37.3
13818	1.30	1.25	1.28	0.08	0.06	0.07	0.09	0.08	0.08	25.8	26.5	26.2
13819	1.38	1.35	1.36	0.20	0.12	0.16	0.18	0.26	0.22	30.6	27.8	29.2
13820	1.43	1.26	1.34	0.12	0.08	0.10	0.18	0.17	0.18	26.1	21.8	24.0
13821	1.45	1.41	1.43	0.07	0.17	0.12	0.11	0.18	0.14	35.0	39.6	37.3
13822	SACRIFICED ON DAY 8 OF LACTATION											
13823	1.51	1.49	1.50	0.34	0.22	0.28	0.28	0.25	0.26	52.0	51.3	51.6
13824	1.48	1.41	1.44	0.14	0.11	0.12	0.16	0.16	0.16	38.4	38.8	38.6
13825	----	1.37	1.37	----	0.07	0.07	----	0.10	0.10	----	32.7	32.7
13826	1.36	1.25	1.30	0.14	0.14	0.14	0.13	0.12	0.12	31.8	23.6	27.7
13827	1.57	1.56	1.56	0.17	0.20	0.18	0.15	0.13	0.14	42.5	37.5	40.0
13828	1.39	1.45	1.42	0.25	0.16	0.20	0.18	0.12	0.15	42.2	39.6	40.9
13829	1.51	1.27	1.39	0.15	0.13	0.14	0.17	0.15	0.16	42.0	32.8	37.4
13830	1.38	1.44	1.41	0.11	0.10	0.10	0.14	0.20	0.17	35.0	36.9	36.0

M = MALE F = FEMALE T = TOTAL
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Pup's identification was not recorded; therefore, terminal body weight could not be determined.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C41 (PAGE 2): PUP ORGAN WEIGHTS - INDIVIDUAL DATA - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP II 1 MG/KG/DAY

RAT/ LITTER NUMBER	BRAIN			SPLEEN			THYMUS			TERMINAL BODY WEIGHT		
	M	F	T	M	F	T	M	F	T	M	F	T
13831	1.47	1.47	1.47	0.11	0.14	0.12	0.12	0.13	0.12	33.1	36.7	34.9
13832	1.65	1.49	1.57	0.15	0.12	0.14	0.14	0.17	0.16	45.2	35.5	40.4
13833	1.51	1.49	1.50	0.12	0.12	0.12	0.17	0.19	0.18	a	a	a
13834	1.52	1.47	1.50	0.07	0.08	0.08	0.18	0.12	0.15	36.2	37.7	37.0
13835	1.52	1.44	1.48	0.10	0.14	0.12	0.11	0.17	0.14	36.7	37.3	37.0
13836	MORIBUND SACRIFICED ON DAY 59 OF STUDY											
13837	1.66	1.49	1.58	0.19	0.17	0.18	0.26	0.22	0.24	a	a	a
13838	1.45	1.40	1.42	0.11	0.09	0.10	0.16	0.12	0.14	36.0	36.0	36.0
13839	1.42	1.45	1.44	0.14	0.13	0.14	0.17	0.10	0.14	36.1	32.7	34.4
13840	NOT PREGNANT											
13841	1.34	1.33	1.34	0.15	0.15	0.15	0.15	0.15	0.15	36.3	37.0	36.6
13842	1.49	1.40	1.44	0.17	0.12	0.14	0.14	0.19	0.16	43.4	37.7	40.6
13843	1.33	1.29	1.31	0.11	0.11	0.11	0.13	0.13	0.13	34.3	30.1	32.2
13844	1.39	1.29	1.34	0.12	0.06	0.09	0.15	0.12	0.14	33.6	27.8	30.7
13845	1.43	1.49	1.46	0.11	0.16	0.14	0.13	0.16	0.14	a	a	a
13846	1.41	1.45	1.43	0.16	0.08	0.12	0.17	0.17	0.17	36.3	31.0	33.6
13847	1.53	1.49	1.51	0.21	0.21	0.21	0.21	0.24	0.22	51.4	50.4	50.9
13848	1.32	1.34	1.33	0.11	0.04	0.08	0.15	0.15	0.15	a	a	a
13849	1.30	1.28	1.29	0.06	0.07	0.06	0.08	0.07	0.08	27.5	23.6	25.6
13850	1.56	1.42	1.49	0.13	0.14	0.14	0.17	0.16	0.16	37.3	33.8	35.6
13851	NOT PREGNANT											
13852	SACRIFICED ON DAY 11 OF LACTATION											
13853	1.53	1.40	1.46	0.13	0.14	0.14	0.17	0.14	0.16	37.8	27.5	32.6
13854	1.11	1.10	1.10	0.15	0.04	0.10	0.18	0.05	0.12	30.1	23.8	27.0
13855	1.53	1.53	1.53	0.08	0.08	0.08	0.20	0.18	0.19	40.2	37.0	38.6
13856	1.40	1.30	1.35	0.10	0.07	0.08	0.10	0.07	0.08	32.9	25.6	29.2
13857	1.45	1.54	1.50	0.06	0.15	0.10	0.22	0.25	0.24	39.6	41.8	40.7
13858	1.36	1.36	1.36	0.11	0.11	0.11	0.11	0.12	0.12	33.2	30.7	32.0
13859	1.52	1.50	1.51	0.18	0.17	0.18	0.16	0.20	0.18	37.4	40.7	39.0
13860	1.44	1.37	1.40	0.10	0.10	0.10	0.19	0.18	0.19	35.4	38.7	37.0

M = MALE F = FEMALE T = TOTAL
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Pup's identification was not recorded or appeared incorrectly recorded; therefore, terminal body weight could not be determined.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C41 (PAGE 3): PUP ORGAN WEIGHTS - INDIVIDUAL DATA - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP III 3 MG/KG/DAY

RAT/ LITTER NUMBER	BRAIN			SPLEEN			THYMUS			TERMINAL BODY WEIGHT		
	M	F	T	M	F	T	M	F	T	M	F	T
13861	1.34	----	1.34	0.08	----	0.08	0.04	----	0.04	36.2	----	36.2
13862	PREGNANT; DID NOT DELIVER A LITTER											
13863	1.36	1.43	1.40	0.11	0.11	0.11	0.11	0.11	0.11	32.5	34.6	33.6
13864	1.50	----	1.50	0.28	----	0.28	0.23	----	0.23	59.3	----	59.3
13865	1.48	1.42	1.45	0.12	0.14	0.13	0.08	0.14	0.11	30.4	28.6	29.5
13866	1.28	1.13	1.20	0.12	0.06	0.09	0.11	0.11	0.11	a	a	a
13867	1.34	1.28	1.31	0.05	0.12	0.08	0.10	0.12	0.11	29.9	28.2	29.0
13868	1.41	1.45	1.43	0.08	0.11	0.10	0.13	0.15	0.14	a	a	a
13869	1.23	1.35	1.29	0.09	0.10	0.10	0.07	0.10	0.08	33.7	29.8	31.8
13870	----	1.25	1.25	----	0.10	0.10	----	0.15	0.15	----	36.3	36.3
13871	1.12	1.25	1.18	0.02	0.08	0.05	0.08	0.08	0.08	26.8	29.1	28.0
13872	1.44	1.41	1.42	0.09	0.10	0.10	0.10	0.15	0.12	29.8	30.0	29.9
13873	1.40	1.40	1.40	0.10	0.12	0.11	0.15	0.15	0.15	35.3	35.6	35.4
13874	1.63	1.40	1.52	0.22	0.16	0.19	0.15	0.18	0.16	49.1	43.4	46.2
13875	1.48	1.43	1.46	0.13	0.13	0.13	0.14	0.08	0.11	40.1	42.9	41.5
13876	1.59	1.62	1.60	0.11	0.23	0.17	0.15	0.06	0.10	45.3	47.0	46.2
13877	1.51	1.55	1.53	0.16	0.14	0.15	0.22	0.18	0.20	45.8	42.5	44.2
13878	----	1.54	1.54	----	0.23	0.23	----	0.20	0.20	----	51.8	51.8
13879	1.64	1.53	1.58	0.10	0.19	0.14	0.16	0.24	0.20	46.1	47.7	46.9
13880	1.58	1.39	1.48	0.19	0.16	0.18	0.21	0.15	0.18	52.8	42.9	47.8
13881	1.45	1.39	1.42	0.06	0.07	0.06	0.11	0.08	0.10	37.7	37.2	37.4
13882	1.45	1.50	1.48	0.10	0.13	0.12	0.11	0.12	0.12	37.6	44.5	41.0
13883	1.47	1.39	1.43	0.19	0.13	0.16	0.22	0.18	0.20	43.6	48.0	45.8
13884	1.51	1.31	1.41	0.21	0.08	0.14	0.18	0.15	0.16	42.3	27.4	34.8
13885	b											
13886	1.47	1.45	1.46	0.12	0.12	0.12	0.15	0.15	0.15	40.3	40.6	40.4
13887	1.62	1.55	1.58	0.18	0.18	0.18	0.24	0.20	0.22	49.9	45.3	47.6
13888	----	1.31	1.31	----	0.15	0.15	----	0.09	0.09	----	25.9	25.9
13889	1.53	1.32	1.42	0.15	0.10	0.12	0.16	0.13	0.14	35.8	32.1	34.0
13890	----	1.37	1.37	----	0.06	0.06	----	0.17	0.17	----	38.8	38.8

M = MALE F = FEMALE T = TOTAL
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Pup's identification was not recorded; therefore, terminal body weight could not be determined.
b. All pups were selected for continued observation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C41 (PAGE 4): PUP ORGAN WEIGHTS - INDIVIDUAL DATA - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP IV 10 MG/KG/DAY

RAT/ LITTER NUMBER	BRAIN			SPLEEN			THYMUS			TERMINAL BODY WEIGHT		
	M	F	T	M	F	T	M	F	T	M	F	T
13891	1.60	1.53	1.56	0.17	0.26	0.22	0.17	0.22	0.20	47.8	44.1	46.0
13892	1.44	1.51	1.48	0.19	0.13	0.16	0.19	0.15	0.17	38.7	36.7	37.7
13893	1.52	1.37	1.44	0.17	0.13	0.15	0.22	0.16	0.19	46.1	37.0	41.6
13894	1.40	1.41	1.40	0.10	0.16	0.13	0.17	0.20	0.18	34.9	34.5	34.7
13895	1.54	1.39	1.46	0.16	0.19	0.18	0.22	0.14	0.18	41.3	40.0	40.6
13896	1.52	1.46	1.49	0.12	0.13	0.12	0.13	0.14	0.14	a	a	a
13897	1.44	1.36	1.40	0.16	0.14	0.15	0.27	0.26	0.26	44.4	42.2	43.3
13898	1.37	1.28	1.32	0.10	0.06	0.08	0.11	0.10	0.10	33.6	29.0	31.3
13899	1.33	1.30	1.32	0.07	0.11	0.09	0.20	0.15	0.18	32.4	31.7	32.0
13900	NOT PREGNANT; MATING NOT CONFIRMED											
13901	1.36	1.28	1.32	0.07	0.07	0.07	0.08	0.06	0.07	30.6	27.6	29.1
13902	1.60	1.49	1.54	0.19	0.17	0.18	0.16	0.21	0.18	43.3	37.9	40.6
13903	1.43	1.38	1.40	0.15	0.13	0.14	0.20	0.14	0.17	40.4	32.4	36.4
13904	1.27	1.30	1.28	0.11	0.13	0.12	0.12	0.14	0.13	28.1	30.3	29.2
13905	1.32	1.13	1.22	0.05	0.07	0.06	0.10	0.09	0.10	29.2	33.5	31.4
13906	1.53	1.41	1.47	0.18	0.23	0.20	0.20	0.24	0.22	a	a	a
13907	1.20	1.29	1.24	0.12	0.10	0.11	0.10	0.12	0.11	23.2	26.9	25.0
13908	b											
13909	1.50	1.43	1.46	0.12	0.10	0.11	0.14	0.11	0.12	39.8	38.4	39.1
13910	1.42	1.39	1.40	0.17	0.14	0.16	0.18	0.16	0.17	39.5	38.0	38.8
13911	1.44	1.47	1.46	0.10	0.14	0.12	0.23	0.23	0.23	43.3	40.7	42.0
13912	1.49	1.41	1.45	0.13	0.16	0.14	0.18	0.15	0.16	a	a	a
13913	1.44	1.25	1.34	0.20	0.19	0.20	0.27	0.23	0.25	43.2	37.2	40.2
13914	1.43	1.41	1.42	0.09	0.10	0.10	0.18	0.13	0.16	a	a	a
13915	1.30	1.31	1.30	0.08	0.10	0.09	0.13	0.15	0.14	31.8	34.9	33.4
13916	1.32	1.54	1.43	0.18	0.20	0.19	0.22	0.20	0.21	43.2	40.2	41.7
13917	1.42	1.40	1.41	0.12	0.13	0.12	0.16	0.17	0.16	41.3	40.8	41.0
13918	1.62	1.37	1.50	0.26	0.16	0.21	0.19	0.15	0.17	45.3	39.1	42.2
13919	1.48	1.49	1.48	0.08	0.12	0.10	0.11	0.09	0.10	38.4	37.4	37.9
13920	1.12	1.38	1.25	0.12	0.12	0.12	0.23	0.19	0.21	26.9	23.7	25.3

M = MALE F = FEMALE T = TOTAL
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Pup's identification was not recorded or appeared incorrectly recorded; therefore, terminal body weight could not be determined.
b. All pups were selected for continued observation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE C41 (PAGE 5): PUP ORGAN WEIGHTS - INDIVIDUAL DATA - F1 GENERATION PUPS

MATERNAL DOSAGE GROUP V 30 MG/KG/DAY

RAT/ LITTER NUMBER	BRAIN			SPLEEN			THYMUS			TERMINAL BODY WEIGHT		
	M	F	T	M	F	T	M	F	T	M	F	T
13921	1.53	1.49	1.51	0.16	0.14	0.15	0.18	0.10	0.14	46.1	40.6	43.4
13922	1.29	----	1.29	0.12	----	0.12	0.10	----	0.10	32.8	----	32.8
13923	1.52	1.41	1.46	0.10	0.09	0.10	0.15	0.13	0.14	a	a	a
13924	1.49	1.43	1.46	0.09	0.08	0.08	0.14	0.15	0.14	34.5	34.3	34.4
13925	1.35	1.40	1.38	0.11	0.13	0.12	0.16	0.17	0.16	32.9	38.2	35.6
13926	1.39	1.35	1.37	0.11	0.12	0.12	0.16	0.16	0.16	34.0	31.2	32.6
13927	1.19	1.16	1.18	0.06	0.07	0.06	0.07	0.06	0.06	23.9	22.5	23.2
13928	1.46	1.39	1.42	0.16	0.18	0.17	0.20	0.18	0.19	a	a	a
13929	NOT PREGNANT											
13930	1.28	1.33	1.30	0.08	0.10	0.09	0.06	0.06	0.06	25.3	20.5	22.9
13931	1.13	1.15	1.14	0.07	0.07	0.07	0.09	0.10	0.10	24.9	24.9	24.9
13932	1.32	1.30	1.31	0.11	0.14	0.12	0.05	0.12	0.08	31.5	32.7	32.1
13933	1.17	1.19	1.18	0.06	0.10	0.08	0.06	0.08	0.07	a	a	a
13934	----	1.26	1.26	----	0.12	0.12	----	0.15	0.15	----	30.6	30.6
13935	1.33	1.30	1.32	0.05	0.07	0.06	0.11	0.08	0.10	34.3	21.5	27.9
13936	1.42	1.48	1.45	0.15	0.15	0.15	0.13	0.19	0.16	38.0	35.2	36.6
13937	1.43	1.40	1.42	0.11	0.13	0.12	0.12	0.11	0.12	39.0	38.6	38.8
13938	1.32	1.21	1.26	0.09	0.06	0.08	0.14	0.11	0.12	29.2	26.4	27.8
13939	1.51	1.46	1.48	0.16	0.15	0.16	0.14	0.23	0.18	38.4	42.0	40.2
13940	1.29	1.22	1.26	0.04	0.06	0.05	0.04	0.07	0.06	30.0	26.8	28.4
13941	1.59	1.52	1.56	0.19	0.13	0.16	0.18	0.13	0.16	41.4	31.9	36.6
13942	1.58	1.41	1.50	0.18	0.15	0.16	0.14	0.12	0.13	a	a	a
13943	----	1.56	1.56	----	0.24	0.24	----	0.20	0.20	----	a	a
13944	1.39	1.35	1.37	0.13	0.12	0.12	0.16	0.18	0.17	35.1	34.7	34.9
13945	1.41	1.35	1.38	0.09	0.11	0.10	0.12	0.14	0.13	a	a	a
13946	1.35	1.26	1.30	0.11	0.14	0.12	0.16	0.17	0.16	43.2	42.3	42.8
13947	SACRIFICED DUE TO NO SURVIVING PUPS ON DAY 1 OF LACTATION											
13948	1.46	1.38	1.42	0.14	0.14	0.14	0.18	0.15	0.16	43.4	42.4	42.9
13949	1.52	1.45	1.48	0.12	0.12	0.12	0.19	0.18	0.18	40.9	38.3	39.6
13950	1.64	1.48	1.56	0.18	0.17	0.18	0.28	0.21	0.24	47.4	42.0	44.7

M = MALE F = FEMALE T = TOTAL
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Pup's identification was not recorded or appeared incorrectly recorded; therefore, terminal body weight could not be determined.

APPENDIX D

REPORT TABLES - F1 GENERATION MALE RATS

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D1 (PAGE 1): CLINICAL OBSERVATIONS - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP	I	II	III	IV	V
DOSAGE (MG/KG/DAY)	0	1	3	10	30
MAXIMUM POSSIBLE INCIDENCE	4563/ 60	4547/ 60	4576/ 60	4602/ 60	4473/ 60
MORTALITY	3	3	3	2	7
FOUND DEAD a	2	3	3	1	6
MORIBUND SACRIFICED a	1	0	0	1	1
ANNULAR CONSTRICTION OF THE TAIL	44/ 4	122/ 11*	69/ 7	122/ 11*	214/ 21**
CHROMORHINORRHEA	12/ 9	18/ 9	22/ 11	10/ 4	26/ 12
ABDOMINAL DISTENTION	25/ 4	41/ 4	11/ 1	73/ 5	124/ 10**
URINE-STAINED ABDOMINAL FUR	11/ 1	2/ 2	13/ 1	6/ 1	40/ 9**
EMACIATION	0/ 0	1/ 1	2/ 2	15/ 3*	22/ 7**
CHROMODACRYORRHEA	22/ 3	53/ 5	244/ 9	55/ 4	171/ 6
DECREASED MOTOR ACTIVITY	1/ 1	1/ 1	0/ 0	1/ 1	12/ 5**
COLD TO TOUCH	1/ 1	1/ 1	1/ 1	13/ 2	11/ 5
INCISORS: TOTAL	47/ 5	62/ 3	258/ 9	171/ 5	188/ 4
MISALIGNED	12/ 3	62/ 3	194/ 7	123/ 3	181/ 4
MISSING/BROKEN	36/ 4	0/ 0	66/ 4	48/ 2	25/ 2
SCAB b	89/ 4	30/ 2	55/ 5	18/ 3	7/ 3
SOFT OR LIQUID FECES	22/ 11	14/ 11	6/ 5	7/ 7	3/ 3

MAXIMUM POSSIBLE INCIDENCE = (DAYS x RATS)/NUMBER OF RATS EXAMINED PER GROUP.
N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RATS WITH OBSERVATION.
a. Refer to the individual clinical observations table (Table D14) for observations for rats that were found dead or moribund sacrificed.
b. Located on neck, head, back, mouth, and behind left ear.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D1 (PAGE 2): CLINICAL OBSERVATIONS - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP	I	II	III	IV	V
DOSAGE (MG/KG/DAY)	0	1	3	10	30
MAXIMUM POSSIBLE INCIDENCE	4563/ 60	4547/ 60	4576/ 60	4602/ 60	4473/ 60
MORTALITY	3	3	3	2	7
FOUND DEAD a	2	3	3	1	6
MORIBUND SACRIFICED a	1	0	0	1	1
LOCALIZED ALOPECIA: TOTAL	30/ 1	56/ 1	36/ 3	10/ 1	7/ 2
LIMBS	30/ 1	56/ 1	31/ 1	0/ 0	7/ 2
BACK	0/ 0	0/ 0	3/ 1	10/ 1	0/ 0
HEAD	0/ 0	0/ 0	2/ 1	0/ 0	0/ 0
RIGHT OR BOTH EYE(S): CORNEAL OPACITY	0/ 0	14/ 1	0/ 0	0/ 0	2/ 2
RALES	1/ 1	0/ 0	0/ 0	0/ 0	2/ 2
DEHYDRATION	0/ 0	0/ 0	0/ 0	19/ 2	14/ 1
LACRIMATION	0/ 0	0/ 0	34/ 1	0/ 0	6/ 1
RIGHT EYE: SWOLLEN	0/ 0	0/ 0	0/ 0	0/ 0	6/ 1
SNOUT: SWOLLEN	3/ 1	2/ 1	32/ 2	6/ 1	4/ 1
PENIS: RED SUBSTANCE	0/ 0	0/ 0	0/ 0	1/ 1	4/ 1
EXCESS SALIVATION	4/ 4	2/ 2	3/ 3	1/ 1	1/ 1
RED, DRIED, SLIGHT PERINASAL SUBSTANCE	0/ 0	0/ 0	3/ 2	1/ 1	1/ 1
VOCALIZATION	1/ 1	1/ 1	0/ 0	0/ 0	1/ 1
BOTH EARS: SWOLLEN	0/ 0	0/ 0	8/ 3	2/ 2	0/ 0

MAXIMUM POSSIBLE INCIDENCE = (DAYS x RATS)/NUMBER OF RATS EXAMINED PER GROUP.
N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RATS WITH OBSERVATION.
a. Refer to the individual clinical observations table (Table D14) for observations for rats that were found dead or moribund sacrificed.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D1 (PAGE 3): CLINICAL OBSERVATIONS - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP	I	II	III	IV	V
DOSAGE (MG/KG/DAY)	0	1	3	10	30
MAXIMUM POSSIBLE INCIDENCE	4563/ 60	4547/ 60	4576/ 60	4602/ 60	4473/ 60
MORTALITY	3	3	3	2	7
FOUND DEAD a	2	3	3	1	6
MORIBUND SACRIFICED a	1	0	0	1	1
TIP OF TAIL MISSING	0/ 0	0/ 0	0/ 0	21/ 1	0/ 0
TIP OF TAIL BLACK	0/ 0	0/ 0	0/ 0	9/ 1	0/ 0
BACK: ULCERATION	0/ 0	0/ 0	0/ 0	1/ 1	0/ 0
RED, SLIGHT PERIORAL SUBSTANCE	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0
PTOSIS	0/ 0	20/ 1	0/ 0	0/ 0	0/ 0
ENOPHTHALMOS	0/ 0	2/ 1	0/ 0	0/ 0	0/ 0
HEAD: ABRASION	18/ 2	0/ 0	0/ 0	0/ 0	0/ 0
RIGHT EYE: ENLARGED	102/ 1	0/ 0	0/ 0	0/ 0	0/ 0

MAXIMUM POSSIBLE INCIDENCE = (DAYS x RATS)/NUMBER OF RATS EXAMINED PER GROUP.
N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RATS WITH OBSERVATION.
a. Refer to the individual clinical observations table (Table D14) for observations for rats that were found dead or moribund sacrificed.

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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D2 (PAGE 1): BODY WEIGHTS - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	60	60	60	60	60
BODY WEIGHT (G)						
DAY 1	MEAN±S.D.	42.7 ± 6.9	41.0 ± 6.8	43.8 ± 9.7	44.6 ± 6.6	40.4 ± 8.4
DAY 8	MEAN±S.D.	75.2 ± 11.7 [59]a	72.3 ± 9.8 [58]a	77.3 ± 15.2 [58]a	76.4 ± 10.9 [59]a	69.6 ± 12.7* [55]a
DAY 15	MEAN±S.D.	124.1 ± 15.9 [59]a	118.8 ± 13.3 [58]a	126.9 ± 20.7 [57]a	122.6 ± 15.8 [59]a	109.2 ± 17.6** [55]a
DAY 22	MEAN±S.D.	183.9 ± 20.4 [59]a	175.6 ± 17.9 [58]a	186.6 ± 26.0 [57]a	181.4 ± 21.8 [59]a	162.7 ± 20.4** [55]a
DAY 29	MEAN±S.D.	241.0 ± 23.1 [58]a	231.6 ± 21.0 [58]a	243.2 ± 29.4 [57]a	233.0 ± 27.6 [59]a	211.1 ± 25.2** [55]a
DAY 36	MEAN±S.D.	297.9 ± 27.7 [47]a	288.2 ± 28.3 [54]a	299.7 ± 29.7 [51]a	280.1 ± 40.0* [49]a	250.8 ± 33.4** [48]a
DAY 43	MEAN±S.D.	342.4 ± 28.8 [30]a	327.8 ± 25.9 [30]a	335.7 ± 30.1 [31]a	323.6 ± 34.0* [30]a	291.3 ± 32.5** [30]a
DAY 50	MEAN±S.D.	383.2 ± 33.7 [30]a	359.7 ± 26.8* [29]a	369.7 ± 31.9 [31]a	355.3 ± 40.2** [30]a	318.3 ± 35.3** [30]a

DAY = DAY POSTWEANING
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rats that were sacrificed following sexual maturation, found dead or moribund sacrificed.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D2 (PAGE 2): BODY WEIGHTS - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	60	60	60	60	60
INCLUDED IN ANALYSES	N	30a	29a	30a	30a	30a
BODY WEIGHT (G)						
DAY 57	MEAN±S.D.	412.5 ± 36.4	387.8 ± 28.8*	398.7 ± 33.0	380.1 ± 43.8**	338.5 ± 36.7**
DAY 64	MEAN±S.D.	443.9 ± 40.9	416.4 ± 32.8*	424.1 ± 34.8	404.5 ± 49.3**	360.2 ± 39.4**
DAY 70b	MEAN±S.D.	463.7 ± 44.2	434.6 ± 39.2*	442.2 ± 36.6	420.9 ± 51.1**	372.7 ± 40.7**
PRECOHABITATION c	MEAN±S.D.	488.1 ± 46.5	463.3 ± 46.4	468.2 ± 39.9	443.8 ± 53.9**	391.0 ± 42.0**
DAY 99d	MEAN±S.D.	521.9 ± 54.0	493.0 ± 49.4*	497.4 ± 40.9	469.5 ± 57.5**	409.8 ± 41.1**
DAY 106	MEAN±S.D.	539.0 ± 55.5	504.6 ± 52.0*	506.9 ± 45.4*	481.8 ± 60.8**	416.1 ± 48.0**
DAY 113	MEAN±S.D.	554.8 ± 57.6 [28]a	513.4 ± 53.6*	512.3 ± 49.0*	488.7 ± 61.0**	428.0 ± 40.1** [29]a

DAY = DAY POSTWEANING
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rats that were sacrificed following sexual maturation, found dead or moribund sacrificed.
b. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.
c. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.
d. First weekly value recorded after cohabitation.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D3 (PAGE 1): BODY WEIGHT CHANGES - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	60	60	60	60	60
INCLUDED IN ANALYSES	N	59a	58a	58a	59a	55a
BODY WEIGHT CHANGE (G)						
DAYS 1 - 8	MEAN±S.D.	+32.3 ± 7.0	+30.9 ± 5.4	+33.0 ± 7.1	+31.8 ± 5.9	+27.9 ± 6.4**
DAYS 8 - 15	MEAN±S.D.	+48.9 ± 7.6	+46.5 ± 5.0	+49.2 ± 6.9 [57]a	+46.2 ± 6.6*	+39.6 ± 6.6**
DAYS 15 - 22	MEAN±S.D.	+59.8 ± 6.0	+56.8 ± 7.0*	+59.7 ± 7.1 [57]a	+58.8 ± 8.2	+53.5 ± 5.3**
DAYS 22 - 29	MEAN±S.D.	+56.5 ± 6.1 [58]a	+55.9 ± 5.2	+56.6 ± 5.6 [57]a	+51.7 ± 10.1**	+48.4 ± 12.6**
DAYS 29 - 36	MEAN±S.D.	+56.8 ± 6.8 [47]a	+57.0 ± 17.0 [54]a	+56.5 ± 6.5 [51]a	+47.9 ± 20.9** [49]a	+40.7 ± 13.2** [48]a
DAYS 36 - 43	MEAN±S.D.	+42.7 ± 9.5 [30]a	+39.8 ± 19.1 [30]a	+39.1 ± 8.3 [31]a	+38.1 ± 8.3 [30]a	+35.4 ± 7.7** [30]a
DAYS 43 - 50	MEAN±S.D.	+40.8 ± 9.8 [30]a	+33.0 ± 6.3** [29]a	+34.0 ± 8.1** [31]a	+31.7 ± 9.2** [30]a	+27.0 ± 9.6** [30]a

DAYS = DAYS POSTWEANING
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rats that were sacrificed following sexual maturation, found dead or moribund sacrificed.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D3 (PAGE 2): BODY WEIGHT CHANGES - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	60	60	60	60	60
INCLUDED IN ANALYSES	N	30a	29a	30a	30a	30a
BODY WEIGHT CHANGE (G)						
DAYS 50 - 57	MEAN±S.D.	+29.3 ± 8.0	+28.1 ± 6.2	+27.3 ± 13.1	+24.8 ± 7.3*	+20.2 ± 9.1**
DAYS 57 - 64	MEAN±S.D.	+31.4 ± 8.3	+28.6 ± 6.8	+25.3 ± 6.4*	+24.4 ± 12.3	+21.7 ± 6.6**
DAYS 64 - 70b	MEAN±S.D.	+19.8 ± 6.2	+18.3 ± 9.1	+18.2 ± 5.3	+16.4 ± 8.2	+12.5 ± 6.8**
DAY 1 - PRECOHABITATION	MEAN±S.D.	+445.1 ± 44.1	+422.3 ± 44.5	+423.5 ± 38.9	+399.7 ± 50.8**	+350.5 ± 39.1**
DAYS 99c-106	MEAN±S.D.	+17.1 ± 33.5	+11.6 ± 8.3	+9.6 ± 12.4	+12.2 ± 9.4	+6.3 ± 26.5
DAYS 106- 113	MEAN±S.D.	+10.1 ± 37.3 [28]a	+8.8 ± 10.0	+5.4 ± 15.6	+7.0 ± 8.1	+7.3 ± 10.8 [29]a
DAYS 1 -113	MEAN±S.D.	+511.6± 55.0 [28]a	+472.5± 52.3**	+467.6± 49.6**	+444.6± 58.3**	+387.8± 37.4** [29]a

DAY(S) = DAY(S) POSTWEANING
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rats that were sacrificed following sexual maturation, found dead or moribund sacrificed.
b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.
c. First weekly value recorded after cohabitation.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D4 (PAGE 1): ABSOLUTE FEED CONSUMPTION VALUES (G/DAY) - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	60	60	60	60	60
INCLUDED IN ANALYSES	N	59a	58a	58a	59a	55a
FEED CONSUMPTION (G/DAY)						
DAYS 1 - 8	MEAN±S.D.	10.5 ± 1.5	10.4 ± 1.3	10.8 ± 2.4	10.6 ± 1.6	9.3 ± 1.7**
DAYS 8 - 15	MEAN±S.D.	18.1 ± 2.0 [58]b	17.4 ± 1.8	18.2 ± 2.9 [57]a	17.6 ± 2.8	16.0 ± 3.0**
DAYS 15 - 22	MEAN±S.D.	22.4 ± 2.1	21.6 ± 2.0	22.3 ± 2.7 [57]a	21.6 ± 2.4	20.2 ± 3.2**
DAYS 22 - 29	MEAN±S.D.	25.6 ± 3.4 [58]a	24.7 ± 2.2*	25.3 ± 3.6 [56]a,b	25.7 ± 2.5 [58]b	24.5 ± 3.1*
DAYS 29 - 36	MEAN±S.D.	28.1 ± 2.4 [47]a	26.8 ± 2.1* [54]a	27.8 ± 2.9 [50]a,b	28.4 ± 4.0 [49]a	26.5 ± 3.1** [47]a,b
DAYS 36 - 43	MEAN±S.D.	29.0 ± 2.5 [30]a	27.9 ± 2.0 [29]a,b	28.7 ± 2.5 [31]a	28.1 ± 2.8 [29]a,b	27.9 ± 3.8 [30]a
DAYS 43 - 50	MEAN±S.D.	29.2 ± 3.2 [29]a,b	27.0 ± 2.1** [29]a,b	28.8 ± 2.9 [29]a,b	28.3 ± 3.0 [30]a	27.2 ± 3.0* [28]a,b
DAYS 50 - 57	MEAN±S.D.	29.9 ± 2.8 [28]a,b	28.3 ± 2.4 [26]a,b	29.9 ± 3.2 [29]a,b	29.0 ± 3.2 [29]a,b	27.6 ± 3.3* [28]a,b
DAYS 57 - 64	MEAN±S.D.	30.0 ± 3.8 [26]a,b	28.2 ± 2.7 [27]a,b	28.9 ± 3.5 [28]a,b	28.5 ± 3.4 [30]a	27.4 ± 3.4 [30]a
DAYS 64 - 70c	MEAN±S.D.	29.2 ± 3.8 [30]a	27.6 ± 3.3 [28]a,b	28.5 ± 2.6 [29]a,b	27.7 ± 3.8 [30]a	26.8 ± 3.8 [30]a
DAYS 1 - 70c	MEAN±S.D.	25.1 ± 1.8 [30]a	23.7 ± 1.7** [28]a,b	24.7 ± 2.3 [29]a,b	24.4 ± 2.4 [30]a	23.2 ± 2.6** [30]a

DAYS = DAYS POSTWEANING
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rats that were sacrificed following sexual maturation, found dead or moribund sacrificed.
b. Excludes values that were associated with spillage, wet or soiled feed.
c. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D4 (PAGE 2): ABSOLUTE FEED CONSUMPTION VALUES (G/DAY) - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	60	60	60	60	60
INCLUDED IN ANALYSES	N	30a	28a,b	29a,b	30a	29a,b
FEED CONSUMPTION (G/DAY)						
DAYS 99 -106	MEAN±S.D.	28.7 ± 2.9	27.7 ± 3.1	27.8 ± 3.1	28.5 ± 3.3	26.9 ± 3.6
DAYS106 -113	MEAN±S.D.	28.8 ± 3.0 [24]b,c	27.6 ± 3.2	27.2 ± 4.1	28.2 ± 3.1 [28]b	26.9 ± 3.4 [28]a,b
DAYS 99 -113	MEAN±S.D.	28.8 ± 3.0 [24]b,c	27.6 ± 2.9	27.5 ± 3.3	28.2 ± 3.0 [28]b	27.2 ± 3.1 [28]a,b

DAYS = DAYS POSTWEANING
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rats that were sacrificed following sexual maturation, found dead or moribund sacrificed.
b. Excludes values that were associated with spillage, wet or soiled feed.
c. Excludes values for rats that were sacrificed before day 113 postweaning.

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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D5 (PAGE 1): RELATIVE FEED CONSUMPTION VALUES (G/KG/DAY) - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	60	60	60	60	60
INCLUDED IN ANALYSES	N	59a	58a	58a	59a	55a
FEED CONSUMPTION (G/KG/DAY)						
DAYS 1 - 8	MEAN±S.D.	179.2 ± 23.9	183.8 ± 19.4	177.8 ± 25.7	176.6 ± 19.9	168.3 ± 25.0*
DAYS 8 - 15	MEAN±S.D.	182.9 ± 19.5 [58]b	182.6 ± 15.9	179.6 ± 22.2 [57]a	177.3 ± 22.4	181.0 ± 25.6
DAYS 15 - 22	MEAN±S.D.	146.3 ± 12.2	147.3 ± 10.4	143.3 ± 10.9 [57]a	142.6 ± 12.9	149.4 ± 17.7
DAYS 22 - 29	MEAN±S.D.	121.0 ± 15.8 [58]a	121.7 ± 8.8	117.8 ± 13.1 [56]a,b	124.0 ± 11.4 [58]b	131.9 ± 16.4**
DAYS 29 - 36	MEAN±S.D.	104.6 ± 7.6 [47]a	103.8 ± 7.6 [54]a	102.5 ± 5.6 [50]a,b	112.3 ± 20.5* [49]a	116.1 ± 13.5** [47]a,b
DAYS 36 - 43	MEAN±S.D.	90.7 ± 6.8 [30]a	91.3 ± 7.7 [29]a,b	90.9 ± 4.6 [31]a	92.0 ± 5.8 [29]a,b	102.0 ± 8.0** [30]a
DAYS 43 - 50	MEAN±S.D.	81.0 ± 9.0 [29]a,b	78.7 ± 5.6 [29]a,b	82.1 ± 5.5 [29]a,b	83.5 ± 5.8 [30]a	90.1 ± 6.2** [28]a,b
DAYS 50 - 57	MEAN±S.D.	75.6 ± 6.6 [28]a,b	75.8 ± 5.4 [26]a,b	77.2 ± 6.8 [29]a,b	79.2 ± 6.0 [29]a,b	84.6 ± 6.3** [28]a,b
DAYS 57 - 64	MEAN±S.D.	70.1 ± 6.2 [26]a,b	70.0 ± 5.2 [27]a,b	70.0 ± 7.3 [28]a,b	72.8 ± 6.5 [30]a	78.6 ± 6.3** [30]a
DAYS 64 - 70c	MEAN±S.D.	64.4 ± 6.6 [30]a	64.8 ± 5.5 [28]a,b	66.1 ± 4.0 [29]a,b	67.2 ± 6.4 [30]a	73.2 ± 8.7** [30]a
DAYS 1 - 70c	MEAN±S.D.	91.8 ± 4.8 [30]a	91.8 ± 4.5 [28]a,b	92.4 ± 4.5 [29]a,b	95.2 ± 5.9* [30]a	101.0 ± 5.3** [30]a

DAYS = DAYS POSTWEANING
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rats that were sacrificed following sexual maturation, found dead or moribund sacrificed.
b. Excludes values that were associated with spillage, wet or soiled feed.
c. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE D5 (PAGE 2): RELATIVE FEED CONSUMPTION VALUES (G/KG/DAY) - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	60	60	60	60	60
INCLUDED IN ANALYSES	N	30a	28a,b	29a,b	30a	29a,b
FEED CONSUMPTION (G/KG/DAY)						
DAYS 99 -106	MEAN±S.D.	54.4 ± 4.6	55.7 ± 5.0	55.3 ± 5.5	60.4 ± 8.8**	65.6 ± 8.1**
DAYS106 -113	MEAN±S.D.	52.8 ± 4.8 [24]b,c	54.7 ± 5.6	53.5 ± 6.7	58.0 ± 5.0** [28]b	63.3 ± 6.5** [28]a,b
DAYS 99 -113	MEAN±S.D.	53.7 ± 4.4 [24]b,c	55.1 ± 4.9	54.5 ± 5.3	58.6 ± 5.0** [28]b	64.8 ± 6.6** [28]a,b

DAYS = DAYS POSTWEANING
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rats that were sacrificed following sexual maturation, found dead or moribund sacrificed.
b. Excludes values that were associated with spillage, wet or soiled feed.
c. Excludes values for rats that were sacrificed before day 113 postweaning.
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE D6 (PAGE 1): SEXUAL MATURATION - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
MALE RATS	N	60	60	60	60	60
INCLUDED IN ANALYSES	N	52a-d	58a	57a	58a	54a
PREPUTIAL SEPARATION e	MEAN±S.D.	48.5 ± 2.0	49.5 ± 2.7	49.4 ± 3.4	49.7 ± 3.1	52.2 ± 3.1**

a. Excludes values for rats that were found dead or moribund sacrificed.
b. Excludes values for rats in which testing was discontinued before the rat became sexually mature.
c. Excludes values for rats that were not observed.
d. Excludes values for rat 6555, which did not have preputial separation recorded on one day and was separated the following day.
e. Average day postpartum that the prepuce was observed to be separated.
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE D7 (PAGE 1): MATING AND FERTILITY - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS IN COHABITATION	N	30	29	30	30	30
DAYS IN COHABITATION a	MEAN±S.D.	3.0 ± 2.4	3.0 ± 1.1	2.4 ± 1.2	2.7 ± 1.6	2.5 ± 1.2
RATS THAT MATED b	N(%)	29(96.7)	29(100.0)	30(100.0)	30(100.0)	30(100.0)
FERTILITY INDEX c	N/N	28/ 29	28/ 29	28/ 30	28/ 30	29/ 30
	(%)	(96.6)	(96.6)	(93.3)	(93.3)	(96.7)
RATS WITH CONFIRMED MATING DATES	N	29	29	30	30	30
MATED WITH FEMALE d DAYS 1-7	N(%)	29(100.0)	29(100.0)	30(100.0)	30(100.0)	30(100.0)
RATS PREGNANT/RATS IN COHABITATION	N/N	28/ 30	28/ 29	28/ 30	28/ 30	29/ 30
	(%)	(93.3)	(96.6)	(93.3)	(93.3)	(96.7)

[ ] = NUMBER OF VALUES AVERAGED

a. Restricted to rats with a confirmed mating date and rats that did not mate.
b. Includes only one mating for each male rat.
c. Number of pregnancies/number of rats that mated.
d. Restricted to rats with a confirmed mating date.

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TABLE D8 (PAGE 1): NECROPSY OBSERVATIONS - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS EXAMINED a	N	60	60	60	60	60
MORTALITY a	N	3	3	3	2	7
FOUND DEAD	N	2	3	3	1	6
MORIBUND SACRIFICED	N	1	0	0	1	1
APPEARED NORMAL	N	59	58	53	44**	49**
LUNGS:						
ALL LOBES, MOTTLED DARK RED	N	1	0	0	0	0
PROSTATE:						
SMALL	N	0	1	0	0	0
TESTES:						
LEFT, FLACCID, SMALL	N	0	1	0	0	0
LEFT, LARGE	N	0	0	1	0	0
EPIDIDYMIDES:						
LEFT, SMALL	N	0	1	0	0	0
LIVER:						
LEFT LATERAL AND/OR MEDIAN LOBES, TAN AND/OR BLACK OR WHITE AREA(S)	N	0	0	6*	10**	9**
LARGE	N	0	0	0	0	1
KIDNEYS:						
RIGHT, PELVIS, MODERATE OR SLIGHT DILATION	N	0	0	0	4**	1

a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy and for rats that were found dead or moribund sacrificed.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE D8 (PAGE 2): NECROPSY OBSERVATIONS - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS EXAMINED a	N	60	60	60	60	60
MORTALITY a	N	3	3	3	2	7
FOUND DEAD	N	2	3	3	1	6
MORIBUND SACRIFICED	N	1	0	0	1	1
INTESTINES:						
DISTENDED WITH GAS	N	0	0	0	1	0
THYMUS:						
SMALL	N	0	0	0	1	0
STOMACH:						
CARDIAC REGION, ULCERATIONS	N	0	0	0	1	0
SPLEEN:						
TAN AREA EXTENDED INTO THE PARENCHYMA	N	0	0	0	1	0
SMALL	N	0	0	0	0	1

a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy and for rats that were found dead or moribund sacrificed.
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE D9 (PAGE 1): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	29	30	30	29
TERMINAL BODY WEIGHT	MEAN±S.D.	559.9 ± 59.8	527.2 ± 54.8*	523.9 ± 48.2*	499.3 ± 63.5**	437.6 ± 41.6**
EPIDIDYMIS LEFT	MEAN±S.D.	0.6854 ±0.0589	0.6626 ±0.0821	0.6749 ±0.0573	0.6720 ±0.0589	0.6503 ±0.0488
CAUDA EPIDIDYMIS LEFT	MEAN±S.D.	0.3333 ±0.0363	0.3177 ±0.0499	0.3287 ±0.0301	0.3288 ±0.0395	0.3169 ±0.0290
TESTIS LEFT	MEAN±S.D.	1.7456 ±0.1501	1.7058 ±0.1844	1.8278 ±0.2751	1.7732 ±0.1254	1.7284 ±0.1618
LEFT TESTIS MINUS TUNICA ALBUGINEA	MEAN±S.D.	1.6129 ±0.1426	1.5455 ±0.2513	1.6826 ±0.2590	1.6259 ±0.1201	1.5914 ±0.1483
SEMINAL VESICLES WITH FLUID	MEAN±S.D.	1.8978 ±0.3480	2.0708 ±0.2430	1.9677 ±0.2768	2.0598 ±0.3113	1.8930 ±0.3026
SEMINAL VESICLES WITHOUT FLUID	MEAN±S.D.	0.9878 ±0.1781	1.0380 ±0.1480	1.0194 ±0.1240	1.0701 ±0.1428	0.9493 ±0.1712
EPIDIDYMIS RIGHT	MEAN±S.D.	0.6982 ±0.0609	0.6870 ±0.0446	0.6831 ±0.0458	0.6881 ±0.0455	0.6693 ±0.0503
TESTIS RIGHT	MEAN±S.D.	1.7324 ±0.1389	1.7227 ±0.1363	1.7860 ±0.1539	1.7677 ±0.1195	1.7432 ±0.1783
PROSTATE	MEAN±S.D.	1.0374 ±0.2849	1.0825 ±0.2897	1.0265 ±0.2336	1.0455 ±0.2343	0.8724 ±0.1759*
PITUITARY	MEAN±S.D.	0.015 ± 0.003	0.017 ± 0.006	0.016 ± 0.006	0.014 ± 0.005	0.013 ± 0.006 [28]a
BRAIN	MEAN±S.D.	2.34 ± 0.13	2.28 ± 0.16	2.31 ± 0.12	2.28 ± 0.10	2.18 ± 0.14**

ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Excludes values for rats that had organs damaged (weight affected).
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE D9 (PAGE 2): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	29	30	30	29
TERMINAL BODY WEIGHT	MEAN±S.D.	559.9 ± 59.8	527.2 ± 54.8*	523.9 ± 48.2*	499.3 ± 63.5**	437.6 ± 41.6**
LIVER	MEAN±S.D.	21.65 ± 3.22	24.57 ± 4.04**	28.24 ± 4.22**	29.28 ± 4.09**	29.74 ± 3.97**
KIDNEY LEFT	MEAN±S.D.	2.21 ± 0.20	2.35 ± 0.26*	2.46 ± 0.20**	2.30 ± 0.22	2.03 ± 0.22**
KIDNEY RIGHT	MEAN±S.D.	2.24 ± 0.21	2.34 ± 0.28	2.48 ± 0.24**	2.33 ± 0.25	2.04 ± 0.21**
ADRENAL LEFT	MEAN±S.D.	0.032 ± 0.006	0.032 ± 0.008	0.031 ± 0.005	0.029 ± 0.006	0.028 ± 0.006*
ADRENAL RIGHT	MEAN±S.D.	0.030 ± 0.007 [29]a	0.029 ± 0.007	0.029 ± 0.005	0.028 ± 0.006	0.026 ± 0.006
SPLEEN	MEAN±S.D.	0.94 ± 0.14	0.83 ± 0.15*	0.85 ± 0.14*	0.81 ± 0.23**	0.74 ± 0.13**
THYMUS	MEAN±S.D.	0.51 ± 0.12	0.46 ± 0.12	0.44 ± 0.15	0.38 ± 0.11**	0.39 ± 0.15**

ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Excludes values for rats that had organs damaged (weight affected).
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE D10 (PAGE 1): RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	29	30	30	29
TERMINAL BODY WEIGHT	MEAN±S.D.	559.9 ± 59.8	527.2 ± 54.8*	523.9 ± 48.2*	499.3 ± 63.5**	437.6 ± 41.6**
EPIDIDYMIS LEFT	MEAN±S.D.	0.123 ± 0.014	0.127 ± 0.018	0.130 ± 0.016	0.136 ± 0.017**	0.149 ± 0.017**
CAUDA EPIDIDYMIS LEFT	MEAN±S.D.	0.060 ± 0.007	0.060 ± 0.011	0.063 ± 0.008	0.066 ± 0.010*	0.072 ± 0.010**
TESTIS LEFT	MEAN±S.D.	0.314 ± 0.036	0.327 ± 0.050	0.351 ± 0.061**	0.360 ± 0.048**	0.396 ± 0.044**
LEFT TESTIS MINUS TUNICA ALBUGINEA	MEAN±S.D.	0.290 ± 0.034	0.296 ± 0.057	0.324 ± 0.057*	0.330 ± 0.047**	0.366 ± 0.041**
SEMINAL VESICLES WITH FLUID	MEAN±S.D.	0.339 ± 0.061	0.396 ± 0.052**	0.377 ± 0.049*	0.416 ± 0.064**	0.436 ± 0.082**
SEMINAL VESICLES WITHOUT FLUID	MEAN±S.D.	0.176 ± 0.033	0.198 ± 0.034*	0.196 ± 0.028*	0.217 ± 0.032**	0.218 ± 0.046**
EPIDIDYMIS RIGHT	MEAN±S.D.	0.126 ± 0.014	0.131 ± 0.011	0.130 ± 0.013	0.140 ± 0.017**	0.152 ± 0.018**
TESTIS RIGHT	MEAN±S.D.	0.312 ± 0.036	0.329 ± 0.040	0.343 ± 0.044*	0.358 ± 0.049**	0.401 ± 0.050**
PROSTATE	MEAN±S.D.	0.185 ± 0.052	0.203 ± 0.050	0.197 ± 0.046	0.210 ± 0.043	0.199 ± 0.039
PITUITARY a	MEAN±S.D.	2.621 ± 0.589	3.181 ± 1.203	3.071 ± 1.054	2.809 ± 1.064	3.041 ± 1.421 [28]b
BRAIN	MEAN±S.D.	0.421 ± 0.045	0.435 ± 0.040	0.443 ± 0.041	0.461 ± 0.055**	0.502 ± 0.043**

ALL WEIGHTS WERE RECORDED IN GRAMS (G). RATIOS (%) = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.
b. Excludes values for rats that had organs damaged (weight affected).
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE D10 (PAGE 2): RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	29	30	30	29
TERMINAL BODY WEIGHT	MEAN±S.D.	559.9 ± 59.8	527.2 ± 54.8*	523.9 ± 48.2*	499.3 ± 63.5**	437.6 ± 41.6**
LIVER	MEAN±S.D.	3.860 ± 0.324	4.648 ± 0.510**	5.408 ± 0.754**	5.895 ± 0.697**	6.787 ± 0.550**
KIDNEY LEFT	MEAN±S.D.	0.396 ± 0.031	0.446 ± 0.042**	0.472 ± 0.045**	0.464 ± 0.046**	0.465 ± 0.038**
KIDNEY RIGHT	MEAN±S.D.	0.402 ± 0.034	0.446 ± 0.041**	0.474 ± 0.041**	0.469 ± 0.050**	0.467 ± 0.036**
ADRENAL LEFT a	MEAN±S.D.	5.693 ± 1.124	6.016 ± 1.402	5.999 ± 1.124	5.837 ± 1.282	6.332 ± 1.366
ADRENAL RIGHT a	MEAN±S.D.	5.355 ± 1.242 [29]b	5.517 ± 1.251	5.494 ± 1.007	5.697 ± 1.076	5.899 ± 1.426
SPLEEN	MEAN±S.D.	0.169 ± 0.024	0.157 ± 0.023	0.161 ± 0.021	0.166 ± 0.063	0.171 ± 0.027
THYMUS	MEAN±S.D.	0.091 ± 0.022	0.088 ± 0.023	0.082 ± 0.024	0.077 ± 0.025	0.088 ± 0.033

ALL WEIGHTS WERE RECORDED IN GRAMS (G). RATIOS (%) = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.
b. Excludes values for rats that had organs damaged (weight affected).
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE D11 (PAGE 1): RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	29	30	30	29
BRAIN WEIGHT	MEAN±S.D.	2.34 ± 0.13	2.28 ± 0.16	2.31 ± 0.12	2.28 ± 0.10	2.18 ± 0.14**
EPIDIDYMIS LEFT	MEAN±S.D.	29.33 ± 2.23	29.11 ± 3.84	29.28 ± 2.70	29.57 ± 2.64	29.91 ± 2.74
CAUDA EPIDIDYMIS LEFT	MEAN±S.D.	14.26 ± 1.41	13.94 ± 2.20	14.28 ± 1.53	14.46 ± 1.71	14.60 ± 1.74
TESTIS LEFT	MEAN±S.D.	74.71 ± 5.90	74.92 ± 8.24	79.23 ± 11.56	78.03 ± 6.10	79.31 ± 6.62*
LEFT TESTIS MINUS TUNICA ALBUGINEA	MEAN±S.D.	69.03 ± 5.56	67.86 ± 11.31	72.93 ± 10.86	71.56 ± 5.80	73.09 ± 6.81
SEMINAL VESICLES WITH FLUID	MEAN±S.D.	81.16 ± 13.80	90.84 ± 9.80*	85.37 ± 12.40	90.50 ± 12.96*	87.40 ± 16.74
SEMINAL VESICLES WITHOUT FLUID	MEAN±S.D.	42.24 ± 7.07	45.56 ± 6.31	44.20 ± 5.44	47.06 ± 6.27	43.78 ± 8.89
EPIDIDYMIS RIGHT	MEAN±S.D.	29.88 ± 2.19	30.20 ± 2.42	29.63 ± 2.13	30.27 ± 2.06	30.80 ± 3.04
TESTIS RIGHT	MEAN±S.D.	74.15 ± 5.37	75.66 ± 6.05	77.43 ± 6.43	77.76 ± 5.38*	80.05 ± 8.12**
PROSTATE	MEAN±S.D.	44.37 ± 11.95	47.19 ± 11.80	44.54 ± 10.14	45.93 ± 10.09	40.10 ± 8.42
PITUITARY	MEAN±S.D.	0.62 ± 0.14	0.73 ± 0.25	0.70 ± 0.24	0.60 ± 0.20	0.61 ± 0.29 [28]a

ALL WEIGHTS WERE RECORDED IN GRAMS (G). RATIOS (%) = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Excludes values for rats that had organs damaged (weight affected).

* Significantly different from the Group I value ($p \leq 0.05$).

** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE D11 (PAGE 2): RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	29	30	30	29
BRAIN WEIGHT	MEAN±S.D.	2.34 ± 0.13	2.28 ± 0.16	2.31 ± 0.12	2.28 ± 0.10	2.18 ± 0.14**
LIVER	MEAN±S.D.	927.17 ±135.62	1074.98 ±149.66**	1224.30 ±178.78**	1285.40 ±159.24**	1363.79 ±165.99**
KIDNEY LEFT	MEAN±S.D.	94.77 ± 7.87	102.81 ± 7.56**	106.56 ± 9.07**	100.98 ± 7.93*	93.27 ± 9.95
KIDNEY RIGHT	MEAN±S.D.	95.87 ± 9.05	102.62 ± 7.68**	107.40 ± 10.20**	102.29 ± 9.81*	93.60 ± 7.88
ADRENAL LEFT	MEAN±S.D.	1.35 ± 0.24	1.39 ± 0.36	1.35 ± 0.23	1.27 ± 0.26	1.26 ± 0.25
ADRENAL RIGHT	MEAN±S.D.	1.28 ± 0.28 [29]a	1.28 ± 0.31	1.24 ± 0.22	1.24 ± 0.24	1.17 ± 0.26
SPLEEN	MEAN±S.D.	40.39 ± 5.51	36.24 ± 4.69*	36.73 ± 6.06*	35.91 ± 10.99**	34.21 ± 5.76**
THYMUS	MEAN±S.D.	21.84 ± 5.64	20.35 ± 5.61	19.15 ± 6.53	16.77 ± 4.95**	17.78 ± 6.93*

ALL WEIGHTS WERE RECORDED IN GRAMS (G). RATIOS (%) = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Excludes values for rats that had organs damaged (weight affected).

* Significantly different from the Group I value ($p \leq 0.05$).

** Significantly different from the Group I value ($p \leq 0.01$).

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D12 (PAGE 1): CAUDA EPIDIDYMAL SPERM MOTILITY, COUNT, DENSITY AND SPERMATID COUNT - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	29	30	30	29
INCLUDED IN ANALYSES	N	30	28a	30	30	29
NUMBER MOTILE	MEAN±S.D.	250.1 ± 71.1	266.4 ± 95.2	271.6 ± 74.2	258.9 ± 73.0	257.2 ± 86.6
MOTILE PERCENT	MEAN±S.D.	83.1 ± 8.8	83.7 ± 6.8	83.9 ± 6.9	82.6 ± 7.0	80.1 ± 10.9
STATIC COUNT (NONMOTILE)	MEAN±S.D.	51.2 ± 30.5	51.9 ± 27.0	52.8 ± 27.0	56.3 ± 28.4	64.6 ± 40.4
TOTAL COUNT b	MEAN±S.D.	301.3 ± 77.8	318.4 ± 108.6	324.4 ± 87.4	315.2 ± 88.9	321.8 ± 104.1
SPERM COUNT c	MEAN±S.D.	135.6 ± 67.8	162.0 ± 110.4	144.6 ± 79.0	136.3 ± 62.0	115.7 ± 57.5
SPERM DENSITY d	MEAN±S.D.	1194.3 ± 632.1	1423.7 ± 922.5	1248.5 ± 686.5	1206.8 ± 565.8	1052.7 ± 487.7

a. Excludes values for rat 1082, which had less than 200 sperm per 20 fields.

b. Sum of number motile and static count. Groups of five fields were evaluated until a sperm count of at least 200 was achieved or 20 fields were evaluated.

c. Sperm count used in the calculation of sperm density. Ten fields were evaluated.

d. The sperm density was calculated by dividing the sperm count by the volume in the image area (34.3×10^{-6} mL), multiplying by 2 (dilution factor) and multiplying by 10^{-6} to obtain the sperm concentration. The calculated sperm concentration value (rounded to 1 decimal place) was multiplied by 50 (volume) and divided by the weight of the left cauda epididymis (see Table D20 for the weight of the left cauda epididymis) to obtain the sperm density. The calculated value will vary by approximately 0.8% from the Computer Automated Sperm Analysis because the digital image evaluated is slightly smaller (4 pixels) than the actual field causing a slight underestimate of the actual volume and an overestimate of the concentration.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D12 (PAGE 2): CAUDA EPIDIDYMAL SPERM MOTILITY, COUNT, DENSITY AND SPERMATID COUNT - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	29	30	30	29
INCLUDED IN ANALYSES	N	30	28a	30	30	29
SPERMATID COUNT b	MEAN±S.D.	45.3 ± 13.1	40.4 ± 15.1	39.3 ± 15.4	40.2 ± 15.7	42.7 ± 16.2
SPERMATID DENSITY c	MEAN±S.D.	82.6 ± 25.4	73.8 ± 26.5	67.8 ± 25.1	71.4 ± 27.4	77.1 ± 27.3

a. Excludes values for rat 1082, which had less than 200 sperm per 20 fields.

b. Spermatid count used in the calculation of spermatid density. Ten fields were evaluated.

c. The spermatid density was calculated by dividing the spermatid count by the volume in the image area (34.3×10^{-6} mL), multiplying by 2 (dilution factor) and multiplying by 10^{-6} to obtain the spermatid concentration. The calculated spermatid concentration value (rounded to 1 decimal place) was multiplied by 50 (volume) and divided by the weight of the left testis minus tunica albuginea (see Table D20 for the weight of the left testis minus tunica albuginea) to obtain the spermatid density. The calculated value will vary by approximately 0.8% from the Computer Automated Sperm Analysis because the digital image evaluated is slightly smaller (4 pixels) than the actual field causing a slight underestimate of the actual volume and an overestimate of the concentration.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D13 (PAGE 1): CAUDA EPIDIDYMAL SPERM MORPHOLOGY - SUMMARY - F1 GENERATION MALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	29	30	30	29
INCLUDED IN ANALYSES	N	30	28a	30	30	29
NORMAL	MEAN±S.D.	195.3 ± 1.9	195.2 ± 2.6	194.9 ± 2.0	195.3 ± 2.1	194.1 ± 2.6
DETACHED HEAD	MEAN±S.D.	2.7 ± 1.6	3.2 ± 1.8	3.0 ± 1.7	3.0 ± 1.8	3.1 ± 1.4
NO HEAD	MEAN±S.D.	1.4 ± 1.0	1.4 ± 1.2	1.7 ± 1.1	1.2 ± 1.2	2.0 ± 1.6
BROKEN FLAGELLUM	MEAN±S.D.	0.5 ± 0.7	0.0 ± 0.2*	0.3 ± 0.5	0.3 ± 0.6	0.6 ± 0.8
NO HOOK	MEAN±S.D.	0.0 ± 0.0	0.1 ± 0.3	0.0 ± 0.2	0.0 ± 0.2	0.0 ± 0.0
COILED FLAGELLUM	MEAN±S.D.	0.0 ± 0.2	0.0 ± 0.0	0.1 ± 0.3	0.0 ± 0.2	0.0 ± 0.2
BENT FLAGELLUM	MEAN±S.D.	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.2	0.0 ± 0.2
BENT FLAGELLUM TIP	MEAN±S.D.	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.2
PERCENT ABNORMAL	MEAN±S.D.	2.4 ± 0.9	2.4 ± 1.3	2.6 ± 1.0	2.4 ± 1.0	2.9 ± 1.3

a. Excludes values for rat 1082, which had less than 200 sperm per 20 fields.
* Significantly different from the Group I value ($p \leq 0.05$).

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D14 (PAGE 1): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP I		0 MG/KG/DAY
RAT #		DESCRIPTION
1001		NO ADVERSE FINDINGS
1002	DP(93- 94)	CHROMORHINORRHEA
	DP(93- 94)	SNOUT: SWOLLEN
	DP(93- 97)	CHROMODACRYORRHEA
1003		NO ADVERSE FINDINGS
1004		NO ADVERSE FINDINGS
1005	DP(112-113)	INCISORS: MISALIGNED
	DP(114-118)	INCISORS: MISSING/BROKEN a
1006		NO ADVERSE FINDINGS
1007		NO ADVERSE FINDINGS
1008		NO ADVERSE FINDINGS
1009		NO ADVERSE FINDINGS
1010		NO ADVERSE FINDINGS
1011		NO ADVERSE FINDINGS
1012	DP(76)	SOFT OR LIQUID FECES
1013	DP(24)	ANNULAR CONSTRICTION OF THE TAIL
1014		NO ADVERSE FINDINGS
1015		NO ADVERSE FINDINGS
1016		NO ADVERSE FINDINGS
1017	DP(3)	SOFT OR LIQUID FECES
6553	DP(4- 7)	SOFT OR LIQUID FECES
	DP(4- 14)	URINE-STAINED ABDOMINAL FUR
	DP(22- 32)	ANNULAR CONSTRICTION OF THE TAIL
6554	DP(22- 32)	NECK AND HEAD: SCAB (0.4 CM IN DIAMETER)
	DP(31- 35)	ABDOMINAL DISTENTION a
6555		NO ADVERSE FINDINGS
1021	DP(35- 37)	SNOUT: SWOLLEN
	DP(35- 37)	INCISORS: MISSING/BROKEN
	DP(37- 59)	NECK: SCAB (0.3 CM IN DIAMETER)
1022	DP(27- 34)	HEAD: SCAB (0.5 CM IN DIAMETER)
	DP(35- 37)	HEAD: ABRASION (1.0 CM IN DIAMETER)a
1023		NO ADVERSE FINDINGS
1024	DP(25)	FOUND DEAD
1025	DP(36)	CHROMORHINORRHEA
1026	DP(17-118)	RIGHT EYE: ENLARGED a
	DP(36)	EXCESS SALIVATION

DP = DAY POSTWEANING
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D14 (PAGE 2): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP I		0 MG/KG/DAY
RAT #		DESCRIPTION
1027	DP(8- 9)	ABDOMINAL DISTENTION
1028	DP(2)	SOFT OR LIQUID FECES
	DP(8- 16)	ABDOMINAL DISTENTION
	DP(23- 43)	ANNULAR CONSTRICTION OF THE TAIL
1029	DP(2- 4)	CHROMORHINORRHEA a
	DP(4)	DECREASED MOTOR ACTIVITY
	DP(4)	COLD TO TOUCH
	DP(4)	MORIBUND SACRIFICED
1030		NO ADVERSE FINDINGS
1031		NO ADVERSE FINDINGS
1032		NO ADVERSE FINDINGS
1033	DP(8- 16)	ABDOMINAL DISTENTION
	DP(35)	EXCESS SALIVATION
1034	DP(74)	SOFT OR LIQUID FECES
1035	DP(2)	CHROMORHINORRHEA
	DP(35)	EXCESS SALIVATION
1036		NO ADVERSE FINDINGS
1037		NO ADVERSE FINDINGS
1038	DP(34)	CHROMORHINORRHEA
1039	DP(34)	VOCALIZATION
	DP(42)	FOUND DEAD
1040	DP(77- 85)	INCISORS: MISALIGNED
1041		NO ADVERSE FINDINGS
1042		NO ADVERSE FINDINGS
1043	DP(8)	SOFT OR LIQUID FECES
	DP(15- 24)	BACK: SCAB (DID NOT EXCEED 0.5 CM IN DIAMETER)
	DP(30- 31)	HEAD: SCAB (0.4 CM IN DIAMETER)
	DP(32- 46)	HEAD: ABRASION (1.0 CM IN DIAMETER)
	DP(33- 34)	CHROMODACRYORRHEA
	DP(33- 40)	INCISORS: MISSING/BROKEN
	DP(47- 54)	HEAD: SCAB (0.8 CM IN DIAMETER)
	DP(59- 85)	BACK: SCAB (DID NOT EXCEED 1.0 CM X 0.5 CM)
	DP(89-118)	LOCALIZED ALOPECIA: LIMBS a

DP = DAY POSTWEANING
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D14 (PAGE 3): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP I		0 MG/KG/DAY
RAT #		DESCRIPTION
1044		NO ADVERSE FINDINGS
1045		NO ADVERSE FINDINGS
1046		NO ADVERSE FINDINGS
1047		NO ADVERSE FINDINGS
1048	DP(33- 34)	SOFT OR LIQUID FECES
	DP(34)	CHROMORHINORRHEA
1049	DP(34)	SOFT OR LIQUID FECES
1050	DP(34)	EXCESS SALIVATION
1051	DP(2)	CHROMORHINORRHEA
1052	DP(9- 13)	SOFT OR LIQUID FECES
	DP(42)	SOFT OR LIQUID FECES
	DP(93- 94)	SOFT OR LIQUID FECES
1053	DP(20)	SOFT OR LIQUID FECES
1054		NO ADVERSE FINDINGS
1055		NO ADVERSE FINDINGS
1056	DP(29)	SOFT OR LIQUID FECES
1057	DP(4)	CHROMORHINORRHEA
1058	DP(18- 28)	ANNULAR CONSTRICTION OF THE TAIL
1059	DP(90)	CHROMORHINORRHEA
	DP(90)	RALES
	DP(90- 97)	CHROMODACRYORRHEA
	DP(90-109)	INCISORS: MISSING/BROKEN a
	DP(103-109)	CHROMODACRYORRHEA a
	DP(109)	INCISORS: MISALIGNED a
1060		NO ADVERSE FINDINGS

DP = DAY POSTWEANING
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D14 (PAGE 4): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP II		1 MG/KG/DAY
RAT #		DESCRIPTION
1061		NO ADVERSE FINDINGS
1062	DP(28- 36)	ANNULAR CONSTRICTION OF THE TAIL
1063	DP(104-105)	CHROMODACRYORRHEA
1064	DP(5)	CHROMORHINORRHEA a
	DP(5)	URINE-STAINED ABDOMINAL FUR
	DP(6)	FOUND DEAD
1065		NO ADVERSE FINDINGS
1066		NO ADVERSE FINDINGS
1067	DP(3)	CHROMORHINORRHEA
1068	DP(38)	CHROMORHINORRHEA
1069	DP(26- 36)	ANNULAR CONSTRICTION OF THE TAIL
1070	DP(25- 35)	ANNULAR CONSTRICTION OF THE TAIL
	DP(29)	SOFT OR LIQUID FECES
1071	DP(44- 45)	SOFT OR LIQUID FECES
1072	DP(27)	SOFT OR LIQUID FECES
1073		NO ADVERSE FINDINGS
1074		NO ADVERSE FINDINGS
1075	DP(25- 35)	ANNULAR CONSTRICTION OF THE TAIL
1076		NO ADVERSE FINDINGS
1077	DP(37)	VOCALIZATION
1078		NO ADVERSE FINDINGS
1079	DP(25- 35)	ANNULAR CONSTRICTION OF THE TAIL
1080		NO ADVERSE FINDINGS
1081	DP(37)	SOFT OR LIQUID FECES
1082		NO ADVERSE FINDINGS
1083		NO ADVERSE FINDINGS
1084	DP(37)	EXCESS SALIVATION
1085	DP(25- 35)	ANNULAR CONSTRICTION OF THE TAIL
	DP(28- 37)	HEAD: SCAB (0.2 CM IN DIAMETER)

DP = DAY POSTWEANING
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D14 (PAGE 5): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP II		1 MG/KG/DAY
RAT #		DESCRIPTION
1086	DP(10- 17)	ABDOMINAL DISTENTION
	DP(80)	CHROMORHINORRHEA
	DP(80- 81)	SNOUT: SWOLLEN
	DP(80-115)	INCISORS: MISALIGNED
	DP(80-119)	CHROMODACRYORRHEA a
	DP(102-103)	CHROMORHINORRHEA
1087	DP(45)	FOUND DEAD
1088		NO ADVERSE FINDINGS
1089	DP(25- 38)	RIGHT EYE: CORNEAL OPACITY
	DP(37)	SOFT OR LIQUID FECES
1090	DP(37)	EXCESS SALIVATION
1091		NO ADVERSE FINDINGS
1092		NO ADVERSE FINDINGS
1093	DP(20)	SOFT OR LIQUID FECES
1094	DP(32- 51)	PTOSIS
	DP(42- 51)	ANNULAR CONSTRICTION OF THE TAIL
	DP(50- 52)	CHROMODACRYORRHEA
1095		NO ADVERSE FINDINGS
1096	DP(3- 6)	CHROMODACRYORRHEA
	DP(24- 25)	ENOPHTHALMOS
	DP(35- 36)	CHROMORHINORRHEA
	DP(50- 51)	CHROMORHINORRHEA
1097		NO ADVERSE FINDINGS
1098		NO ADVERSE FINDINGS
1099	DP(34)	SNOUT: SWOLLEN
	DP(34)	URINE-STAINED ABDOMINAL FUR
	DP(34- 36)	CHROMORHINORRHEA
	DP(34- 37)	CHROMODACRYORRHEA a
	DP(34- 37)	INCISORS: MISALIGNED a

DP = DAY POSTWEANING
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D14 (PAGE 6): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP II		1 MG/KG/DAY
RAT #		DESCRIPTION
1100		NO ADVERSE FINDINGS
1101	DP(36)	SOFT OR LIQUID FECES
1102		NO ADVERSE FINDINGS
1103		NO ADVERSE FINDINGS
1104	DP(1)	DECREASED MOTOR ACTIVITY
	DP(1)	COLD TO TOUCH
	DP(1)	EMACIATION
	DP(2)	FOUND DEAD
1105	DP(8- 18)	ABDOMINAL DISTENTION
	DP(23- 35)	ANNULAR CONSTRICTION OF THE TAIL
1106	DP(8- 18)	ABDOMINAL DISTENTION
	DP(100-101)	SOFT OR LIQUID FECES
1107	DP(23- 33)	ANNULAR CONSTRICTION OF THE TAIL
	DP(100-101)	CHROMORHINORRHEA
1108	DP(23- 33)	ANNULAR CONSTRICTION OF THE TAIL
1109		NO ADVERSE FINDINGS
1110		NO ADVERSE FINDINGS
1111	DP(5)	CHROMORHINORRHEA
	DP(35)	CHROMORHINORRHEA
1112	DP(34)	CHROMORHINORRHEA
1113	DP(7- 17)	ABDOMINAL DISTENTION
1114	DP(22- 41)	HEAD AND NECK: SCAB (DID NOT EXCEED 0.5 CM IN DIAMETER)
	DP(34)	SOFT OR LIQUID FECES
	DP(64-119)	LOCALIZED ALOPECIA: LIMBS a
1115	DP(22- 34)	ANNULAR CONSTRICTION OF THE TAIL
1116		NO ADVERSE FINDINGS
1117		NO ADVERSE FINDINGS
1118	DP(34)	SOFT OR LIQUID FECES
	DP(100)	SOFT OR LIQUID FECES
1119	DP(34)	SOFT OR LIQUID FECES
1120	DP(64- 85)	INCISORS: MISALIGNED

DP = DAY POSTWEANING
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D14 (PAGE 7): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP III		3 MG/KG/DAY
RAT #		DESCRIPTION
1121	DP(5)	FOUND DEAD
1122	DP(38)	SOFT OR LIQUID FECES
	DP(45)	ANNULAR CONSTRICTIONS OF THE TAIL
1123	DP(62- 67)	BACK: SCAB (DID NOT EXCEED 0.5 CM IN DIAMETER)
	DP(97- 98)	CHROMORHINORRHEA
	DP(97-110)	CHROMODACRYORRHEA
	DP(97-118)	INCISORS: MISALIGNED a
	DP(100-118)	SNOUT: SWOLLEN a
	DP(118)	CHROMODACRYORRHEA a
1124		NO ADVERSE FINDINGS
1125	DP(5- 9)	CHROMORHINORRHEA
	DP(25- 35)	ANNULAR CONSTRICTIONS OF THE TAIL
1126	DP(27- 38)	HEAD: SCABS (DID NOT EXCEED 0.5 CM IN DIAMETER)a
	DP(35- 38)	NECK: SCAB (2.0 CM X 0.5 CM)a
1127	DP(25- 28)	BACK: SCAB (0.4 CM IN DIAMETER)
	DP(27- 54)	BEHIND LEFT EAR: SCAB (DID NOT EXCEED 0.5 CM IN DIAMETER)
1128	DP(25- 35)	ANNULAR CONSTRICTIONS OF THE TAIL
1129	DP(25- 35)	ANNULAR CONSTRICTIONS OF THE TAIL
	DP(64- 69)	INCISORS: MISSING/BROKEN
1130	DP(2)	FOUND DEAD
1131	DP(4- 5)	CHROMORHINORRHEA
	DP(50)	RED, DRIED, SLIGHT PERINASAL SUBSTANCE
1132	DP(30- 81)	INCISORS: MISALIGNED
	DP(30-118)	CHROMODACRYORRHEA a
	DP(37)	CHROMORHINORRHEA
	DP(44- 77)	LACRIMATION
	DP(82-118)	INCISORS: MISSING/BROKEN a
1133	DP(37)	CHROMORHINORRHEA
1134	DP(25- 35)	ANNULAR CONSTRICTIONS OF THE TAIL
1135		NO ADVERSE FINDINGS

DP = DAY POSTWEANING
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D14 (PAGE 8): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP III		3 MG/KG/DAY
RAT #		DESCRIPTION
1136	DP(107-119)	CHROMODACRYORRHEA a
	DP(107-119)	SNOUT: SWOLLEN a
	DP(107-119)	INCISORS: MISSING/BROKEN a
1137		NO ADVERSE FINDINGS
1138		NO ADVERSE FINDINGS
1139	DP(109-110)	CHROMORHINORRHEA
1140	DP(3)	EMACIATION
	DP(9)	FOUND DEAD
1141		NO ADVERSE FINDINGS
1142		NO ADVERSE FINDINGS
1143		NO ADVERSE FINDINGS
1144	DP(2)	EMACIATION
	DP(2)	COLD TO TOUCH
	DP(3)	CHROMORHINORRHEA
	DP(3- 15)	URINE-STAINED ABDOMINAL FUR
	DP(9- 19)	ABDOMINAL DISTENTION
1145		NO ADVERSE FINDINGS
1146		NO ADVERSE FINDINGS
1147	DP(101-103)	CHROMODACRYORRHEA
1148		NO ADVERSE FINDINGS
1149	DP(36)	EXCESS SALIVATION
1150		NO ADVERSE FINDINGS
1151	DP(36)	SOFT OR LIQUID FECES
	DP(76-103)	INCISORS: MISALIGNED
	DP(91-103)	CHROMODACRYORRHEA
	DP(105-110)	CHROMODACRYORRHEA
	DP(119-120)	CHROMODACRYORRHEA a
1152		NO ADVERSE FINDINGS
1153	DP(24- 36)	ANNULAR CONSTRICTIONS OF THE TAIL

DP = DAY POSTWEANING
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D14 (PAGE 9): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP III		3 MG/KG/DAY
RAT #		DESCRIPTION
1154		NO ADVERSE FINDINGS
1155		NO ADVERSE FINDINGS
1156		NO ADVERSE FINDINGS
1157	DP(35)	RED, SLIGHT PERIORAL SUBSTANCE
1158	DP(59- 62)	BACK: SCAB (0.5 CM IN DIAMETER)
	DP(63- 65)	LOCALIZED ALOPECIA: BACK
1159	DP(35)	CHROMORHINORRHEA
	DP(59)	CHROMODACRYORRHEA
	DP(59- 65)	INCISORS: MISALIGNED
	DP(92)	CHROMODACRYORRHEA
	DP(102-119)	CHROMODACRYORRHEA a
1160		NO ADVERSE FINDINGS
1161	DP(35)	SOFT OR LIQUID FECES
1162	DP(23- 33)	ANNULAR CONSTRICTIONS OF THE TAIL
	DP(43- 44)	CHROMODACRYORRHEA
	DP(43- 54)	INCISORS: MISALIGNED
1163		NO ADVERSE FINDINGS
1164	DP(63- 93)	LOCALIZED ALOPECIA: LIMBS
1165	DP(35)	SOFT OR LIQUID FECES
1166	DP(1- 4)	CHROMORHINORRHEA
1167		NO ADVERSE FINDINGS
1168	DP(38- 39)	RED, DRIED, SLIGHT PERINASAL SUBSTANCE
1169	DP(24)	SOFT OR LIQUID FECES
	DP(34)	SOFT OR LIQUID FECES
1170		NO ADVERSE FINDINGS
1171		NO ADVERSE FINDINGS
1172		NO ADVERSE FINDINGS
1173		NO ADVERSE FINDINGS
1174		NO ADVERSE FINDINGS

DP = DAY POSTWEANING
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D14 (PAGE 10): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP III		3 MG/KG/DAY
RAT #		DESCRIPTION
1175	DP(34)	EXCESS SALIVATION
	DP(56- 57)	CHROMORHINORRHEA
	DP(56- 61)	SNOUT: SWOLLEN
	DP(56-108)	INCISORS: MISALIGNED
	DP(56-119)	CHROMODACRYORRHEA a
	DP(109-118)	INCISORS: MISSING/BROKEN
	DP(117-119)	INCISORS: MISALIGNED a
1176	DP(103)	CHROMORHINORRHEA
	DP(103-119)	CHROMODACRYORRHEA a
	DP(103-119)	INCISORS: MISALIGNED a
1177		NO ADVERSE FINDINGS
1178		NO ADVERSE FINDINGS
1179		NO ADVERSE FINDINGS
1180	DP(18- 20)	HEAD: SCAB (0.3 CM IN DIAMETER)
	DP(21- 22)	LOCALIZED ALOPECIA: HEAD
	DP(30)	EXCESS SALIVATION

DP = DAY POSTWEANING
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D14 (PAGE 11): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP IV		10 MG/KG/DAY
RAT #		DESCRIPTION
1181		NO ADVERSE FINDINGS
1182		NO ADVERSE FINDINGS
1183	DP(10- 20)	ABDOMINAL DISTENTION
1184	DP(5)	CHROMORHINORRHEA
	DP(10- 20)	ABDOMINAL DISTENTION
	DP(25- 44)	ANNULAR CONSTRICTIONS OF THE TAIL
1185	DP(25- 33)	ANNULAR CONSTRICTIONS OF THE TAIL
1186		NO ADVERSE FINDINGS
1187		NO ADVERSE FINDINGS
1188	DP(82- 83)	CHROMODACRYORRHEA
	DP(82- 98)	INCISORS: MISALIGNED
	DP(102)	SOFT OR LIQUID FECES
1189	DP(48- 55)	INCISORS: MISSING/BROKEN
	DP(81- 86)	INCISORS: MISSING/BROKEN
1190		NO ADVERSE FINDINGS
1191		NO ADVERSE FINDINGS
1192	DP(84-117)	INCISORS: MISSING/BROKEN a
1193	DP(24- 26)	MOUTH: SCAB (DID NOT EXCEED 0.5 CM X 0.5 CM)
1194	DP(60)	BACK: ULCERATION (1.0 CM X 0.5 CM)
	DP(61- 65)	BACK: SCAB (1.0 CM X 0.5 CM)
	DP(66- 75)	LOCALIZED ALOPECIA: BACK
	DP(87)	PENIS: RED SUBSTANCE
1195		NO ADVERSE FINDINGS
1196		NO ADVERSE FINDINGS
1197	DP(8- 16)	TIP OF TAIL BLACK
	DP(17- 37)	TIP OF TAIL MISSING a
1198		NO ADVERSE FINDINGS
1199		NO ADVERSE FINDINGS
1200	DP(24)	CHROMODACRYORRHEA
	DP(24- 40)	DEHYDRATION a
	DP(25- 40)	ABDOMINAL DISTENTION a
	DP(29- 32)	URINE-STAINED ABDOMINAL FUR
	DP(29- 40)	EMACIATION a
	DP(29- 40)	COLD TO TOUCH
	DP(39- 40)	URINE-STAINED ABDOMINAL FUR
	DP(40)	MORIBUND SACRIFICED

DP = DAY POSTWEANING
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D14 (PAGE 12): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP IV		10 MG/KG/DAY
RAT #		DESCRIPTION
1201	DP(36)	SOFT OR LIQUID FECES
1202		NO ADVERSE FINDINGS
1203	DP(69-118)	INCISORS: MISALIGNED a
1204	DP(23- 33)	ANNULAR CONSTRICTIONS OF THE TAIL
1205		NO ADVERSE FINDINGS
1206		NO ADVERSE FINDINGS
1207	DP(41- 42)	ANNULAR CONSTRICTIONS OF THE TAIL
1208		NO ADVERSE FINDINGS
1209	DP(35)	EXCESS SALIVATION
	DP(47)	RED, DRIED, SLIGHT PERINASAL SUBSTANCE
1210	DP(3)	DECREASED MOTOR ACTIVITY
	DP(3)	EMACIATION a
	DP(3)	COLD TO TOUCH
	DP(4)	FOUND DEAD
1211	DP(23- 32)	HEAD: SCAB (DID NOT EXCEED 0.4 CM IN DIAMETER)
	DP(64)	SOFT OR LIQUID FECES
1212		NO ADVERSE FINDINGS
1213	DP(35- 36)	DEHYDRATION a
1214		NO ADVERSE FINDINGS
1215		NO ADVERSE FINDINGS
1216	DP(35)	CHROMORHINORRHEA
	DP(35)	SOFT OR LIQUID FECES
1217		NO ADVERSE FINDINGS
1218	DP(31)	SOFT OR LIQUID FECES
1219		NO ADVERSE FINDINGS
1220		NO ADVERSE FINDINGS
1221	DP(34)	CHROMORHINORRHEA
	DP(34)	SOFT OR LIQUID FECES
	DP(63- 64)	CHROMORHINORRHEA
	DP(63- 68)	CHROMODACRYORRHEA
	DP(63- 68)	SNOUT: SWOLLEN
	DP(63- 68)	INCISORS: MISALIGNED
	DP(69-118)	INCISORS: MISALIGNED a
	DP(74-118)	CHROMODACRYORRHEA a

DP = DAY POSTWEANING
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D14 (PAGE 13): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP IV		10 MG/KG/DAY
RAT #		DESCRIPTION
1222	DP(22- 32)	ANNULAR CONSTRICTIONS OF THE TAIL
1223		NO ADVERSE FINDINGS
1224	DP(2- 6)	CHROMORHINORRHEA
	DP(4- 5)	EMACIATION
	DP(7- 24)	ABDOMINAL DISTENTION
1225	DP(7- 23)	ABDOMINAL DISTENTION
	DP(22- 34)	ANNULAR CONSTRICTIONS OF THE TAIL
1226	DP(22- 32)	ANNULAR CONSTRICTIONS OF THE TAIL
	DP(48- 49)	SOFT OR LIQUID FECES
1227	DP(22- 32)	ANNULAR CONSTRICTIONS OF THE TAIL
1228	DP(22- 32)	ANNULAR CONSTRICTIONS OF THE TAIL
1229	DP(8)	SOFT OR LIQUID FECES
	DP(22- 34)	ANNULAR CONSTRICTIONS OF THE TAIL
	DP(61-119)	BOTH EARS: SWOLLEN a
1230		NO ADVERSE FINDINGS
1231		NO ADVERSE FINDINGS
1232		NO ADVERSE FINDINGS
1233		NO ADVERSE FINDINGS
1234	DP(22- 31)	ANNULAR CONSTRICTIONS OF THE TAIL
1235		NO ADVERSE FINDINGS
1236	DP(80)	CHROMODACRYORRHEA
1237		NO ADVERSE FINDINGS
1238		NO ADVERSE FINDINGS
1239		NO ADVERSE FINDINGS
1240		NO ADVERSE FINDINGS

DP = DAY POSTWEANING
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D14 (PAGE 14): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP V		30 MG/KG/DAY
RAT #		DESCRIPTION
1241	DP(26- 36)	ANNULAR CONSTRICTIONS OF THE TAIL
1242		NO ADVERSE FINDINGS
1243	DP(26- 34)	ANNULAR CONSTRICTIONS OF THE TAIL
	DP(38- 39)	HEAD: SCAB (0.2 CM IN DIAMETER)a
1244		NO ADVERSE FINDINGS
1245	DP(25- 26)	ANNULAR CONSTRICTIONS OF THE TAIL
1246	DP(25- 35)	ANNULAR CONSTRICTIONS OF THE TAIL
1247	DP(5- 7)	URINE-STAINED ABDOMINAL FUR
	DP(10- 18)	ABDOMINAL DISTENTION
	DP(37)	CHROMORHINORRHEA
1248	DP(10- 20)	ABDOMINAL DISTENTION
	DP(25- 34)	ANNULAR CONSTRICTIONS OF THE TAIL
1249	DP(10- 20)	ABDOMINAL DISTENTION
	DP(29- 42)	ANNULAR CONSTRICTIONS OF THE TAIL
	DP(37)	EXCESS SALIVATION
1250	DP(5- 6)	CHROMORHINORRHEA
	DP(25- 38)	ANNULAR CONSTRICTIONS OF THE TAIL a
1251	DP(37)	CHROMORHINORRHEA
1252	DP(37)	VOCALIZATION
	DP(37)	ANNULAR CONSTRICTIONS OF THE TAIL
1253	DP(37)	ANNULAR CONSTRICTIONS OF THE TAIL
	DP(37)	RALES
	DP(38)	EMACIATION
1254	DP(4)	CHROMORHINORRHEA
	DP(10- 20)	ABDOMINAL DISTENTION
	DP(25- 35)	ANNULAR CONSTRICTIONS OF THE TAIL

DP = DAY POSTWEANING
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D14 (PAGE 15): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP V		30 MG/KG/DAY
RAT #		DESCRIPTION
1255		NO ADVERSE FINDINGS
1256	DP(36)	SOFT OR LIQUID FECES
1257	DP(36)	SOFT OR LIQUID FECES
	DP(67)	PENIS: RED SUBSTANCE
	DP(83- 91)	URINE-STAINED ABDOMINAL FUR
	DP(84)	PENIS: RED SUBSTANCE
	DP(87)	PENIS: RED SUBSTANCE
	DP(92- 96)	UNGROOMED COAT
	DP(93)	PENIS: RED SUBSTANCE
1258	DP(3- 4)	CHROMORHINORRHEA
	DP(8- 9)	CHROMORHINORRHEA
	DP(24- 34)	ANNULAR CONSTRICTIONS OF THE TAIL
1259	DP(6)	CHROMORHINORRHEA
	DP(9- 19)	ABDOMINAL DISTENTION
1260	DP(3)	DECREASED MOTOR ACTIVITY
	DP(3)	COLD TO TOUCH
	DP(3)	URINE-STAINED ABDOMINAL FUR
	DP(4)	FOUND DEAD
1261		NO ADVERSE FINDINGS
1262	DP(24- 37)	ANNULAR CONSTRICTIONS OF THE TAIL a
1263	DP(1)	DECREASED MOTOR ACTIVITY
	DP(1)	BOTH EYES: CORNEAL OPACITY a
	DP(1)	EMACIATION a
	DP(1)	COLD TO TOUCH
	DP(2)	FOUND DEAD
1264	DP(1)	DECREASED MOTOR ACTIVITY
	DP(1)	BOTH EYES: CORNEAL OPACITY a
	DP(1)	EMACIATION
	DP(1)	COLD TO TOUCH
	DP(2)	FOUND DEAD

DP = DAY POSTWEANING
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D14 (PAGE 16): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP V		30 MG/KG/DAY
RAT #		DESCRIPTION
1265	DP(24- 34)	ANNULAR CONSTRICTIONS OF THE TAIL
1266	DP(36- 39)	ANNULAR CONSTRICTIONS OF THE TAIL
1267	DP(36)	ANNULAR CONSTRICTIONS OF THE TAIL
1268		NO ADVERSE FINDINGS
1269		NO ADVERSE FINDINGS
1270	DP(11- 16)	LACRIMATION
	DP(11- 16)	RIGHT EYE: SWOLLEN
	DP(36- 37)	ANNULAR CONSTRICTIONS OF THE TAIL a
1271		NO ADVERSE FINDINGS
1272		NO ADVERSE FINDINGS
1273		NO ADVERSE FINDINGS
1274	DP(49)	RED, DRIED, SLIGHT PERINASAL SUBSTANCE
	DP(76- 77)	CHROMODACRYORRHEA
1275	DP(26- 33)	CHROMORHINORRHEA
	DP(26- 39)	DEHYDRATED a
	DP(29- 39)	EMACIATION a
	DP(32- 39)	DECREASED MOTOR ACTIVITY
	DP(32- 39)	URINE-STAINED ABDOMINAL FUR a
	DP(33- 39)	COLD TO TOUCH a
	DP(39)	CHROMODACRYORRHEA a
	DP(39)	MORIBUND SACRIFICED
1276	DP(5)	URINE-STAINED ABDOMINAL FUR
1277	DP(2- 3)	CHROMORHINORRHEA a
	DP(3)	DECREASED MOTOR ACTIVITY
	DP(3)	EMACIATION a
	DP(3)	COLD TO TOUCH
	DP(3)	URINE-STAINED ABDOMINAL FUR a
	DP(4)	FOUND DEAD
1278	DP(3- 15)	URINE-STAINED ABDOMINAL FUR
	DP(5- 7)	EMACIATION
	DP(8- 16)	ABDOMINAL DISTENTION
	DP(23- 70)	ANNULAR CONSTRICTIONS OF THE TAIL

DP = DAY POSTWEANING
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D14 (PAGE 17): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP V		30 MG/KG/DAY
RAT #		DESCRIPTION
1279	DP(8- 18)	ABDOMINAL DISTENTION
	DP(28- 35)	ANNULAR CONSTRICTIONS OF THE TAIL
1280	DP(2)	CHROMORHINORRHEA
	DP(3)	FOUND DEAD
1281	DP(16)	LOCALIZED ALOPECIA: LIMBS
	DP(18- 21)	LOCALIZED ALOPECIA: LIMBS
	DP(61- 69)	INCISORS: MISALIGNED
	DP(89)	CHROMORHINORRHEA
	DP(89)	SOFT OR LIQUID FECES
	DP(89- 91)	CHROMODACRYORRHEA
	DP(89-119)	INCISORS: MISALIGNED a
	DP(102-104)	CHROMODACRYORRHEA
	DP(117-119)	CHROMODACRYORRHEA a
	DP(118-119)	INCISORS: MISSING/BROKEN a
1282	DP(118-119)	LOCALIZED ALOPECIA: LIMBS a
1283		NO ADVERSE FINDINGS
1284		NO ADVERSE FINDINGS
1285	DP(22- 32)	ANNULAR CONSTRICTIONS OF THE TAIL
1286	DP(7- 23)	ABDOMINAL DISTENTION
1287	DP(7- 23)	ABDOMINAL DISTENTION
	DP(9- 10)	CHROMORHINORRHEA
	DP(59- 61)	BACK: SCAB (0.3 CM IN DIAMETER)
1288	DP(7- 23)	ABDOMINAL DISTENTION
	DP(61- 64)	SNOUT: SWOLLEN
	DP(61-119)	CHROMODACRYORRHEA a
	DP(61-119)	INCISORS: MISALIGNED a
1289	DP(22- 23)	NECK: SCAB (0.5 CM IN DIAMETER)
1290		NO ADVERSE FINDINGS
1291		NO ADVERSE FINDINGS
1292		NO ADVERSE FINDINGS
1293	DP(15)	URINE-STAINED ABDOMINAL FUR
1294		NO ADVERSE FINDINGS
1295		NO ADVERSE FINDINGS

DP = DAY POSTWEANING
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D14 (PAGE 18): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP V		30 MG/KG/DAY
RAT #		DESCRIPTION
1296	DP(100)	RALES
	DP(100-101)	CHROMORHINORRHEA
	DP(100-106)	CHROMODACRYORRHEA a
	DP(100-106)	INCISORS: MISALIGNED a
	DP(103-106)	EMACIATION a
	DP(104-106)	URINE-STAINED ABDOMINAL FUR a
	DP(107)	FOUND DEAD
1297		NO ADVERSE FINDINGS
1298		NO ADVERSE FINDINGS
1299	DP(20- 29)	ANNULAR CONSTRICTIONS OF THE TAIL
1300	DP(20- 29)	ANNULAR CONSTRICTIONS OF THE TAIL
	DP(25- 99)	INCISORS: MISALIGNED
	DP(25-117)	CHROMODACRYORRHEA a
	DP(67)	INCISORS: MISSING/BROKEN
	DP(72- 84)	INCISORS: MISSING/BROKEN
	DP(91- 92)	INCISORS: MISSING/BROKEN
	DP(111-117)	INCISORS: MISSING/BROKEN a

DP = DAY POSTWEANING
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 1): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP I						0 MG/KG/DAY					
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1001	36.	54.	105.	159.	218.	281.						
1002	39.	69.	118.	176.	233.	289.	337.	387.	424.	461.	487.	524.
1003	45.	81.	133.	198.	264.	323.	368.	407.	439.	469.	489.	523.
1004	45.	75.	122.	178.	231.	292.						
1005	38.	74.	133.	192.	254.	319.	364.	408.	433.	465.	487.	525.
1006	38.	67.	116.	173.	227.	286.						
1007	42.	78.	124.	181.	240.	293.	334.	372.	407.	434.	452.	487.
1008	44.	83.	138.	194.	250.	304.						
1009	50.	87.	148.	212.	270.	338.						
1010	41.	69.	116.	169.	225.	279.						
1011	42.	79.	132.	188.	252.	307.	350.	394.	417.	441.	473.	508.
1012	49.	84.	123.	175.	230.	282.	320.	387.	422.	460.	485.	537.
1013	48.	77.	116.	176.	236.	300.	354.	401.	432.	471.	500.	542.
1014	46.	88.	147.	209.	274.	328.	359.	398.	416.	445.	459.	497.
1015	47.	91.	148.	222.	290.	350.						
1016	48.	90.	137.	201.	262.	322.						
1017	44.	80.	129.	192.	250.	300.	336.	365.	387.	421.	435.	472.
6553	35.	57.	97.	152.	200.							
6554	45.	80.	131.	185.	227.							
6555	47.	80.	128.	189.	238.							
1021	53.	85.	131.	201.	259.	318.	367.	411.	449.	491.	520.	559.
1022	48.	56.	135.	201.	268.	338.						
1023	31.	57.	104.	164.	215.	269.	319.	368.	412.	451.	483.	524.
1024	30.	62.	97.	153.	FOUND DEAD ON DAY 25 POSTWEANING							
1025	35.	66.	101.	163.	220.	271.						
1026	37.	69.	115.	174.	235.	286.	331.	368.	403.	446.	466.	500.
1027	38.	57.	106.	158.	210.	261.						
1028	38.	62.	107.	161.	208.	260.	298.	329.	343.	379.	398.	420.
1029	31.	MORIBUND SACRIFICED ON DAY 4 POSTWEANING										
1030	44.	76.	130.	198.	255.	317.						

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.

b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 2): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP I						0 MG/KG/DAY					
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1031	46.	79.	132.	192.	253.	315.	364.	407.	445.	474.	491.	518.
1032	45.	77.	126.	184.	240.	291.						
1033	31.	55.	92.	144.	198.	249.						
1034	28.	52.	89.	150.	198.	246.	289.	319.	345.	371.	385.	395.
1035	40.	65.	110.	161.	219.	267.	299.	313.	349.	372.	385.	406.
1036	40.	71.	124.	186.	240.	296.						
1037	39.	63.	108.	161.	211.	262.						
1038	48.	81.	129.	188.	245.							
1039	44.	76.	121.	182.	232.	275.	FOUND DEAD ON DAY 42 POSTWEANING					
1040	40.	70.	112.	163.	215.	256.	320.	365.	388.	415.	434.	457.
1041	37.	61.	101.	150.	198.	257.	297.	332.	351.	379.	396.	421.
1042	42.	77.	112.	166.	221.							
1043	50.	84.	138.	199.	252.	305.	348.	392.	423.	448.	464.	496.
1044	62.	102.	155.	215.	261.							
1045	58.	90.	141.	201.	256.	307.	348.	379.	406.	422.	432.	458.
1046	58.	97.	150.	217.	272.							
1047	55.	92.	147.	214.	275.	346.	411.	458.	496.	540.	569.	598.
1048	43.	77.	126.	191.	256.	322.	368.	420.	456.	504.	520.	548.
1049	39.	67.	107.	162.	219.							
1050	39.	70.	108.	161.	213.	276.	313.	347.	372.	395.	405.	428.
1051	46.	85.	139.	205.	270.	333.	373.	427.	461.	491.	512.	545.
1052	44.	87.	144.	217.	270.	335.	365.	408.	443.	483.	500.	510.
1053	46.	82.	133.	194.	247.							
1054	50.	89.	139.	202.	267.	331.	365.	412.	429.	451.	477.	505.
1055	45.	85.	138.	209.	270.	329.	365.	407.	419.	454.	470.	490.
1056	41.	90.	144.	220.	272.							
1057	36.	66.	118.	177.	240.							
1058	37.	70.	122.	178.	248.	306.	365.	392.	424.	462.	480.	493.
1059	39.	76.	128.	187.	246.	306.	340.	378.	407.	426.	441.	441.
1060	39.	68.	123.	183.	231.	279.	304.	344.	376.	395.	415.	415.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.

b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 3): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP I						0 MG/KG/DAY
DAY	78	85	92	99a	106	113	120
1001							
1002	507.	504.	537.	530.	547.	556.	
1003	509.	523.	542.	554.	580.	592.	
1004							
1005	510.	523.	547.	558.	576.	567.	
1006							
1007	474.	480.	503.	508.	525.	532.	
1008							
1009							
1010							
1011	491.	504.	525.	536.	552.	565.	
1012	518.	541.	560.	577.	595.	621.	
1013	528.	533.	564.	574.	585.	605.	
1014	488.	498.	510.	509.	535.	540.	
1015							
1016							
1017	456.	473.	490.	489.	500.	518.	
6553							
6554							
6555							
1021	534.	555.	573.	576.	607.	612.	
1022							
1023	506.	518.	540.	559.	577.	593.	
1024	FOUND DEAD ON DAY 25 POSTWEANING						
1025							
1026	491.	503.	531.	534.	562.	573.	
1027							
1028	410.	422.	432.	441.	568.	452.	
1029	MORIBUND SACRIFICED ON DAY 4 POSTWEANING						
1030							

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. First weekly value recorded after cohabitation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 4): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP I						0 MG/KG/DAY
	DAY 78	85	92	99a	106	113	120
1031	510.	533.	546.	547.	444.	581.	
1032							
1033							
1034	389.	413.	418.	425.	447.	465.	
1035	402.	404.	423.	432.	509.	456.	
1036							
1037							
1038							
1039	FOUND DEAD ON DAY 42 POSTWEANING						
1040	450.	464.	489.	496.	507.	516.	
1041	416.	433.	448.	454.	473.	477.	
1042							
1043	492.	486.	506.	525.	529.	540.	
1044							
1045	453.	461.	476.	487.	484.	496.	
1046							
1047	596.	593.	621.	641.	667.	682.	
1048	542.	545.	582.	594.	603.	624.	
1049							
1050	421.	427.	450.	462.	473.	489.	
1051	523.	551.	573.	595.	615.	642.	
1052	512.	513.	525.	540.	560.	576.	
1053							
1054	495.	514.	523.	540.	545.	555.	
1055	483.	503.	510.	532.	546.	562.	
1056							
1057							
1058	497.	506.	526.	537.	541.	548.	
1059	455.	470.	436.	449.	440.		
1060	436.	439.	451.	455.	478.		

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. First weekly value recorded after cohabitation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 5): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP II						1 MG/KG/DAY					
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1061	43.	69.	112.	166.	223.	264.	301.	332.	360.	385.	400.	436.
1062	44.	73.	118.	170.	225.	281.						
1063	41.	71.	122.	159.	220.	273.	317.	358.	394.	422.	438.	465.
1064	37.	FOUND DEAD ON DAY 6 POSTWEANING										
1065	35.	59.	97.	140.	185.	239.						
1066	35.	59.	101.	150.	203.	254.	299.	335.	357.	379.	394.	422.
1067	31.	51.	95.	145.	204.	260.	311.	344.	367.	400.	397.	439.
1068	40.	65.	109.	161.	211.	273.						
1069	37.	59.	99.	146.	201.	253.	296.	321.	343.	355.	356.	380.
1070	46.	78.	125.	187.	245.	321.						
1071	40.	69.	112.	163.	221.	279.	318.	353.	378.	406.	438.	477.
1072	41.	74.	124.	186.	241.	310.						
1073	50.	86.	137.	206.	264.	325.	365.	390.	419.	446.	464.	494.
1074	40.	71.	116.	181.	239.	300.						
1075	42.	74.	128.	190.	242.	312.						
1076	47.	83.	132.	195.	258.	322.						
1077	44.	80.	131.	195.	252.	313.	347.	382.	408.	443.	467.	490.
1078	48.	86.	148.	206.	264.	332.	372.	404.	439.	474.	496.	538.
1079	33.	60.	97.	150.	205.	254.						
1080	48.	78.	128.	193.	245.	296.						
1081	48.	79.	130.	193.	254.	313.	350.	381.	397.	425.	453.	481.
1082	41.	72.	116.	172.	228.	286.	328.	366.	404.	436.	462.	512.
1083	37.	66.	113.	165.	220.	280.	322.	347.	387.	416.	442.	477.
1084	37.	67.	112.	165.	216.	268.						
1085	32.	55.	95.	146.	190.	245.						
1086	33.	60.	101.	152.	196.	245.	282.	306.	328.	345.	357.	329.
1087	43.	83.	132.	194.	258.	322.	361.	FOUND DEAD ON DAY 45 POSTWEANING				
1088	42.	81.	134.	196.	254.	315.	349.	378.	410.	446.	465.	494.
1089	35.	80.	127.	181.	238.	300.						
1090	36.	64.	111.	152.	201.	246.	288.	323.	355.	387.	400.	452.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.

b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 6): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP II											1 MG/KG/DAY
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1091	39.	70.	117.	178.	233.	293.	334.	372.	395.	419.	435.	464.
1092	44.	78.	126.	186.	246.	303.						
1093	40.	73.	125.	179.	242.	294.						
1094	36.	71.	111.	168.	226.	278.	330.	370.	402.	440.	470.	509.
1095	40.	73.	123.	184.	244.	310.						
1096	39.	69.	118.	178.	234.	293.	336.	386.	422.	459.	491.	521.
1097	42.	66.	108.	165.	224.	272.						
1098	37.	75.	123.	178.	239.	293.	332.	366.	390.	412.	424.	445.
1099	39.	76.	125.	187.	254.	271.						
1100	56.	94.	142.	196.	248.	295.	335.	359.	379.	402.	414.	440.
1101	63.	92.	142.	193.	249.	310.						
1102	45.	78.	135.	195.	257.	313.						
1103	33.	71.	128.	190.	245.	302.	345.	388.	418.	450.	469.	501.
1104	23.	FOUND DEAD ON DAY 2 POSTWEANING										
1105	32.	57.	101.	151.	210.	275.						
1106	30.	52.	92.	136.	184.	229.	276.	311.	348.	387.	404.	438.
1107	44.	75.	118.	172.	220.	268.	307.	337.	360.	381.	393.	409.
1108	48.	79.	125.	184.	231.	281.						
1109	45.	72.	120.	170.	223.	284.						
1110	40.	62.	107.	161.	212.	262.	298.	325.	343.	368.	373.	392.
1111	38.	59.	106.	173.	230.	286.						
1112	50.	87.	137.	201.	266.	324.	364.	396.	426.	453.	487.	520.
1113	49.	86.	131.	202.	265.							
1114	48.	84.	134.	194.	257.	307.	353.	382.	409.	451.	479.	496.
1115	35.	65.	102.	165.	220.							
1116	35.	67.	108.	165.	224.	381.	330.	369.	399.	424.	445.	471.
1117	47.	75.	118.	177.	231.							
1118	52.	84.	126.	188.	242.	265.	346.	372.	402.	432.	444.	477.
1119	43.	77.	120.	184.	232.							
1120	43.	74.	121.	182.	239.	291.	342.	378.	408.	432.	448.	467.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.

b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 7): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP II						1 MG/KG/DAY
DAY	78	85	92	99a	106	113	120
1061	421.	438.	449.	459.	468.	478.	
1062							
1063	455.	465.	478.	490.	511.	509.	
1064	FOUND DEAD ON DAY 6 POSTWEANING						
1065							
1066	406.	423.	428.	438.	455.	466.	
1067	419.	428.	448.	451.	475.	464.	
1068							
1069	369.	370.	389.	399.	416.	413.	
1070							
1071	465.	473.	491.	512.	511.	525.	
1072							
1073	484.	495.	505.	518.	520.	525.	
1074							
1075							
1076							
1077	480.	485.	506.	511.	538.	542.	
1078	518.	555.	562.	579.	595.	625.	
1079							
1080							
1081	469.	476.	489.	501.	517.	528.	
1082	492.	503.	530.	557.	569.	558.	
1083	462.	462.	479.	492.	507.	521.	
1084							
1085							
1086	375.	323.	364.	386.	372.	402.	
1087	FOUND DEAD ON DAY 45 POSTWEANING						
1088	480.	497.	505.	526.	533.	556.	
1089							
1090	433.	459.	478.	496.	496.	516.	

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. First weekly value recorded after cohabitation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 8): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP II						1 MG/KG/DAY
DAY	78	85	92	99a	106	113	120
1091	452.	460.	474.	489.	494.	504.	512.
1092							
1093							
1094	500.	509.	533.	554.	573.	573.	594.
1095							
1096	506.	519.	543.	566.	582.	603.	632.
1097							
1098	438.	440.	458.	465.	475.	474.	498.
1099							
1100	429.	434.	454.	471.	479.	485.	494.
1101							
1102							
1103	490.	503.	521.	535.	551.	562.	
1104	FOUND DEAD ON DAY 2 POSTWEANING						
1105							
1106	432.	436.	456.	479.	492.	503.	
1107	403.	407.	419.	429.	434.	440.	446.
1108							
1109							
1110	389.	396.	400.	409.	425.	429.	437.
1111							
1112	513.	521.	541.	545.	559.	571.	
1113							
1114	496.	499.	518.	531.	543.	549.	
1115							
1116	465.	484.	496.	511.	527.	541.	
1117							
1118	472.	478.	488.	503.	511.	517.	
1119							
1120	460.	463.	486.	496.	506.	511.	

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. First weekly value recorded after cohabitation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 9): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP III						3 MG/KG/DAY					
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1121	35.	FOUND DEAD ON DAY 5 POSTWEANING										
1122	39.	74.	120.	186.	247.	300.	337.	376.	407.	431.	448.	480.
1123	39.	78.	132.	195.	249.	309.	345.	379.	419.	452.	472.	517.
1124	31.	64.	112.	178.	239.	297.						
1125	33.	56.	99.	154.	208.	274.						
1126	34.	60.	103.	152.	205.	269.						
1127	35.	58.	102.	153.	205.	258.	303.	339.	354.	375.	389.	407.
1128	39.	72.	125.	191.	248.	312.						
1129	36.	62.	102.	167.	228.	288.	325.	360.	390.	422.	436.	473.
1130	24.	FOUND DEAD ON DAY 2 POSTWEANING										
1131	32.	56.	102.	160.	226.	287.	344.	392.	427.	457.	469.	495.
1132	42.	72.	117.	179.	233.	283.	318.	354.	390.	419.	441.	474.
1133	45.	77.	116.	173.	225.	280.						
1134	53.	88.	142.	213.	270.	340.	367.	406.	438.	467.	483.	520.
1135	51.	87.	140.	204.	266.	317.	338.	362.	380.	398.	421.	450.
1136	40.	76.	129.	184.	233.	288.	326.	360.	386.	406.	418.	439.
1137	40.	80.	131.	197.	252.	306.						
1138	46.	85.	140.	204.	273.	328.						
1139	47.	78.	128.	192.	252.	305.	327.	352.	377.	395.	400.	417.
1140	37.	55.	FOUND DEAD ON DAY 9 POSTWEANING									
1141	35.	63.	109.	164.	222.	281.	322.	364.	398.	426.	451.	494.
1142	32.	58.	99.	151.	203.	256.	298.	331.	352.	383.	402.	433.
1143	35.	67.	110.	168.	225.	283.						
1144	34.	52.	92.	146.	191.	248.						
1145	42.	68.	110.	163.	211.	245.	276.	297.	315.	339.	354.	376.
1146	56.	85.	136.	196.	257.	313.						
1147	53.	85.	141.	194.	250.	304.	335.	381.	413.	441.	469.	485.
1148	56.	94.	144.	198.	251.	299.						
1149	54.	96.	145.	201.	249.	304.	338.	371.	391.	417.	432.	458.
1150	46.	77.	124.	182.	234.	277.						

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.

b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 10): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP III						3 MG/KG/DAY					
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1151	54.	100.	158.	226.	293.	338.	384.	418.	455.	488.	514.	544.
1152	52.	92.	145.	207.	269.	328.						
1153	49.	86.	145.	207.	261.	317.	355.	390.	428.	453.	474.	495.
1154	63.	99.	160.	228.	292.	346.	389.	429.	456.	482.	499.	514.
1155	59.	98.	151.	216.	282.	345.						
1156	36.	66.	121.	189.	253.	327.						
1157	36.	73.	122.	186.	242.	300.						
1158	36.	70.	124.	183.	238.	291.	328.	343.	391.	422.	445.	473.
1159	50.	94.	152.	226.	291.	345.	385.	419.	448.	471.	489.	525.
1160	48.	93.	147.	215.	277.	339.						
1161	53.	96.	148.	216.	277.	339.						
1162	46.	79.	126.	177.	238.	291.	332.	377.	399.	421.	438.	462.
1163	46.	77.	120.	171.	231.	288.						
1164	50.	93.	152.	222.	274.	326.	359.	392.	417.	446.	458.	477.
1165	49.	87.	148.	211.	272.	336.						
1166	30.	46.	82.	120.	172.	228.	280.	319.				
1167	30.	49.	86.	137.	189.	248.	298.	338.	381.	416.	435.	467.
1168	36.	63.	102.	159.	215.	274.	325.	368.	399.	427.	452.	483.
1169	34.	59.	95.	144.	193.							
1170	36.	64.	104.	155.	202.							
1171	36.	66.	108.	164.	214.	265.	294.	313.	332.	353.	368.	384.
1172	55.	95.	144.	204.	261.							
1173	46.	87.	137.	190.	241.	300.	342.	370.	407.	439.	451.	477.
1174	58.	96.	161.	231.	293.							
1175	58.	98.	149.	213.	275.	340.	385.	414.	390.	396.	413.	432.
1176	47.	80.	125.	177.	225.	279.	324.	360.	391.	416.	434.	461.
1177	64.	103.	156.	220.	275.	330.	371.	392.	401.	416.	437.	443.
1178	65.	101.	155.	220.	274.							
1179	42.	72.	126.	184.	239.							
1180	45.	80.	135.	196.	255.	312.	356.	395.	430.	448.	475.	490.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.

b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 11): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP III						3 MG/KG/DAY
DAY	78	85	92	99a	106	113	120
1121	FOUND DEAD ON DAY 5 POSTWEANING						
1122	462.	471.	491.	497.	513.	509.	
1123	505.	508.	535.	504.	498.	503.	
1124							
1125							
1126							
1127	399.	408.	414.	425.	437.	447.	
1128							
1129	450.	480.	505.	517.	536.	557.	
1130	FOUND DEAD ON DAY 2 POSTWEANING						
1131	476.	492.	512.	517.	538.	556.	
1132	465.	476.	490.	507.	524.	540.	
1133							
1134	507.	512.	530.	542.	561.	580.	
1135	440.	445.	465.	482.	489.	505.	
1136	430.	431.	451.	456.	472.	419.	
1137							
1138							
1139	405.	412.	428.	436.	443.	453.	
1140	FOUND DEAD ON DAY 9 POSTWEANING						
1141	476.	485.	510.	526.	545.	562.	
1142	423.	422.	443.	460.	475.	489.	
1143							
1144							
1145	372.	377.	383.	394.	405.	411.	
1146							
1147	483.	477.	512.	520.	530.	494.	
1148							
1149	445.	457.	474.	487.	497.	501.	
1150							

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. First weekly value recorded after cohabitation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 12): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP III						3 MG/KG/DAY
DAY	78	85	92	99a	106	113	120
1151	530.	532.	556.	560.	579.	576.	588.
1152							
1153	486.	500.	505.	516.	516.	528.	539.
1154	504.	511.	527.	542.	561.	567.	580.
1155							
1156							
1157							
1158	456.	475.	490.	512.	514.	523.	
1159	515.	524.	536.	551.	566.	573.	
1160							
1161							
1162	456.	455.	482.	496.	512.	531.	
1163							
1164	477.	478.	491.	502.	498.	509.	
1165							
1166							
1167	459.	486.	507.	526.	541.	555.	
1168	478.	486.	516.	529.	548.	554.	
1169							
1170							
1171	377.	388.	405.	417.	427.	432.	
1172							
1173	472.	481.	496.	512.	518.	524.	
1174							
1175	432.	436.	451.	472.	478.	469.	
1176	453.	465.	480.	491.	460.	471.	
1177	442.	450.	463.	480.	457.	466.	
1178							
1179							
1180	480.	518.	541.	545.	570.	565.	

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. First weekly value recorded after cohabitation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 13): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP IV						10 MG/KG/DAY					
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1181	47.	76.	121.	183.	231.	283.						
1182	46.	77.	123.	189.	243.	292.	324.	353.	370.	400.	410.	434.
1183	34.	58.	102.	158.	214.	255.						
1184	35.	60.	101.	161.	221.	269.	308.	346.	374.	401.	426.	472.
1185	33.	54.	90.	134.	181.	227.						
1186	31.	54.	92.	143.	199.	245.	292.	330.	354.	381.	407.	430.
1187	46.	80.	131.	190.	247.	296.						
1188	48.	82.	142.	204.	244.	293.	323.	346.	371.	383.	386.	401.
1189	43.	78.	130.	202.	266.	338.	391.	435.	454.	467.	490.	521.
1190	47.	88.	149.	218.	288.	361.						
1191	45.	77.	124.	182.	236.	282.						
1192	45.	79.	120.	183.	238.	290.	322.	364.	390.	418.	443.	462.
1193	50.	90.	135.	201.	254.	303.						
1194	48.	84.	132.	198.	262.	311.	354.	385.	415.	440.	463.	490.
1195	47.	83.	125.	183.	233.	283.	320.	351.	377.	399.	415.	441.
1196	48.	78.	120.	179.	233.	282.						
1197	55.	83.	125.	178.	230.	280.						
1198	61.	100.	151.	218.	282.	348.	404.	450.	497.	541.	573.	607.
1199	43.	70.	109.	161.	207.	245.						
1200	41.	71.	117.	144.	134.	116.	MORIBUND SACRIFICED ON DAY 40 POSTWEANING					
1201	45.	95.	127.	183.	235.	285.						
1202	46.	76.	126.	187.	242.	297.						
1203	35.	70.	116.	178.	238.	282.	314.	346.	372.	397.	402.	422.
1204	44.	76.	116.	186.	240.	291.	334.	354.	383.	406.	413.	433.
1205	43.	70.	112.	176.	227.	288.						
1206	36.	66.	109.	168.	215.	277.						
1207	40.	66.	102.	158.	207.	263.	306.	339.	361.	393.	413.	444.
1208	53.	82.	137.	198.	252.	315.						
1209	49.	83.	135.	198.	246.	306.	351.	381.	414.	447.	463.	478.
1210	41.	FOUND DEAD ON DAY 4 POSTWEANING										

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.
b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 14): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP IV						10 MG/KG/DAY					
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1211	38.	61.	102.	161.	204.	254.	287.	320.	336.	358.	372.	400.
1212	51.	89.	149.	222.	280.	330.	373.	416.	440.	473.	483.	497.
1213	52.	90.	143.	204.	260.	193.						
1214	47.	83.	136.	200.	255.	306.						
1215	43.	82.	135.	204.	260.	315.	351.	390.	413.	439.	455.	476.
1216	42.	76.	122.	186.	236.	291.	334.	370.	404.	439.	449.	476.
1217	42.	77.	128.	183.	241.	296.	336.	372.	401.	428.	436.	459.
1218	36.	63.	108.	166.	214.	269.						
1219	35.	62.	104.	150.	188.	238.	274.	297.	309.	326.	338.	364.
1220	55.	84.	135.	190.	242.							
1221	52.	83.	126.	177.	233.	273.	303.	334.	363.	335.	373.	386.
1222	52.	88.	134.	197.	246.	302.	333.	362.	384.	404.	414.	432.
1223	50.	85.	132.	198.	256.							
1224	35.	52.	80.	123.	177.	221.	274.	301.	332.	364.	389.	424.
1225	35.	54.	92.	139.	196.	251.	291.	310.	342.	370.	387.	399.
1226	48.	82.	132.	199.	256.	305.	345.	369.	387.	406.	422.	451.
1227	48.	80.	130.	188.	232.							
1228	42.	70.	111.	157.	204.							
1229	39.	68.	110.	159.	202.	253.	276.	306.	324.	346.	365.	390.
1230	38.	65.	108.	155.	203.							
1231	35.	77.	127.	190.	242.							
1232	48.	84.	128.	184.	226.	259.	290.	298.	312.	329.	336.	346.
1233	55.	89.	140.	205.	259.	319.	354.	400.	421.	462.	484.	508.
1234	54.	93.	149.	212.	267.							
1235	47.	78.	125.	179.	236.							
1236	46.	77.	129.	196.	245.	301.	343.	383.	403.	432.	442.	454.
1237	39.	66.	104.	158.	207.	253.	273.	288.	305.	326.	338.	353.
1238	44.	75.	126.	191.	246.							
1239	49.	83.	132.	193.	246.							
1240	51.	85.	136.	194.	246.	293.	328.	362.	394.	424.	440.	463.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.
b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 15): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP IV						10 MG/KG/DAY
	DAY 78	85	92	99a	106	113	120
1181							
1182	427.	424.	440.	438.	445.	460.	
1183							
1184	450.	462.	485.	501.	509.	533.	
1185							
1186	423.	440.	453.	454.	479.	488.	
1187							
1188	415.	391.	425.	446.	457.	470.	
1189	506.	510.	532.	547.	574.	582.	
1190							
1191							
1192	452.	450.	466.	476.	492.	488.	
1193							
1194	477.	494.	507.	513.	523.	534.	
1195	435.	446.	466.	480.	495.	498.	
1196							
1197							
1198	595.	607.	633.	638.	679.	661.	
1199							
1200	MORIBUND SACRIFICED ON DAY 40 POSTWEANING						
1201							
1202							
1203	411.	428.	441.	455.	469.	483.	
1204	430.	430.	444.	451.	473.	473.	
1205							
1206							
1207	432.	447.	461.	473.	483.	489.	
1208							
1209	472.	481.	494.	504.	517.	526.	
1210	FOUND DEAD ON DAY 4 POSTWEANING						

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. First weekly value recorded after cohabitation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 16): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP IV						10 MG/KG/DAY
	DAY 78	85	92	99a	106	113	120
1211	388.	396.	412.	428.	447.	455.	
1212	491.	497.	510.	538.	542.	561.	
1213							
1214							
1215	471.	470.	480.	492.	501.	512.	
1216	471.	468.	484.	500.	507.	522.	
1217	458.	452.	472.	480.	498.	503.	
1218							
1219	357.	346.	373.	382.	400.	402.	
1220							
1221	382.	372.	403.	404.	413.	414.	
1222	427.	446.	457.	480.	492.	502.	
1223							
1224	414.	424.	450.	466.	486.	490.	
1225	393.	396.	414.	429.	424.	429.	
1226	443.	455.	471.	484.	489.	500.	
1227							
1228							
1229	386.	392.	392.	402.	407.	411.	
1230							
1231							
1232	338.	348.	352.	360.	365.	366.	
1233	503.	509.	526.	545.	544.	556.	
1234							
1235							
1236	452.	455.	454.	464.	465.	480.	
1237	350.	341.	357.	367.	386.	381.	
1238							
1239							
1240	454.	458.	468.	489.	492.	493.	

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. First weekly value recorded after cohabitation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 17): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP V						30 MG/KG/DAY					
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1241	35.	60.	100.	157.	216.	269.	330.	369.	397.	432.	448.	465.
1242	34.	61.	102.	158.	216.	260.						
1243	34.	51.	91.	147.	202.	235.						
1244	36.	68.	113.	176.	237.	289.	329.	359.	374.	402.	422.	446.
1245	41.	70.	119.	180.	244.	311.	354.	397.	407.	421.	428.	457.
1246	36.	65.	100.	156.	216.	262.						
1247	32.	54.	85.	136.	190.	235.	278.	310.	339.	365.	382.	399.
1248	28.	48.	80.	129.	179.	222.	254.	278.	305.	317.	324.	336.
1249	30.	46.	82.	132.	177.	229.	268.	300.	330.	346.	348.	360.
1250	43.	64.	101.	148.	183.	211.						
1251	38.	77.	126.	172.	213.	248.						
1252	41.	71.	118.	170.	209.	243.	272.	281.	304.	323.	340.	359.
1253	45.	70.	107.	160.	204.	247.						
1254	39.	58.	92.	145.	194.	229.	258.	278.	288.	311.	328.	350.
1255	48.	85.	133.	187.	241.	289.	330.	365.	381.	401.	410.	441.
1256	48.	86.	132.	186.	240.	290.						
1257	43.	71.	112.	168.	231.	274.	309.	351.	381.	406.	416.	420.
1258	41.	61.	97.	146.	182.	204.						
1259	26.	47.	69.	118.	171.	214.	253.	290.	312.	337.	353.	371.
1260	24.	FOUND DEAD ON DAY 4 POSTWEANING										
1261	43.	68.	103.	151.	199.	232.	260.	286.	322.	349.	359.	377.
1262	45.	71.	109.	162.	208.	248.						
1263	25.	FOUND DEAD ON DAY 2 POSTWEANING										
1264	24.	FOUND DEAD ON DAY 2 POSTWEANING										
1265	40.	66.	99.	150.	198.	242.						
1266	42.	71.	107.	157.	213.	255.	282.	306.	321.	340.	352.	369.
1267	42.	73.	113.	165.	219.	269.						
1268	47.	83.	120.	181.	235.	272.						
1269	47.	86.	128.	197.	255.	288.	331.	356.	391.	417.	418.	442.
1270	59.	99.	142.	191.	242.	269.						

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.

b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 18): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP V						30 MG/KG/DAY					
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1271	60.	100.	152.	205.	256.	298.	330.	362.	388.	410.	436.	469.
1272	42.	66.	102.	155.	201.	238.						
1273	39.	63.	100.	147.	199.	239.	265.	282.	299.	320.	334.	355.
1274	47.	77.	127.	184.	242.	285.	323.	348.	376.	412.	440.	456.
1275	42.	69.	117.	162.	145.	116.	MORIBUND SACRIFICED ON DAY 39 POSTWEANING					
1276	45.	72.	111.	169.	199.	244.						
1277	25.	FOUND DEAD ON DAY 4 POSTWEANING										
1278	27.	40.	67.	108.	144.	172.	205.	243.	261.	289.	301.	324.
1279	33.	52.	83.	130.	187.	234.						
1280	34.	FOUND DEAD ON DAY 3 POSTWEANING										
1281	36.	70.	113.	167.	214.	261.	294.	320.	354.	374.	388.	414.
1282	50.	79.	122.	175.	223.	260.	287.	293.	298.	307.	323.	346.
1283	51.	81.	124.	171.	232.	276.						
1284	46.	71.	108.	164.	210.	256.	283.	302.	322.	346.	359.	389.
1285	45.	70.	111.	170.	188.							
1286	32.	55.	85.	138.	187.							
1287	36.	56.	88.	137.	181.	238.	278.	316.	338.	359.	372.	376.
1288	29.	52.	85.	130.	182.	226.	264.	286.	311.	323.	338.	350.
1289	48.	77.	119.	180.	234.	278.	316.	331.	350.	376.	386.	388.
1290	47.	80.	125.	185.	239.	284.	318.	336.	354.	374.	390.	392.
1291	45.	76.	124.	178.	224.	259.	289.	303.	312.	329.	336.	353.
1292	50.	87.	134.	185.	232.							
1293	49.	84.	114.	167.	224.							
1294	49.	81.	112.	172.	229.	270.	310.	344.	350.	367.	388.	401.
1295	52.	79.	123.	182.	237.							
1296	49.	76.	119.	180.	218.	261.	304.	329.	349.	370.	376.	394.
1297	38.	67.	114.	167.	220.							
1298	36.	65.	106.	158.	203.	242.	264.	294.	300.	312.	318.	341.
1299	44.	75.	122.	182.	239.							
1300	42.	76.	120.	177.	210.	267.	300.	334.	341.	371.	368.	391.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.

b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 19): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP V						30 MG/KG/DAY
DAY	78	85	92	99a	106	113	120
1241	456.	457.	461.	477.	476.	441.	
1242							
1243							
1244	432.	436.	466.	469.	486.	492.	
1245	435.	449.	472.	477.	480.	490.	
1246							
1247	394.	398.	413.	418.	427.	439.	
1248	332.	338.	356.	358.	368.	377.	
1249	355.	353.	364.	372.	383.	378.	
1250							
1251							
1252	354.	352.	365.	382.	396.	403.	
1253							
1254	343.	346.	361.	366.	380.	401.	
1255	429.	433.	443.	448.	462.	476.	
1256							
1257	416.	378.	415.	427.	444.	446.	
1258							
1259	365.	378.	384.	397.	411.	422.	
1260	FOUND DEAD ON DAY 4 POSTWEANING						
1261	370.	357.	378.	367.	384.	376.	
1262							
1263	FOUND DEAD ON DAY 2 POSTWEANING						
1264	FOUND DEAD ON DAY 2 POSTWEANING						
1265							
1266	366.	367.	380.	390.	403.	423.	
1267							
1268							
1269	437.	445.	467.	477.	495.	498.	
1270							

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. First weekly value recorded after cohabitation.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D15 (PAGE 20): BODY WEIGHTS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP V						30 MG/KG/DAY
DAY	78	85	92	99a	106	113	120
1271	452.	457.	465.	465.	478.	491.	510.
1272							
1273	350.	341.	356.	359.	372.	378.	394.
1274	450.	448.	469.	475.	486.	490.	507.
1275	MORIBUND SACRIFICED ON DAY 39 POSTWEANING						
1276							
1277	FOUND DEAD ON DAY 4 POSTWEANING						
1278	323.	326.	334.	345.	369.	382.	
1279							
1280	FOUND DEAD ON DAY 3 POSTWEANING						
1281	407.	412.	423.	437.	450.	466.	
1282	334.	350.	355.	363.	362.	383.	
1283							
1284	384.	396.	406.	423.	434.	435.	
1285							
1286							
1287	378.	373.	388.	405.	413.	420.	
1288	341.	355.	360.	371.	382.	397.	
1289	385.	388.	391.	412.	422.	428.	
1290	391.	388.	393.	403.	415.	427.	
1291	350.	359.	372.	386.	396.	397.	
1292							
1293							
1294	405.	408.	417.	433.	435.	440.	
1295							
1296	391.	394.	402.	414.	284.	FOUND DEAD ON DAY 107 POSTWEANING	
1297							
1298	338.	344.	352.	378.	372.	383.	
1299							
1300	391.	386.	394.	401.	419.	434.	

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. First weekly value recorded after cohabitation.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D16 (PAGE 1): FEED CONSUMPTION VALUES - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP I					0 MG/KG/DAY						
	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a	99b-106	106 -113
1001	60.	116.	163.	188.	199.							
1002	72.	124.	165.	202.	195.	197.	183.	194.	194.	159.	159.	178.
1003	88.	144.	191.	215.	231.	233.	207.	223.	229.	173.	218.	213.
1004	76.	135.	164.	181.	200.							
1005	81.	140.	178.	205.	212.	222.	204.	210.	203.	175.	206.	191.
1006	74.	130.	161.	173.	177.							
1007	78.	117.	151.	172.	180.	195.	188.	194.	197.	170.	197.	188.
1008	87.	130.	165.	183.	193.							
1009	82.	143.	191.	197.	219.							
1010	69.	114.	145.	165.	178.							
1011	78.	129.	156.	172.	189.	203.	208.	209.	211.	192.	206.	219.
1012	73.	156.	165.	169.	183.	201.	186.	202.	209.	173.	211.	c
1013	68.	137.	150.	171.	203.	206.	218.	223.	225.	191.	218.	c
1014	96.	143.	171.	193.	211.	199.	189.	199.	197.	164.	195.	202.
1015	97.	169.	194.	209.	234.							
1016	86.	147.	158.	176.	195.							
1017	70.	142.	162.	181.	192.	182.	186.	193.	c	167.	186.	c
6553	50.	107.	131.	144.								
6554	85.	143.	155.	260.								
6555	80.	135.	151.	166.								
1021	76.	132.	149.	169.	178.	193.	204.	224.	225.	186.	223.	220.
1022	82.	151.	167.	191.	205.							
1023	68.	116.	147.	174.	193.	205.	203.	205.	212.	185.	208.	c
1024	76.	129.	149.	FOUND DEAD ON DAY 25 POSTWEANING								
1025	69.	118.	143.	179.	195.							
1026	66.	125.	140.	166.	181.	186.	182.	200.	200.	173.	205.	214.
1027	78.	111.	123.	137.	156.							
1028	66.	108.	139.	158.	176.	177.	168.	173.	165.	143.	173.	147.
1029	MORIBUND SACRIFICED ON DAY 4 POSTWEANING											
1030	71.	134.	168.	196.	205.							

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. First value recorded after cohabitation.
c. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D16 (PAGE 2): FEED CONSUMPTION VALUES - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP I					0 MG/KG/DAY						
	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a	99b-106	106 -113
1031	76.	115.	165.	196.	200.	207.	203.	213.	c	174.	204.	212.
1032	62.	109.	158.	191.	199.							
1033	62.	106.	147.	180.	189.							
1034	53.	110.	142.	174.	187.	194.	185.	194.	188.	156.	193.	200.
1035	60.	d	140.	171.	191.	181.	160.	182.	173.	133.	162.	166.
1036	76.	122.	163.	190.	188.							
1037	55.	100.	136.	155.	162.							
1038	80.	112.	154.	180.								
1039	75.	112.	157.	181.	207.	FOUND DEAD ON DAY 42 POSTWEANING						
1040	75.	121.	147.	165.	188.	183.	192.	177.	179.	144.	187.	180.
1041	46.	103.	131.	147.	179.	181.	199.	198.	185.	149.	190.	195.
1042	78.	118.	136.	157.								
1043	66.	128.	170.	186.	183.	218.	224.	249.	267.	196.	232.	213.
1044	87.	143.	162.	173.								
1045	74.	124.	151.	177.	190.	198.	221.	227.	214.	156.	187.	189.
1046	82.	136.	158.	175.								
1047	69.	135.	161.	175.	212.	211.	228.	228.	240.	191.	220.	224.
1048	74.	124.	159.	182.	212.	221.	244.	243.	246.	185.	216.	212.
1049	65.	119.	145.	172.								
1050	70.	117.	138.	174.	199.	206.	263.	240.	c	163.	198.	194.
1051	71.	128.	166.	199.	237.	254.	c	c	c	215.	259.	246.
1052	70.	143.	177.	189.	210.	210.	232.	242.	264.	185.	218.	217.
1053	71.	115.	149.	193.								
1054	81.	129.	153.	206.	215.	200.	196.	204.	190.	176.	188.	192.
1055	81.	136.	172.	201.	216.	201.	200.	204.	196.	246.	206.	207.
1056	87.	141.	170.	191.								
1057	72.	126.	161.	72.								
1058	77.	133.	168.	192.	214.	209.	209.	201.	219.	181.	207.	213.
1059	82.	118.	163.	191.	208.	237.	237.	c	241.	201.	180.	
1060	57.	111.	163.	183.	187.	192.	207.	206.	193.	153.	190.	

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. First value recorded after cohabitation.
c. Spilled feed precluded the calculation of this value.
d. Soiled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D16 (PAGE 3): FEED CONSUMPTION VALUES - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP II											
	1 MG/KG/DAY											
	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a	99b-106	106 -113
1061	67.	120.	159.	168.	178.	175.	170.	180.	169.	140.	165.	168.
1062	77.	125.	151.	169.	185.							
1063	69.	123.	128.	164.	187.	207.	180.	183.	180.	152.	191.	187.
1064	FOUND DEAD ON DAY 6 POSTWEANING											
1065	66.	106.	134.	160.	180.							
1066	64.	106.	139.	155.	169.	171.	168.	182.	167.	142.	176.	182.
1067	54.	99.	145.	174.	190.	200.	177.	186.	185.	139.	186.	165.
1068	69.	119.	155.	176.	196.							
1069	62.	108.	138.	162.	192.	200.	209.	204.	204.	158.	195.	189.
1070	79.	121.	159.	176.	203.							
1071	72.	117.	141.	161.	179.	190.	174.	174.	176.	c	184.	181.
1072	65.	130.	159.	181.	201.							
1073	86.	146.	177.	189.	201.	199.	181.	188.	189.	162.	177.	171.
1074	72.	123.	169.	191.	207.							
1075	72.	145.	179.	200.	213.							
1076	80.	132.	165.	185.	187.							
1077	68.	132.	160.	173.	191.	191.	190.	195.	204.	169.	222.	189.
1078	84.	151.	182.	192.	208.	231.	208.	243.	239.	207.	241.	240.
1079	70.	114.	146.	164.	172.							
1080	84.	128.	150.	171.	184.							
1081	74.	124.	154.	168.	181.	192.	195.	211.	215.	177.	204.	200.
1082	74.	135.	144.	167.	177.	193.	180.	184.	183.	159.	193.	182.
1083	61.	121.	152.	173.	192.	195.	175.	188.	183.	157.	184.	183.
1084	72.	119.	140.	158.	176.							
1085	69.	110.	140.	156.	178.							
1086	72.	117.	135.	147.	158.	211.	161.	c	c	130.	131.	171.
1087	87.	122.	172.	191.	203.	213.	FOUND DEAD ON DAY 45 POSTWEANING					
1088	90.	121.	167.	173.	188.	198.	190.	c	c	174.	204.	256.
1089	92.	136.	158.	175.	191.							
1090	78.	124.	136.	154.	159.	191.	179.	191.	179.	145.	c	174.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. First value recorded after cohabitation.
c. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D16 (PAGE 4): FEED CONSUMPTION VALUES - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP II											1 MG/KG/DAY
	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a	99b-106	106 -113
1091	70.	115.	145.	171.	189.	195.	198.	200.	195.	159.	185.	194.
1092	75.	120.	150.	170.	189.							
1093	65.	108.	149.	181.	193.							
1094	74.	115.	157.	180.	199.	215.	214.	223.	222.	193.	221.	c
1095	80.	125.	167.	203.	228.							
1096	66.	118.	147.	167.	184.	199.	222.	238.	236.	207.	218.	238.
1097	66.	128.	143.	167.	187.							
1098	70.	129.	153.	183.	195.	198.	200.	210.	198.	187.	193.	191.
1099	84.	151.	170.	218.	175.							
1100	96.	134.	160.	180.	203.	202.	184.	197.	200.	156.	181.	187.
1101	90.	162.	154.	170.	183.							
1102	65.	129.	170.	200.	197.							
1103	74.	132.	168.	189.	205.	201.	199.	207.	204.	175.	198.	194.
1104	FOUND DEAD ON DAY 2 POSTWEANING											
1105	65.	115.	141.	174.	188.							
1106	59.	100.	120.	137.	151.	162.	172.	186.	188.	165.	194.	190.
1107	75.	111.	135.	159.	167.	178.	188.	184.	204.	183.	214.	210.
1108	75.	115.	149.	172.	197.							
1109	67.	118.	139.	168.	176.							
1110	72.	109.	124.	164.	173.	182.	180.	192.	179.	147.	165.	167.
1111	59.	109.	148.	164.	173.							
1112	77.	120.	154.	186.	206.	c	206.	208.	223.	184.	206.	207.
1113	82.	120.	165.	196.								
1114	80.	128.	161.	183.	200.	197.	188.	201.	207.	177.	209.	198.
1115	62.	108.	136.	162.								
1116	68.	101.	136.	148.	178.	193.	203.	205.	205.	171.	212.	209.
1117	72.	112.	137.	146.								
1118	71.	117.	149.	167.	193.	183.	188.	198.	199.	154.	182.	197.
1119	60.	112.	157.	175.								
1120	66.	117.	157.	185.	202.	199.	198.	c	203.	165.	202.	194.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. First value recorded after cohabitation.
c. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D16 (PAGE 5): FEED CONSUMPTION VALUES - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP III				3 MG/KG/DAY							
	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a	99b-106	106 -113
1121	FOUND DEAD ON DAY 5 POSTWEANING											
1122	89.	131.	169.	61.	198.	200.	192.	189.	181.	157.	176.	183.
1123	90.	137.	171.	184.	203.	213.	199.	216.	211.	178.	121.	136.
1124	68.	114.	153.	175.	189.							
1125	58.	114.	146.	173.	181.							
1126	68.	104.	137.	166.	175.							
1127	56.	101.	131.	154.	175.	195.	188.	192.	190.	160.	193.	184.
1128	64.	117.	165.	187.	c							
1129	51.	112.	157.	185.	199.	198.	202.	212.	207.	185.	229.	231.
1130	FOUND DEAD ON DAY 2 POSTWEANING											
1131	59.	122.	145.	170.	178.	211.	219.	233.	226.	183.	215.	229.
1132	81.	128.	164.	179.	161.	189.	183.	196.	196.	164.	200.	202.
1133	86.	138.	154.	167.	178.							
1134	83.	149.	176.	198.	210.	222.	213.	218.	212.	c	199.	197.
1135	82.	143.	180.	205.	217.	207.	189.	189.	189.	169.	210.	210.
1136	42.	99.	153.	165.	179.	190.	190.	203.	201.	164.	192.	113.
1137	73.	123.	164.	181.	185.							
1138	92.	147.	175.	191.	208.							
1139	82.	129.	170.	208.	195.	203.	192.	197.	199.	165.	c	183.
1140	63.	FOUND DEAD ON DAY 9 POSTWEANING										
1141	72.	119.	146.	165.	176.	198.	189.	194.	190.	162.	199.	204.
1142	50.	102.	131.	c	170.	181.	178.	176.	177.	156.	182.	191.
1143	69.	138.	143.	170.	190.							
1144	56.	109.	139.	157.	180.							
1145	62.	160.	137.	157.	171.	165.	172.	172.	164.	144.	167.	164.
1146	68.	177.	147.	175.	194.							
1147	89.	159.	180.	173.	195.	214.	212.	211.	209.	185.	203.	162.
1148	91.	149.	144.	160.	173.							
1149	87.	135.	161.	169.	195.	213.	c	207.	210.	164.	191.	190.
1150	81.	126.	155.	182.	198.							

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. First value recorded after cohabitation.
c. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D16 (PAGE 6): FEED CONSUMPTION VALUES - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP III					3 MG/KG/DAY						
	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a	99b-106	106 -113
1151	101.	151.	181.	210.	225.	228.	227.	235.	223.	194.	199.	211.
1152	82.	162.	176.	197.	213.							
1153	88.	149.	176.	185.	202.	217.	c	236.	c	193.	205.	c
1154	96.	146.	179.	205.	219.	217.	213.	225.	224.	182.	209.	210.
1155	98.	147.	181.	203.	224.							
1156	74.	124.	162.	195.	218.							
1157	75.	119.	150.	178.	195.							
1158	79.	123.	160.	182.	204.	212.	202.	256.	254.	198.	207.	228.
1159	122.	146.	185.	208.	233.	222.	262.	269.	235.	202.	216.	210.
1160	98.	142.	176.	193.	220.							
1161	92.	129.	164.	188.	199.							
1162	66.	111.	129.	170.	190.	179.	183.	186.	180.	151.	190.	200.
1163	70.	112.	132.	165.	179.							
1164	89.	144.	181.	195.	216.	209.	209.	220.	212.	177.	194.	204.
1165	83.	138.	177.	214.	230.							
1166	33.	69.	101.	128.	149.	173.	186.					
1167	42.	90.	121.	148.	167.	185.	218.	217.	225.	176.	224.	220.
1168	48.	99.	135.	159.	187.	203.	216.	218.	216.	177.	218.	201.
1169	56.	99.	125.	142.								
1170	71.	113.	137.	154.								
1171	68.	105.	129.	147.	166.	164.	167.	c	c	139.	168.	168.
1172	75.	133.	159.	205.								
1173	85.	133.	152.	180.	195.	189.	200.	209.	211.	167.	193.	186.
1174	85.	142.	182.	213.								
1175	90.	136.	175.	206.	230.	227.	228.	176.	123.	151.	199.	155.
1176	73.	113.	137.	149.	165.	182.	198.	203.	202.	167.	157.	145.
1177	81.	139.	166.	181.	204.	206.	206.	208.	203.	180.	186.	213.
1178	87.	131.	170.	183.								
1179	78.	122.	168.	190.								
1180	81.	117.	155.	184.	218.	212.	229.	206.	194.	168.	206.	200.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. First value recorded after cohabitation.
c. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D16 (PAGE 7): FEED CONSUMPTION VALUES - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP IV					10 MG/KG/DAY						
	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a	99b-106	106 -113
1181	76.	137.	156.	190.	205.							
1182	75.	119.	163.	199.	211.	212.	198.	206.	213.	172.	195.	194.
1183	58.	101.	134.	159.	176.							
1184	63.	103.	147.	174.	189.	195.	169.	181.	176.	159.	196.	204.
1185	56.	110.	127.	174.	206.							
1186	64.	107.	135.	169.	179.	162.	178.	182.	182.	154.	190.	188.
1187	78.	136.	160.	178.	197.							
1188	84.	134.	174.	184.	200.	201.	187.	c	199.	155.	208.	207.
1189	80.	160.	164.	201.	241.	231.	243.	230.	218.	193.	239.	239.
1190	88.	194.	180.	238.	265.							
1191	84.	138.	157.	176.	189.							
1192	87.	135.	155.	173.	203.	199.	195.	200.	193.	167.	198.	191.
1193	95.	140.	166.	199.	223.							
1194	85.	138.	164.	190.	219.	218.	213.	221.	220.	194.	205.	226.
1195	85.	143.	155.	195.	218.	213.	196.	206.	192.	163.	199.	200.
1196	81.	129.	137.	165.	184.							
1197	59.	117.	131.	155.	183.							
1198	91.	152.	169.	192.	223.	238.	241.	260.	257.	213.	233.	236.
1199	72.	142.	142.	177.	198.							
1200	75.	143.	170.	d	181.	MORIBUND SACRIFICED ON DAY 40 POSTWEANING						
1201	86.	140.	162.	178.	208.							
1202	83.	126.	148.	174.	199.							
1203	75.	155.	168.	205.	216.	197.	179.	190.	178.	141.	183.	187.
1204	84.	123.	161.	208.	225.	211.	198.	219.	213.	178.	240.	229.
1205	80.	127.	157.	203.	239.							
1206	79.	123.	146.	168.	194.							
1207	73.	112.	132.	161.	179.	189.	187.	189.	182.	157.	185.	180.
1208	85.	137.	156.	183.	206.							
1209	84.	122.	154.	184.	211.	206.	212.	212.	215.	184.	209.	211.
1210	FOUND DEAD ON DAY 4 POSTWEANING											

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. First value recorded after cohabitation.
c. Spilled feed precluded the calculation of this value.
d. Wet feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D16 (PAGE 8): FEED CONSUMPTION VALUES - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP IV											10 MG/KG/DAY
	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a	99b-106	106 -113
1211	64.	106.	130.	154.	167.	174.	183.	189.	183.	159.	197.	200.
1212	90.	145.	185.	212.	220.	224.	230.	229.	221.	188.	209.	220.
1213	86.	132.	165.	198.	99.							
1214	79.	125.	161.	193.	201.							
1215	76.	121.	188.	204.	211.	206.	200.	203.	190.	164.	178.	181.
1216	76.	116.	114.	155.	170.	184.	194.	212.	216.	181.	203.	c
1217	86.	125.	165.	181.	194.	197.	217.	232.	226.	191.	203.	193.
1218	62.	105.	132.	162.	179.							
1219	59.	80.	125.	152.	177.	186.	184.	190.	176.	157.	184.	181.
1220	75.	121.	145.	165.								
1221	67.	112.	129.	155.	164.	166.	183.	189.	165.	109.	192.	206.
1222	77.	123.	149.	183.	193.	191.	186.	188.	185.	141.	188.	199.
1223	75.	117.	156.	179.								
1224	39.	76.	112.	150.	169.	174.	178.	177.	183.	149.	187.	177.
1225	39.	83.	119.	174.	190.	192.	202.	207.	220.	173.	189.	187.
1226	80.	122.	159.	176.	197.	209.	212.	212.	210.	180.	206.	199.
1227	70.	113.	142.	161.								
1228	71.	110.	136.	161.								
1229	66.	109.	147.	177.	198.	c	184.	184.	165.	143.	154.	152.
1230	64.	112.	145.	171.								
1231	76.	121.	161.	193.								
1232	76.	114.	135.	161.	166.	161.	153.	146.	145.	124.	151.	145.
1233	76.	122.	166.	191.	211.	208.	222.	228.	232.	202.	221.	214.
1234	83.	130.	166.	193.								
1235	69.	107.	145.	177.								
1236	69.	107.	148.	165.	178.	183.	199.	197.	204.	168.	186.	191.
1237	65.	104.	140.	173.	281.	177.	188.	192.	203.	165.	260.	c
1238	72.	120.	169.	202.								
1239	75.	119.	152.	179.								
1240	74.	118.	151.	194.	217.	204.	227.	228.	226.	158.	193.	190.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. First value recorded after cohabitation.
c. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D16 (PAGE 9): FEED CONSUMPTION VALUES - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP V					30 MG/KG/DAY						
	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a	99b-106	106 -113
1241	52.	99.	137.	166.	185.	210.	193.	188.	210.	165.	178.	142.
1242	60.	107.	143.	180.	187.							
1243	47.	94.	147.	180.	176.							
1244	70.	123.	177.	217.	237.	250.	232.	c	215.	193.	c	217.
1245	75.	127.	168.	211.	248.	259.	c	246.	239.	179.	230.	236.
1246	68.	108.	144.	171.	188.							
1247	55.	92.	118.	150.	168.	182.	172.	184.	177.	159.	173.	174.
1248	74.	92.	117.	142.	168.	174.	159.	169.	158.	135.	156.	164.
1249	49.	93.	113.	149.	176.	190.	167.	176.	159.	118.	152.	147.
1250	61.	100.	136.	152.	158.							
1251	81.	132.	143.	167.	184.							
1252	73.	129.	147.	161.	188.	196.	185.	200.	189.	168.	203.	185.
1253	69.	114.	139.	170.	184.							
1254	59.	106.	133.	174.	182.	195.	174.	175.	185.	161.	234.	191.
1255	83.	126.	148.	174.	194.	197.	199.	196.	187.	159.	181.	199.
1256	83.	123.	142.	165.	178.							
1257	70.	125.	137.	162.	185.	191.	203.	218.	216.	180.	197.	198.
1258	58.	120.	128.	140.	148.							
1259	50.	88.	118.	151.	167.	178.	176.	170.	166.	140.	171.	176.
1260	FOUND DEAD ON DAY 4 POSTWEANING											
1261	66.	133.	129.	155.	161.	165.	172.	180.	181.	144.	179.	162.
1262	74.	146.	134.	169.	c							
1263	FOUND DEAD ON DAY 2 POSTWEANING											
1264	FOUND DEAD ON DAY 2 POSTWEANING											
1265	69.	126.	139.	171.	188.							
1266	75.	123.	135.	157.	176.	180.	170.	170.	167.	144.	190.	192.
1267	72.	149.	143.	174.	200.							
1268	69.	197.	172.	205.	215.							
1269	81.	138.	187.	222.	229.	261.	230.	239.	231.	182.	222.	226.
1270	91.	135.	242.	172.	194.							

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. First value recorded after cohabitation.
c. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D16 (PAGE 10): FEED CONSUMPTION VALUES - INDIVIDUAL DATA - F1 GENERATION MALE RATS

RAT #	DOSAGE GROUP V				30 MG/KG/DAY							
	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a	99b-106	106 -113
1271	92.	136.	99.	202.	206.	221.	227.	231.	215.	190.	203.	221.
1272	63.	95.	128.	157.	163.							
1273	67.	101.	128.	165.	186.	179.	166.	168.	167.	142.	169.	162.
1274	79.	116.	168.	200.	213.	210.	192.	199.	214.	178.	178.	181.
1275	70.	113.	164.	235.	173.	MORIBUND SACRIFICED ON DAY 39 POSTWEANING						
1276	49.	107.	146.	145.	169.							
1277	FOUND DEAD ON DAY 4 POSTWEANING											
1278	29.	68.	105.	128.	134.	141.	157.	161.	165.	142.	180.	177.
1279	44.	81.	119.	159.	177.							
1280	FOUND DEAD ON DAY 3 POSTWEANING											
1281	70.	113.	134.	165.	189.	181.	197.	216.	201.	164.	204.	206.
1282	67.	110.	136.	163.	173.	183.	182.	171.	174.	149.	163.	183.
1283	65.	111.	131.	180.	188.							
1284	59.	102.	155.	182.	198.	187.	180.	186.	173.	153.	203.	194.
1285	59.	111.	159.	205.								
1286	55.	88.	118.	148.								
1287	56.	82.	121.	161.	185.	184.	c	c	226.	228.	218.	216.
1288	55.	91.	117.	147.	182.	190.	183.	189.	178.	168.	189.	191.
1289	68.	112.	146.	187.	203.	205.	204.	216.	215.	172.	212.	196.
1290	73.	113.	150.	195.	218.	209.	200.	212.	207.	173.	202.	199.
1291	60.	117.	144.	167.	169.	166.	211.	168.	173.	125.	167.	160.
1292	74.	136.	168.	194.								
1293	70.	107.	128.	177.								
1294	57.	82.	141.	188.	205.	211.	213.	197.	194.	162.	194.	170.
1295	67.	119.	154.	185.								
1296	59.	109.	141.	151.	167.	179.	182.	185.	182.	142.	124.	d
1297	55.	108.	134.	157.								
1298	55.	100.	132.	159.	175.	177.	189.	185.	167.	137.	174.	e
1299	63.	109.	144.	171.								
1300	63.	102.	148.	164.	203.	210.	221.	222.	230.	165.	213.	218.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. First value recorded after cohabitation.
c. Spilled feed precluded the calculation of this value.
d. Rat 1296 was found dead on day 107 postweaning.
e. Wet feed precluded the calculation of this value.

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TABLE D17 (PAGE 1): SEXUAL MATURATION - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP - MG/KG/DAY									
I		II		III		IV		V	
0		1		3		10		30	
RAT #	PREPUTIAL SEPARATION (DAY)	RAT #	PREPUTIAL SEPARATION (DAY)	RAT #	PREPUTIAL SEPARATION (DAY)	RAT #	PREPUTIAL SEPARATION (DAY)	RAT #	PREPUTIAL SEPARATION (DAY)
1001	52	1061	46	1121	a	1181	47	1241	56
1002	49	1062	47	1122	51	1182	46	1242	57
1003	49	1063	51	1123	50	1183	52	1243	59
1004	49	1064	a	1124	52	1184	52	1244	52
1005	48	1065	51	1125	50	1185	58	1245	55
1006	49	1066	47	1126	52	1186	53	1246	56
1007	47	1067	48	1127	51	1187	48	1247	58
1008	47	1068	48	1128	45	1188	46	1248	53
1009	46	1069	51	1129	48	1189	50	1249	55
1010	47	1070	51	1130	a	1190	49	1250	50
1011	45	1071	55	1131	55	1191	48	1251	50
1012	51	1072	51	1132	53	1192	49	1252	53
1013	48	1073	49	1133	55	1193	49	1253	49
1014	46	1074	53	1134	47	1194	49	1254	53
1015	47	1075	51	1135	47	1195	49	1255	49
1016	49	1076	47	1136	45	1196	46	1256	54
1017	48	1077	49	1137	47	1197	49	1257	49
6553	b	1078	47	1138	48	1198	51	1258	54
6554	46	1079	50	1139	47	1199	52	1259	58
6555	52c	1080	49	1140	a	1200	d	1260	a
1021	52	1081	47	1141	55	1201	50	1261	51
1022	49	1082	50	1142	52	1202	49	1262	49
1023	52	1083	52	1143	54	1203	48	1263	a
1024	d	1084	50	1144	58	1204	48	1264	a
1025	52	1085	55	1145	52	1205	56	1265	49
1026	53	1086	50	1146	46	1206	51	1266	49
1027	49	1087	47	1147	47	1207	50	1267	50
1028	48	1088	50	1148	46	1208	50	1268	49
1029	a	1089	50	1149	50	1209	48	1269	46
1030	50	1090	47	1150	46	1210	a	1270	54

DAY = DAY POSTPARTUM

a. Rat was found dead or moribund sacrificed before the start of sexual maturation evaluation.
b. Sexual maturation testing was discontinued before rat became sexually mature.
c. Rat did not have preputial separation recorded on one day and was separated the following day; value excluded from group averages and statistical analyses.
d. Rat was found dead or moribund sacrificed.

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TABLE D17 (PAGE 2): SEXUAL MATURATION - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP - MG/KG/DAY									
I		II		III		IV		V	
0		1		3		10		30	
RAT #	PREPUTIAL SEPARATION (DAY)	RAT #	PREPUTIAL SEPARATION (DAY)	RAT #	PREPUTIAL SEPARATION (DAY)	RAT #	PREPUTIAL SEPARATION (DAY)	RAT #	PREPUTIAL SEPARATION (DAY)
1031	48	1091	49	1151	44	1211	51	1271	49
1032	50	1092	52	1152	49	1212	48	1272	53
1033	48	1093	55	1153	49	1213	48	1273	54
1034	51	1094	52	1154	46	1214	48	1274	50
1035	48	1095	51	1155	49	1215	48	1275	a
1036	48	1096	48	1156	50	1216	49	1276	50
1037	51	1097	49	1157	46	1217	50	1277	b
1038	49	1098	46	1158	50	1218	53	1278	56
1039	49	1099	49	1159	44	1219	53	1279	54
1040	c	1100	45	1160	46	1220	47	1280	b
1041	49	1101	49	1161	46	1221	44	1281	54
1042	47	1102	50	1162	47	1222	54	1282	54
1043	44	1103	51	1163	51	1223	47	1283	48
1044	47	1104	b	1164	48	1224	58	1284	52
1045	50	1105	56	1165	46	1225	59	1285	52
1046	47	1106	53	1166	58	1226	48	1286	55
1047	49	1107	48	1167	53	1227	45	1287	58
1048	50	1108	45	1168	50	1228	50	1288	56
1049	50	1109	48	1169	52	1229	52	1289	53
1050	47	1110	48	1170	53	1230	52	1290	53
1051	47	1111	50	1171	52	1231	49	1291	49
1052	c	1112	48	1172	52	1232	49	1292	52
1053	49	1113	50	1173	52	1233	48	1293	49
1054	48	1114	47	1174	45	1234	49	1294	47
1055	48	1115	55	1175	45	1235	50	1295	52
1056	44	1116	52	1176	50	1236	45	1296	52
1057	48	1117	48	1177	46	1237	53	1297	52
1058	49	1118	47	1178	46	1238	50	1298	52
1059	d	1119	47	1179	49	1239	47	1299	49
1060	d	1120	44	1180	49	1240	47	1300	50

DAY = DAY POSTPARTUM

a. Rat was found dead or moribund sacrificed.
b. Rat was found dead or moribund sacrificed before the start of sexual maturation evaluation.
c. Sexual maturation testing was discontinued before rat became sexually mature.
d. Sexual maturation was not observed on rats 1059 and 1060.

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TABLE D18 (PAGE 1): MATING AND FERTILITY - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP I — 0 MG/KG/DAY

RAT #	DAYS IN COHABITATION	MATING STATUS	MATING DATE	FEMALE PREGNANCY STATUS
1002	2	M	C	P(1341)
1003	4	M	C	P(1302)
1005	3	M	C	P(1335)
1007	2	M	C	P(1318)
1011	2	M	C	P(1308)
1012	14	DID NOT MATE	-	-(1358)
1013	2	M	C	P(1334)
1014	2	M	C	P(1304)
1017	1	M	C	P(1346)
1021	4	M	C	P(1359)
1023	2	M	C	P(1350)
1026	3	M	C	P(1355)
1028	3	M	C	P(1336)
1031	2	M	C	P(1342)
1034	4	M	C	P(1328)
1035	4	M	C	P(1344)
1040	1	M	C	NP(1316)
1041	3	M	C	P(1330)
1043	5	M	C	P(1353)
1045	1	M	C	P(1348)
1047	5	M	C	P(1340)
1048	2	M	C	P(1338)
1050	4	M	C	P(1331)
1051	2	M	C	P(1345)
1052	4	M	C	P(1306)
1054	2	M	C	P(1313)
1055	1	M	C	P(1312)
1058	3	M	C	P(1321)
1059	3	M	C	P(1310)
1060	1	M	C	P(1325)

M = MATED ( ) = FEMALE RAT NUMBER
C = CONFIRMED
P = PREGNANT NP = NOT PREGNANT

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TABLE D18 (PAGE 2): MATING AND FERTILITY - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP II		1 MG/KG/DAY		
RAT #	DAYS IN COHABITATION	MATING STATUS	MATING DATE	FEMALE PREGNANCY STATUS
1061	1	M	C	P(1415)
1063	3	M	C	P(1410)
1066	3	M	C	P(1364)
1067	4	M	C	P(1362)
1069	3	M	C	P(1387)
1071	4	M	C	P(1392)
1073	3	M	C	P(1363)
1077	3	M	C	NP(1378)
1078	4	M	C	P(1371)
1081	3	M	C	P(1368)
1082	2	M	C	P(1418)
1083	4	M	C	P(1367)
1086	6	M	C	P(1409)
1088	2	M	C	P(1389)
1090	4	M	C	P(1404)
1091	4	M	C	P(1413)
1094	2	M	C	P(1375)
1096	2	M	C	P(1397)
1098	3	M	C	P(1407)
1100	4	M	C	P(1376)
1103	2	M	C	P(1383)
1106	3	M	C	P(1399)
1107	2	M	C	P(1401)
1110	3	M	C	P(1382)
1112	4	M	C	P(1379)
1114	2	M	C	P(1384)
1116	1	M	C	P(1416)
1118	2	M	C	P(1393)
1120	4	M	C	P(1381)

M = MATED ( ) = FEMALE RAT NUMBER
C = CONFIRMED
P = PREGNANT NP = NOT PREGNANT

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TABLE D18 (PAGE 3): MATING AND FERTILITY - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP III	3 MG/KG/DAY			
RAT #	DAYS IN COHABITATION	MATING STATUS	MATING DATE	FEMALE PREGNANCY STATUS
1122	1	M	C	P(1456)
1123	2	M	C	P(1443)
1127	4	M	C	P(1476)
1129	3	M	C	P(1461)
1131	2	M	C	P(1474)
1132	4	M	C	P(1472)
1134	4	M	C	P(1455)
1135	2	M	C	P(1448)
1136	2	M	C	P(1430)
1139	2	M	C	P(1424)
1141	3	M	C	P(1450)
1142	4	M	C	NP(1446)
1145	1	M	C	P(1480)
1147	4	M	C	P(1437)
1149	1	M	C	P(1426)
1151	3	M	C	P(1439)
1153	1	M	C	P(1431)
1154	4	M	C	P(1477)
1158	1	M	C	P(1469)
1159	2	M	C	P(1452)
1162	4	M	C	P(1436)
1164	2	M	C	P(1459)
1167	1	M	C	NP(1458)
1168	3	M	C	P(1428)
1171	2	M	C	P(1465)
1173	3	M	C	P(1433)
1175	2	M	C	P(1463)
1176	4	M	C	P(1468)
1177	1	M	C	P(1421)
1180	1	M	C	P(1442)

M = MATED ( ) = FEMALE RAT NUMBER
C = CONFIRMED
P = PREGNANT NP = NOT PREGNANT

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D18 (PAGE 4): MATING AND FERTILITY - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP IV		10 MG/KG/DAY		
RAT #	DAYS IN COHABITATION	MATING STATUS	MATING DATE	FEMALE PREGNANCY STATUS
1182	3	M	C	P(1528)
1184	4	M	C	P(1523)
1186	4	M	C	P(1516)
1188	2	M	C	P(1513)
1189	4	M	C	P(1527)
1192	7	M	C	NP(1511)
1194	1	M	C	P(1519)
1195	1	M	C	P(1502)
1198	2	M	C	P(1496)
1203	2	M	C	P(1491)
1204	3	M	C	P(1533)
1207	1	M	C	NP(1483)
1209	1	M	C	P(1488)
1211	3	M	C	P(1500)
1212	4	M	C	P(1521)
1215	4	M	C	P(1531)
1216	3	M	C	P(1505)
1217	4	M	C	P(1508)
1219	4	M	C	P(1497)
1221	4	M	C	P(1494)
1222	1	M	C	P(1486)
1224	5	M	C	P(1539)
1225	1	M	C	P(1534)
1226	1	M	C	P(1517)
1229	1	M	C	P(1524)
1232	2	M	C	P(1514)
1233	1	M	C	P(1482)
1236	3	M	C	P(1537)
1237	4	M	C	P(1507)
1240	1	M	C	P(1490)

M = MATED ( ) = FEMALE RAT NUMBER
C = CONFIRMED
P = PREGNANT NP = NOT PREGNANT

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D18 (PAGE 5): MATING AND FERTILITY - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP V		30 MG/KG/DAY		
RAT #	DAYS IN COHABITATION	MATING STATUS	MATING DATE	FEMALE PREGNANCY STATUS
1241	3	M	C	P(1588)
1244	2	M	C	P(1565)
1245	2	M	C	P(1557)
1247	1	M	C	P(1560)
1248	4	M	C	P(1566)
1249	4	M	C	P(1555)
1252	4	M	C	P(1546)
1254	3	M	C	P(1548)
1255	2	M	C	P(1573)
1257	4	M	C	P(1586)
1259	2	M	C	P(1541)
1261	4	M	C	P(1598)
1266	3	M	C	P(1568)
1269	1	M	C	P(1558)
1271	4	M	C	P(1600)
1273	3	M	C	P(1589)
1274	3	M	C	P(1571)
1278	3	M	C	NP(1578)
1281	3	M	C	P(1545)
1282	3	M	C	P(1552)
1284	2	M	C	P(1591)
1287	5	M	C	P(1544)
1288	1	M	C	P(1584)
1289	1	M	C	P(1583)
1290	1	M	C	P(1593)
1291	1	M	C	P(1550)
1294	1	M	C	P(1576)
1296	2	M	C	P(1579)
1298	1	M	C	P(1587)
1300	3	M	C	P(1564)

M = MATED ( ) = FEMALE RAT NUMBER
C = CONFIRMED
P = PREGNANT NP = NOT PREGNANT

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D19 (PAGE 1): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
I				
0	1001	DP 39	38	ALL TISSUES APPEARED NORMAL.
	1002	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1003	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1004	DP 39	38	ALL TISSUES APPEARED NORMAL.
	1005	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1006	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1007	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1008	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1009	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1010	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1011	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1012	DP 117	116	ALL TISSUES APPEARED NORMAL.
	1013	DP 117	116	ALL TISSUES APPEARED NORMAL.
	1014	DP 117	116	ALL TISSUES APPEARED NORMAL.
	1015	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1016	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1017	DP 118	117	ALL TISSUES APPEARED NORMAL.
	6553	DP 35	34	ALL TISSUES APPEARED NORMAL.
	6554	DP 35	34	ALL TISSUES APPEARED NORMAL.
	6555	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1021	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1022	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1023	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1024	DP 25	25	FOUND DEAD ON DAY 25 POSTWEANING (DEATH OCCURRED 56 MINUTES AFTER DOSAGE ADMINISTRATION). LUNGS: ALL LOBES, MOTTLED, DARK RED. ALL OTHER TISSUES APPEARED NORMAL.
	1025	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1026	DP 118	117	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING

a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D19 (PAGE 2): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
I 0 CONT.	1027	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1028	DP 117	116	ALL TISSUES APPEARED NORMAL.
	1029	DP 4	4	MORIBUND SACRIFICED ON DAY 4 POSTWEANING. ALL TISSUES APPEARED NORMAL.
	1030	DP 36	35	ALL TISSUES APPEARED NORMAL.
	1031	DP 117	116	ALL TISSUES APPEARED NORMAL.
	1032	DP 36	35	ALL TISSUES APPEARED NORMAL.
	1033	DP 36	35	ALL TISSUES APPEARED NORMAL.
	1034	DP 117	116	ALL TISSUES APPEARED NORMAL.
	1035	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1036	DP 36	35	ALL TISSUES APPEARED NORMAL.
	1037	DP 36	35	ALL TISSUES APPEARED NORMAL.
	1038	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1039	DP 42	42	FOUND DEAD ON DAY 42 POSTWEANING (DEATH OCCURRED 33 MINUTES AFTER DOSAGE ADMINISTRATION). ALL TISSUES APPEARED NORMAL.
	1040	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1041	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1042	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1043	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1044	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1045	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1046	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1047	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1048	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1049	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1050	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1051	DP 119	118	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING

a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D19 (PAGE 3): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
I				
0	1052	DP 119	118	ALL TISSUES APPEARED NORMAL.
CONT.	1053	DP 34	33	ALL TISSUES APPEARED NORMAL.
	1054	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1055	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1056	DP 34	33	ALL TISSUES APPEARED NORMAL.
	1057	DP 31	30	ALL TISSUES APPEARED NORMAL.
	1058	DP 115	114	ALL TISSUES APPEARED NORMAL.
	1059	DP 109	108	ALL TISSUES APPEARED NORMAL.
	1060	DP 109	108	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING

a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D19 (PAGE 4): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
II				
1	1061	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1062	DP 39	38	ALL TISSUES APPEARED NORMAL.
	1063	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1064	DP 6	5	FOUND DEAD ON DAY 6 POSTWEANING (DEATH OCCURRED OVERNIGHT). ALL TISSUES APPEARED NORMAL.
	1065	DP 39	38	ALL TISSUES APPEARED NORMAL.
	1066	DP 119	118	PROSTATE: SMALL (0.2716 G). ALL OTHER TISSUES APPEARED NORMAL.
	1067	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1068	DP 39	38	ALL TISSUES APPEARED NORMAL.
	1069	DP 119	118	b
	1070	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1071	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1072	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1073	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1074	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1075	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1076	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1077	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1078	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1079	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1080	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1081	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1082	DP 119	118	TESTES: LEFT, FLACCID, SMALL (1.0590 G). EPIDIDYMIDES: LEFT, SMALL (0.3393 G). ALL OTHER TISSUES APPEARED NORMAL.
	1083	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1084	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1085	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1086	DP 119	118	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING

a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy.

b. Necropsy observations were not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D19 (PAGE 5): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
II 1 CONT.	1087	DP 45	44	FOUND DEAD ON DAY 45 POSTWEANING (DEATH OCCURRED PRIOR TO DOSAGE ADMINISTRATION). ALL TISSUES APPEARED NORMAL.
	1088	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1089	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1090	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1091	DP 120	119	ALL TISSUES APPEARED NORMAL.
	1092	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1093	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1094	DP 120	119	ALL TISSUES APPEARED NORMAL.
	1095	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1096	DP 120	119	ALL TISSUES APPEARED NORMAL.
	1097	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1098	DP 120	119	ALL TISSUES APPEARED NORMAL.
	1099	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1100	DP 120	119	ALL TISSUES APPEARED NORMAL.
	1101	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1102	DP 36	35	ALL TISSUES APPEARED NORMAL.
	1103	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1104	DP 2	1	FOUND DEAD ON DAY 2 POSTWEANING (DEATH OCCURRED OVERNIGHT). ALL TISSUES APPEARED NORMAL.
	1105	DP 36	35	ALL TISSUES APPEARED NORMAL.
	1106	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1107	DP 120	119	ALL TISSUES APPEARED NORMAL.
	1108	DP 36	35	ALL TISSUES APPEARED NORMAL.
	1109	DP 36	35	ALL TISSUES APPEARED NORMAL.
	1110	DP 120	119	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING

a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D19 (PAGE 6): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
II				
1	1111	DP 36	35	ALL TISSUES APPEARED NORMAL.
CONT.	1112	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1113	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1114	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1115	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1116	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1117	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1118	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1119	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1120	DP 119	118	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING
a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D19 (PAGE 7): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
III 3	1121	DP 5	4	FOUND DEAD ON DAY 5 POSTWEANING (DEATH OCCURRED OVERNIGHT). ALL TISSUES APPEARED NORMAL.
	1122	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1123	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1124	DP 38	37	LIVER: LEFT LATERAL LOBE, NUMEROUS TAN AREAS, (PINPOINT TO 0.3 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1125	DP 38	37	LIVER: LEFT LATERAL LOBE, FOUR TAN AREAS (PINPOINT TO 0.1 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1126	DP 38	37	LIVER: LEFT LATERAL LOBE, NUMEROUS TAN AREAS, (PINPOINT TO 0.2 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1127	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1128	DP 38	37	LIVER: LEFT LATERAL LOBE, TAN AREA (0.4 CM X 0.2 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1129	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1130	DP 2	1	FOUND DEAD ON DAY 2 POSTWEANING (DEATH OCCURRED OVERNIGHT). ALL TISSUES APPEARED NORMAL.
	1131	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1132	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1133	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1134	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1135	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1136	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1137	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1138	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1139	DP 119	118	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING

a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D19 (PAGE 8): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
III 3 CONT.	1140	DP 9	8	FOUND DEAD ON DAY 9 POSTWEANING (DEATH OCCURRED OVERNIGHT). ALL TISSUES APPEARED NORMAL.
	1141	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1142	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1143	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1144	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1145	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1146	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1147	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1148	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1149	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1150	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1151	DP 120	119	ALL TISSUES APPEARED NORMAL.
	1152	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1153	DP 120	119	TESTES: LEFT, LARGE (3.0171 G). ALL OTHER TISSUES APPEARED NORMAL.
	1154	DP 120	119	ALL TISSUES APPEARED NORMAL.
	1155	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1156	DP 36	35	LIVER: LEFT LATERAL LOBE, SIX TAN AREAS (PINPOINT TO 0.3 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1157	DP 36	35	ALL TISSUES APPEARED NORMAL.
	1158	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1159	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1160	DP 36	35	ALL TISSUES APPEARED NORMAL.
	1161	DP 36	35	ALL TISSUES APPEARED NORMAL.
	1162	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1163	DP 36	35	ALL TISSUES APPEARED NORMAL.
	1164	DP 119	118	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING

a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D19 (PAGE 9): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
III 3 CONT.	1165	DP 36	35	LIVER: LEFT LATERAL LOBE, NUMEROUS TAN AREAS, (PINPOINT TO 0.2 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1166	DP 56	55	ALL TISSUES APPEARED NORMAL.
	1167	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1168	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1169	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1170	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1171	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1172	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1173	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1174	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1175	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1176	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1177	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1178	DP 34	33	ALL TISSUES APPEARED NORMAL.
	1179	DP 31	30	ALL TISSUES APPEARED NORMAL.
	1180	DP 115	114	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING

a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D19 (PAGE 10): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
IV				
10	1181	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1182	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1183	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1184	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1185	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1186	DP 118	117	KIDNEYS: RIGHT, PELVIS, MODERATE DILATION. ALL OTHER TISSUES APPEARED NORMAL.
	1187	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1188	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1189	DP 117	116	ALL TISSUES APPEARED NORMAL.
	1190	DP 37	36	LIVER: LEFT LATERAL AND MEDIAN LOBES, NUMEROUS TAN AREAS, (PINPOINT TO 0.2 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1191	DP 37	36	LIVER: LATERAL LOBE, NUMEROUS TAN AREAS, (PINPOINT TO 0.1 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1192	DP 117	116	ALL TISSUES APPEARED NORMAL.
	1193	DP 37	36	LIVER: LEFT LATERAL LOBE, FOUR TAN AREAS (PINPOINT TO 0.2 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1194	DP 117	116	ALL TISSUES APPEARED NORMAL.
	1195	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1196	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1197	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1198	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1199	DP 37	36	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING

a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D19 (PAGE 11): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
IV 10 CONT.	1200	DP 40	39	MORIBUND SACRIFICED ON DAY 40 POSTWEANING. INTESTINES: DISTENDED WITH GAS. THYMUS: SMALL, (0.02 G). STOMACH: TWO REGIONS OF THE CARDIAC REGION, FIRST REGION, NUMEROUS ULCERATIONS, (PINPOINT TO 0.1 CM IN DIAMETER), SECOND REGION, FIVE ULCERATIONS (PINPOINT). ALL OTHER TISSUES APPEARED NORMAL.
	1201	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1202	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1203	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1204	DP 117	116	ALL TISSUES APPEARED NORMAL.
	1205	DP 36	35	LIVER: LEFT LATERAL LOBE, NUMEROUS TAN AREAS, (PINPOINT TO 0.5 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1206	DP 36	35	LIVER: LEFT LATERAL LOBE, NUMEROUS TAN AREAS, (PINPOINT TO 0.5 CM X 0.1 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1207	DP 117	116	ALL TISSUES APPEARED NORMAL.
	1208	DP 36	35	ALL TISSUES APPEARED NORMAL.
	1209	DP 117	116	ALL TISSUES APPEARED NORMAL.
	1210	DP 4	3	FOUND DEAD ON DAY 4 POSTWEANING (DEATH OCCURRED OVERNIGHT). ALL TISSUES APPEARED NORMAL.
	1211	DP 117	116	ALL TISSUES APPEARED NORMAL.
	1212	DP 117	116	ALL TISSUES APPEARED NORMAL.
	1213	DP 36	35	ALL TISSUES APPEARED NORMAL.
	1214	DP 36	35	ALL TISSUES APPEARED NORMAL.
	1215	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1216	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1217	DP 119	118	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING

a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D19 (PAGE 12): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
IV 10 CONT.	1218	DP 36	35	LIVER: LEFT LATERAL LOBE, TAN AND BLACK AREA (0.2 CM X 0.2 CM); CAUDATE LOBE, TAN AREA (0.4 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1219	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1220	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1221	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1222	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1223	DP 35	34	LIVER: LEFT LATERAL LOBE, NUMEROUS TAN AREAS, (PINPOINT TO 0.2 CM IN DIAMETER). ALL OTHER TISSUES APPEARED NORMAL.
	1224	DP 118	117	KIDNEYS: RIGHT, PELVIS, SLIGHT DILATION. ALL OTHER TISSUES APPEARED NORMAL.
	1225	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1226	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1227	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1228	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1229	DP 119	118	SPLEEN: TAN AREA EXTENDED INTO THE PARENCHYMA (2.0 CM X 1.5 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1230	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1231	DP 35	34	LIVER: LEFT LATERAL LOBE, FIVE TAN AREAS (PINPOINT TO 0.5 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1232	DP 119	118	KIDNEYS: RIGHT, PELVIS, SLIGHT DILATION. ALL OTHER TISSUES APPEARED NORMAL.
	1233	DP 119	118	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING

a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D19 (PAGE 13): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
IV 10 CONT.	1234	DP 35	34	LIVER: LEFT LATERAL LOBE, NUMEROUS TAN AREAS, (PINPOINT TO 0.7 CM); MEDIAN LOBE, ONE TAN AREA (0.2 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1235	DP 35	34	LIVER: LEFT LATERAL LOBE, 4 TO 5 TAN AREAS, (PINPOINT TO 0.1 CM); MEDIAN LOBE, NUMEROUS TAN AREAS, (PINPOINT TO 0.3 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1236	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1237	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1238	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1239	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1240	DP 119	118	KIDNEYS: RIGHT, PELVIS, SLIGHT DILATION. ALL OTHER TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING

a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D19 (PAGE 14): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
V				
30	1241	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1242	DP 39	38	ALL TISSUES APPEARED NORMAL.
	1243	DP 39	38	ALL TISSUES APPEARED NORMAL.
	1244	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1245	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1246	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1247	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1248	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1249	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1250	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1251	DP 38	37	LIVER: LEFT LATERAL AND MEDIAN LOBES, NUMEROUS TAN AREAS, (PINPOINT TO 0.3 CM IN DIAMETER). ALL OTHER TISSUES APPEARED NORMAL.
	1252	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1253	DP 38	37	ALL TISSUES APPEARED NORMAL.
	1254	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1255	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1256	DP 37	36	LIVER: LEFT LATERAL LOBE, TAN AREA (0.8 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1257	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1258	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1259	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1260	DP 4	3	FOUND DEAD ON DAY 4 POSTWEANING (DEATH OCCURRED OVERNIGHT). ALL TISSUES APPEARED NORMAL.
	1261	DP 118	117	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING

a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D19 (PAGE 15): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
V 30 CONT.	1262	DP 37	36	LIVER: LEFT LATERAL LOBE, SIX TAN AREAS (PINPOINT TO 1.0 CM); MEDIAN LOBE, FIVE TAN AREAS (PINPOINT TO 0.3 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1263	DP 2	1	FOUND DEAD ON DAY 2 POSTWEANING (DEATH OCCURRED OVERNIGHT). ALL TISSUES APPEARED NORMAL.
	1264	DP 2	1	FOUND DEAD ON DAY 2 POSTWEANING (DEATH OCCURRED OVERNIGHT). ALL TISSUES APPEARED NORMAL.
	1265	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1266	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1267	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1268	DP 37	36	LIVER: MEDIAN LOBE, NUMEROUS TAN AREAS, (PINPOINT TO 0.4 CM X 0.2 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1269	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1270	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1271	DP 120	119	ALL TISSUES APPEARED NORMAL.
	1272	DP 37	36	ALL TISSUES APPEARED NORMAL.
	1273	DP 120	119	ALL TISSUES APPEARED NORMAL.
	1274	DP 120	119	ALL TISSUES APPEARED NORMAL.
	1275	DP 39	38	MORIBUND SACRIFICED ON DAY 39 POSTWEANING. LIVER: MEDIAN LOBE, NUMEROUS TAN AREAS, (PINPOINT TO 0.1 CM). SPLEEN: SMALL (0.04 G). ALL OTHER TISSUES APPEARED NORMAL.
	1276	DP 37	36	LIVER: LARGE (26.64 G). ALL OTHER TISSUES APPEARED NORMAL.
	1277	DP 4	3	FOUND DEAD ON DAY 4 POSTWEANING (DEATH OCCURRED OVERNIGHT). ALL TISSUES APPEARED NORMAL.
	1278	DP 119	118	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING

a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D19 (PAGE 16): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
V 30 CONT.	1279	DP 36	35	LIVER: LEFT LATERAL LOBE, NUMEROUS TAN AREAS, (PINPOINT TO 0.3 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1280	DP 3	2	FOUND DEAD ON DAY 3 POSTWEANING (DEATH OCCURRED OVERNIGHT). ALL TISSUES APPEARED NORMAL.
	1281	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1282	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1283	DP 36	35	LIVER: LEFT LATERAL AND MEDIAN LOBES, NUMEROUS TAN AREAS, (PINPOINT TO 0.3 CM X 0.1 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1284	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1285	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1286	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1287	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1288	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1289	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1290	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1291	DP 119	118	ALL TISSUES APPEARED NORMAL.
	1292	DP 35	34	ALL TISSUES APPEARED NORMAL.
	1293	DP 35	34	LIVER: LEFT LATERAL LOBE, NUMEROUS TAN AREAS, (PINPOINT TO 0.5 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1294	DP 119	118	KIDNEYS: RIGHT, PELVIS, SLIGHT DILATION. ALL OTHER TISSUES APPEARED NORMAL.
	1295	DP 35	34	LIVER: LEFT LATERAL LOBE, FOUR TAN AND WHITE AREAS (PINPOINT TO 0.3 CM). ALL OTHER TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING

a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D19 (PAGE 17): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	DOSAGES ADMINISTERED	OBSERVATIONS a
V 30	1296	DP 107	106	FOUND DEAD ON DAY 107 POSTWEANING (DEATH OCCURRED OVERNIGHT). ALL TISSUES APPEARED NORMAL.
	1297	DP 34	33	ALL TISSUES APPEARED NORMAL.
	1298	DP 118	117	ALL TISSUES APPEARED NORMAL.
	1299	DP 33	32	ALL TISSUES APPEARED NORMAL.
	1300	DP 117	116	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING

a. Refer to the individual clinical observations table (Table D14) for external observations confirmed at necropsy.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D20 (PAGE 1): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP I — 0 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS LEFT		CAUDA EPIDIDYMIS LEFT		TESTIS LEFT		L. TESTIS MINUS TUNICA ALBUGINEA		SEMINAL VESICLES WITH FLUID		SEMINAL VESICLES WITHOUT FLUID	
		ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW
1002	567.	0.7752	0.14	0.3991	0.07	1.9221	0.34	1.7786	0.31	1.6467	0.29	0.8308	0.15
1003	602.	0.7726	0.13	0.3611	0.06	1.8125	0.30	1.6880	0.28	2.1281	0.35	1.0361	0.17
1005	572.	0.6687	0.12	0.3080	0.05	1.6994	0.30	1.5948	0.28	1.7303	0.30	0.8830	0.15
1007	546.	0.6686	0.12	0.3350	0.06	1.5619	0.29	1.4691	0.27	1.8008	0.33	0.9282	0.17
1011	580.	0.6963	0.12	0.3387	0.06	1.5902	0.27	1.4829	0.26	1.7689	0.30	0.9602	0.16
1012	633.	0.7115	0.11	0.3373	0.05	1.7682	0.28	1.6627	0.26	2.1506	0.34	1.0488	0.16
1013	607.	0.6641	0.11	0.3204	0.05	1.6088	0.26	1.5081	0.25	2.2159	0.36	1.2484	0.20
1014	557.	0.7869	0.14	0.3583	0.06	1.8831	0.34	1.7555	0.32	2.5406	0.46	1.3229	0.24
1017	528.	0.6555	0.12	0.2932	0.06	1.7762	0.34	1.6737	0.32	1.6431	0.31	0.9578	0.18
1021	623.	0.6987	0.11	0.3482	0.06	1.8218	0.29	1.6868	0.27	1.8339	0.29	1.0077	0.16
1023	604.	0.6580	0.11	0.3339	0.06	1.7024	0.28	1.5794	0.26	1.6675	0.28	0.7430	0.12
1026	581.	0.7822	0.13	0.4020	0.07	1.9518	0.34	1.8349	0.32	2.2373	0.38	1.0835	0.19
1028	464.	0.6933	0.15	0.3383	0.07	1.7226	0.37	1.6188	0.35	1.5930	0.34	0.9180	0.20
1031	585.	0.6753	0.12	0.3248	0.06	1.7995	0.31	1.6663	0.28	2.2558	0.38	1.1674	0.20
1034	465.	0.6971	0.15	0.3283	0.07	1.5867	0.34	1.4943	0.32	2.0640	0.44	0.8644	0.18
1035	461.	0.5600	0.12	0.2757	0.06	1.4438	0.31	1.2926	0.28	1.6995	0.37	0.9306	0.20
1040	537.	0.6153	0.11	0.2846	0.05	1.5830	0.29	1.5238	0.28	2.0948	0.39	0.9268	0.17
1041	496.	0.5846	0.12	0.2599	0.05	1.6181	0.33	1.4797	0.30	1.7416	0.35	1.0356	0.21
1043	537.	0.6476	0.12	0.3170	0.06	1.8685	0.35	1.6406	0.30	1.4429	0.27	0.8137	0.15
1045	509.	0.6937	0.14	0.3335	0.06	2.0197	0.40	1.8917	0.37	2.1573	0.42	1.1610	0.23
1047	700.	0.7059	0.10	0.3676	0.05	1.7596	0.25	1.6111	0.23	1.3668	0.20	0.7839	0.11
1048	642.	0.6579	0.10	0.3233	0.05	1.5749	0.24	1.4321	0.22	2.0222	0.31	0.9460	0.15
1050	503.	0.6975	0.14	0.3498	0.07	1.6161	0.32	1.4572	0.29	1.7612	0.35	0.7748	0.15
1051	645.	0.7675	0.12	0.3806	0.06	2.0003	0.31	1.8134	0.28	2.3132	0.36	1.1160	0.17
1052	580.	0.7354	0.13	0.3854	0.07	1.9346	0.33	1.7771	0.31	2.0816	0.36	1.1932	0.20
1054	568.	0.7518	0.13	0.3819	0.07	1.9560	0.34	1.8014	0.32	2.5943	0.46	1.4246	0.25
1055	574.	0.6775	0.12	0.3243	0.06	1.7734	0.31	1.6231	0.28	2.0127	0.35	1.1275	0.20
1058	565.	0.5881	0.10	0.2814	0.05	1.6935	0.30	1.5125	0.27	1.8827	0.33	0.9591	0.17
1059	468.	0.6360	0.14	0.2937	0.06	1.7162	0.37	1.6036	0.34	1.1345	0.24	0.7241	0.15
1060	498.	0.6379	0.13	0.3128	0.06	1.6027	0.32	1.4347	0.29	1.3529	0.27	0.7172	0.14

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D20 (PAGE 2): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP I — 0 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS RIGHT		TESTIS RIGHT		PROSTATE		PITUITARY		BRAIN		LIVER	
		ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW
1002	567.	0.7585	0.13	1.8845	0.33	0.4671	0.08	0.015	2.64	2.27	0.40	21.20	3.74
1003	602.	0.7227	0.12	1.7920	0.30	0.6059	0.10	0.014	2.32	2.40	0.40	25.00	4.15
1005	572.	0.6810	0.12	1.6608	0.29	0.5167	0.09	0.011	1.92	2.36	0.41	19.70	3.44
1007	546.	0.6742	0.12	1.5845	0.29	0.5157	0.09	0.014	2.56	2.23	0.41	21.20	3.88
1011	580.	0.6834	0.12	1.5867	0.27	0.7725	0.13	0.011	1.90	2.22	0.38	24.75	4.27
1012	633.	0.6799	0.11	1.7336	0.27	1.3440	0.21	0.014	2.21	2.32	0.37	24.99	3.95
1013	607.	0.6817	0.11	1.6417	0.27	1.0484	0.17	0.014	2.31	2.29	0.38	21.79	3.59
1014	557.	0.8172	0.15	1.7921	0.32	1.0938	0.20	0.012	2.15	2.51	0.45	22.01	3.95
1017	528.	0.6814	0.13	1.7002	0.32	1.3176	0.25	0.013	2.46	2.30	0.44	17.05	3.23
1021	623.	0.7343	0.12	1.8175	0.29	0.9022	0.14	0.013	2.09	2.27	0.36	25.08	4.02
1023	604.	0.6593	0.11	1.6437	0.27	1.2225	0.20	0.015	2.48	2.25	0.37	23.69	3.92
1026	581.	0.7373	0.13	1.8810	0.32	1.6240	0.28	0.015	2.58	2.52	0.43	22.31	3.84
1028	464.	0.6915	0.15	1.6696	0.36	1.2618	0.27	0.015	3.23	2.17	0.47	18.86	4.06
1031	585.	0.6714	0.11	1.6776	0.29	1.2276	0.21	0.016	2.74	2.45	0.42	21.65	3.70
1034	465.	0.6982	0.15	1.5835	0.34	1.2740	0.27	0.013	2.80	2.25	0.48	17.02	3.66
1035	461.	0.5628	0.12	1.5086	0.33	0.8117	0.18	0.009	1.95	2.25	0.49	16.86	3.66
1040	537.	0.6359	0.12	1.6333	0.30	1.1217	0.21	0.011	2.05	2.39	0.44	20.38	3.80
1041	496.	0.6364	0.13	1.5862	0.32	1.1027	0.22	0.011	2.22	2.25	0.45	23.82	4.80
1043	537.	0.6825	0.13	1.8901	0.35	0.8592	0.16	0.019	3.54	2.40	0.45	21.30	3.97
1045	509.	0.7169	0.14	1.9229	0.38	1.0457	0.20	0.015	2.95	2.28	0.45	18.32	3.60
1047	700.	0.7403	0.10	1.7809	0.25	1.4155	0.20	0.014	2.00	2.42	0.34	29.20	4.17
1048	642.	0.6381	0.10	1.4826	0.23	1.0329	0.16	0.023	3.58	2.40	0.37	27.26	4.25
1050	503.	0.7014	0.14	1.5870	0.32	1.0311	0.20	0.010	1.99	2.20	0.44	21.29	4.23
1051	645.	0.8552	0.13	1.9756	0.31	1.3585	0.21	0.020	3.10	2.62	0.41	25.09	3.89
1052	580.	0.8026	0.14	1.9853	0.34	1.1700	0.20	0.013	2.24	2.47	0.42	24.34	4.20
1054	568.	0.7438	0.13	1.9381	0.34	1.1579	0.20	0.020	3.52	2.46	0.43	20.05	3.53
1055	574.	0.7348	0.13	1.8211	0.32	1.1323	0.20	0.021	3.66	2.43	0.42	21.35	3.72
1058	565.	0.6267	0.11	1.6947	0.30	1.1133	0.20	0.018	3.18	1.94	0.34	20.17	3.57
1059	468.	0.6254	0.13	1.7833	0.38	0.7495	0.16	0.018	3.85	2.44	0.52	16.10	3.44
1060	498.	0.6724	0.14	1.7323	0.35	0.8267	0.17	0.012	2.41	2.40	0.48	17.81	3.58

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.
a. Value was multiplied by 1000.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D20 (PAGE 3): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP I — 0 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT		SPLEEN		THYMUS	
		ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW
1002	567.	2.17	0.38	2.28	0.40	0.031	5.47	0.028	4.94	0.96	0.17	0.28	0.05
1003	602.	2.38	0.40	2.20	0.36	0.029	4.82	0.023	3.82	1.02	0.17	0.42	0.07
1005	572.	2.13	0.37	2.08	0.36	0.037	6.47	0.038	6.64	1.00	0.17	0.62	0.11
1007	546.	2.10	0.38	2.00	0.37	0.029	5.31	0.031	5.68	1.03	0.19	0.59	0.11
1011	580.	2.19	0.38	2.18	0.38	0.038	6.55	0.032	5.52	0.95	0.16	0.71	0.12
1012	633.	2.22	0.35	2.20	0.35	0.025	3.95	0.022	3.48	0.90	0.14	0.73	0.12
1013	607.	2.35	0.39	2.28	0.38	0.027	4.45	0.027	4.45	1.02	0.17	0.52	0.08
1014	557.	2.08	0.37	2.16	0.39	0.026	4.67	0.023	4.13	0.95	0.17	0.32	0.06
1017	528.	2.05	0.39	2.04	0.39	0.029	5.49	0.030	5.68	0.72	0.14	0.43	0.08
1021	623.	2.41	0.39	2.56	0.41	0.026	4.17	0.036	5.78	0.98	0.16	0.44	0.07
1023	604.	2.21	0.36	2.24	0.37	0.035	5.79	0.030	4.97	0.93	0.15	0.50	0.08
1026	581.	2.41	0.41	2.39	0.41	0.034	5.85	0.036	6.20	0.97	0.17	0.46	0.08
1028	464.	1.85	0.40	1.93	0.42	0.036	7.76	0.037	7.97	0.98	0.21	0.41	0.09
1031	585.	2.31	0.39	2.20	0.38	0.030	5.13	0.019	3.25	0.93	0.16	0.44	0.08
1034	465.	1.73	0.37	1.71	0.37	0.028	6.02	0.011b	2.36b	0.73	0.16	0.37	0.08
1035	461.	1.98	0.43	1.95	0.42	0.028	6.07	0.022	4.77	0.69	0.15	0.43	0.09
1040	537.	2.22	0.41	2.23	0.42	0.022	4.10	0.018	3.35	1.34	0.25	0.45	0.08
1041	496.	2.35	0.47	2.54	0.51	0.024	4.84	0.024	4.84	0.94	0.19	0.72	0.14
1043	537.	2.07	0.38	2.22	0.41	0.023	4.28	0.023	4.28	0.88	0.16	0.59	0.11
1045	509.	1.99	0.39	2.09	0.41	0.041	8.06	0.039	7.66	0.79	0.16	0.61	0.12
1047	700.	2.37	0.34	2.56	0.36	0.038	5.43	0.036	5.14	1.13	0.16	0.36	0.05
1048	642.	2.58	0.40	2.63	0.41	0.039	6.07	0.036	5.61	1.05	0.16	0.56	0.09
1050	503.	1.96	0.39	2.13	0.42	0.035	6.96	0.029	5.76	0.83	0.16	0.59	0.12
1051	645.	2.59	0.40	2.54	0.39	0.041	6.36	0.041	6.36	1.13	0.18	0.52	0.08
1052	580.	2.51	0.43	2.47	0.42	0.033	5.69	0.036	6.21	1.03	0.18	0.70	0.12
1054	568.	2.22	0.39	2.26	0.40	0.028	4.93	0.027	4.75	0.99	0.17	0.54	0.10
1055	574.	2.31	0.40	2.42	0.42	0.037	6.44	0.037	6.44	0.83	0.14	0.55	0.10
1058	565.	2.21	0.39	2.28	0.40	0.030	5.31	0.030	5.31	0.86	0.15	0.58	0.10
1059	468.	2.19	0.47	2.13	0.46	0.039	8.33	0.036	7.69	1.04	0.22	0.33	0.07
1060	498.	2.30	0.46	2.27	0.46	0.030	6.02	0.023	4.62	0.73	0.15	0.47	0.09

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Damaged during processing (weight affected); values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D20 (PAGE 4): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP II — 1 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS LEFT		CAUDA EPIDIDYMIS LEFT		TESTIS LEFT		L. TESTIS MINUS TUNICA ALBUGINEA		SEMINAL VESICLES WITH FLUID		SEMINAL VESICLES WITHOUT FLUID	
		ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW
1061	486.	0.7660	0.16	0.3553	0.07	1.7863	0.37	1.6295	0.34	1.9084	0.39	1.0157	0.21
1063	522.	0.7170	0.14	0.3300	0.06	1.8632	0.36	1.7520	0.34	2.2839	0.44	1.1167	0.21
1066	480.	0.6338	0.13	0.2762	0.06	1.7790	0.37	1.6559	0.34	2.2858	0.48	1.3449	0.28
1067	485.	0.6124	0.13	0.2886	0.06	1.5556	0.32	1.4453	0.30	1.7391	0.36	0.9152	0.19
1069	424.	0.6531	0.15	0.3027	0.07	1.7625	0.42	1.6520	0.39	2.0289	0.48	1.0798	0.25
1071	545.	0.6507	0.12	0.3269	0.06	1.6107	0.30	1.5115	0.28	2.2645	0.42	1.1328	0.21
1073	541.	0.7059	0.13	0.2707	0.05	1.9881	0.37	1.8542	0.34	2.1775	0.40	1.1732	0.22
1077	541.	0.7864	0.14	0.4014	0.07	1.8023	0.33	1.6513	0.30	2.2437	0.41	1.0133	0.19
1078	627.	0.7598	0.12	0.3979	0.06	1.7878	0.28	1.6647	0.26	1.9818	0.32	0.9239	0.15
1081	532.	0.7080	0.13	0.3712	0.07	1.7687	0.33	1.6044	0.30	1.9950	0.38	0.9701	0.18
1082	582.	0.3393a	0.06	0.1461a	0.02	1.0590a	0.18	0.4551a	0.08	2.0247	0.35	0.9927	0.17
1083	538.	0.6435	0.12	0.3460	0.06	1.4745	0.27	1.3716	0.25	2.3555	0.44	0.9679	0.18
1086	415.	0.5518	0.13	0.2467	0.06	1.6224	0.39	1.5186	0.36	1.7858	0.43	0.9166	0.22
1088	562.	0.7257	0.13	0.3524	0.06	1.6645	0.30	1.5413	0.27	2.0530	0.36	0.9295	0.16
1090	529.	0.6785	0.13	0.3080	0.06	1.6320	0.31	1.5236	0.29	1.8496	0.35	0.8012	0.15
1091	512.	0.6134	0.12	0.3012	0.06	1.7090	0.33	1.3518	0.26	2.4316	0.47	1.3115	0.26
1094	594.	0.6428	0.11	0.3252	0.05	1.6702	0.28	1.4565	0.24	2.2994	0.39	1.0829	0.18
1096	632.	0.6912	0.11	0.3288	0.05	1.6920	0.27	1.5653	0.25	2.0056	0.32	1.0369	0.16
1098	498.	0.7062	0.14	0.3866	0.08	1.9487	0.39	1.7580	0.35	2.4765	0.50	1.3095	0.26
1100	494.	0.6344	0.13	0.3308	0.07	1.6819	0.34	1.5379	0.31	1.9311	0.39	0.9989	0.20
1103	575.	0.6689	0.12	0.3369	0.06	1.7418	0.30	1.5524	0.27	1.7219	0.30	0.7884	0.14
1106	526.	0.5997	0.11	0.2759	0.05	1.5584	0.30	1.4213	0.27	1.7814	0.34	1.0277	0.20
1107	446.	0.6601	0.15	0.3072	0.07	1.6067	0.36	1.4424	0.32	1.5051	0.34	0.8120	0.18
1110	437.	0.6219	0.14	0.3101	0.07	1.6555	0.38	1.5194	0.35	1.8402	0.42	0.8915	0.20
1112	585.	0.6981	0.12	0.3442	0.06	1.8105	0.31	1.6908	0.29	2.1860	0.37	1.2293	0.21
1114	563.	0.6757	0.12	0.3169	0.06	1.9848	0.35	1.8202	0.32	2.3440	0.42	1.2241	0.22
1116	552.	0.6704	0.12	0.2919	0.05	1.5620	0.28	1.4146	0.26	2.0547	0.37	1.0185	0.18
1118	542.	0.6492	0.12	0.2958	0.05	1.6885	0.31	1.5853	0.29	2.1617	0.40	1.0063	0.18
1120	525.	0.7509	0.14	0.3424	0.06	2.0030	0.38	1.8717	0.36	2.3378	0.44	1.0701	0.20

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Rat 1082 had a small, left epididymis and cauda epididymis, small, flaccid left testis, and a fluid filled left testis minus tunica albuginea; values included in group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D20 (PAGE 5): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP II — 1 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS RIGHT ABS. WT.	EPIDIDYMIS RIGHT REL. % TBW	TESTIS RIGHT ABS. WT.	TESTIS RIGHT REL. % TBW	PROSTATE ABS. WT.	PROSTATE REL. % TBW	PITUITARY ABS. WT.	PITUITARY REL. % TBW a	BRAIN ABS. WT.	BRAIN REL. % TBW	LIVER ABS. WT.	LIVER REL. % TBW
1061	486.	0.7284	0.15	1.8528	0.38	0.4761	0.10	0.011	2.26	2.16	0.44	20.77	4.27
1063	522.	0.7113	0.14	1.8505	0.35	0.8821	0.17	0.012	2.30	2.26	0.43	26.60	5.10
1066	480.	0.6396	0.13	1.5745	0.33	0.2716b	0.06	0.011	2.29	2.10	0.44	20.80	4.33
1067	485.	0.6431	0.13	1.5154	0.31	0.5982	0.12	0.012	2.47	1.98	0.41	20.97	4.32
1069	424.	0.6310	0.15	1.6782	0.40	0.8284	0.20	0.011	2.59	2.04	0.48	21.61	5.10
1071	545.	0.6846	0.12	1.5542	0.28	1.3268	0.24	0.012	2.20	2.37	0.43	26.35	4.83
1073	541.	0.7456	0.14	1.9825	0.37	1.3308	0.24	0.016	2.96	2.26	0.42	27.94	5.16
1077	541.	0.7614	0.14	1.8037	0.33	0.8947	0.16	0.011	2.03	2.08	0.38	25.28	4.67
1078	627.	0.7545	0.12	1.7230	0.27	1.3800	0.22	0.014	2.23	2.25	0.36	30.05	4.79
1081	532.	0.7025	0.13	1.7244	0.32	1.3717	0.26	0.014	2.63	2.35	0.44	22.81	4.29
1082	582.	0.6989	0.12	1.7261	0.30	1.2924	0.22	0.016	2.75	2.17	0.37	24.34	4.18
1083	538.	0.6288	0.12	1.4717	0.27	1.3446	0.25	0.014	2.60	2.30	0.43	23.15	4.30
1086	415.	0.6170	0.15	1.6474	0.40	0.9942	0.24	0.012	2.89	2.07	0.50	15.51	3.74
1088	562.	0.6845	0.12	1.6176	0.29	1.5251	0.27	0.014	2.49	2.33	0.41	29.13	5.18
1090	529.	0.7019	0.13	1.6796	0.32	1.2761	0.24	0.017	3.21	2.24	0.42	21.48	4.06
1091	512.	0.6599	0.13	1.7494	0.34	1.1454	0.22	0.014	2.73	2.45	0.48	27.07	5.29
1094	594.	0.6911	0.12	1.6621	0.28	1.0867	0.18	0.025	4.21	2.28	0.38	29.60	4.98
1096	632.	0.7465	0.12	1.7774	0.28	1.0373	0.16	0.016	2.53	2.47	0.39	32.95	5.21
1098	498.	0.7631	0.15	1.9639	0.39	1.1216	0.22	0.015	3.01	2.38	0.48	30.37	6.10
1100	494.	0.6229	0.13	1.6532	0.33	1.1903	0.24	0.024	4.86	2.33	0.47	22.79	4.61
1103	575.	0.6993c	0.12	1.7282	0.30	0.8336	0.14	0.013	2.26	2.35	0.41	27.76	4.83
1106	526.	0.6575	0.12	1.6263	0.31	1.2108	0.23	0.013	2.47	2.13	0.40	22.68	4.31
1107	446.	0.6578	0.15	1.6277	0.36	0.9999	0.22	0.033	7.40	2.15	0.48	19.46	4.36
1110	437.	0.6330	0.14	1.6504	0.38	0.9081	0.21	0.015	3.43	2.33	0.53	20.50	4.69
1112	585.	0.6748	0.12	1.8656	0.32	1.4610	0.25	0.018	3.08	2.64	0.45	28.97	4.95
1114	563.	0.7494	0.13	1.9312	0.34	1.1564	0.20	0.023	4.08	2.55	0.45	27.29	4.85
1116	552.	0.6639	0.12	1.5988	0.29	1.2054	0.22	0.026	4.71	2.36	0.43	21.37	3.87
1118	542.	0.6786	0.12	1.7496	0.32	1.0908	0.20	0.023	4.24	2.37	0.44	22.51	4.15
1120	525.	0.6911	0.13	1.9723	0.38	1.1517	0.22	0.028	5.33	2.43	0.46	22.49	4.28

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.
b. Rat 1066 had a small prostate; values included in group averages and statistical analyses.
c. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D20 (PAGE 6): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP II — 1 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT		SPLEEN		THYMUS	
		ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW
1061	486.	2.06	0.42	1.90	0.39	0.016	3.29	0.023	4.73	0.76	0.16	0.60	0.12
1063	522.	2.50	0.48	2.46	0.47	0.041	7.85	0.034	6.51	0.84	0.16	0.61	0.12
1066	480.	2.03	0.42	2.10	0.44	0.028	5.83	0.022	4.58	0.64	0.13	0.64	0.13
1067	485.	1.95	0.40	2.07	0.43	0.024	4.95	0.027	5.57	0.65	0.13	0.46	0.09
1069	424.	2.10	0.50	1.98	0.47	0.020	4.72	0.009	2.12	0.72	0.17	0.39	0.09
1071	545.	2.43	0.44	2.46	0.45	0.018	3.30	0.024	4.40	0.84	0.15	0.42	0.08
1073	541.	2.43	0.45	2.50	0.46	0.037	6.84	0.037	6.84	0.68	0.12	0.22	0.04
1077	541.	2.39	0.44	2.18	0.40	0.044	8.13	0.041	7.58	0.58	0.11	0.57	0.10
1078	627.	2.67	0.42	2.69	0.43	0.036	5.74	0.032	5.10	0.92	0.15	0.42	0.07
1081	532.	2.24	0.42	2.41	0.45	0.028	5.26	0.028	5.26	0.83	0.16	0.37	0.07
1082	582.	2.16	0.37	2.15	0.37	0.035	6.01	0.031	5.33	0.86	0.15	0.46	0.08
1083	538.	2.27	0.42	2.23	0.41	0.039	7.25	0.030	5.58	0.75	0.14	0.37	0.07
1086	415.	1.79	0.43	1.92	0.46	0.028	6.75	0.026	6.26	0.74	0.18	0.29	0.07
1088	562.	2.22	0.40	2.02	0.36	0.032	5.69	0.027	4.80	0.85	0.15	0.40	0.07
1090	529.	2.27	0.43	2.27	0.43	0.025	4.72	0.024	4.54	0.75	0.14	0.31	0.06
1091	512.	2.68	0.52	2.56	0.50	0.029	5.66	0.030	5.86	0.89	0.17	0.55	0.11
1094	594.	2.39	0.40	2.38	0.40	0.048	8.08	0.041	6.90	1.00	0.17	0.53	0.09
1096	632.	2.39	0.38	2.45	0.39	0.024	3.80	0.024	3.80	0.95	0.15	0.69	0.11
1098	498.	2.35	0.47	2.44	0.49	0.030	6.02	0.028	5.62	0.80	0.16	0.61	0.12
1100	494.	2.59	0.52	2.37	0.48	0.038	7.69	0.033	6.68	0.82	0.16	0.55	0.11
1103	575.	2.54	0.44	2.59	0.45	0.040	6.96	0.036	6.26	0.92	0.16	0.65	0.11
1106	526.	2.19	0.42	2.21	0.42	0.024	4.56	0.023	4.37	0.75	0.14	0.58	0.11
1107	446.	2.05	0.46	2.05	0.46	0.034	7.62	0.035	7.85	0.60	0.13	0.36	0.08
1110	437.	2.21	0.50	2.16	0.49	0.020	4.58	0.019	4.35	0.73	0.17	0.44	0.10
1112	585.	2.90	0.50	3.01	0.51	0.039	6.67	0.043	7.35	1.24	0.21	0.35	0.06
1114	563.	2.80	0.50	2.84	0.50	0.042	7.46	0.037	6.57	1.03	0.18	0.48	0.08
1116	552.	2.33	0.42	2.37	0.43	0.041	7.43	0.027	4.89	0.90	0.16	0.32	0.06
1118	542.	2.74	0.50	2.73	0.50	0.032	5.90	0.029	5.35	1.06	0.20	0.41	0.08
1120	525.	2.46	0.47	2.53	0.48	0.030	5.71	0.026	4.95	1.00	0.19	0.36	0.07

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.
a. Value was multiplied by 1000.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D20 (PAGE 7): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP III — 3 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS LEFT		CAUDA EPIDIDYMIS LEFT		TESTIS LEFT		L. TESTIS MINUS TUNICA ALBUGINEA		SEMINAL VESICLES WITH FLUID		SEMINAL VESICLES WITHOUT FLUID	
		ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW
1122	518.	0.7208	0.14	0.3470	0.07	1.6159	0.31	1.5221	0.29	2.0470	0.40	1.0874	0.21
1123	505.	0.6070	0.12	0.2968	0.06	1.8182	0.36	1.6922	0.34	2.3013	0.46	1.2447	0.25
1127	452.	0.6614	0.15	0.3302	0.07	1.6347	0.36	1.5124	0.33	1.7196	0.38	0.9666	0.21
1129	568.	0.7407	0.13	0.3502	0.06	1.9335	0.34	1.8129	0.32	2.1930	0.39	1.1095	0.20
1131	564.	0.6952	0.12	0.3581	0.06	1.7682	0.31	1.6707	0.30	2.3326	0.41	1.0857	0.19
1132	529.	0.6725	0.13	0.3378	0.06	1.7645	0.33	1.6362	0.31	2.3904	0.45	1.2665	0.24
1134	579.	0.7615	0.13	0.3358	0.06	1.8988	0.33	1.7685	0.30	2.1383	0.37	1.0924	0.19
1135	505.	0.6679	0.13	0.3218	0.06	1.7237	0.34	1.6026	0.32	1.8500	0.37	0.9966	0.20
1136	441.	0.6855	0.16	0.3406	0.08	1.9009	0.43	1.6834	0.38	1.3217	0.30	0.7638	0.17
1139	457.	0.6190	0.14	0.3274	0.07	1.6472	0.36	1.5631	0.34	1.7038	0.37	0.9308	0.20
1141	561.	0.6450	0.11	0.3546	0.06	1.5627	0.28	1.4612	0.26	1.7528	0.31	0.8441	0.15
1142	506.	0.6121	0.12	0.2953	0.06	1.6597	0.33	1.5318	0.30	2.0896	0.41	0.9784	0.19
1145	413.	0.6915	0.17	0.3255	0.08	1.8607	0.45	1.7494	0.42	1.8492	0.45	1.0012	0.24
1147	513.	0.7098	0.14	0.3588	0.07	1.6976	0.33	1.6060	0.31	1.7211	0.34	0.9009	0.18
1149	512.	0.8130	0.16	0.4132	0.08	2.0462	0.40	1.9344	0.38	2.3386	0.46	1.1584	0.23
1151	588.	0.6764	0.12	0.3179	0.05	1.8091	0.31	1.5925	0.27	2.2078	0.38	0.9860	0.17
1153	539.	0.6843	0.13	0.3349	0.06	3.0171a	0.56	2.7687a	0.51	1.9461	0.36	1.0849	0.20
1154	580.	0.5970	0.10	0.2924	0.05	1.7007	0.29	1.4274	0.25	1.8889	0.32	0.8750	0.15
1158	550.	0.6503	0.12	0.3024	0.05	1.7179	0.31	1.5439	0.28	2.1813	0.40	1.1530	0.21
1159	587.	0.7223	0.12	0.3698	0.06	1.8480	0.31	1.6935	0.29	2.3263	0.40	1.1211	0.19
1162	550.	0.6669	0.12	0.3101	0.06	1.7050	0.31	1.5581	0.28	2.0033	0.36	0.8661	0.16
1164	523.	0.7675	0.15	0.3613	0.07	1.9198	0.37	1.7783	0.34	1.9163	0.37	0.8735	0.17
1167	566.	0.6801	0.12	0.3252	0.06	1.7101	0.30	1.5089	0.27	2.0326	0.36	1.0820	0.19
1168	571.	0.6367	0.11	0.2903	0.05	1.8227	0.32	1.6190	0.28	1.5592	0.27	0.9914	0.17
1171	453.	0.5776	0.13	0.2903	0.06	1.5240	0.34	1.4063	0.31	1.8020	0.40	1.0915	0.24
1173	530.	0.6524	0.12	0.3273	0.06	1.5741	0.30	1.4256	0.27	2.1183	0.40	1.0216	0.19
1175	498.	0.6272	0.12	0.2745	0.06	1.7498	0.35	1.6409	0.33	1.7132	0.34	1.0295	0.21
1176	494.	0.5684	0.12	0.2863	0.06	1.9718	0.40	1.8165	0.37	1.4040	0.28	0.8061	0.16
1177	480.	0.7391	0.15	0.3494	0.07	2.2666	0.47	2.1025	0.44	2.0790	0.43	1.1398	0.24
1180	586.	0.6971	0.12	0.3350	0.06	1.9639	0.34	1.8501	0.32	2.1032	0.36	1.0329	0.18

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Rat 1153 had a large, left testis and testis minus tunica albuginea; values included in group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D20 (PAGE 8): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP III — 3 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS RIGHT		TESTIS RIGHT		PROSTATE		PITUITARY		BRAIN		LIVER	
		ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW
1122	518.	0.6838	0.13	1.6035	0.31	0.4770	0.09	0.010	1.93	2.40	0.46	28.00	5.40
1123	505.	0.6106	0.12	1.7572	0.35	0.3938	0.08	0.013	2.57	2.40	0.48	27.20	5.39
1127	452.	0.6629	0.15	1.6197	0.36	0.4890	0.11	0.012	2.65	2.20	0.49	28.00	6.19
1129	568.	0.7111	0.12	1.8049	0.32	0.9503	0.17	0.016	2.82	2.29	0.40	37.20	6.55
1131	564.	0.6877	0.12	1.7444	0.31	0.9830	0.17	0.010	1.77	2.23	0.40	31.29	5.55
1132	529.	0.6987	0.13	1.7356	0.33	1.1426	0.22	0.016	3.02	2.22	0.42	24.46	4.62
1134	579.	0.7236	0.12	1.9533	0.34	1.0100	0.17	0.011	1.90	2.40	0.41	31.25	5.40
1135	505.	0.6703	0.13	1.6461	0.32	1.1130	0.22	0.014	2.77	2.17	0.43	26.42	5.23
1136	441.	0.6601	0.15	1.8638	0.42	0.8226	0.19	0.011	2.49	2.16	0.49	24.58	5.57
1139	457.	0.6262	0.14	1.7137	0.37	1.0147	0.22	0.011	2.41	2.29	0.50	26.94	5.89
1141	561.	0.6701b	0.12	1.5828	0.28	1.2215	0.22	0.012	2.14	2.17	0.39	24.41	4.35
1142	506.	0.6442	0.13	1.6204	0.32	0.9640	0.19	0.013	2.57	2.16	0.43	24.96	4.93
1145	413.	0.6614	0.16	1.8248	0.44	1.0366	0.25	0.014	3.39	2.04	0.49	24.17	5.85
1147	513.	0.6789	0.13	1.7369	0.34	1.0363	0.20	0.010	1.95	2.33	0.45	26.73	5.21
1149	512.	0.7538	0.15	2.0918	0.41	1.3772	0.27	0.015	2.93	2.36	0.46	28.43	5.55
1151	588.	0.6490	0.11	1.7336	0.29	1.1726	0.20	0.017	2.89	2.41	0.41	31.06	5.28
1153	539.	0.7007	0.13	1.7874	0.33	1.2844	0.24	0.013	2.41	2.35	0.44	15.00	2.78
1154	580.	0.6741	0.12	1.7880	0.31	1.1087	0.19	0.023	3.96	2.23	0.38	31.44	5.42
1158	550.	0.6996	0.13	1.7801	0.32	0.8279	0.15	0.019	3.45	2.28	0.41	33.93	6.17
1159	587.	0.7245	0.12	1.8539	0.32	1.1479	0.20	0.025	4.26	2.24	0.38	28.29	4.82
1162	550.	0.6761b	0.12	1.6565	0.30	1.2450	0.23	0.014	2.54	2.31	0.42	31.33	5.70
1164	523.	0.7592	0.14	1.9644	0.38	1.2929	0.25	0.013	2.48	2.41	0.46	30.89	5.91
1167	566.	0.7044	0.12	1.7935	0.32	1.1156	0.20	0.018	3.18	2.23	0.39	33.05	5.84
1168	571.	0.6950	0.12	1.9170	0.34	0.9715	0.17	0.021	3.68	2.51	0.44	31.60	5.53
1171	453.	0.5841	0.13	1.5517	0.34	1.0645	0.23	0.020	4.42	2.31	0.51	25.18	5.56
1173	530.	0.6720	0.13	1.6114	0.30	1.1758	0.22	0.028	5.28	2.41	0.45	27.19	5.13
1175	498.	0.6517	0.13	1.7506	0.35	1.1055	0.22	0.012	2.41	2.53	0.51	26.00	5.22
1176	494.	0.6153	0.12	1.9358	0.39	0.9663	0.20	0.032	6.48	2.33	0.47	25.54	5.17
1177	480.	0.7824	0.16	2.2229	0.46	1.2319	0.26	0.015	3.12	2.43	0.51	34.48	7.18
1180	586.	0.7608	0.13	1.9351	0.33	1.0538	0.18	0.025	4.27	2.47	0.42	28.35	4.84

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D20 (PAGE 9): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP III — 3 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT		SPLEEN		THYMUS	
		ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW
1122	518.	2.33	0.45	2.31	0.44	0.024	4.63	0.020	3.86	1.02	0.20	0.49	0.09
1123	505.	2.40	0.48	2.40	0.48	0.030	5.94	0.032	6.34	0.80	0.16	0.29	0.06
1127	452.	2.10	0.46	2.11	0.47	0.024	5.31	0.026	5.75	0.75	0.16	0.28	0.06
1129	568.	2.58	0.45	2.78	0.49	0.036	6.34	0.032	5.63	0.83	0.15	0.72	0.13
1131	564.	2.81	0.50	2.67	0.47	0.024	4.26	0.028	4.96	0.95	0.17	0.59	0.10
1132	529.	2.43	0.46	2.49	0.47	0.039	7.37	0.036	6.80	0.59	0.11	0.37	0.07
1134	579.	2.52	0.44	2.63	0.45	0.037	6.39	0.038	6.56	0.95	0.16	0.66	0.11
1135	505.	2.46	0.49	2.35	0.46	0.026	5.15	0.027	5.35	0.75	0.15	0.33	0.06
1136	441.	2.49	0.56	2.41	0.55	0.039	8.84	0.032	7.26	0.72	0.16	0.46	0.10
1139	457.	2.50	0.55	2.48	0.54	0.037	8.10	0.032	7.00	0.56	0.12	0.24	0.05
1141	561.	2.23	0.40	2.24	0.40	0.030	5.35	0.030	5.35	0.94	0.17	0.34	0.06
1142	506.	2.19	0.43	2.16	0.43	0.029	5.73	0.026	5.14	0.65	0.13	0.48	0.09
1145	413.	2.20	0.53	2.02	0.49	0.028	6.78	0.019	4.60	0.69	0.17	0.18	0.04
1147	513.	2.24	0.44	2.17	0.42	0.032	6.24	0.027	5.26	0.86	0.17	0.27	0.05
1149	512.	2.74	0.54	2.50	0.49	0.034	6.64	0.029	5.66	0.77	0.15	0.30	0.06
1151	588.	2.58	0.44	2.78	0.47	0.027	4.59	0.018	3.06	0.91	0.15	0.73	0.12
1153	539.	2.46	0.46	2.55	0.47	0.024	4.45	0.021	3.90	0.93	0.17	0.55	0.10
1154	580.	2.72	0.47	2.71	0.47	0.030	5.17	0.028	4.83	1.01	0.17	0.67	0.12
1158	550.	2.46	0.45	2.57	0.47	0.029	5.27	0.024	4.36	0.86	0.16	0.49	0.09
1159	587.	2.54	0.43	2.92	0.50	0.042	7.16	0.034	5.79	1.08	0.18	0.44	0.07
1162	550.	2.59	0.47	2.71	0.49	0.027	4.91	0.027	4.91	0.78	0.14	0.35	0.06
1164	523.	2.67	0.51	2.62	0.50	0.035	6.69	0.030	5.74	0.80	0.15	0.44	0.08
1167	566.	2.56	0.45	2.56	0.45	0.029	5.12	0.031	5.48	1.17	0.21	0.73	0.13
1168	571.	2.45	0.43	2.43	0.42	0.029	5.08	0.029	5.08	0.94	0.16	0.40	0.07
1171	453.	2.09	0.46	1.95	0.43	0.031	6.84	0.032	7.06	0.77	0.17	0.40	0.09
1173	530.	2.28	0.43	2.37	0.45	0.028	5.28	0.033	6.23	0.73	0.14	0.51	0.10
1175	498.	2.21	0.44	2.45	0.49	0.029	5.82	0.022	4.42	0.94	0.19	0.35	0.07
1176	494.	2.56	0.52	2.69	0.54	0.036	7.29	0.029	5.87	0.76	0.15	0.44	0.09
1177	480.	2.76	0.58	2.79	0.58	0.034	7.08	0.030	6.25	0.89	0.18	0.36	0.08
1180	586.	2.54	0.43	2.51	0.43	0.036	6.14	0.037	6.31	1.05	0.18	0.40	0.07

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.
a. Value was multiplied by 1000.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D20 (PAGE 10): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP IV — 10 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS LEFT		CAUDA EPIDIDYMIS LEFT		TESTIS LEFT		L. TESTIS MINUS TUNICA ALBUGINEA		SEMINAL VESICLES WITH FLUID		SEMINAL VESICLES WITHOUT FLUID	
		ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW
1182	458.	0.5873	0.13	0.2692	0.06	1.6842	0.37	1.5580	0.34	2.1825	0.48	1.0993	0.24
1184	547.	0.7364	0.13	0.3508	0.06	1.9148	0.35	1.7769	0.32	2.8035	0.51	1.3573	0.25
1186	498.	0.6724	0.14	0.3462	0.07	1.5726	0.32	1.4546	0.29	1.6253	0.33	0.7547	0.15
1188	474.	0.6851	0.14	0.3285	0.07	1.7130	0.36	1.5980	0.34	1.8294	0.38	1.0218	0.22
1189	591.	0.7693	0.13	0.4167	0.07	1.8304	0.31	1.5499	0.26	2.0923	0.35	0.9952	0.17
1192	500.	0.6944	0.14	0.3106	0.06	1.7946	0.36	1.5264	0.30	2.2638	0.45	1.3117	0.26
1194	549.	0.7103	0.13	0.3404	0.06	1.7653	0.32	1.6519	0.30	2.2778	0.41	1.1574	0.21
1195	510.	0.6484	0.13	0.3165	0.06	1.6721	0.33	1.5753	0.31	1.8174	0.36	0.9382	0.18
1198	682.	0.7207	0.10	0.3662	0.05	1.9297	0.28	1.7940	0.26	2.2576	0.33	1.1818	0.17
1203	488.	0.5748	0.12	0.2920	0.06	1.5606	0.32	1.4555	0.30	2.0476	0.42	0.9225	0.19
1204	476.	0.7346	0.15	0.3820	0.08	1.7581	0.37	1.6592	0.35	2.1362	0.45	1.0182	0.21
1207	499.	0.7013	0.14	0.3523	0.07	1.7531	0.35	1.6424	0.33	2.0554	0.41	1.0792	0.22
1209	536.	0.6512	0.12	0.3423	0.06	1.7328	0.32	1.5972	0.30	2.0879	0.39	1.0570	0.20
1211	472.	0.6746	0.14	0.3294	0.07	1.7361	0.37	1.6305	0.34	2.2509	0.48	1.2076	0.26
1212	572.	0.7302	0.13	0.3596	0.06	1.9206	0.34	1.8200	0.32	2.5826	0.45	1.1246	0.20
1215	518.	0.6593	0.13	0.3135	0.06	1.8977	0.37	1.7249	0.33	1.8533	0.36	1.0642	0.20
1216	534.	0.6832	0.13	0.3559	0.07	1.7087	0.32	1.4910	0.28	2.0138	0.38	1.0114	0.19
1217	515.	0.6969	0.14	0.3209	0.06	1.8089	0.35	1.6898	0.33	1.7647	0.34	0.9204	0.18
1219	418.	0.5811	0.14	0.2735	0.06	1.6144	0.39	1.4823	0.35	2.0568	0.49	1.1085	0.26
1221	427.	0.5729	0.13	0.2820	0.07	1.7055	0.40	1.5490	0.36	1.5690	0.37	0.9655	0.23
1222	520.	0.6980	0.13	0.3349	0.06	2.0374	0.39	1.8144	0.35	2.1344	0.41	1.1960	0.23
1224	497.	0.6952	0.14	0.3592	0.07	1.7559	0.35	1.5914	0.32	2.2735	0.46	1.2959	0.26
1225	440.	0.6728	0.15	0.3371	0.08	1.6548	0.38	1.5289	0.35	2.2355	0.51	1.0700	0.24
1226	514.	0.6327	0.12	0.2997	0.06	1.7194	0.33	1.5668	0.30	1.7349	0.34	0.9698	0.19
1229	408.	0.6796	0.17	0.3348	0.08	1.8306	0.45	1.6824	0.41	1.3942	0.34	0.8422	0.21
1232	377.	0.6882	0.18	0.3264	0.09	1.9365	0.51	1.8148	0.48	1.8359	0.49	1.0507	0.28
1233	585.	0.5594	0.10	0.2432	0.04	1.7079	0.29	1.5194	0.26	2.3104	0.39	1.3382	0.23
1236	491.	0.6243	0.13	0.2962	0.06	1.7320	0.35	1.5580	0.32	1.6820	0.34	1.0255	0.21
1237	393.	0.6220	0.16	0.2763	0.07	1.6722	0.42	1.5690	0.40	2.0813	0.53	0.9398	0.24
1240	490.	0.8036	0.16	0.4063	0.08	2.0756	0.42	1.9055	0.39	2.5458	0.52	1.0793	0.22

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D20 (PAGE 11): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP IV — 10 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS RIGHT ABS. WT.	EPIDIDYMIS RIGHT REL. % TBW	TESTIS RIGHT ABS. WT.	TESTIS RIGHT REL. % TBW	PROSTATE ABS. WT.	PROSTATE REL. % TBW	PITUITARY ABS. WT.	PITUITARY REL. % TBW a	BRAIN ABS. WT.	BRAIN REL. % TBW	LIVER ABS. WT.	LIVER REL. % TBW
1182	458.	0.6047	0.13	1.6680	0.36	0.3623	0.08	0.005	1.09	2.23	0.49	25.00	5.46
1184	547.	0.7559	0.14	1.8710	0.34	0.7091	0.13	0.015	2.74	2.30	0.42	30.64	5.60
1186	498.	0.6982	0.14	1.6171	0.32	0.8461	0.17	0.013	2.61	2.16	0.43	20.80	4.18
1188	474.	0.6993	0.15	1.6425	0.35	1.0337	0.22	0.008	1.69	2.20	0.46	27.64	5.83
1189	591.	0.7530	0.13	1.8294	0.31	1.2066	0.20	0.014	2.37	2.40	0.41	32.61	5.52
1192	500.	0.6947	0.14	1.7973	0.36	0.8355	0.17	0.009	1.80	2.22	0.44	30.76	6.15
1194	549.	0.7274	0.13	1.7765	0.32	1.2309	0.22	0.009	1.64	2.22	0.40	29.51	5.38
1195	510.	0.6028	0.12	1.6682	0.33	1.0630	0.21	0.012	2.35	2.16	0.42	26.56	5.21
1198	682.	0.7218	0.10	1.8638	0.27	0.9586	0.14	0.014	2.05	2.36	0.35	35.89	5.26
1203	488.	0.6076	0.12	1.6140	0.33	1.2275	0.25	0.010	2.05	2.22	0.45	26.54	5.44
1204	476.	0.7386	0.16	1.7777	0.37	1.1547	0.24	0.013	2.73	2.30	0.48	31.81	6.68
1207	499.	0.7052	0.14	1.6577	0.33	1.3065	0.26	0.012	2.40	2.24	0.45	24.11	4.83
1209	536.	0.6614	0.12	1.6149	0.30	1.2231	0.23	0.013	2.42	2.22	0.41	35.57	6.64
1211	472.	0.7154	0.15	1.7180	0.36	1.0513	0.22	0.012	2.54	2.28	0.48	27.46	5.82
1212	572.	0.7298	0.13	1.9154	0.33	1.3466	0.24	0.010	1.75	2.44	0.43	34.89	6.10
1215	518.	0.6595	0.13	1.9394	0.37	0.9439	0.18	0.014	2.70	2.49	0.48	30.79	5.94
1216	534.	0.6748	0.13	1.6544	0.31	1.4602	0.27	0.017	3.18	2.30	0.43	33.30	6.24
1217	515.	0.7102b	0.14	1.7837	0.35	1.3746	0.27	0.012	2.33	2.32	0.45	30.02	5.83
1219	418.	0.6257	0.15	1.6034	0.38	0.9941	0.24	0.018	4.31	2.09	0.50	27.85	6.66
1221	427.	0.6549	0.15	1.7229	0.40	0.9705	0.23	0.012	2.81	2.21	0.52	24.86	5.82
1222	520.	0.7082	0.14	1.9675	0.38	1.0687	0.20	0.013	2.50	2.07	0.40	31.71	6.10
1224	497.	0.7384	0.15	1.8250	0.37	1.0011	0.20	0.026	5.23	2.39	0.48	26.90	5.41
1225	440.	0.6937	0.16	1.6822	0.38	1.0253	0.23	0.026	5.91	2.32	0.53	31.17	7.08
1226	514.	0.6851	0.13	1.7896	0.35	1.1083	0.22	0.021	4.08	2.44	0.47	32.01	6.23
1229	408.	0.7064	0.17	1.8647	0.46	0.5994	0.15	0.013	3.19	2.15	0.53	22.60	5.54
1232	377.	0.6704	0.18	1.8883	0.50	0.9128	0.24	0.015	3.98	2.22	0.59	26.98	7.16
1233	585.	0.6843	0.12	1.7895	0.30	1.1748	0.20	0.015	2.56	2.40	0.41	38.30	6.55
1236	491.	0.6360	0.13	1.7348	0.35	1.1124	0.23	0.013	2.65	2.23	0.45	25.35	5.16
1237	393.	0.6242	0.16	1.6814	0.43	0.8318	0.21	0.010	2.54	2.37	0.60	28.38	7.22
1240	490.	0.7558	0.15	2.0720	0.42	1.2324	0.25	0.020	4.08	2.32	0.47	28.51	5.82

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D20 (PAGE 12): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP IV — 10 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT		SPLEEN		THYMUS	
		ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW
1182	458.	1.96	0.43	2.06	0.45	0.010	2.18	0.022	4.80	0.67	0.15	0.35	0.08
1184	547.	2.40	0.44	2.30	0.42	0.031	5.67	0.033	6.03	0.72	0.13	0.39	0.07
1186	498.	2.00	0.40	1.81b	0.36	0.033	6.63	0.032	6.42	0.69	0.14	0.27	0.05
1188	474.	2.25	0.47	2.21	0.47	0.031	6.54	0.016	3.38	0.78	0.16	0.56	0.12
1189	591.	2.52	0.43	2.65	0.45	0.032	5.41	0.037	6.26	0.85	0.14	0.35	0.06
1192	500.	2.16	0.43	2.31	0.46	0.032	6.40	0.032	6.40	0.92	0.18	0.73	0.15
1194	549.	2.32	0.42	2.72	0.50	0.029	5.28	0.030	5.46	0.81	0.15	0.30	0.05
1195	510.	2.25	0.44	2.27	0.44	0.025	4.90	0.028	5.49	0.76	0.15	0.37	0.07
1198	682.	2.65	0.39	2.61	0.38	0.042	6.16	0.040	5.86	0.81	0.12	0.36	0.05
1203	488.	2.32	0.48	2.21	0.45	0.025	5.12	0.025	5.12	0.81	0.16	0.32	0.06
1204	476.	2.56	0.54	2.49	0.52	0.032	6.72	0.026	5.46	0.71	0.15	0.43	0.09
1207	499.	2.37	0.47	2.19	0.44	0.025	5.01	0.022	4.41	0.65	0.13	0.27	0.05
1209	536.	2.23	0.42	2.34	0.44	0.026	4.85	0.024	4.48	0.76	0.14	0.25	0.05
1211	472.	2.27	0.48	2.11	0.45	0.020	4.24	0.032	6.78	0.69	0.15	0.32	0.07
1212	572.	2.49	0.44	2.54	0.44	0.026	4.54	0.025	4.37	0.76	0.13	0.32	0.06
1215	518.	2.51	0.48	2.56	0.49	0.030	5.79	0.029	5.60	0.84	0.16	0.32	0.06
1216	534.	1.98	0.37	2.02	0.38	0.030	5.62	0.030	5.62	0.79	0.15	0.32	0.06
1217	515.	2.17	0.42	2.14	0.42	0.025	4.85	0.022	4.27	0.70	0.14	0.40	0.08
1219	418.	2.07	0.50	2.39	0.57	0.023	5.50	0.026	6.22	0.63	0.15	0.47	0.11
1221	427.	1.94	0.45	2.09	0.49	0.025	5.85	0.026	6.09	0.79	0.18	0.55	0.13
1222	520.	2.26	0.43	2.36	0.45	0.029	5.58	0.029	5.58	0.76	0.15	0.41	0.08
1224	497.	2.42	0.49	2.50c	0.50	0.030	6.04	0.024	4.83	0.82	0.16	0.44	0.09
1225	440.	2.28	0.52	2.18	0.50	0.035	7.95	0.034	7.73	0.76	0.17	0.34	0.08
1226	514.	2.58	0.50	2.60	0.50	0.029	5.64	0.026	5.06	0.92	0.18	0.45	0.09
1229	408.	2.11	0.52	2.13	0.52	0.038	9.31	0.031	7.60	1.95d	0.48	0.31	0.08
1232	377.	2.12	0.56	2.07e	0.55	0.026	6.90	0.026	6.90	0.82	0.22	0.39	0.10
1233	585.	2.77	0.47	2.85	0.49	0.036	6.15	0.038	6.50	1.04	0.18	0.55	0.09
1236	491.	2.48	0.50	2.44	0.50	0.028	5.70	0.024	4.89	0.88	0.18	0.36	0.07
1237	393.	2.00	0.51	2.02	0.51	0.026	6.62	0.021	5.34	0.65	0.16	0.27	0.07
1240	490.	2.53	0.52	2.67	0.54	0.039	7.96	0.039	7.96	0.70	0.14	0.24	0.05

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.
b. Rat 1186 had moderate dilation of the pelvis of the right kidney; value included in group averages and statistical analyses.
c. Rat 1224 had slight dilation of the pelvis of the right kidney; value included in group averages and statistical analyses.
d. Rat 1229 had tan areas on the spleen that extended into the parenchyma; value included in group averages and statistical analysis.
e. Rat 1232 had slight dilation of the pelvis of the right kidney; value included in group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D20 (PAGE 13): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP V — 30 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS LEFT ABS. WT.	EPIDIDYMIS LEFT REL. % TBW	CAUDA EPIDIDYMIS LEFT ABS. WT.	CAUDA EPIDIDYMIS LEFT REL. % TBW	TESTIS LEFT ABS. WT.	TESTIS LEFT REL. % TBW	L. TESTIS MINUS TUNICA ALBUGINEA ABS. WT.	L. TESTIS MINUS TUNICA ALBUGINEA REL. % TBW	SEMINAL VESICLES WITH FLUID ABS. WT.	SEMINAL VESICLES WITH FLUID REL. % TBW	SEMINAL VESICLES WITHOUT FLUID ABS. WT.	SEMINAL VESICLES WITHOUT FLUID REL. % TBW
1241	460.	0.6112	0.13	0.2998	0.06	1.5908	0.34	1.3979	0.30	1.8364	0.40	1.0081	0.22
1244	485.	0.6273	0.13	0.3142	0.06	1.7212	0.35	1.5926	0.33	2.8798	0.59	1.4614	0.30
1245	502.	0.6766	0.13	0.3187	0.06	1.7176	0.34	1.6080	0.32	2.1597	0.43	1.0569	0.21
1247	442.	0.6881	0.16	0.3340	0.08	1.8326	0.41	1.6988	0.38	1.7738	0.40	1.0022	0.23
1248	378.	0.6792	0.18	0.3129	0.08	1.6396	0.43	1.5464	0.41	2.5952	0.69	1.2934	0.34
1249	376.	0.7319	0.19	0.3795	0.10	1.7786	0.47	1.6728	0.44	2.0331	0.54	1.0653	0.28
1252	409.	0.6596	0.16	0.3158	0.08	1.4497	0.35	1.3774	0.34	1.8891	0.46	0.9906	0.24
1254	414.	0.6469	0.16	0.3557	0.08	1.7510	0.42	1.6523	0.40	1.9214	0.46	0.8235	0.20
1255	490.	0.6245	0.13	0.3120	0.06	1.7416	0.36	1.6095	0.33	1.6770	0.34	0.6609	0.13
1257	457.	0.7072	0.15	0.3545	0.08	1.8200	0.40	1.7299	0.38	2.2625	0.50	1.0298	0.22
1259	426.	0.6969	0.16	0.3539	0.08	1.7863	0.42	1.6566	0.39	2.0366	0.48	1.0283	0.24
1261	388.	0.5900	0.15	0.2959	0.08	1.6848	0.43	1.5730	0.40	1.8242	0.47	0.8953	0.23
1266	429.	0.6313	0.15	0.3086	0.07	1.6450	0.38	1.5233	0.36	1.9019	0.44	0.7353	0.17
1269	514.	0.6429	0.12	0.3347	0.06	1.7958	0.35	1.6760	0.33	1.8292	0.36	0.8866	0.17
1271	510.	0.6784	0.13	0.2913	0.06	1.9897	0.39	1.7853	0.35	1.8426	0.36	0.9089	0.18
1273	394.	0.5963	0.15	0.2747	0.07	1.5513	0.39	1.4009	0.36	1.9182	0.49	0.9421	0.24
1274	507.	0.6832	0.13	0.3324	0.06	1.8321	0.36	1.6903	0.33	1.6601	0.33	0.8003	0.16
1278	405.	0.6289	0.16	0.2912	0.07	1.6986	0.42	1.6003	0.40	1.7792	0.44	0.8806	0.22
1281	472.	0.6557	0.14	0.3389	0.07	1.5348	0.32	1.3779	0.29	1.8714	0.40	0.9200	0.19
1282	403.	0.6104	0.15	0.2935	0.07	2.0059	0.50	1.8552	0.46	1.4607	0.36	0.7963	0.20
1284	443.	0.6110	0.14	0.3077	0.07	1.7608	0.40	1.6309	0.37	1.6002	0.36	0.8986	0.20
1287	418.	0.5705	0.14	0.2924	0.07	1.5426	0.37	1.4114	0.34	1.5734	0.38	0.7565	0.18
1288	407.	0.5772	0.14	0.2718	0.07	1.4489	0.36	1.3122	0.32	2.0014	0.49	0.9903	0.24
1289	443.	0.6419	0.14	0.3011	0.07	1.8533	0.42	1.7185	0.39	1.8222	0.41	1.0444	0.24
1290	447.	0.6438	0.14	0.2949	0.06	1.8455	0.41	1.6862	0.38	1.6617	0.37	0.8188	0.18
1291	399.	0.7084	0.18	0.3777	0.09	1.8660	0.47	1.5842	0.40	1.8949	0.47	0.9639	0.24
1294	450.	0.7602	0.17	0.3415	0.08	2.0868	0.46	1.8566	0.41	1.3983	0.31	0.7453	0.16
1298	385.	0.5738	0.15	0.2755	0.07	1.4615	0.38	1.3341	0.35	1.8111	0.47	0.8992	0.23
1300	438.	0.7065	0.16	0.3154	0.07	1.6906	0.38	1.5934	0.36	1.9824	0.45	1.2279	0.28

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D20 (PAGE 14): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP V — 30 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	EPIDIDYMIS RIGHT		TESTIS RIGHT		PROSTATE		PITUITARY		BRAIN		LIVER	
		ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW
1241	460.	0.6533	0.14	1.6469	0.36	0.7133	0.16	0.009	1.96	2.21	0.48	33.90	7.37
1244	485.	0.6699	0.14	1.6944	0.35	0.4297	0.09	0.012	2.47	2.14	0.44	37.00	7.63
1245	502.	0.6880	0.14	1.7335	0.34	0.6958	0.14	0.013	2.59	2.14	0.43	35.80	7.13
1247	442.	0.6936	0.16	1.7629	0.40	1.0837	0.24	0.011	2.49	2.19	0.50	30.46	6.89
1248	378.	0.7177	0.19	1.7090	0.45	0.8798	0.23	0.010	2.64	2.02	0.53	23.36	6.18
1249	376.	0.7145	0.19	1.7860	0.48	0.8470	0.22	0.011	2.92	2.08	0.55	22.66	6.03
1252	409.	0.5818	0.14	1.3457	0.33	0.7562	0.18	0.009	2.20	2.16	0.53	29.14	7.12
1254	414.	0.6693	0.16	1.8852	0.46	0.9728	0.23	0.009	2.17	2.00	0.48	24.07	5.81
1255	490.	0.6530	0.13	1.7597	0.36	1.0766	0.22	0.010	2.04	2.29	0.47	32.45	6.62
1257	457.	0.7350	0.16	1.8935	0.41	1.0167	0.22	0.013	2.84	2.11	0.46	29.80	6.52
1259	426.	0.7351	0.17	1.8626	0.44	1.1325	0.26	0.009	2.11	1.95	0.46	25.93	6.09
1261	388.	0.6319	0.16	1.7525	0.45	0.5891	0.15	0.011	2.84	2.17	0.56	24.08	6.21
1266	429.	0.6521	0.15	1.5782	0.37	1.1156	0.26	0.014	3.26	2.09	0.49	29.42	6.86
1269	514.	0.6597	0.13	1.7311	0.34	1.0011	0.19	0.005	0.97	2.14	0.42	32.70	6.36
1271	510.	0.6398	0.12	1.9298	0.38	1.0235	0.20	0.019	3.72	2.70	0.53	30.75	6.03
1273	394.	0.6096	0.15	1.5443	0.39	1.0554	0.27	0.021b	5.33b	2.16	0.55	27.46	6.97
1274	507.	0.6309	0.12	1.8951	0.37	1.0326	0.20	0.015	2.96	2.27	0.45	34.70	6.84
1278	405.	0.6590	0.16	1.7218	0.42	0.7614	0.19	0.024	5.92	2.04	0.50	26.59	6.56
1281	472.	0.6883	0.14	1.5678	0.33	0.7429	0.16	0.032	6.78	2.08	0.44	30.95	6.56
1282	403.	0.6620	0.16	2.0764	0.52	0.7483	0.18	0.010	2.48	2.20	0.54	29.72	7.37
1284	443.	0.6740	0.15	1.8308	0.41	1.0285	0.23	0.012	2.71	2.25	0.51	30.21	6.82
1287	418.	0.5821	0.14	1.5509	0.37	0.8656	0.21	0.010	2.39	2.09	0.50	26.56	6.35
1288	407.	0.5847	0.14	1.3930	0.34	0.8578	0.21	0.026	6.39	2.22	0.54	25.71	6.32
1289	443.	0.7166	0.16	2.0066	0.45	0.7964	0.18	0.010	2.26	2.34	0.53	33.07	7.46
1290	447.	0.6780	0.15	1.8514	0.41	0.7592	0.17	0.014	3.13	2.27	0.51	34.68	7.76
1291	399.	0.7411	0.18	1.8543	0.46	0.7997	0.20	0.008	2.00	2.35	0.59	26.73	6.70
1294	450.	0.7335	0.16	1.9582	0.44	0.9946	0.22	0.026	5.78	2.37	0.53	33.81	7.51
1298	385.	0.5936	0.15	1.4529	0.38	0.6132	0.16	0.011	2.86	2.06	0.54	27.51	7.14
1300	438.	0.7606	0.17	1.7792	0.41	0.9123	0.21	0.010	2.28	2.18	0.50	33.29	7.60

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Damaged during processing (weight affected); values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D20 (PAGE 15): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP V — 30 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT		SPLEEN		THYMUS	
		ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW
1241	460.	2.30	0.50	2.28	0.50	0.024	5.22	0.031	6.74	0.65	0.14	0.28	0.06
1244	485.	2.60	0.54	2.41	0.50	0.035	7.22	0.030	6.18	0.64	0.13	0.18	0.04
1245	502.	2.60	0.52	2.40	0.48	0.033	6.57	0.024	4.78	0.85	0.17	0.73	0.14
1247	442.	1.85	0.42	1.67	0.38	0.023	5.20	0.016	3.62	0.95	0.21	0.20	0.04
1248	378.	1.90	0.50	1.94	0.51	0.031	8.20	0.029	7.67	0.60	0.16	0.53	0.14
1249	376.	1.94	0.52	1.94	0.52	0.028	7.45	0.024	6.38	0.63	0.17	0.28	0.07
1252	409.	1.78	0.44	1.78	0.44	0.027	6.60	0.024	5.87	0.73	0.18	0.34	0.08
1254	414.	1.91	0.46	1.88	0.45	0.025	6.04	0.022	5.31	0.67	0.16	0.24	0.06
1255	490.	2.13	0.43	2.23	0.46	0.023	4.69	0.019	3.88	0.67	0.14	0.31	0.06
1257	457.	1.89	0.41	1.87	0.41	0.028	6.13	0.030	6.56	0.62	0.14	0.26	0.06
1259	426.	1.90	0.45	1.79	0.42	0.023	5.40	0.016	3.76	0.69	0.16	0.22	0.05
1261	388.	1.75	0.45	1.93	0.50	0.021	5.41	0.025	6.44	0.59	0.15	0.21	0.05
1266	429.	1.90	0.44	2.00	0.47	0.030	6.99	0.028	6.53	0.78	0.18	0.30	0.07
1269	514.	1.93	0.38	2.12	0.41	0.022	4.28	0.023	4.47	0.89	0.17	0.55	0.11
1271	510.	2.21	0.43	2.50	0.49	0.038	7.45	0.037	7.25	0.69	0.14	0.51	0.10
1273	394.	1.90	0.48	1.86	0.47	0.033	8.38	0.029	7.36	0.75	0.19	0.47	0.12
1274	507.	2.29	0.45	2.35	0.46	0.020	3.94	0.022	4.34	0.84	0.16	0.68	0.13
1278	405.	1.74	0.43	1.81	0.45	0.031	7.65	0.026	6.42	0.84	0.21	0.34	0.08
1281	472.	2.10	0.44	2.04	0.43	0.030	6.36	0.030	6.36	0.91	0.19	0.52	0.11
1282	403.	1.92	0.48	2.01	0.50	0.036	8.93	0.038	9.43	0.78	0.19	0.73	0.18
1284	443.	2.16	0.49	1.99	0.45	0.034	7.67	0.032	7.22	0.65	0.15	0.46	0.10
1287	418.	2.16	0.52	2.06	0.49	0.020	4.78	0.020	4.78	0.67	0.16	0.40	0.10
1288	407.	1.96	0.48	2.12	0.52	0.028	6.88	0.022	5.40	0.84	0.21	0.31	0.08
1289	443.	2.02	0.46	1.97	0.44	0.019	4.29	0.015	3.39	0.71	0.16	0.39	0.09
1290	447.	1.99	0.44	2.08	0.46	0.026	5.82	0.030	6.71	0.81	0.18	0.43	0.10
1291	399.	2.09	0.52	2.05	0.51	0.023	5.76	0.024	6.02	0.72	0.18	0.27	0.07
1294	450.	2.07	0.46	2.26b	0.50	0.039	8.67	0.035	7.78	1.14	0.25	0.44	0.10
1298	385.	1.85	0.48	1.86	0.48	0.022	5.71	0.019	4.94	0.52	0.14	0.30	0.08
1300	438.	2.06	0.47	1.99	0.45	0.026	5.94	0.024	5.48	0.78	0.18	0.39	0.09

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Rat 1294 had slight dilation of the pelvis of the right kidney; value included in group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D21 (PAGE 1): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP I — 0 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS LEFT ABS. WT.	EPIDIDYMIS LEFT REL. % BRW	CAUDA EPIDIDYMIS LEFT ABS. WT.	CAUDA EPIDIDYMIS LEFT REL. % BRW	TESTIS LEFT ABS. WT.	TESTIS LEFT REL. % BRW	L. TESTIS MINUS TUNICA ALBUGINEA ABS. WT.	L. TESTIS MINUS TUNICA ALBUGINEA REL. % BRW	SEMINAL VESICLES WITH FLUID ABS. WT.	SEMINAL VESICLES WITH FLUID REL. % BRW	SEMINAL VESICLES WITHOUT FLUID ABS. WT.	SEMINAL VESICLES WITHOUT FLUID REL. % BRW
1002	2.27	0.7752	34.15	0.3991	17.58	1.9221	84.67	1.7786	78.35	1.6467	72.54	0.8308	36.60
1003	2.40	0.7726	32.19	0.3611	15.04	1.8125	75.52	1.6880	70.33	2.1281	88.67	1.0361	43.17
1005	2.36	0.6687	28.33	0.3080	13.05	1.6994	72.01	1.5948	67.58	1.7303	73.32	0.8830	37.42
1007	2.23	0.6686	29.98	0.3350	15.02	1.5619	70.04	1.4691	65.88	1.8008	80.75	0.9282	41.62
1011	2.22	0.6963	31.36	0.3387	15.26	1.5902	71.63	1.4829	66.80	1.7689	79.68	0.9602	43.25
1012	2.32	0.7115	30.67	0.3373	14.54	1.7682	76.22	1.6627	71.67	2.1506	92.70	1.0488	45.21
1013	2.29	0.6641	29.00	0.3204	13.99	1.6088	70.25	1.5081	65.86	2.2159	96.76	1.2484	54.52
1014	2.51	0.7869	31.35	0.3583	14.27	1.8831	75.02	1.7555	69.94	2.5406	101.22	1.3229	52.70
1017	2.30	0.6555	28.50	0.2932	12.75	1.7762	77.23	1.6737	72.77	1.6431	71.44	0.9578	41.64
1021	2.27	0.6987	30.78	0.3482	15.34	1.8218	80.26	1.6868	74.31	1.8339	80.79	1.0077	44.39
1023	2.25	0.6580	29.24	0.3339	14.84	1.7024	75.66	1.5794	70.20	1.6675	74.11	0.7430	33.02
1026	2.52	0.7822	31.04	0.4020	15.95	1.9518	77.45	1.8349	72.81	2.2373	88.78	1.0835	43.00
1028	2.17	0.6933	31.95	0.3383	15.59	1.7226	79.38	1.6188	74.60	1.5930	73.41	0.9180	42.30
1031	2.45	0.6753	27.56	0.3248	13.26	1.7995	73.45	1.6663	68.01	2.2558	92.07	1.1674	47.65
1034	2.25	0.6971	30.98	0.3283	14.59	1.5867	70.52	1.4943	66.41	2.0640	91.73	0.8644	38.42
1035	2.25	0.5600	24.89	0.2757	12.25	1.4438	64.17	1.2926	57.45	1.6995	75.53	0.9306	41.36
1040	2.39	0.6153	25.74	0.2846	11.91	1.5830	66.23	1.5238	63.76	2.0948	87.65	0.9268	38.78
1041	2.25	0.5846	25.98	0.2599	11.55	1.6181	71.92	1.4797	65.76	1.7416	77.40	1.0356	46.03
1043	2.40	0.6476	26.98	0.3170	13.21	1.8685	77.85	1.6406	68.36	1.4429	60.12	0.8137	33.90
1045	2.28	0.6937	30.42	0.3335	14.63	2.0197	88.58	1.8917	82.97	2.1573	94.62	1.1610	50.92
1047	2.42	0.7059	29.17	0.3676	15.19	1.7596	72.71	1.6111	66.57	1.3668	56.48	0.7839	32.39
1048	2.40	0.6579	27.41	0.3233	13.47	1.5749	65.62	1.4321	59.67	2.0222	84.26	0.9460	39.42
1050	2.20	0.6975	31.70	0.3498	15.90	1.6161	73.46	1.4572	66.24	1.7612	80.05	0.7748	35.22
1051	2.62	0.7675	29.29	0.3806	14.53	2.0003	76.35	1.8134	69.21	2.3132	88.29	1.1160	42.60
1052	2.47	0.7354	29.77	0.3854	15.60	1.9346	78.32	1.7771	71.95	2.0816	84.28	1.1932	48.31
1054	2.46	0.7518	30.56	0.3819	15.52	1.9560	79.51	1.8014	73.23	2.5943	105.46	1.4246	57.91
1055	2.43	0.6775	27.88	0.3243	13.34	1.7734	72.98	1.6231	66.79	2.0127	82.83	1.1275	46.40
1058	1.94	0.5881	30.31	0.2814	14.50	1.6935	87.29	1.5125	77.96	1.8827	97.05	0.9591	49.44
1059	2.44	0.6360	26.06	0.2937	12.04	1.7162	70.34	1.6036	65.72	1.1345	46.50	0.7241	29.68
1060	2.40	0.6379	26.58	0.3128	13.03	1.6027	66.78	1.4347	59.78	1.3529	56.37	0.7172	29.88

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D21 (PAGE 2): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP I 0 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS RIGHT		TESTIS RIGHT		PROSTATE		PITUITARY		LIVER		KIDNEY LEFT	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
1002	2.27	0.7585	33.41	1.8845	83.02	0.4671	20.58	0.015	0.66	21.20	933.92	2.17	95.59
1003	2.40	0.7227	30.11	1.7920	74.67	0.6059	25.24	0.014	0.58	25.00	1041.67	2.38	99.17
1005	2.36	0.6810	28.86	1.6608	70.37	0.5167	21.89	0.011	0.47	19.70	834.74	2.13	90.25
1007	2.23	0.6742	30.23	1.5845	71.05	0.5157	23.12	0.014	0.63	21.20	950.67	2.10	94.17
1011	2.22	0.6834	30.78	1.5867	71.47	0.7725	34.80	0.011	0.50	24.75	1114.86	2.19	98.65
1012	2.32	0.6799	29.31	1.7336	74.72	1.3440	57.93	0.014	0.60	24.99	1077.16	2.22	95.69
1013	2.29	0.6817	29.77	1.6417	71.69	1.0484	45.78	0.014	0.61	21.79	951.53	2.35	102.62
1014	2.51	0.8172	32.56	1.7921	71.40	1.0938	43.58	0.012	0.48	22.01	876.89	2.08	82.87
1017	2.30	0.6814	29.63	1.7002	73.92	1.3176	57.29	0.013	0.56	17.05	741.30	2.05	89.13
1021	2.27	0.7343	32.35	1.8175	80.07	0.9022	39.74	0.013	0.57	25.08	1104.84	2.41	106.17
1023	2.25	0.6593	29.30	1.6437	73.05	1.2225	54.33	0.015	0.67	23.69	1052.89	2.21	98.22
1026	2.52	0.7373	29.26	1.8810	74.64	1.6240	64.44	0.015	0.60	22.31	885.32	2.41	95.63
1028	2.17	0.6915	31.87	1.6696	76.94	1.2618	58.15	0.015	0.69	18.86	869.12	1.85	85.25
1031	2.45	0.6714	27.40	1.6776	68.47	1.2276	50.11	0.016	0.65	21.65	883.67	2.31	94.28
1034	2.25	0.6982	31.03	1.5835	70.38	1.2740	56.62	0.013	0.58	17.02	756.44	1.73	76.89
1035	2.25	0.5628	25.01	1.5086	67.05	0.8117	36.08	0.009	0.40	16.86	749.33	1.98	88.00
1040	2.39	0.6359	26.61	1.6333	68.34	1.1217	46.93	0.011	0.46	20.38	852.72	2.22	92.89
1041	2.25	0.6364	28.28	1.5862	70.50	1.1027	49.01	0.011	0.49	23.82	1058.67	2.35	104.44
1043	2.40	0.6825	28.44	1.8901	78.75	0.8592	35.80	0.019	0.79	21.30	887.50	2.07	86.25
1045	2.28	0.7169	31.44	1.9229	84.34	1.0457	45.86	0.015	0.66	18.32	803.51	1.99	87.28
1047	2.42	0.7403	30.59	1.7809	73.59	1.4155	58.49	0.014	0.58	29.20	1206.61	2.37	97.93
1048	2.40	0.6381	26.59	1.4826	61.78	1.0329	43.04	0.023	0.96	27.26	1135.83	2.58	107.50
1050	2.20	0.7014	31.88	1.5870	72.14	1.0311	46.87	0.010	0.45	21.29	967.73	1.96	89.09
1051	2.62	0.8552	32.64	1.9756	75.40	1.3585	51.85	0.020	0.76	25.09	957.63	2.59	98.85
1052	2.47	0.8026	32.49	1.9853	80.38	1.1700	47.37	0.013	0.53	24.34	985.42	2.51	101.62
1054	2.46	0.7438	30.24	1.9381	78.78	1.1579	47.07	0.020	0.81	20.05	815.04	2.22	90.24
1055	2.43	0.7348	30.24	1.8211	74.94	1.1323	46.60	0.021	0.86	21.35	878.60	2.31	95.06
1058	1.94	0.6267	32.30	1.6947	87.36	1.1133	57.39	0.018	0.93	20.17	1039.69	2.21	113.92
1059	2.44	0.6254	25.63	1.7833	73.09	0.7495	30.72	0.018	0.74	16.10	659.84	2.19	89.75
1060	2.40	0.6724	28.02	1.7323	72.18	0.8267	34.44	0.012	0.50	17.81	742.08	2.30	95.83

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D21 (PAGE 3): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP I — 0 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	KIDNEY RIGHT ABS. WT.	KIDNEY RIGHT REL. % BRW	ADRENAL LEFT ABS. WT.	ADRENAL LEFT REL. % BRW	ADRENAL RIGHT ABS. WT.	ADRENAL RIGHT REL. % BRW	SPLEEN ABS. WT.	SPLEEN REL. % BRW	THYMUS ABS. WT.	THYMUS REL. % BRW
1002	2.27	2.28	100.44	0.031	1.36	0.028	1.23	0.96	42.29	0.28	12.33
1003	2.40	2.20	91.67	0.029	1.21	0.023	0.96	1.02	42.50	0.42	17.50
1005	2.36	2.08	88.14	0.037	1.57	0.038	1.61	1.00	42.37	0.62	26.27
1007	2.23	2.00	89.69	0.029	1.30	0.031	1.39	1.03	46.19	0.59	26.46
1011	2.22	2.18	98.20	0.038	1.71	0.032	1.44	0.95	42.79	0.71	31.98
1012	2.32	2.20	94.83	0.025	1.08	0.022	0.95	0.90	38.79	0.73	31.46
1013	2.29	2.28	99.56	0.027	1.18	0.027	1.18	1.02	44.54	0.52	22.71
1014	2.51	2.16	86.06	0.026	1.04	0.023	0.92	0.95	37.85	0.32	12.75
1017	2.30	2.04	88.70	0.029	1.26	0.030	1.30	0.72	31.30	0.43	18.70
1021	2.27	2.56	112.78	0.026	1.14	0.036	1.58	0.98	43.17	0.44	19.38
1023	2.25	2.24	99.56	0.035	1.56	0.030	1.33	0.93	41.33	0.50	22.22
1026	2.52	2.39	94.84	0.034	1.35	0.036	1.43	0.97	38.49	0.46	18.25
1028	2.17	1.93	88.94	0.036	1.66	0.037	1.70	0.98	45.16	0.41	18.89
1031	2.45	2.20	89.80	0.030	1.22	0.019	0.78	0.93	37.96	0.44	17.96
1034	2.25	1.71	76.00	0.028	1.24	0.011a	0.49a	0.73	32.44	0.37	16.44
1035	2.25	1.95	86.67	0.028	1.24	0.022	0.98	0.69	30.67	0.43	19.11
1040	2.39	2.23	93.30	0.022	0.92	0.018	0.75	1.34	56.07	0.45	18.83
1041	2.25	2.54	112.89	0.024	1.07	0.024	1.07	0.94	41.78	0.72	32.00
1043	2.40	2.22	92.50	0.023	0.96	0.023	0.96	0.88	36.67	0.59	24.58
1045	2.28	2.09	91.67	0.041	1.80	0.039	1.71	0.79	34.65	0.61	26.75
1047	2.42	2.56	105.78	0.038	1.57	0.036	1.49	1.13	46.69	0.36	14.88
1048	2.40	2.63	109.58	0.039	1.62	0.036	1.50	1.05	43.75	0.56	23.33
1050	2.20	2.13	96.82	0.035	1.59	0.029	1.32	0.83	37.73	0.59	26.82
1051	2.62	2.54	96.95	0.041	1.56	0.041	1.56	1.13	43.13	0.52	19.85
1052	2.47	2.47	100.00	0.033	1.34	0.036	1.46	1.03	41.70	0.70	28.34
1054	2.46	2.26	91.87	0.028	1.14	0.027	1.10	0.99	40.24	0.54	21.95
1055	2.43	2.42	99.59	0.037	1.52	0.037	1.52	0.83	34.16	0.55	22.63
1058	1.94	2.28	117.52	0.030	1.55	0.030	1.55	0.86	44.33	0.58	29.90
1059	2.44	2.13	87.30	0.039	1.60	0.036	1.48	1.04	42.62	0.33	13.52
1060	2.40	2.27	94.58	0.030	1.25	0.023	0.96	0.73	30.42	0.47	19.58

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Damaged during processing (weight affected); values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D21 (PAGE 4): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP II — 1 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS LEFT ABS. WT.	EPIDIDYMIS LEFT REL. % BRW	CAUDA EPIDIDYMIS LEFT ABS. WT.	CAUDA EPIDIDYMIS LEFT REL. % BRW	TESTIS LEFT ABS. WT.	TESTIS LEFT REL. % BRW	L. TESTIS MINUS TUNICA ALBUGINEA ABS. WT.	L. TESTIS MINUS TUNICA ALBUGINEA REL. % BRW	SEMINAL VESICLES WITH FLUID ABS. WT.	SEMINAL VESICLES WITH FLUID REL. % BRW	SEMINAL VESICLES WITHOUT FLUID ABS. WT.	SEMINAL VESICLES WITHOUT FLUID REL. % BRW
1061	2.16	0.7660	35.46	0.3553	16.45	1.7863	82.70	1.6295	75.44	1.9084	88.35	1.0157	47.02
1063	2.26	0.7170	31.72	0.3300	14.60	1.8632	82.44	1.7520	77.52	2.2839	101.06	1.1167	49.41
1066	2.10	0.6338	30.18	0.2762	13.15	1.7790	84.71	1.6559	78.85	2.2858	108.85	1.3449	64.04
1067	1.98	0.6124	30.93	0.2886	14.58	1.5556	78.56	1.4453	72.99	1.7391	87.83	0.9152	46.22
1069	2.04	0.6531	32.01	0.3027	14.84	1.7625	86.40	1.6520	80.98	2.0289	99.46	1.0798	52.93
1071	2.37	0.6507	27.46	0.3269	13.79	1.6107	67.96	1.5115	63.78	2.2645	95.55	1.1328	47.80
1073	2.26	0.7059	31.23	0.2707	11.98	1.9881	87.97	1.8542	82.04	2.1775	96.35	1.1732	51.91
1077	2.08	0.7864	37.81	0.4014	19.30	1.8023	86.65	1.6513	79.39	2.2437	107.87	1.0133	48.72
1078	2.25	0.7598	33.77	0.3979	17.68	1.7878	79.46	1.6647	73.99	1.9818	88.08	0.9239	41.06
1081	2.35	0.7080	30.13	0.3712	15.80	1.7687	75.26	1.6044	68.27	1.9950	84.89	0.9701	41.28
1082	2.17	0.3393a	15.64	0.1461a	6.73	1.0590a	48.80	0.4551a	20.97	2.0247	93.30	0.9927	45.75
1083	2.30	0.6435	27.98	0.3460	15.04	1.4745	64.11	1.3716	59.63	2.3555	102.41	0.9679	42.08
1086	2.07	0.5518	26.66	0.2467	11.92	1.6224	78.38	1.5186	73.36	1.7858	86.27	0.9166	44.28
1088	2.33	0.7257	31.14	0.3524	15.12	1.6645	71.44	1.5413	66.15	2.0530	88.11	0.9295	39.89
1090	2.24	0.6785	30.29	0.3080	13.75	1.6320	72.86	1.5236	68.02	1.8496	82.57	0.8012	35.77
1091	2.45	0.6134	25.04	0.3012	12.29	1.7090	69.76	1.3518	55.18	2.4316	99.25	1.3115	53.53
1094	2.28	0.6428	28.19	0.3252	14.26	1.6702	73.25	1.4565	63.88	2.2994	100.85	1.0829	47.50
1096	2.47	0.6912	27.98	0.3288	13.31	1.6920	68.50	1.5653	63.37	2.0056	81.20	1.0369	41.98
1098	2.38	0.7062	29.67	0.3866	16.24	1.9487	81.88	1.7580	73.86	2.4765	104.05	1.3095	55.02
1100	2.33	0.6344	27.23	0.3308	14.20	1.6819	72.18	1.5379	66.00	1.9311	82.88	0.9989	42.87
1103	2.35	0.6689	28.46	0.3369	14.34	1.7418	74.12	1.5524	66.06	1.7219	73.27	0.7884	33.55
1106	2.13	0.5997	28.15	0.2759	12.95	1.5584	73.16	1.4213	66.73	1.7814	83.63	1.0277	48.25
1107	2.15	0.6601	30.70	0.3072	14.29	1.6067	74.73	1.4424	67.09	1.5051	70.00	0.8120	37.77
1110	2.33	0.6219	26.69	0.3101	13.31	1.6555	71.05	1.5194	65.21	1.8402	78.98	0.8915	38.26
1112	2.64	0.6981	26.44	0.3442	13.04	1.8105	68.58	1.6908	64.04	2.1860	82.80	1.2293	46.56
1114	2.55	0.6757	26.50	0.3169	12.43	1.9848	77.84	1.8202	71.38	2.3440	91.92	1.2241	48.00
1116	2.36	0.6704	28.41	0.2919	12.37	1.5620	66.19	1.4146	59.94	2.0547	87.06	1.0185	43.16
1118	2.37	0.6492	27.39	0.2958	12.48	1.6885	71.24	1.5853	66.89	2.1617	91.21	1.0063	42.46
1120	2.43	0.7509	30.90	0.3424	14.09	2.0030	82.43	1.8717	77.02	2.3378	96.20	1.0701	44.04

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Rat 1082 had a small, left epididymis and cauda epididymis, small, flaccid left testis, and a fluid filled left testis minus tunica albuginea; values included in group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D21 (PAGE 5): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP II — 1 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS RIGHT		TESTIS RIGHT		PROSTATE		PITUITARY		LIVER		KIDNEY LEFT	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
1061	2.16	0.7284	33.72	1.8528	85.78	0.4761	22.04	0.011	0.51	20.77	961.57	2.06	95.37
1063	2.26	0.7113	31.47	1.8505	81.88	0.8821	39.03	0.012	0.53	26.60	1176.99	2.50	110.62
1066	2.10	0.6396	30.46	1.5745	74.98	0.2716a	12.93	0.011	0.52	20.80	990.48	2.03	96.67
1067	1.98	0.6431	32.48	1.5154	76.54	0.5982	30.21	0.012	0.61	20.97	1059.09	1.95	98.48
1069	2.04	0.6310	30.93	1.6782	82.26	0.8284	40.61	0.011	0.54	21.61	1059.31	2.10	102.94
1071	2.37	0.6846	28.89	1.5542	65.58	1.3268	55.98	0.012	0.51	26.35	1111.81	2.43	102.53
1073	2.26	0.7456	32.99	1.9825	87.72	1.3308	58.88	0.016	0.71	27.94	1236.28	2.43	107.52
1077	2.08	0.7614	36.60	1.8037	86.72	0.8947	43.01	0.011	0.53	25.28	1215.38	2.39	114.90
1078	2.25	0.7545	33.53	1.7230	76.58	1.3800	61.33	0.014	0.62	30.05	1335.56	2.67	118.67
1081	2.35	0.7025	29.89	1.7244	73.38	1.3717	58.37	0.014	0.60	22.81	970.64	2.24	95.32
1082	2.17	0.6989	32.21	1.7261	79.54	1.2924	59.56	0.016	0.74	24.34	1121.66	2.16	99.54
1083	2.30	0.6288	27.34	1.4717	63.99	1.3446	58.46	0.014	0.61	23.15	1006.52	2.27	98.70
1086	2.07	0.6170	29.81	1.6474	79.58	0.9942	48.03	0.012	0.58	15.51	749.28	1.79	86.47
1088	2.33	0.6845	29.38	1.6176	69.42	1.5251	65.45	0.014	0.60	29.13	1250.21	2.22	95.28
1090	2.24	0.7019	31.33	1.6796	74.98	1.2761	56.97	0.017	0.76	21.48	958.93	2.27	101.34
1091	2.45	0.6599	26.93	1.7494	71.40	1.1454	46.75	0.014	0.57	27.07	1104.90	2.68	109.39
1094	2.28	0.6911	30.31	1.6621	72.90	1.0867	47.66	0.025	1.10	29.60	1298.24	2.39	104.82
1096	2.47	0.7465	30.22	1.7774	71.96	1.0373	42.00	0.016	0.65	32.95	1334.01	2.39	96.76
1098	2.38	0.7631	32.06	1.9639	82.52	1.1216	47.13	0.015	0.63	30.37	1276.05	2.35	98.74
1100	2.33	0.6229	26.73	1.6532	70.95	1.1903	51.08	0.024	1.03	22.79	978.11	2.59	111.16
1103	2.35	0.6993b	29.76	1.7282	73.54	0.8336	35.47	0.013	0.55	27.76	1181.28	2.54	108.08
1106	2.13	0.6575	30.87	1.6263	76.35	1.2108	56.84	0.013	0.61	22.68	1064.79	2.19	102.82
1107	2.15	0.6578	30.60	1.6277	75.71	0.9999	46.51	0.033	1.53	19.46	905.12	2.05	95.35
1110	2.33	0.6330	27.17	1.6504	70.83	0.9081	38.97	0.015	0.64	20.50	879.83	2.21	94.85
1112	2.64	0.6748	25.56	1.8656	70.67	1.4610	55.34	0.018	0.68	28.97	1097.35	2.90	109.85
1114	2.55	0.7494	29.39	1.9312	75.73	1.1564	45.35	0.023	0.90	27.29	1070.20	2.80	109.80
1116	2.36	0.6639	28.13	1.5988	67.74	1.2054	51.08	0.026	1.10	21.37	905.51	2.33	98.73
1118	2.37	0.6786	28.63	1.7496	73.82	1.0908	46.02	0.023	0.97	22.51	949.79	2.74	115.61
1120	2.43	0.6911	28.44	1.9723	81.16	1.1517	47.40	0.028	1.15	22.49	925.51	2.46	101.23

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Rat 1066 had a small prostate; values included in group averages and statistical analyses.

b. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D21 (PAGE 6): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP II — 1 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	KIDNEY RIGHT ABS. WT.	KIDNEY RIGHT REL. % BRW	ADRENAL LEFT ABS. WT.	ADRENAL LEFT REL. % BRW	ADRENAL RIGHT ABS. WT.	ADRENAL RIGHT REL. % BRW	SPLEEN ABS. WT.	SPLEEN REL. % BRW	THYMUS ABS. WT.	THYMUS REL. % BRW
1061	2.16	1.90	87.96	0.016	0.74	0.023	1.06	0.76	35.18	0.60	27.78
1063	2.26	2.46	108.85	0.041	1.81	0.034	1.50	0.84	37.17	0.61	26.99
1066	2.10	2.10	100.00	0.028	1.33	0.022	1.05	0.64	30.48	0.64	30.48
1067	1.98	2.07	104.54	0.024	1.21	0.027	1.36	0.65	32.83	0.46	23.23
1069	2.04	1.98	97.06	0.020	0.98	0.009	0.44	0.72	35.29	0.39	19.12
1071	2.37	2.46	103.80	0.018	0.76	0.024	1.01	0.84	35.44	0.42	17.72
1073	2.26	2.50	110.62	0.037	1.64	0.037	1.64	0.68	30.09	0.22	9.73
1077	2.08	2.18	104.81	0.044	2.12	0.041	1.97	0.58	27.88	0.57	27.40
1078	2.25	2.69	119.56	0.036	1.60	0.032	1.42	0.92	40.89	0.42	18.67
1081	2.35	2.41	102.55	0.028	1.19	0.028	1.19	0.83	35.32	0.37	15.74
1082	2.17	2.15	99.08	0.035	1.61	0.031	1.43	0.86	39.63	0.46	21.20
1083	2.30	2.23	96.96	0.039	1.70	0.030	1.30	0.75	32.61	0.37	16.09
1086	2.07	1.92	92.75	0.028	1.35	0.026	1.26	0.74	35.75	0.29	14.01
1088	2.33	2.02	86.70	0.032	1.37	0.027	1.16	0.85	36.48	0.40	17.17
1090	2.24	2.27	101.34	0.025	1.12	0.024	1.07	0.75	33.48	0.31	13.84
1091	2.45	2.56	104.49	0.029	1.18	0.030	1.22	0.89	36.33	0.55	22.45
1094	2.28	2.38	104.38	0.048	2.10	0.041	1.80	1.00	43.86	0.53	23.24
1096	2.47	2.45	99.19	0.024	0.97	0.024	0.97	0.95	38.46	0.69	27.94
1098	2.38	2.44	102.52	0.030	1.26	0.028	1.18	0.80	33.61	0.61	25.63
1100	2.33	2.37	101.72	0.038	1.63	0.033	1.42	0.82	35.19	0.55	23.60
1103	2.35	2.59	110.21	0.040	1.70	0.036	1.53	0.92	39.15	0.65	27.66
1106	2.13	2.21	103.76	0.024	1.13	0.023	1.08	0.75	35.21	0.58	27.23
1107	2.15	2.05	95.35	0.034	1.58	0.035	1.63	0.60	27.91	0.36	16.74
1110	2.33	2.16	92.70	0.020	0.86	0.019	0.82	0.73	31.33	0.44	18.88
1112	2.64	3.01	114.02	0.039	1.48	0.043	1.63	1.24	46.97	0.35	13.26
1114	2.55	2.84	111.37	0.042	1.65	0.037	1.45	1.03	40.39	0.48	18.82
1116	2.36	2.37	100.42	0.041	1.74	0.027	1.14	0.90	38.14	0.32	13.56
1118	2.37	2.73	115.19	0.032	1.35	0.029	1.22	1.06	44.72	0.41	17.30
1120	2.43	2.53	104.12	0.030	1.23	0.026	1.07	1.00	41.15	0.36	14.81

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D21 (PAGE 7): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP III — 3 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS LEFT ABS. WT.	EPIDIDYMIS LEFT REL. % BRW	CAUDA EPIDIDYMIS LEFT ABS. WT.	CAUDA EPIDIDYMIS LEFT REL. % BRW	TESTIS LEFT ABS. WT.	TESTIS LEFT REL. % BRW	L. TESTIS MINUS TUNICA ALBUGINEA ABS. WT.	L. TESTIS MINUS TUNICA ALBUGINEA REL. % BRW	SEMINAL VESICLES WITH FLUID ABS. WT.	SEMINAL VESICLES WITH FLUID REL. % BRW	SEMINAL VESICLES WITHOUT FLUID ABS. WT.	SEMINAL VESICLES WITHOUT FLUID REL. % BRW
1122	2.40	0.7208	30.03	0.3470	14.46	1.6159	67.33	1.5221	63.42	2.0470	85.29	1.0874	45.31
1123	2.40	0.6070	25.29	0.2968	12.37	1.8182	75.76	1.6922	70.51	2.3013	95.89	1.2447	51.86
1127	2.20	0.6614	30.06	0.3302	15.01	1.6347	74.30	1.5124	68.74	1.7196	78.16	0.9666	43.94
1129	2.29	0.7407	32.34	0.3502	15.29	1.9335	84.43	1.8129	79.16	2.1930	95.76	1.1095	48.45
1131	2.23	0.6952	31.17	0.3581	16.06	1.7682	79.29	1.6707	74.92	2.3326	104.60	1.0857	48.69
1132	2.22	0.6725	30.29	0.3378	15.22	1.7645	79.48	1.6362	73.70	2.3904	107.68	1.2665	57.05
1134	2.40	0.7615	31.73	0.3358	13.99	1.8988	79.12	1.7685	73.69	2.1383	89.10	1.0924	45.52
1135	2.17	0.6679	30.78	0.3218	14.83	1.7237	79.43	1.6026	73.85	1.8500	85.25	0.9966	45.93
1136	2.16	0.6855	31.74	0.3406	15.77	1.9009	88.00	1.6834	77.94	1.3217	61.19	0.7638	35.36
1139	2.29	0.6190	27.03	0.3274	14.30	1.6472	71.93	1.5631	68.26	1.7038	74.40	0.9308	40.65
1141	2.17	0.6450	29.72	0.3546	16.34	1.5627	72.01	1.4612	67.34	1.7528	80.77	0.8441	38.90
1142	2.16	0.6121	28.34	0.2953	13.67	1.6597	76.84	1.5318	70.92	2.0896	96.74	0.9784	45.30
1145	2.04	0.6915	33.90	0.3255	15.96	1.8607	91.21	1.7494	85.75	1.8492	90.65	1.0012	49.08
1147	2.33	0.7098	30.46	0.3588	15.40	1.6976	72.86	1.6060	68.93	1.7211	73.87	0.9009	38.66
1149	2.36	0.8130	34.45	0.4132	17.51	2.0462	86.70	1.9344	81.97	2.3386	99.09	1.1584	49.08
1151	2.41	0.6764	28.07	0.3179	13.19	1.8091	75.07	1.5925	66.08	2.2078	91.61	0.9860	40.91
1153	2.35	0.6843	29.12	0.3349	14.25	3.0171a	128.39	2.7687a	117.82	1.9461	82.81	1.0849	46.16
1154	2.23	0.5970	26.77	0.2924	13.11	1.7007	76.26	1.4274	64.01	1.8889	84.70	0.8750	39.24
1158	2.28	0.6503	28.52	0.3024	13.26	1.7179	75.35	1.5439	67.71	2.1813	95.67	1.1530	50.57
1159	2.24	0.7223	32.24	0.3698	16.51	1.8480	82.50	1.6935	75.60	2.3263	103.85	1.1211	50.05
1162	2.31	0.6669	28.87	0.3101	13.42	1.7050	73.81	1.5581	67.45	2.0033	86.72	0.8661	37.49
1164	2.41	0.7675	31.85	0.3613	14.99	1.9198	79.66	1.7783	73.79	1.9163	79.51	0.8735	36.24
1167	2.23	0.6801	30.50	0.3252	14.58	1.7101	76.69	1.5089	67.66	2.0326	91.15	1.0820	48.52
1168	2.51	0.6367	25.37	0.2903	11.56	1.8227	72.62	1.6190	64.50	1.5592	62.12	0.9914	39.50
1171	2.31	0.5776	25.00	0.2903	12.57	1.5240	65.97	1.4063	60.88	1.8020	78.01	1.0915	47.25
1173	2.41	0.6524	27.07	0.3273	13.58	1.5741	65.32	1.4256	59.15	2.1183	87.90	1.0216	42.39
1175	2.53	0.6272	24.79	0.2745	10.85	1.7498	69.16	1.6409	64.86	1.7132	67.72	1.0295	40.69
1176	2.33	0.5684	24.39	0.2863	12.29	1.9718	84.63	1.8165	77.96	1.4040	60.26	0.8061	34.60
1177	2.43	0.7391	30.42	0.3494	14.38	2.2666	93.28	2.1025	86.52	2.0790	85.56	1.1398	46.90
1180	2.47	0.6971	28.22	0.3350	13.56	1.9639	79.51	1.8501	74.90	2.1032	85.15	1.0329	41.82

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Rat 1153 had a large, left testis and testis minus tunica albuginea; values included in group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D21 (PAGE 8): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP III — 3 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS RIGHT		TESTIS RIGHT		PROSTATE		PITUITARY		LIVER		KIDNEY LEFT	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
1122	2.40	0.6838	28.49	1.6035	66.81	0.4770	19.88	0.010	0.42	28.00	1166.67	2.33	97.08
1123	2.40	0.6106	25.44	1.7572	73.22	0.3938	16.41	0.013	0.54	27.20	1133.33	2.40	100.00
1127	2.20	0.6629	30.13	1.6197	73.62	0.4890	22.23	0.012	0.54	28.00	1272.73	2.10	95.45
1129	2.29	0.7111	31.05	1.8049	78.82	0.9503	41.50	0.016	0.70	37.20	1624.45	2.58	112.66
1131	2.23	0.6877	30.84	1.7444	78.22	0.9830	44.08	0.010	0.45	31.29	1403.14	2.81	126.01
1132	2.22	0.6987	31.47	1.7356	78.18	1.1426	51.47	0.016	0.72	24.46	1101.80	2.43	109.46
1134	2.40	0.7236	30.15	1.9533	81.39	1.0100	42.08	0.011	0.46	31.25	1302.08	2.52	105.00
1135	2.17	0.6703	30.89	1.6461	75.86	1.1130	51.29	0.014	0.64	26.42	1217.51	2.46	113.36
1136	2.16	0.6601	30.56	1.8638	86.29	0.8226	38.08	0.011	0.51	24.58	1137.96	2.49	115.28
1139	2.29	0.6262	27.34	1.7137	74.83	1.0147	44.31	0.011	0.48	26.94	1176.42	2.50	109.17
1141	2.17	0.6701a	30.88	1.5828	72.94	1.2215	56.29	0.012	0.55	24.41	1124.88	2.23	102.76
1142	2.16	0.6442	29.82	1.6204	75.02	0.9640	44.63	0.013	0.60	24.96	1155.56	2.19	101.39
1145	2.04	0.6614	32.42	1.8248	89.45	1.0366	50.81	0.014	0.69	24.17	1184.80	2.20	107.84
1147	2.33	0.6789	29.14	1.7369	74.54	1.0363	44.48	0.010	0.43	26.73	1147.21	2.24	96.14
1149	2.36	0.7538	31.94	2.0918	88.64	1.3772	58.36	0.015	0.64	28.43	1204.66	2.74	116.10
1151	2.41	0.6490	26.93	1.7336	71.93	1.1726	48.66	0.017	0.70	31.06	1288.80	2.58	107.05
1153	2.35	0.7007	29.82	1.7874	76.06	1.2844	54.66	0.013	0.55	15.00	638.30	2.46	104.68
1154	2.23	0.6741	30.23	1.7880	80.18	1.1087	49.72	0.023	1.03	31.44	1409.86	2.72	121.97
1158	2.28	0.6996	30.68	1.7801	78.07	0.8279	36.31	0.019	0.83	33.93	1488.16	2.46	107.89
1159	2.24	0.7245	32.34	1.8539	82.76	1.1479	51.24	0.025	1.12	28.29	1262.95	2.54	113.39
1162	2.31	0.6761a	29.27	1.6565	71.71	1.2450	53.90	0.014	0.61	31.33	1356.28	2.59	112.12
1164	2.41	0.7592	31.50	1.9644	81.51	1.2929	53.65	0.013	0.54	30.89	1281.74	2.67	110.79
1167	2.23	0.7044	31.59	1.7935	80.43	1.1156	50.03	0.018	0.81	33.05	1482.06	2.56	114.80
1168	2.51	0.6950	27.69	1.9170	76.37	0.9715	38.70	0.021	0.84	31.60	1258.96	2.45	97.61
1171	2.31	0.5841	25.28	1.5517	67.17	1.0645	46.08	0.020	0.86	25.18	1090.04	2.09	90.48
1173	2.41	0.6720	27.88	1.6114	66.86	1.1758	48.79	0.028	1.16	27.19	1128.22	2.28	94.60
1175	2.53	0.6517	25.76	1.7506	69.19	1.1055	43.70	0.012	0.47	26.00	1027.67	2.21	87.35
1176	2.33	0.6153	26.41	1.9358	83.08	0.9663	41.47	0.032	1.37	25.54	1096.14	2.56	109.87
1177	2.43	0.7824	32.20	2.2229	91.48	1.2319	50.70	0.015	0.62	34.48	1418.93	2.76	113.58
1180	2.47	0.7608	30.80	1.9351	78.34	1.0538	42.66	0.025	1.01	28.35	1147.77	2.54	102.83

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D21 (PAGE 9): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP III — 3 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT		SPLEEN		THYMUS	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
1122	2.40	2.31	96.25	0.024	1.00	0.020	0.83	1.02	42.50	0.49	20.42
1123	2.40	2.40	100.00	0.030	1.25	0.032	1.33	0.80	33.33	0.29	12.08
1127	2.20	2.11	95.91	0.024	1.09	0.026	1.18	0.75	34.09	0.28	12.73
1129	2.29	2.78	121.40	0.036	1.57	0.032	1.40	0.83	36.24	0.72	31.44
1131	2.23	2.67	119.73	0.024	1.08	0.028	1.26	0.95	42.60	0.59	26.46
1132	2.22	2.49	112.16	0.039	1.76	0.036	1.62	0.59	26.58	0.37	16.67
1134	2.40	2.63	109.58	0.037	1.54	0.038	1.58	0.95	39.58	0.66	27.50
1135	2.17	2.35	108.29	0.026	1.20	0.027	1.24	0.75	34.56	0.33	15.21
1136	2.16	2.41	111.57	0.039	1.80	0.032	1.48	0.72	33.33	0.46	21.30
1139	2.29	2.48	108.30	0.037	1.62	0.032	1.40	0.56	24.45	0.24	10.48
1141	2.17	2.24	103.22	0.030	1.38	0.030	1.38	0.94	43.32	0.34	15.67
1142	2.16	2.16	100.00	0.029	1.34	0.026	1.20	0.65	30.09	0.48	22.22
1145	2.04	2.02	99.02	0.028	1.37	0.019	0.93	0.69	33.82	0.18	8.82
1147	2.33	2.17	93.13	0.032	1.37	0.027	1.16	0.86	36.91	0.27	11.59
1149	2.36	2.50	105.93	0.034	1.44	0.029	1.23	0.77	32.63	0.30	12.71
1151	2.41	2.78	115.35	0.027	1.12	0.018	0.75	0.91	37.76	0.73	30.29
1153	2.35	2.55	108.51	0.024	1.02	0.021	0.89	0.93	39.57	0.55	23.40
1154	2.23	2.71	121.52	0.030	1.34	0.028	1.26	1.01	45.29	0.67	30.04
1158	2.28	2.57	112.72	0.029	1.27	0.024	1.05	0.86	37.72	0.49	21.49
1159	2.24	2.92	130.36	0.042	1.88	0.034	1.52	1.08	48.21	0.44	19.64
1162	2.31	2.71	117.32	0.027	1.17	0.027	1.17	0.78	33.77	0.35	15.15
1164	2.41	2.62	108.71	0.035	1.45	0.030	1.24	0.80	33.20	0.44	18.26
1167	2.23	2.56	114.80	0.029	1.30	0.031	1.39	1.17	52.47	0.73	32.74
1168	2.51	2.43	96.81	0.029	1.16	0.029	1.16	0.94	37.45	0.40	15.94
1171	2.31	1.95	84.42	0.031	1.34	0.032	1.38	0.77	33.33	0.40	17.32
1173	2.41	2.37	98.34	0.028	1.16	0.033	1.37	0.73	30.29	0.51	21.16
1175	2.53	2.45	96.84	0.029	1.15	0.022	0.87	0.94	37.15	0.35	13.83
1176	2.33	2.69	115.45	0.036	1.54	0.029	1.24	0.76	32.62	0.44	18.88
1177	2.43	2.79	114.81	0.034	1.40	0.030	1.23	0.89	36.62	0.36	14.81
1180	2.47	2.51	101.62	0.036	1.46	0.037	1.50	1.05	42.51	0.40	16.19

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D21 (PAGE 10): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP IV — 10 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS LEFT ABS. WT.	EPIDIDYMIS LEFT REL. % BRW	CAUDA EPIDIDYMIS LEFT ABS. WT.	CAUDA EPIDIDYMIS LEFT REL. % BRW	TESTIS LEFT ABS. WT.	TESTIS LEFT REL. % BRW	L. TESTIS MINUS TUNICA ALBUGINEA ABS. WT.	L. TESTIS MINUS TUNICA ALBUGINEA REL. % BRW	SEMINAL VESICLES WITH FLUID ABS. WT.	SEMINAL VESICLES WITH FLUID REL. % BRW	SEMINAL VESICLES WITHOUT FLUID ABS. WT.	SEMINAL VESICLES WITHOUT FLUID REL. % BRW
1182	2.23	0.5873	26.34	0.2692	12.07	1.6842	75.52	1.5580	69.86	2.1825	97.87	1.0993	49.30
1184	2.30	0.7364	32.02	0.3508	15.25	1.9148	83.25	1.7769	77.26	2.8035	121.89	1.3573	59.01
1186	2.16	0.6724	31.13	0.3462	16.03	1.5726	72.80	1.4546	67.34	1.6253	75.24	0.7547	34.94
1188	2.20	0.6851	31.14	0.3285	14.93	1.7130	77.86	1.5980	72.64	1.8294	83.15	1.0218	46.44
1189	2.40	0.7693	32.05	0.4167	17.36	1.8304	76.27	1.5499	64.58	2.0923	87.18	0.9952	41.47
1192	2.22	0.6944	31.28	0.3106	13.99	1.7946	80.84	1.5264	68.76	2.2638	101.97	1.3117	59.08
1194	2.22	0.7103	32.00	0.3404	15.33	1.7653	79.52	1.6519	74.41	2.2778	102.60	1.1574	52.14
1195	2.16	0.6484	30.02	0.3165	14.65	1.6721	77.41	1.5753	72.93	1.8174	84.14	0.9382	43.44
1198	2.36	0.7207	30.54	0.3662	15.52	1.9297	81.77	1.7940	76.02	2.2576	95.66	1.1818	50.08
1203	2.22	0.5748	25.89	0.2920	13.15	1.5606	70.30	1.4555	65.56	2.0476	92.23	0.9225	41.55
1204	2.30	0.7346	31.94	0.3820	16.61	1.7581	76.44	1.6592	72.14	2.1362	92.88	1.0182	44.27
1207	2.24	0.7013	31.31	0.3523	15.73	1.7531	78.26	1.6424	73.32	2.0554	91.76	1.0792	48.18
1209	2.22	0.6512	29.33	0.3423	15.42	1.7328	78.05	1.5972	71.94	2.0879	94.05	1.0570	47.61
1211	2.28	0.6746	29.59	0.3294	14.45	1.7361	76.14	1.6305	71.51	2.2509	98.72	1.2076	52.96
1212	2.44	0.7302	29.93	0.3596	14.74	1.9206	78.71	1.8200	74.59	2.5826	105.84	1.1246	46.09
1215	2.49	0.6593	26.48	0.3135	12.59	1.8977	76.21	1.7249	69.27	1.8533	74.43	1.0642	42.74
1216	2.30	0.6832	29.70	0.3559	15.47	1.7087	74.29	1.4910	64.83	2.0138	87.56	1.0114	43.97
1217	2.32	0.6969	30.04	0.3209	13.83	1.8089	77.97	1.6898	72.84	1.7647	76.06	0.9204	39.67
1219	2.09	0.5811	27.80	0.2735	13.09	1.6144	77.24	1.4823	70.92	2.0568	98.41	1.1085	53.04
1221	2.21	0.5729	25.92	0.2820	12.76	1.7055	77.17	1.5490	70.09	1.5690	71.00	0.9655	43.69
1222	2.07	0.6980	33.72	0.3349	16.18	2.0374	98.42	1.8144	87.65	2.1344	103.11	1.1960	57.78
1224	2.39	0.6952	29.09	0.3592	15.03	1.7559	73.47	1.5914	66.58	2.2735	95.12	1.2959	54.22
1225	2.32	0.6728	29.00	0.3371	14.53	1.6548	71.33	1.5289	65.90	2.2355	96.36	1.0700	46.12
1226	2.44	0.6327	25.93	0.2997	12.28	1.7194	70.47	1.5668	64.21	1.7349	71.10	0.9698	39.74
1229	2.15	0.6796	31.61	0.3348	15.57	1.8306	85.14	1.6824	78.25	1.3942	64.85	0.8422	39.17
1232	2.22	0.6882	31.00	0.3264	14.70	1.9365	87.23	1.8148	81.75	1.8359	82.70	1.0507	47.33
1233	2.40	0.5594	23.31	0.2432	10.13	1.7079	71.16	1.5194	63.31	2.3104	96.27	1.3382	55.76
1236	2.23	0.6243	28.00	0.2962	13.28	1.7320	77.67	1.5580	69.86	1.6820	75.43	1.0255	45.99
1237	2.37	0.6220	26.24	0.2763	11.66	1.6722	70.56	1.5690	66.20	2.0813	87.82	0.9398	39.65
1240	2.32	0.8036	34.64	0.4063	17.51	2.0756	89.46	1.9055	82.13	2.5458	109.73	1.0793	46.52

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D21 (PAGE 11): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP IV — 10 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS RIGHT ABS. WT.	EPIDIDYMIS RIGHT REL. % BRW	TESTIS RIGHT ABS. WT.	TESTIS RIGHT REL. % BRW	PROSTATE ABS. WT.	PROSTATE REL. % BRW	PITUITARY ABS. WT.	PITUITARY REL. % BRW	LIVER ABS. WT.	LIVER REL. % BRW	KIDNEY LEFT ABS. WT.	KIDNEY LEFT REL. % BRW
1182	2.23	0.6047	27.12	1.6680	74.80	0.3623	16.25	0.005	0.22	25.00	1121.08	1.96	87.89
1184	2.30	0.7559	32.86	1.8710	81.35	0.7091	30.83	0.015	0.65	30.64	1332.17	2.40	104.35
1186	2.16	0.6982	32.32	1.6171	74.86	0.8461	39.17	0.013	0.60	20.80	962.96	2.00	92.59
1188	2.20	0.6993	31.79	1.6425	74.66	1.0337	46.99	0.008	0.36	27.64	1256.36	2.25	102.27
1189	2.40	0.7530	31.38	1.8294	76.22	1.2066	50.28	0.014	0.58	32.61	1358.75	2.52	105.00
1192	2.22	0.6947	31.29	1.7973	80.96	0.8355	37.64	0.009	0.40	30.76	1385.58	2.16	97.30
1194	2.22	0.7274	32.76	1.7765	80.02	1.2309	55.44	0.009	0.40	29.51	1329.28	2.32	104.50
1195	2.16	0.6028	27.91	1.6682	77.23	1.0630	49.21	0.012	0.56	26.56	1229.63	2.25	104.17
1198	2.36	0.7218	30.58	1.8638	78.97	0.9586	40.62	0.014	0.59	35.89	1520.76	2.65	112.29
1203	2.22	0.6076	27.37	1.6140	72.70	1.2275	55.29	0.010	0.45	26.54	1195.50	2.32	104.50
1204	2.30	0.7386	32.11	1.7777	77.29	1.1547	50.20	0.013	0.56	31.81	1383.04	2.56	111.30
1207	2.24	0.7052	31.48	1.6577	74.00	1.3065	58.32	0.012	0.54	24.11	1076.34	2.37	105.80
1209	2.22	0.6614	29.79	1.6149	72.74	1.2231	55.09	0.013	0.58	35.57	1602.25	2.23	100.45
1211	2.28	0.7154	31.38	1.7180	75.35	1.0513	46.11	0.012	0.53	27.46	1204.39	2.27	99.56
1212	2.44	0.7298	29.91	1.9154	78.50	1.3466	55.19	0.010	0.41	34.89	1429.92	2.49	102.05
1215	2.49	0.6595	26.48	1.9394	77.89	0.9439	37.91	0.014	0.56	30.79	1236.55	2.51	100.80
1216	2.30	0.6748	29.34	1.6544	71.93	1.4602	63.49	0.017	0.74	33.30	1447.83	1.98	86.09
1217	2.32	0.7102a	30.61	1.7837	76.88	1.3746	59.25	0.012	0.52	30.02	1293.96	2.17	93.53
1219	2.09	0.6257	29.94	1.6034	76.72	0.9941	47.56	0.018	0.86	27.85	1332.54	2.07	99.04
1221	2.21	0.6549	29.63	1.7229	77.96	0.9705	43.91	0.012	0.54	24.86	1124.89	1.94	87.78
1222	2.07	0.7082	34.21	1.9675	95.05	1.0687	51.63	0.013	0.63	31.71	1531.88	2.26	109.18
1224	2.39	0.7384	30.90	1.8250	76.36	1.0011	41.89	0.026	1.09	26.90	1125.52	2.42	101.26
1225	2.32	0.6937	29.90	1.6822	72.51	1.0253	44.19	0.026	1.12	31.17	1343.53	2.28	98.28
1226	2.44	0.6851	28.08	1.7896	73.34	1.1083	45.42	0.021	0.86	32.01	1311.88	2.58	105.74
1229	2.15	0.7064	32.86	1.8647	86.73	0.5994	27.88	0.013	0.60	22.60	1051.16	2.11	98.14
1232	2.22	0.6704	30.20	1.8883	85.06	0.9128	41.12	0.015	0.68	26.98	1215.32	2.12	95.50
1233	2.40	0.6843	28.51	1.7895	74.56	1.1748	48.95	0.015	0.62	38.30	1595.83	2.77	115.42
1236	2.23	0.6360	28.52	1.7348	77.79	1.1124	49.88	0.013	0.58	25.35	1136.77	2.48	111.21
1237	2.37	0.6242	26.34	1.6814	70.94	0.8318	35.10	0.010	0.42	28.38	1197.47	2.00	84.39
1240	2.32	0.7558	32.58	2.0720	89.31	1.2324	53.12	0.020	0.86	28.51	1228.88	2.53	109.05

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D21 (PAGE 12): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP IV — 10 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	KIDNEY RIGHT ABS. WT.	KIDNEY RIGHT REL. % BRW	ADRENAL LEFT ABS. WT.	ADRENAL LEFT REL. % BRW	ADRENAL RIGHT ABS. WT.	ADRENAL RIGHT REL. % BRW	SPLEEN ABS. WT.	SPLEEN REL. % BRW	THYMUS ABS. WT.	THYMUS REL. % BRW
1182	2.23	2.06	92.38	0.010	0.45	0.022	0.99	0.67	30.04	0.35	15.70
1184	2.30	2.30	100.00	0.031	1.35	0.033	1.43	0.72	31.30	0.39	16.96
1186	2.16	1.81a	83.80	0.033	1.53	0.032	1.48	0.69	31.94	0.27	12.50
1188	2.20	2.21	100.45	0.031	1.41	0.016	0.73	0.78	35.45	0.56	25.45
1189	2.40	2.65	110.42	0.032	1.33	0.037	1.54	0.85	35.42	0.35	14.58
1192	2.22	2.31	104.05	0.032	1.44	0.032	1.44	0.92	41.44	0.73	32.88
1194	2.22	2.72	122.52	0.029	1.31	0.030	1.35	0.81	36.49	0.30	13.51
1195	2.16	2.27	105.09	0.025	1.16	0.028	1.30	0.76	35.18	0.37	17.13
1198	2.36	2.61	110.59	0.042	1.78	0.040	1.69	0.81	34.32	0.36	15.25
1203	2.22	2.21	99.55	0.025	1.13	0.025	1.13	0.81	36.49	0.32	14.41
1204	2.30	2.49	108.26	0.032	1.39	0.026	1.13	0.71	30.87	0.43	18.70
1207	2.24	2.19	97.77	0.025	1.12	0.022	0.98	0.65	29.02	0.27	12.05
1209	2.22	2.34	105.40	0.026	1.17	0.024	1.08	0.76	34.23	0.25	11.26
1211	2.28	2.11	92.54	0.020	0.88	0.032	1.40	0.69	30.26	0.32	14.04
1212	2.44	2.54	104.10	0.026	1.06	0.025	1.02	0.76	31.15	0.32	13.11
1215	2.49	2.56	102.81	0.030	1.20	0.029	1.16	0.84	33.73	0.32	12.85
1216	2.30	2.02	87.83	0.030	1.30	0.030	1.30	0.79	34.35	0.32	13.91
1217	2.32	2.14	92.24	0.025	1.08	0.022	0.95	0.70	30.17	0.40	17.24
1219	2.09	2.39	114.35	0.023	1.10	0.026	1.24	0.63	30.14	0.47	22.49
1221	2.21	2.09	94.57	0.025	1.13	0.026	1.18	0.79	35.75	0.55	24.89
1222	2.07	2.36	114.01	0.029	1.40	0.029	1.40	0.76	36.71	0.41	19.81
1224	2.39	2.50b	104.60	0.030	1.26	0.024	1.00	0.82	34.31	0.44	18.41
1225	2.32	2.18	93.96	0.035	1.51	0.034	1.46	0.76	32.76	0.34	14.66
1226	2.44	2.60	106.56	0.029	1.19	0.026	1.06	0.92	37.70	0.45	18.44
1229	2.15	2.13	99.07	0.038	1.77	0.031	1.44	1.95c	90.70	0.31	14.42
1232	2.22	2.07d	93.24	0.026	1.17	0.026	1.17	0.82	36.94	0.39	17.57
1233	2.40	2.85	118.75	0.036	1.50	0.038	1.58	1.04	43.33	0.55	22.92
1236	2.23	2.44	109.42	0.028	1.26	0.024	1.08	0.88	39.46	0.36	16.14
1237	2.37	2.02	85.23	0.026	1.10	0.021	0.89	0.65	27.43	0.27	11.39
1240	2.32	2.67	115.09	0.039	1.68	0.039	1.68	0.70	30.17	0.24	10.34

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Rat 1186 had moderate dilation of the pelvis of the right kidney; value included in group averages and statistical analyses.
b. Rat 1224 had slight dilation of the pelvis of the right kidney; value included in group averages and statistical analyses.
c. Rat 1229 had tan areas on the spleen that extended into the parenchyma; value included in group averages and statistical analysis.
d. Rat 1232 had slight dilation of the pelvis of the right kidney; value included in group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D21 (PAGE 13): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP V — 30 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS LEFT ABS. WT.	EPIDIDYMIS LEFT REL. % BRW	CAUDA EPIDIDYMIS LEFT ABS. WT.	CAUDA EPIDIDYMIS LEFT REL. % BRW	TESTIS LEFT ABS. WT.	TESTIS LEFT REL. % BRW	L. TESTIS MINUS TUNICA ALBUGINEA ABS. WT.	L. TESTIS MINUS TUNICA ALBUGINEA REL. % BRW	SEMINAL VESICLES WITH FLUID ABS. WT.	SEMINAL VESICLES WITH FLUID REL. % BRW	SEMINAL VESICLES WITHOUT FLUID ABS. WT.	SEMINAL VESICLES WITHOUT FLUID REL. % BRW
1241	2.21	0.6112	27.66	0.2998	13.56	1.5908	71.98	1.3979	63.25	1.8364	83.10	1.0081	45.62
1244	2.14	0.6273	29.31	0.3142	14.68	1.7212	80.43	1.5926	74.42	2.8798	134.57	1.4614	68.29
1245	2.14	0.6766	31.62	0.3187	14.89	1.7176	80.26	1.6080	75.14	2.1597	100.92	1.0569	49.39
1247	2.19	0.6881	31.42	0.3340	15.25	1.8326	83.68	1.6988	77.57	1.7738	81.00	1.0022	45.76
1248	2.02	0.6792	33.62	0.3129	15.49	1.6396	81.17	1.5464	76.55	2.5952	128.48	1.2934	64.03
1249	2.08	0.7319	35.19	0.3795	18.24	1.7786	85.51	1.6728	80.42	2.0331	97.74	1.0653	51.22
1252	2.16	0.6596	30.54	0.3158	14.62	1.4497	67.12	1.3774	63.77	1.8891	87.46	0.9906	45.86
1254	2.00	0.6469	32.34	0.3557	17.78	1.7510	87.55	1.6523	82.62	1.9214	96.07	0.8235	41.18
1255	2.29	0.6245	27.27	0.3120	13.62	1.7416	76.05	1.6095	70.28	1.6770	73.23	0.6609	28.86
1257	2.11	0.7072	33.52	0.3545	16.80	1.8200	86.26	1.7299	81.98	2.2625	107.23	1.0298	48.80
1259	1.95	0.6969	35.74	0.3539	18.15	1.7863	91.60	1.6566	84.95	2.0366	104.44	1.0283	52.73
1261	2.17	0.5900	27.19	0.2959	13.64	1.6848	77.64	1.5730	72.49	1.8242	84.06	0.8953	41.26
1266	2.09	0.6313	30.20	0.3086	14.76	1.6450	78.71	1.5233	72.88	1.9019	91.00	0.7353	35.18
1269	2.14	0.6429	30.04	0.3347	15.64	1.7958	83.92	1.6760	78.32	1.8292	85.48	0.8866	41.43
1271	2.70	0.6784	25.12	0.2913	10.79	1.9897	73.69	1.7853	66.12	1.8426	68.24	0.9089	33.66
1273	2.16	0.5963	27.61	0.2747	12.72	1.5513	71.82	1.4009	64.86	1.9182	88.80	0.9421	43.62
1274	2.27	0.6832	30.10	0.3324	14.64	1.8321	80.71	1.6903	74.46	1.6601	73.13	0.8003	35.26
1278	2.04	0.6289	30.83	0.2912	14.27	1.6986	83.26	1.6003	78.45	1.7792	87.22	0.8806	43.17
1281	2.08	0.6557	31.52	0.3389	16.29	1.5348	73.79	1.3779	66.24	1.8714	89.97	0.9200	44.23
1282	2.20	0.6104	27.74	0.2935	13.34	2.0059	91.18	1.8552	84.33	1.4607	66.40	0.7963	36.20
1284	2.25	0.6110	27.16	0.3077	13.68	1.7608	78.26	1.6309	72.48	1.6002	71.12	0.8986	39.94
1287	2.09	0.5705	27.30	0.2924	13.99	1.5426	73.81	1.4114	67.53	1.5734	75.28	0.7565	36.20
1288	2.22	0.5772	26.00	0.2718	12.24	1.4489	65.26	1.3122	59.11	2.0014	90.15	0.9903	44.61
1289	2.34	0.6419	27.43	0.3011	12.87	1.8533	79.20	1.7185	73.44	1.8222	77.87	1.0444	44.63
1290	2.27	0.6438	28.36	0.2949	12.99	1.8455	81.30	1.6862	74.28	1.6617	73.20	0.8188	36.07
1291	2.35	0.7084	30.14	0.3777	16.07	1.8660	79.40	1.5842	67.41	1.8949	80.63	0.9639	41.02
1294	2.37	0.7602	32.08	0.3415	14.41	2.0868	88.05	1.8566	78.34	1.3983	59.00	0.7453	31.45
1298	2.06	0.5738	27.85	0.2755	13.37	1.4615	70.95	1.3341	64.76	1.8111	87.92	0.8992	43.65
1300	2.18	0.7065	32.41	0.3154	14.47	1.6906	77.55	1.5934	73.09	1.9824	90.94	1.2279	56.32

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D21 (PAGE 14): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP V — 30 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	EPIDIDYMIS RIGHT		TESTIS RIGHT		PROSTATE		PITUITARY		LIVER		KIDNEY LEFT	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
1241	2.21	0.6533	29.56	1.6469	74.52	0.7133	32.28	0.009	0.41	33.90	1533.94	2.30	104.07
1244	2.14	0.6699	31.30	1.6944	79.18	0.4297	20.08	0.012	0.56	37.00	1728.97	2.60	121.50
1245	2.14	0.6880	32.15	1.7335	81.00	0.6958	32.51	0.013	0.61	35.80	1672.90	2.60	121.50
1247	2.19	0.6936	31.67	1.7629	80.50	1.0837	49.48	0.011	0.50	30.46	1390.87	1.85	84.47
1248	2.02	0.7177	35.53	1.7090	84.60	0.8798	43.55	0.010	0.50	23.36	1156.44	1.90	94.06
1249	2.08	0.7145	34.35	1.7860	85.86	0.8470	40.72	0.011	0.53	22.66	1089.42	1.94	93.27
1252	2.16	0.5818	26.94	1.3457	62.30	0.7562	35.01	0.009	0.42	29.14	1349.07	1.78	82.41
1254	2.00	0.6693	33.46	1.8852	94.26	0.9728	48.64	0.009	0.45	24.07	1203.50	1.91	95.50
1255	2.29	0.6530	28.52	1.7597	76.84	1.0766	47.01	0.010	0.44	32.45	1417.03	2.13	93.01
1257	2.11	0.7350	34.83	1.8935	89.74	1.0167	48.18	0.013	0.62	29.80	1412.32	1.89	89.57
1259	1.95	0.7351	37.70	1.8626	95.52	1.1325	58.08	0.009	0.46	25.93	1329.74	1.90	97.44
1261	2.17	0.6319	29.12	1.7525	80.76	0.5891	27.15	0.011	0.51	24.08	1109.68	1.75	80.64
1266	2.09	0.6521	31.20	1.5782	75.51	1.1156	53.38	0.014	0.67	29.42	1407.66	1.90	90.91
1269	2.14	0.6597	30.83	1.7311	80.89	1.0011	46.78	0.005	0.23	32.70	1528.04	1.93	90.19
1271	2.70	0.6398	23.70	1.9298	71.47	1.0235	37.91	0.019	0.70	30.75	1138.89	2.21	81.85
1273	2.16	0.6096	28.22	1.5443	71.50	1.0554	48.86	0.021a	0.97a	27.46	1271.30	1.90	87.96
1274	2.27	0.6309	27.79	1.8951	83.48	1.0326	45.49	0.015	0.66	34.70	1528.63	2.29	100.88
1278	2.04	0.6590	32.30	1.7218	84.40	0.7614	37.32	0.024	1.18	26.59	1303.43	1.74	85.29
1281	2.08	0.6883	33.09	1.5678	75.38	0.7429	35.72	0.032	1.54	30.95	1487.98	2.10	100.96
1282	2.20	0.6620	30.09	2.0764	94.38	0.7483	34.01	0.010	0.45	29.72	1350.91	1.92	87.27
1284	2.25	0.6740	29.96	1.8308	81.37	1.0285	45.71	0.012	0.53	30.21	1342.67	2.16	96.00
1287	2.09	0.5821	27.85	1.5509	74.20	0.8656	41.42	0.010	0.48	26.56	1270.81	2.16	103.35
1288	2.22	0.5847	26.34	1.3930	62.75	0.8578	38.64	0.026	1.17	25.71	1158.11	1.96	88.29
1289	2.34	0.7166	30.62	2.0066	85.75	0.7964	34.03	0.010	0.43	33.07	1413.25	2.02	86.32
1290	2.27	0.6780	29.87	1.8514	81.56	0.7592	33.44	0.014	0.62	34.68	1527.75	1.99	87.66
1291	2.35	0.7411	31.54	1.8543	78.91	0.7997	34.03	0.008	0.34	26.73	1137.45	2.09	88.94
1294	2.37	0.7335	30.95	1.9582	82.62	0.9946	41.97	0.026	1.10	33.81	1426.58	2.07	87.34
1298	2.06	0.5936	28.82	1.4529	70.53	0.6132	29.77	0.011	0.53	27.51	1335.44	1.85	89.80
1300	2.18	0.7606	34.89	1.7792	81.61	0.9123	41.85	0.010	0.46	33.29	1527.06	2.06	94.50

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Damaged during processing (weight affected); values excluded from group averages and statistical analyses.

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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D21 (PAGE 15): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP V — 30 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	KIDNEY RIGHT ABS. WT.	KIDNEY RIGHT REL. % BRW	ADRENAL LEFT ABS. WT.	ADRENAL LEFT REL. % BRW	ADRENAL RIGHT ABS. WT.	ADRENAL RIGHT REL. % BRW	SPLEEN ABS. WT.	SPLEEN REL. % BRW	THYMUS ABS. WT.	THYMUS REL. % BRW
1241	2.21	2.28	103.17	0.024	1.08	0.031	1.40	0.65	29.41	0.28	12.67
1244	2.14	2.41	112.62	0.035	1.64	0.030	1.40	0.64	29.91	0.18	8.41
1245	2.14	2.40	112.15	0.033	1.54	0.024	1.12	0.85	39.72	0.73	34.11
1247	2.19	1.67	76.26	0.023	1.05	0.016	0.73	0.95	43.38	0.20	9.13
1248	2.02	1.94	96.04	0.031	1.53	0.029	1.44	0.60	29.70	0.53	26.24
1249	2.08	1.94	93.27	0.028	1.35	0.024	1.15	0.63	30.29	0.28	13.46
1252	2.16	1.78	82.41	0.027	1.25	0.024	1.11	0.73	33.80	0.34	15.74
1254	2.00	1.88	94.00	0.025	1.25	0.022	1.10	0.67	33.50	0.24	12.00
1255	2.29	2.23	97.38	0.023	1.00	0.019	0.83	0.67	29.26	0.31	13.54
1257	2.11	1.87	88.62	0.028	1.33	0.030	1.42	0.62	29.38	0.26	12.32
1259	1.95	1.79	91.79	0.023	1.18	0.016	0.82	0.69	35.38	0.22	11.28
1261	2.17	1.93	88.94	0.021	0.97	0.025	1.15	0.59	27.19	0.21	9.68
1266	2.09	2.00	95.69	0.030	1.44	0.028	1.34	0.78	37.32	0.30	14.35
1269	2.14	2.12	99.06	0.022	1.03	0.023	1.07	0.89	41.59	0.55	25.70
1271	2.70	2.50	92.59	0.038	1.41	0.037	1.37	0.69	25.56	0.51	18.89
1273	2.16	1.86	86.11	0.033	1.53	0.029	1.34	0.75	34.72	0.47	21.76
1274	2.27	2.35	103.52	0.020	0.88	0.022	0.97	0.84	37.00	0.68	29.96
1278	2.04	1.81	88.72	0.031	1.52	0.026	1.27	0.84	41.18	0.34	16.67
1281	2.08	2.04	98.08	0.030	1.44	0.030	1.44	0.91	43.75	0.52	25.00
1282	2.20	2.01	91.36	0.036	1.64	0.038	1.73	0.78	35.45	0.73	33.18
1284	2.25	1.99	88.44	0.034	1.51	0.032	1.42	0.65	28.89	0.46	20.44
1287	2.09	2.06	98.56	0.020	0.96	0.020	0.96	0.67	32.06	0.40	19.14
1288	2.22	2.12	95.50	0.028	1.26	0.022	0.99	0.84	37.84	0.31	13.96
1289	2.34	1.97	84.19	0.019	0.81	0.015	0.64	0.71	30.34	0.39	16.67
1290	2.27	2.08	91.63	0.026	1.14	0.030	1.32	0.81	35.68	0.43	18.94
1291	2.35	2.05	87.23	0.023	0.98	0.024	1.02	0.72	30.64	0.27	11.49
1294	2.37	2.26a	95.36	0.039	1.64	0.035	1.48	1.14	48.10	0.44	18.56
1298	2.06	1.86	90.29	0.022	1.07	0.019	0.92	0.52	25.24	0.30	14.56
1300	2.18	1.99	91.28	0.026	1.19	0.024	1.10	0.78	35.78	0.39	17.89

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Rat 1294 had slight dilation of the pelvis of the right kidney; value included in group averages and statistical analyses.

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TABLE D22 (PAGE 1): CAUDA EPIDIDYMAL SPERM MOTILITY, COUNT, DENSITY AND SPERMATID COUNT - INDIVIDUAL DATA - F1 GENERATION MALE RATS
(See footnotes at the end of this table.)

DOSAGE GROUP I 0 MG/KG/DAY

RAT NUMBER	NUMBER MOTILE	MOTILE PERCENT	STATIC COUNT (NONMOTILE)	TOTAL COUNT a	SPERM COUNT b	SPERM DENSITY c	SPERMATID COUNT d	SPERMATID DENSITY e
1002	205	80	50	255	79	572.6	26	42.3
1003	220	85	40	260	60	480.6	69	118.2
1005	216	87	31	247	53	497.8	44	79.8
1007	198	95	11	209	157	1355.7	35	68.9
1011	224	85	40	264	115	982.2	49	95.6
1012	229	68	110	339	71	608.9	47	81.8
1013	217	75	71	288	65	586.8	50	95.9
1014	383	84	71	454	189	1525.9	65	107.1
1017	191	92	17	208	98	966.9	39	67.4
1021	226	84	43	269	134	1113.2	44	75.5
1023	320	97	10	330	130	1126.2	43	78.8
1026	253	90	29	282	107	770.0	30	47.3
1028	160	74	56	216	104	889.3	45	80.4
1031	204	80	51	255	205	1825.8	34	59.0
1034	300	90	35	335	145	1277.6	41	79.4
1035	373	92	31	404	88	923.3	47	105.2
1040	197	87	29	226	200	2032.8	63	119.6
1041	183	86	31	214	162	1803.1	48	93.8
1043	424	91	42	466	386	3522.4	45	79.3
1045	370	86	60	430	160	1387.8	42	71.4
1047	314	89	40	354	143	1125.3	64	114.9
1048	256	74	89	345	238	2129.5	32	71.8
1050	336	78	96	432	195	1612.6	83	164.8
1051	244	86	39	283	129	980.5	33	52.6
1052	295	78	85	380	92	690.5	37	60.2
1054	218	90	25	243	156	1181.6	59	94.7
1055	179	56	141	320	85	758.2	43	76.6
1058	202	70	88	290	88	904.6	32	61.2
1059	175	81	40	215	71	699.3	36	64.9
1060	191	84	36	227	162	1498.1	34	68.6

PROTOCOL 418-020: ORAL (GAVAGE) TWO GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D22 (PAGE 2): CAUDA EPIDIDYMAL SPERM MOTILITY, COUNT, DENSITY AND SPERMATID COUNT - INDIVIDUAL DATA - F1 GENERATION MALE RATS
(See footnotes at the end of this table.)

DOSAGE GROUP II 1 MG/KG/DAY

RAT NUMBER	NUMBER MOTILE	MOTILE PERCENT	STATIC COUNT (NONMOTILE)	TOTAL COUNT a	SPERM COUNT b	SPERM DENSITY c	SPERMATID COUNT d	SPERMATID DENSITY e
1061	189	76	61	250	105	854.9	28	49.7
1063	165	77	48	213	109	955.5	57	94.1
1066	171	75	57	228	40	418.9	16	28.0
1067	267	78	77	344	80	801.9	31	62.0
1069	193	67	94	287	109	1041.6	22	38.5
1071	232	78	66	298	98	867.2	48	91.9
1073	342	80	83	425	52	555.7	58	90.5
1077	327	76	104	431	90	648.6	58	101.6
1078	203	87	30	233	185	1344.9	42	73.0
1081	337	94	20	357	188	1465.1	37	66.7
1082f	9	31	20	29	1	19.8	6	38.1
1083	213	88	28	241	138	1153.7	24	50.6
1086	348	90	40	388	75	879.4	34	64.8
1088	238	94	16	254	228	1871.6	38	71.3
1090	222	83	44	266	155	1455.7	36	68.3
1091	255	89	31	286	282	2708.3	46	98.4
1094	184	88	25	209	499	4438.7	54	107.2
1096	203	91	21	224	196	1724.4	61	112.7
1098	214	91	21	235	410	3067.8	68	111.9
1100	312	87	47	359	235	2055.0	55	103.5
1103	273	81	62	335	368	3159.7	60	111.8
1106	346	88	47	393	156	1635.6	40	81.4
1107	282	79	74	356	134	1261.8	26	52.1
1110	381	83	80	461	93	867.5	23	43.8
1112	318	75	108	426	98	823.6	61	104.4
1114	265	90	28	293	104	949.3	27	42.9
1116	624	89	79	703	74	733.3	21.	42.9
1118	189	86	30	219	111	1085.5	30	54.7
1120	167	84	33	200	123	1039.1	30	46.4

PROTOCOL 418-020: ORAL (GAVAGE) TWO GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D22 (PAGE 3): CAUDA EPIDIDYMAL SPERM MOTILITY, COUNT, DENSITY AND SPERMATID COUNT - INDIVIDUAL DATA - F1 GENERATION MALE RATS
(See footnotes at the end of this table.)

DOSAGE GROUP III 3 MG/KG/DAY

RAT NUMBER	NUMBER MOTILE	MOTILE PERCENT	STATIC COUNT (NONMOTILE)	TOTAL COUNT a	SPERM COUNT b	SPERM DENSITY c	SPERMATID COUNT d	SPERMATID DENSITY e
1122	205	93	15	220	30	250.1	34	64.6
1123	198	78	55	253	76	740.7	21	35.9
1127	171	80	42	213	125	1095.1	24	45.9
1129	186	60	124	310	68	561.7	50	79.8
1131	252	88	33	285	161	1300.5	45	77.9
1132	244	86	41	285	123	1053.3	39	68.9
1134	298	79	78	376	148	1274.9	16	26.2
1135	292	87	44	336	256	2301.2	36	65.0
1136	280	89	36	316	139	1180.5	36	61.9
1139	182	78	51	233	192	1696.4	68	125.8
1141	391	88	53	444	74	603.7	29	57.4
1142	298	85	54	352	89	871.8	43	81.2
1145	271	92	23	294	95	844.3	31	51.3
1147	183	85	32	215	194	1564.1	29	52.2
1149	204	89	25	229	144	1008.1	72	107.7
1151	271	94	17	288	407	3703.5	62	112.6
1153	236	92	21	257	214	1848.4	67	70.0
1154	232	88	31	263	209	2067.6	45	91.2
1158	395	90	46	441	104	994.8	55	103.1
1159	231	75	76	307	125	977.8	61	104.2
1162	294	81	67	361	104	970.1	40	74.3
1164	406	86	64	470	333	2666.1	44	71.6
1167	337	84	62	399	121	1076.3	33	63.3
1168	311	89	38	349	113	1126.0	33	59.0
1171	434	81	104	538	160	1594.3	21	43.2
1173	282	81	67	349	129	1140.1	35	71.0
1175	243	79	66	309	66	695.5	20	35.3
1176	254	77	76	330	120	1212.5	27	43.0
1177	178	84	34	212	125	1034.9	41	56.4
1180	390	78	108	498	95	820.3	21	32.8

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TABLE D22 (PAGE 4): CAUDA EPIDIDYMAL SPERM MOTILITY, COUNT, DENSITY AND SPERMATID COUNT - INDIVIDUAL DATA - F1 GENERATION MALE RATS
(See footnotes at the end of this table.)

DOSAGE GROUP IV 10 MG/KG/DAY

RAT NUMBER	NUMBER MOTILE	MOTILE PERCENT	STATIC COUNT (NONMOTILE)	TOTAL COUNT a	SPERM COUNT b	SPERM DENSITY c	SPERMATID COUNT d	SPERMATID DENSITY e
1182	288	80	73	361	99	1063.8	34	63.1
1184	175	81	42	217	46	379.3	42	68.4
1186	188	85	34	222	189	1579.2	31	61.6
1188	206	87	31	237	72	634.0	42	76.0
1189	338	84	65	403	143	992.7	29	54.1
1192	239	72	92	331	110	1024.5	24	45.5
1194	286	89	34	320	88	747.8	48	84.1
1195	194	91	20	214	157	1434.9	23	42.2
1198	192	91	20	212	105	829.4	27	43.5
1203	181	83	37	218	148	1466.2	27	53.7
1204	200	68	93	293	224	1696.2	30	52.3
1207	190	73	72	262	146	1198.8	53	93.3
1209	221	85	39	260	99	836.6	61	110.5
1211	233	78	67	300	123	1080.2	50	88.7
1212	194	90	22	216	213	1713.4	31	49.3
1215	189	87	28	217	238	2196.1	75	125.8
1216	252	95	14	266	233	1893.8	37	71.8
1217	294	83	60	354	205	1847.9	42	71.9
1219	338	80	87	425	108	1142.3	34	66.4
1221	229	83	48	277	290	2974.8	83	155.0
1222	263	71	108	371	103	889.7	63	100.4
1224	407	86	65	472	94	757.0	57	103.6
1225	319	75	104	423	184	1578.9	31	58.7
1226	299	77	90	389	94	907.3	25	46.2
1229	264	79	71	335	113	976.3	47	80.8
1232	341	92	30	371	165	1462.3	39	62.2
1233	292	90	33	325	40	475.8	17	32.4
1236	162	73	61	223	70	683.6	29	53.8
1237	340	89	44	384	116	1214.5	44	81.1
1240	454	81	105	559	74	526.9	30	45.5

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TABLE D22 (PAGE 5): CAUDA EPIDIDYMAL SPERM MOTILITY, COUNT, DENSITY AND SPERMATID COUNT - INDIVIDUAL DATA - F1 GENERATION MALE RATS
(See footnotes at the end of this table.)

DOSAGE GROUP V			30 MG/KG/DAY					
RAT NUMBER	NUMBER MOTILE	MOTILE PERCENT	STATIC COUNT (NONMOTILE)	TOTAL COUNT a	SPERM COUNT b	SPERM DENSITY c	SPERMATID COUNT d	SPERMATID DENSITY e
1241	159	75	53	212	68	656.1	20	41.4
1244	330	77	97	427	60	552.4	37	67.2
1245	172	80	43	215	68	617.2	60	107.9
1247	287	84	55	342	104	900.7	39	66.4
1248	251	86	40	291	78	721.1	10	18.7
1249	470	82	103	573	45	343.0	36	62.3
1252	289	60	196	485	52	476.3	56	117.6
1254	219	92	18	237	163	1325.6	38	66.5
1255	294	87	44	338	128	1186.8	57	102.4
1257	91	45	113	204	168	1370.9	51	85.3
1259	254	91	24	278	253	2068.0	29	50.6
1261	231	91	23	254	136	1329.5	37	68.0
1266	420	83	88	508	125	1171.7	26	49.4
1269	192	64	110	302	108	933.4	83	143.3
1271	209	95	12	221	82	814.3	80	129.6
1273	279	83	58	337	110	1158.3	32	66.1
1274	296	93	24	320	130	1131.3	50	85.6
1278	451	84	86	537	73	725.2	44	79.5
1281	310	85	54	364	279	2381.4	44	92.4
1282	256	66	130	386	67	660.3	53	82.6
1284	251	81	60	311	174	1635.8	43	76.3
1287	159	75	54	213	100	989.3	53	108.6
1288	167	83	34	201	61	649.2	23	50.7
1289	326	84	62	388	111	1066.4	34	57.2
1290	240	86	40	280	201	1971.6	44	75.5
1291	250	77	73	323	73	559.1	40	73.0
1294	240	71	98	338	147	1245.2	50	77.9
1298	184	88	25	209	96	1008.0	21	45.5
1300	182	76	57	239	96	880.5	49	89.0

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PROTOCOL 418-020: ORAL (GAVAGE) TWO GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D22 (PAGE 6): CAUDA EPIDIDYMAL SPERM MOTILITY, COUNT, DENSITY AND SPERMATID COUNT - INDIVIDUAL DATA - F1 GENERATION MALE RATS

FOOTNOTES:

a. Sum of number motile and static count. Groups of five fields were evaluated until a sperm count of at least 200 was achieved or 20 fields were evaluated.

b. Sperm count used in the calculation of sperm density. Ten fields were evaluated.

c. The sperm density was calculated by dividing the sperm count by the volume in the image area (34.3×10^{-6} mL), multiplying by 2 (dilution factor) and multiplying by 10^{-6} to obtain the sperm concentration. The calculated sperm concentration value (rounded to 1 decimal place) was multiplied by 50 (volume) and divided by the weight of the left cauda epididymis (see Table D20 for the weight of the left cauda epididymis) to obtain the sperm density. The calculated value will vary by approximately 0.8% from the Computer Automated Sperm Analysis because the digital image evaluated is slightly smaller (4 pixels) than the actual field causing a slight underestimate of the actual volume and an overestimate of the concentration.

d. Spermatid count used in the calculation of spermatid density. Ten fields were evaluated.

e. The spermatid density was calculated by dividing the spermatid count by the volume in the image area (34.3×10^{-6} mL), multiplying by 2 (dilution factor) and multiplying by 10^{-6} to obtain the spermatid concentration. The calculated spermatid concentration value (rounded to 1 decimal place) was multiplied by 50 (volume) and divided by the weight of the left testis minus tunica albuginea (see Table D20 for the weight of the left testis minus tunica albuginea) to obtain the spermatid density. The calculated value will vary by approximately 0.8% from the Computer Automated Sperm Analysis because the digital image evaluated is slightly smaller (4 pixels) than the actual field causing a slight underestimate of the actual volume and an overestimate of the concentration.

f. Rat 1082 had less than 200 sperm per 20 fields; values excluded from group averages and statistical analyses.

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TABLE D23 (PAGE 1): CAUDA EPIDIDYMAL SPERM MORPHOLOGY - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP I 0 MG/KG/DAY

RAT NUMBER	NORMAL	DETACHED HEAD	NO HEAD	BROKEN FLAGELLUM	NO HOOK	COILED FLAGELLUM	BENT FLAGELLUM	BENT FLAGELLUM TIP	PERCENT ABNORMAL
1002	198	1	1	0	0	0	0	0	1.0
1003	196	3	1	0	0	0	0	0	2.0
1005	193	6	1	0	0	0	0	0	3.5
1007	195	2	3	0	0	0	0	0	2.5
1011	197	2	1	0	0	0	0	0	1.5
1012	196	2	2	0	0	0	0	0	2.0
1013	192	6	2	0	0	0	0	0	4.0
1014	195	4	1	0	0	0	0	0	2.5
1017	196	1	1	2	0	0	0	0	2.0
1021	194	3	1	2	0	0	0	0	3.0
1023	191	5	2	2	0	0	0	0	4.5
1026	197	1	1	1	0	0	0	0	1.5
1028	197	2	0	1	0	0	0	0	1.5
1031	196	2	1	1	0	0	0	0	2.0
1034	196	3	0	1	0	0	0	0	2.0
1035	195	3	1	1	0	0	0	0	2.5
1040	198	1	0	1	0	0	0	0	1.0
1041	193	5	2	0	0	0	0	0	3.5
1043	194	4	2	0	0	0	0	0	3.0
1045	196	2	0	2	0	0	0	0	2.0
1047	193	4	2	1	0	0	0	0	3.5
1048	193	4	3	0	0	0	0	0	3.5
1050	197	2	1	0	0	0	0	0	1.5
1051	198	2	0	0	0	0	0	0	1.0
1052	196	1	2	1	0	0	0	0	2.0
1054	193	5	2	0	0	0	0	0	3.5
1055	198	1	0	0	0	1	0	0	1.0
1058	195	2	3	0	0	0	0	0	2.5
1059	196	1	3	0	0	0	0	0	2.0
1060	195	2	3	0	0	0	0	0	2.5

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D23 (PAGE 2): CAUDA EPIDIDYMAL SPERM MORPHOLOGY - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP II — 1 MG/KG/DAY

RAT NUMBER	NORMAL	DETACHED HEAD	NO HEAD	BROKEN FLAGELLUM	NO HOOK	COILED FLAGELLUM	BENT FLAGELLUM	BENT FLAGELLUM TIP	PERCENT ABNORMAL
1061	194	2	4	0	0	0	0	0	3.0
1063	197	2	1	0	0	0	0	0	1.5
1066	195	3	2	0	0	0	0	0	2.5
1067	196	3	1	0	0	0	0	0	2.0
1069	198	2	0	0	0	0	0	0	1.0
1071	195	4	1	0	0	0	0	0	2.5
1073	193	6	1	0	0	0	0	0	3.5
1077	196	3	1	0	0	0	0	0	2.0
1078	191	5	3	0	1	0	0	0	4.5
1081	193	5	2	0	0	0	0	0	3.5
1082a	0	0	0	1	0	0	0	0	100.0
1083	196	3	0	0	1	0	0	0	2.0
1086	190	6	4	0	0	0	0	0	5.0
1088	196	3	1	0	0	0	0	0	2.0
1090	197	2	1	0	0	0	0	0	1.5
1091	194	3	3	0	0	0	0	0	3.0
1094	196	4	0	0	0	0	0	0	2.0
1096	196	3	1	0	0	0	0	0	2.0
1098	196	3	1	0	0	0	0	0	2.0
1100	195	5	0	0	0	0	0	0	2.5
1103	191	6	3	0	0	0	0	0	4.5
1106	197	1	2	0	0	0	0	0	1.5
1107	198	2	0	0	0	0	0	0	1.0
1110	190	7	3	0	0	0	0	0	5.0
1112	199	1	0	0	0	0	0	0	0.5
1114	199	1	0	0	0	0	0	0	0.5
1116	193	4	2	1	0	0	0	0	3.5
1118	197	2	1	0	0	0	0	0	1.5
1120	198	0	2	0	0	0	0	0	1.0

a. Rat 1082 had less than 200 sperm per 20 fields; values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D23 (PAGE 3): CAUDA EPIDIDYMAL SPERM MORPHOLOGY - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP III 3 MG/KG/DAY

RAT NUMBER	NORMAL	DETACHED HEAD	NO HEAD	BROKEN FLAGELLUM	NO HOOK	COILED FLAGELLUM	BENT FLAGELLUM	BENT FLAGELLUM TIP	PERCENT ABNORMAL
1122	193	5	2	0	0	0	0	0	3.5
1123	191	5	4	0	0	0	0	0	4.5
1127	193	5	2	0	0	0	0	0	3.5
1129	197	2	1	0	0	0	0	0	1.5
1131	196	2	1	1	0	0	0	0	2.0
1132	196	2	2	0	0	0	0	0	2.0
1134	195	3	2	0	0	0	0	0	2.5
1135	197	1	1	1	0	0	0	0	1.5
1136	195	3	1	1	0	0	0	0	2.5
1139	195	3	2	0	0	0	0	0	2.5
1141	194	2	4	0	0	0	0	0	3.0
1142	196	2	1	0	1	0	0	0	2.0
1145	194	2	4	0	0	0	0	0	3.0
1147	197	0	3	0	0	0	0	0	1.5
1149	195	4	1	0	0	0	0	0	2.5
1151	199	0	1	0	0	0	0	0	0.5
1153	190	8	1	1	0	0	0	0	5.0
1154	198	1	1	0	0	0	0	0	1.0
1158	193	3	3	1	0	0	0	0	3.5
1159	195	3	2	0	0	0	0	0	2.5
1162	196	2	1	1	0	0	0	0	2.0
1164	195	4	1	0	0	0	0	0	2.5
1167	196	3	3	0	0	0	0	0	3.0
1168	196	2	0	2	0	0	0	0	2.0
1171	195	4	1	0	0	0	0	0	2.5
1173	195	4	0	0	0	1	0	0	2.5
1175	193	6	0	1	0	0	0	0	3.5
1176	194	3	3	0	0	0	0	0	3.0
1177	192	4	2	1	0	1	0	0	4.0
1180	196	2	1	0	0	1	0	0	2.0

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D23 (PAGE 4): CAUDA EPIDIDYMAL SPERM MORPHOLOGY - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP IV 10 MG/KG/DAY

RAT NUMBER	NORMAL	DETACHED HEAD	NO HEAD	BROKEN FLAGELLUM	NO HOOK	COILED FLAGELLUM	BENT FLAGELLUM	BENT FLAGELLUM TIP	PERCENT ABNORMAL
1182	196	1	1	2	0	0	0	0	2.0
1184	196	2	1	1	0	0	0	0	2.0
1186	195	4	0	1	0	0	0	0	2.5
1188	195	2	1	2	0	0	0	0	2.5
1189	196	2	2	0	0	0	0	0	2.0
1192	197	3	0	0	0	0	0	0	1.5
1194	198	2	0	0	0	0	0	0	1.0
1195	195	3	2	0	0	0	0	0	2.5
1198	197	1	1	0	1	0	0	0	1.5
1203	193	4	3	0	0	0	0	0	3.5
1204	193	6	1	0	0	0	0	0	3.5
1207	196	4	0	0	0	0	0	0	2.0
1209	192	8	0	0	0	0	0	0	4.0
1211	194	3	3	0	0	0	0	0	3.0
1212	192	7	1	0	0	0	0	0	4.0
1215	194	4	2	0	0	0	0	0	3.0
1216	193	5	1	1	0	0	0	0	3.5
1217	196	3	1	0	0	0	0	0	2.0
1219	195	4	1	0	0	0	0	0	2.5
1221	199	1	0	0	0	0	0	0	0.5
1222	195	3	0	1	0	0	1	0	2.5
1224	193	4	3	0	0	0	0	0	3.5
1225	197	2	1	0	0	0	0	0	1.5
1226	197	2	1	0	0	0	0	0	1.5
1229	198	1	0	0	0	1	0	0	1.0
1232	198	1	1	0	0	0	0	0	1.0
1233	198	0	1	1	0	0	0	0	1.0
1236	191	4	5	0	0	0	0	0	4.5
1237	197	2	1	0	0	0	0	0	1.5
1240	193	3	3	1	0	0	0	0	3.5

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE D23 (PAGE 5): CAUDA EPIDIDYMAL SPERM MORPHOLOGY - INDIVIDUAL DATA - F1 GENERATION MALE RATS

DOSAGE GROUP V — 30 MG/KG/DAY

RAT NUMBER	NORMAL	DETACHED HEAD	NO HEAD	BROKEN FLAGELLUM	NO HOOK	COILED FLAGELLUM	BENT FLAGELLUM	BENT FLAGELLUM TIP	PERCENT ABNORMAL
1241	191	6	2	1	0	0	0	0	4.5
1244	197	2	1	0	0	0	0	0	1.5
1245	196	3	1	0	0	0	0	0	2.0
1247	193	3	3	0	0	1	0	0	3.5
1248	196	2	1	1	0	0	0	0	2.0
1249	197	2	1	0	0	0	0	0	1.5
1252	189	6	5	0	0	0	0	0	5.5
1254	195	4	1	0	0	0	0	0	2.5
1255	195	2	2	1	0	0	0	0	2.5
1257	196	2	1	0	0	0	1	0	2.0
1259	197	2	1	0	0	0	0	0	1.5
1261	193	3	3	1	0	0	0	0	3.5
1266	196	1	2	1	0	0	0	0	2.0
1269	196	3	0	1	0	0	0	0	2.0
1271	198	2	0	0	0	0	0	0	1.0
1273	195	4	0	1	0	0	0	0	2.5
1274	194	4	2	0	0	0	0	0	3.0
1278	193	3	4	0	0	0	0	0	3.5
1281	192	5	1	2	0	0	0	0	4.0
1282	191	4	5	0	0	0	0	0	4.5
1284	196	2	0	2	0	0	0	0	2.0
1287	196	2	1	1	0	0	0	0	2.0
1288	194	1	4	1	0	0	0	0	3.0
1289	188	6	4	2	0	0	0	0	6.0
1290	192	3	3	2	0	0	0	0	4.0
1291	192	3	5	0	0	0	0	0	4.0
1294	197	3	0	0	0	0	0	0	1.5
1298	194	3	1	2	0	0	0	0	3.0
1300	191	5	3	0	0	0	0	1	4.5

APPENDIX E

REPORT TABLES - F1 GENERATION FEMALE RATS

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E1 (PAGE 1): CLINICAL OBSERVATIONS - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP	I	II	III	IV	V
DOSAGE (MG/KG/DAY)	0	1	3	10	30
PRECOHABITATION (DAY 1 OF STUDY TO THE DAY OF COHABITATION):					
MAXIMUM POSSIBLE INCIDENCE	3283/ 60	3306/ 60	3310/ 60	3281/ 60	3171/ 60a
FOUND DEAD	0	2b,c	1d	1e	6**f-k
ABDOMINAL DISTENTION	47/ 6	56/ 7	29/ 4	39/ 5	72/ 10
URINE-STAINED ABDOMINAL FUR	8/ 2	48/ 5c	22/ 4d	14/ 4e	21/ 5f,g,j
COLD TO TOUCH	0/ 0	1/ 1b	0/ 0	1/ 1e	8/ 3f,g,j
ANNULAR CONSTRICTION OF THE TAIL	0/ 0	16/ 2	0/ 0	0/ 0	3/ 3
CHROMORHINORRHEA	4/ 2	14/ 4b,c	17/ 7d	1/ 1	7/ 2f
RALES	0/ 0	0/ 0	0/ 0	0/ 0	2/ 2
TIP OF TAIL MISSING	0/ 0	61/ 2b	0/ 0	70/ 1	18/ 1
BACK OR HEAD: SCAB	1/ 1	0/ 0	0/ 0	9/ 1	6/ 1
LOCALIZED ALOPECIA: TOTAL	19/ 2	22/ 1	42/ 2	18/ 2	5/ 1
LIMBS	4/ 1	22/ 1	42/ 2	15/ 1	5/ 1
NECK	0/ 0	0/ 0	0/ 0	3/ 1	0/ 0
HEAD	15/ 1	0/ 0	0/ 0	0/ 0	0/ 0

STATISTICAL ANALYSES OF CLINICAL OBSERVATION DATA WERE RESTRICTED TO THE NUMBER OF RATS WITH OBSERVATIONS.
MAXIMUM POSSIBLE INCIDENCE = (DAYS x RATS)/NUMBER OF RATS EXAMINED PER GROUP.
N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RATS WITH OBSERVATION.

a. Rats 1562 and 1563 did not have clinical observations recorded on day 1 postweaning.
b. Rat 1365 was found dead on day 4 postweaning.
c. Rat 1373 was found dead on day 51 postweaning.
d. Rat 1432 was found dead on day 7 postweaning.
e. Rat 1484 was found dead on day 3 postweaning.
f. Rat 1549 was found dead on day 8 postweaning.
g. Rat 1559 was found dead on day 6 postweaning.
h. Rat 1562 was found dead on day 2 postweaning.
i. Rat 1563 was found dead on day 2 postweaning.
j. Rat 1574 was found dead on day 3 postweaning.
k. Rat 1575 was found dead on day 3 postweaning.

** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E1 (PAGE 2): CLINICAL OBSERVATIONS - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP	I	II	III	IV	V
DOSAGE (MG/KG/DAY)	0	1	3	10	30
PRECOHABITATION (DAY 1 OF STUDY TO THE DAY OF COHABITATION):					
MAXIMUM POSSIBLE INCIDENCE	3283/ 60	3306/ 60	3310/ 60	3281/ 60	3171/ 60a
FOUND DEAD	0	2b,c	1d	1e	6**f-k
DECREASED MOTOR ACTIVITY	0/ 0	7/ 2b,c	0/ 0	1/ 1e	2/ 1f
EMACIATION	4/ 1	16/ 1c	2/ 2d	1/ 1	1/ 1g
TAIL BENT	0/ 0	0/ 0	0/ 0	0/ 0	1/ 1
INCISORS: TOTAL	30/ 3	2/ 1	57/ 3	10/ 1	0/ 0
MISALIGNED	17/ 1	0/ 0	15/ 2	10/ 1	0/ 0
MISSING/BROKEN	13/ 2	2/ 1	43/ 3	0/ 0	0/ 0
LACRIMATION	1/ 1	4/ 1	0/ 0	1/ 1	0/ 0
RIGHT OR LEFT EYE: SWOLLEN	0/ 0	4/ 1	0/ 0	1/ 1	0/ 0
LABORED BREATHING	0/ 0	0/ 0	0/ 0	1/ 1e	0/ 0
SOFT OR LIQUID FECES	0/ 0	1/ 1	3/ 2	0/ 0	0/ 0
CHROMODACRYORRHEA	5/ 2	1/ 1c	19/ 1	0/ 0	0/ 0
SWOLLEN EAR(S)	24/ 1	16/ 1	3/ 1	0/ 0	0/ 0

STATISTICAL ANALYSES OF CLINICAL OBSERVATION DATA WERE RESTRICTED TO THE NUMBER OF RATS WITH OBSERVATIONS.
MAXIMUM POSSIBLE INCIDENCE = (DAYS x RATS)/NUMBER OF RATS EXAMINED PER GROUP.
N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RATS WITH OBSERVATION.

a. Rats 1562 and 1563 did not have clinical observations recorded on day 1 postweaning.
b. Rat 1365 was found dead on day 4 postweaning.
c. Rat 1373 was found dead on day 51 postweaning.
d. Rat 1432 was found dead on day 7 postweaning.
e. Rat 1484 was found dead on day 3 postweaning.
f. Rat 1549 was found dead on day 8 postweaning.
g. Rat 1559 was found dead on day 6 postweaning.
h. Rat 1562 was found dead on day 2 postweaning.
i. Rat 1563 was found dead on day 2 postweaning.
j. Rat 1574 was found dead on day 3 postweaning.
k. Rat 1575 was found dead on day 3 postweaning.

** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E1 (PAGE 3): CLINICAL OBSERVATIONS - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP	I	II	III	IV	V
DOSAGE (MG/KG/DAY)	0	1	3	10	30
PRECOHABITATION (DAY 1 OF STUDY TO THE DAY OF COHABITATION):					
MAXIMUM POSSIBLE INCIDENCE	3283/ 60	3306/ 60	3310/ 60	3281/ 60	3171/ 60a
FOUND DEAD	0	2b,c	1d	1e	6**f-k
DEHYDRATION	5/ 1	23/ 2c	0/ 0	0/ 0	0/ 0
HEAD: SWOLLEN	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0
SNOUT: SWOLLEN	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0
PTOSIS	20/ 2	0/ 0	0/ 0	0/ 0	0/ 0

STATISTICAL ANALYSES OF CLINICAL OBSERVATION DATA WERE RESTRICTED TO THE NUMBER OF RATS WITH OBSERVATIONS.
MAXIMUM POSSIBLE INCIDENCE = (DAYS x RATS)/NUMBER OF RATS EXAMINED PER GROUP.
N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RATS WITH OBSERVATION.

a. Rats 1562 and 1563 did not have clinical observations recorded on day 1 postweaning.
b. Rat 1365 was found dead on day 4 postweaning.
c. Rat 1373 was found dead on day 51 postweaning.
d. Rat 1432 was found dead on day 7 postweaning.
e. Rat 1484 was found dead on day 3 postweaning.
f. Rat 1549 was found dead on day 8 postweaning.
g. Rat 1559 was found dead on day 6 postweaning.
h. Rat 1562 was found dead on day 2 postweaning.
i. Rat 1563 was found dead on day 2 postweaning.
j. Rat 1574 was found dead on day 3 postweaning.
k. Rat 1575 was found dead on day 3 postweaning.

** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E1 (PAGE 4): CLINICAL OBSERVATIONS - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP	I	II	III	IV	V
DOSAGE (MG/KG/DAY)	0	1	3	10	30
PRESUMED GESTATION: a					
MAXIMUM POSSIBLE INCIDENCE	644/ 29	644/ 29	669/ 30	670/ 30	663/ 30
MORTALITY	0	0	0	0	0
LOCALIZED ALOPECIA: LIMBS	2/ 1	22/ 1	7/ 1	0/ 0	16/ 4
RIGHT AXILLA: MASS	0/ 0	0/ 0	0/ 0	0/ 0	8/ 1
TIP OF TAIL MISSING	0/ 0	22/ 1	0/ 0	17/ 1	0/ 0
CHROMODACRYORRHEA	0/ 0	0/ 0	22/ 1	0/ 0	0/ 0
SWOLLEN EAR(S)	65/ 4	23/ 2*	0/ 0**	0/ 0**	0/ 0**
PTOSIS	22/ 1	0/ 0	0/ 0	0/ 0	0/ 0
INCISORS: TOTAL	29/ 2	0/ 0	28/ 2	3/ 1	0/ 0
MISALIGNED	29/ 2	0/ 0	0/ 0	3/ 1	0/ 0
MISSING/BROKEN	0/ 0	0/ 0	28/ 2	0/ 0	0/ 0

STATISTICAL ANALYSES OF CLINICAL OBSERVATION DATA WERE RESTRICTED TO THE NUMBER OF RATS WITH OBSERVATIONS.
MAXIMUM POSSIBLE INCIDENCE = (DAYS x RATS)/NUMBER OF RATS EXAMINED PER GROUP.
N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RATS WITH OBSERVATION.
a. Restricted to rats with a confirmed mating date.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E1 (PAGE 5): CLINICAL OBSERVATIONS - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	I 0	II 1	III 3	IV 10	V 30
LACTATION:					
MAXIMUM POSSIBLE INCIDENCE	616/ 28	616/ 28	616/ 28	616/ 28	638/ 29
MORTALITY	0	0	0	0	0
LOCALIZED ALOPECIA: LIMBS	22/ 1	22/ 1	81/ 4	33/ 2	72/ 4
RIGHT AXILLA: MASS	0/ 0	0/ 0	0/ 0	0/ 0	19/ 1
SWOLLEN EAR(S)	88/ 4	22/ 1	0/ 0	0/ 0	18/ 1
RED PERIVAGINAL SUBSTANCE	0/ 0	0/ 0	4/ 4**	0/ 0	1/ 1
SOFT OR LIQUID FECES	0/ 0	0/ 0	5/ 3	6/ 2	0/ 0
URINE-STAINED ABDOMINAL FUR	0/ 0	0/ 0	0/ 0	3/ 2	0/ 0
INCISORS: TOTAL	42/ 2	0/ 0	44/ 2	0/ 0	0/ 0
MISSING/BROKEN	19/ 1	0/ 0	44/ 2	0/ 0	0/ 0
MISALIGNED	29/ 2	0/ 0	0/ 0	0/ 0	0/ 0
CHROMODACRYORRHEA	0/ 0	0/ 0	22/ 1	0/ 0	0/ 0
TIP OF TAIL MISSING	0/ 0	22/ 1	0/ 0	22/ 1	0/ 0
PTOSIS	22/ 1	0/ 0	0/ 0	0/ 0	0/ 0

STATISTICAL ANALYSES OF CLINICAL OBSERVATION DATA WERE RESTRICTED TO THE NUMBER OF RATS WITH OBSERVATIONS.
MAXIMUM POSSIBLE INCIDENCE = (DAYS x RATS)/NUMBER OF RATS EXAMINED PER GROUP.
N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RATS WITH OBSERVATION.
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E2 (PAGE 1): BODY WEIGHTS - PRECOHABITATION - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	60	60	60	60	60
INCLUDED IN ANALYSES	N	60	60	60	60	58a
BODY WEIGHT (G)						
DAY 1	MEAN±S.D.	41.4 ± 6.8	39.2 ± 6.3	42.9 ± 8.7	43.3 ± 7.3	39.2 ± 7.9
DAY 8	MEAN±S.D.	71.7 ± 9.9	66.8 ± 8.5* [59]a	73.5 ± 12.6 [59]a	72.1 ± 11.5 [59]a	66.9 ± 9.9* [54]a
DAY 15	MEAN±S.D.	111.3 ± 13.0	104.2 ± 10.6** [59]a	112.7 ± 13.7 [59]a	108.6 ± 13.8 [59]a	102.8 ± 13.2** [54]a
DAY 22	MEAN±S.D.	148.9 ± 14.2 [59]a	142.9 ± 11.1* [59]a	151.1 ± 12.3 [59]a	146.8 ± 15.1 [59]a	139.4 ± 13.4** [54]a
DAY 29	MEAN±S.D.	177.0 ± 16.2 [47]a	170.2 ± 12.0* [53]a	180.6 ± 14.2 [51]a	175.0 ± 14.8 [48]a	167.9 ± 16.0** [45]a

DAY = DAY POSTWEANING
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rats that were sacrificed following sexual maturation or found dead.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E2 (PAGE 2): BODY WEIGHTS - PRECOHABITATION - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	60	60	60	60	60
INCLUDED IN ANALYSES	N	30a	30a	30a	30a	30a
BODY WEIGHT (G)						
DAY 36	MEAN±S.D.	199.9 ± 15.7	193.5 ± 19.7	203.8 ± 15.3	198.5 ± 18.1	190.1 ± 19.1
DAY 43	MEAN±S.D.	219.8 ± 18.4	212.5 ± 24.6	225.6 ± 13.2	219.3 ± 18.4	209.7 ± 18.4
DAY 50	MEAN±S.D.	237.1 ± 19.2	228.3 ± 29.6	243.5 ± 14.7	236.0 ± 18.0	224.4 ± 19.2*
DAY 57	MEAN±S.D.	248.6 ± 17.1	244.2 ± 20.7	254.6 ± 14.7	247.0 ± 19.0	236.1 ± 20.8*
DAY 64	MEAN±S.D.	259.6 ± 19.9	255.6 ± 20.7 [29]a	266.9 ± 16.7	259.4 ± 21.9	248.7 ± 22.1
DAY 70b	MEAN±S.D.	264.9 ± 19.7	263.4 ± 20.7 [29]a	274.2 ± 16.4	266.2 ± 21.0	254.5 ± 21.8
PRECOHABITATION c	MEAN±S.D.	276.7 ± 22.9	278.1 ± 23.6 [29]a	287.4 ± 18.1	277.0 ± 22.1	263.7 ± 23.0*

DAY = DAY POSTWEANING
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rats that were sacrificed following sexual maturation or found dead.
b. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.
c. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.
* Significantly different from the Group I value ($p \leq 0.05$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E3 (PAGE 1): BODY WEIGHT CHANGES - PRECOHABITATION - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	60	60	60	60	60
INCLUDED IN ANALYSES	N	60	59a	59a	59a	54a
BODY WEIGHT CHANGE (G)						
DAYS 1 - 8	MEAN±S.D.	+30.3 ± 4.6	+27.4 ± 3.9**	+30.4 ± 5.6	+28.5 ± 6.5	+26.6 ± 4.2**
DAYS 8 - 15	MEAN±S.D.	+39.6 ± 4.3	+37.4 ± 3.8*	+39.2 ± 4.5	+36.5 ± 5.3**	+35.9 ± 4.8**
DAYS 15 - 22	MEAN±S.D.	+37.6 ± 5.2 [59]a	+38.7 ± 4.4	+38.4 ± 6.0	+38.2 ± 5.5	+36.5 ± 4.9
DAYS 22 - 29	MEAN±S.D.	+28.2 ± 5.4 [47]a	+28.0 ± 5.9 [53]a	+28.7 ± 6.7 [51]a	+28.2 ± 5.3 [48]a	+28.6 ± 5.3 [45]a

DAYS = DAYS POSTWEANING
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rats that were sacrificed following sexual maturation or found dead.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E3 (PAGE 2): BODY WEIGHT CHANGES - PRECOHABITATION - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	60	60	60	60	60
INCLUDED IN ANALYSES	N	30a	30a	30a	30a	30a
BODY WEIGHT CHANGE (G)						
DAYS 29 - 36	MEAN±S.D.	+25.1 ± 6.1	+23.3 ± 9.8	+25.0 ± 8.9	+23.9 ± 4.2	+22.8 ± 5.5
DAYS 36 - 43	MEAN±S.D.	+19.9 ± 7.9	+19.0 ± 7.8	+21.8 ± 8.4	+20.8 ± 5.9	+19.6 ± 4.7
DAYS 43 - 50	MEAN±S.D.	+17.3 ± 7.7	+15.8 ± 7.9	+18.0 ± 5.8	+16.6 ± 4.5	+14.7 ± 3.6
DAYS 50 - 57	MEAN±S.D.	+11.5 ± 7.6	+11.8 ± 6.5 [29]a	+11.1 ± 8.1	+11.1 ± 6.0	+11.7 ± 5.3
DAYS 57 - 64	MEAN±S.D.	+11.0 ± 5.9	+11.4 ± 7.4 [29]a	+12.3 ± 5.2	+12.4 ± 5.7	+12.7 ± 3.4
DAYS 64 - 70b	MEAN±S.D.	+5.3 ± 4.7	+7.8 ± 7.3 [29]a	+7.3 ± 6.0	+6.8 ± 4.9	+5.8 ± 5.0
DAYS 1 - 70b	MEAN±S.D.	+223.3± 18.0	+224.3± 19.0 [29]a	+231.3± 18.8	+222.6± 17.5	+215.1± 19.3
DAYS 1 - PRECOHABITATION c	MEAN±S.D.	+235.2± 20.9	+239.0± 22.6 [29]a	+244.5± 20.6	+233.4± 19.1	+224.3± 21.0*

DAY(S) = DAY(S) POSTWEANING
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rats that were sacrificed following sexual maturation or found dead.
b. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.
c. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.
* Significantly different from the Group I value ($p \leq 0.05$).

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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E4 (PAGE 1): MATERNAL BODY WEIGHTS - GESTATION - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP			I	II	III	IV	V
DOSAGE (MG/KG/DAY)			0	1	3	10	30
RATS TESTED		N	30	29	30	30	30
PREGNANT		N	28	28	28	28	29
MATERNAL BODY WEIGHT (G)							
DAY	0	MEAN±S.D.	274.8 ± 20.9	275.4 ± 23.6	285.4 ± 17.6	275.0 ± 23.2	262.1 ± 23.2*
DAY	7	MEAN±S.D.	304.0 ± 23.0	303.4 ± 25.5	312.2 ± 19.4	303.3 ± 24.3	287.4 ± 22.6*
DAY	10	MEAN±S.D.	316.8 ± 23.9	317.0 ± 26.8	326.1 ± 20.2	314.0 ± 24.0	299.6 ± 23.2*
DAY	14	MEAN±S.D.	333.9 ± 24.5	333.2 ± 28.4	343.1 ± 22.2	331.4 ± 24.6	316.1 ± 25.4*
DAY	18	MEAN±S.D.	380.2 ± 29.6	380.8 ± 31.6	394.8 ± 27.7	380.6 ± 28.9	366.6 ± 28.9
DAY	21	MEAN±S.D.	417.9 ± 33.0 [27]a	418.0 ± 32.9 [26]a	427.8 ± 31.3 [20]a	415.1 ± 31.1 [25]a	399.2 ± 34.8 [24]a

DAY = DAY OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for dams that delivered.
* Significantly different from the Group I value ($p \leq 0.05$).

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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E5 (PAGE 1): MATERNAL BODY WEIGHT CHANGES - GESTATION - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP			I	II	III	IV	V
DOSAGE (MG/KG/DAY)			0	1	3	10	30
RATS TESTED		N	30	29	30	30	30
PREGNANT		N	28	28	28	28	29
MATERNAL BODY WEIGHT CHANGE (G)							
DAYS 0 - 7		MEAN±S.D.	+29.1 ± 5.8	+28.0 ± 7.0	+26.8 ± 6.4	+28.4 ± 7.2	+25.2 ± 6.3
DAYS 7 - 10		MEAN±S.D.	+12.8 ± 4.2	+13.6 ± 6.7	+13.9 ± 4.4	+10.6 ± 3.8	+12.2 ± 3.8
DAYS 10 - 14		MEAN±S.D.	+17.1 ± 5.3	+16.2 ± 6.1	+17.0 ± 5.6	+17.5 ± 5.2	+16.5 ± 4.4
DAYS 14 - 18		MEAN±S.D.	+46.2 ± 11.5	+47.6 ± 10.2	+51.7 ± 10.3	+49.2 ± 11.6	+50.6 ± 10.6
DAYS 18 - 21		MEAN±S.D.	+37.6 ± 9.2 [27]a	+38.1 ± 6.7 [26]a	+32.5 ± 6.2 [20]a	+35.9 ± 9.2 [25]a	+34.4 ± 10.9 [24]a
DAYS 0 - 21		MEAN±S.D.	+142.8± 19.6 [27]a	+143.6± 17.9 [26]a	+141.5± 18.2 [20]a	+141.2± 16.8 [25]a	+138.4± 20.5 [24]a

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for dams that delivered.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E6 (PAGE 1): MATERNAL BODY WEIGHTS - LACTATION - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	30	29	30	30	30
PREGNANT	N	28	28	28	28	29
DELIVERED A LITTER	N	28	28	28	28	29
MATERNAL BODY WEIGHT (G)						
DAY 1	MEAN±S.D.	313.6 ± 24.6	314.8 ± 25.8	325.5 ± 23.1	313.2 ± 23.4	302.0 ± 24.2
DAY 5	MEAN±S.D.	320.2 ± 25.2	321.7 ± 21.1	328.7 ± 20.8	317.8 ± 20.2	305.2 ± 23.0*
DAY 8	MEAN±S.D.	328.8 ± 26.7	333.3 ± 21.6	338.8 ± 22.0	325.3 ± 23.0	309.9 ± 23.5**
DAY 11	MEAN±S.D.	335.5 ± 25.8	340.9 ± 22.7	346.4 ± 18.1	336.0 ± 23.1	321.8 ± 24.7*
DAY 15	MEAN±S.D.	336.9 ± 23.4	338.1 ± 21.9	343.3 ± 20.1	334.4 ± 19.8	323.6 ± 26.6*
DAY 22	MEAN±S.D.	322.9 ± 23.4	321.7 ± 24.2	329.2 ± 21.5	325.1 ± 23.5	315.7 ± 20.9

DAY = DAY OF LACTATION
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE E7 (PAGE 1): MATERNAL BODY WEIGHT CHANGES - LACTATION - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)		I 0	II 1	III 3	IV 10	V 30
RATS TESTED	N	30	29	30	30	30
PREGNANT	N	28	28	28	28	29
DELIVERED A LITTER	N	28	28	28	28	29
MATERNAL BODY WEIGHT CHANGE (G)						
DAYS 1 - 5	MEAN±S.D.	+6.6 ± 9.8	+7.0 ± 10.7	+3.1 ± 10.0	+4.7 ± 8.9	+3.1 ± 11.0
DAYS 5 - 8	MEAN±S.D.	+8.5 ± 9.2	+11.6 ± 7.1	+10.2 ± 8.1	+7.4 ± 9.9	+4.7 ± 10.8
DAYS 8 - 11	MEAN±S.D.	+6.8 ± 16.4	+7.6 ± 8.8	+7.5 ± 13.9	+10.7 ± 10.1	+11.9 ± 11.9
DAYS 11 - 15	MEAN±S.D.	+1.4 ± 19.0	-2.8 ± 13.4	-3.0 ± 13.3	-1.6 ± 14.6	+1.9 ± 16.5
DAYS 1 - 15	MEAN±S.D.	+23.2 ± 14.2	+23.3 ± 14.5	+17.8 ± 16.5	+21.2 ± 17.8	+21.6 ± 14.2
DAYS 15 - 22	MEAN±S.D.	-14.0 ± 15.3	-16.4 ± 13.1	-14.1 ± 16.0	-9.3 ± 15.4	-8.0 ± 17.6
DAYS 1 - 22	MEAN±S.D.	+9.2 ± 18.9	+6.9 ± 14.8	+3.6 ± 23.2	+11.9 ± 22.4	+13.6 ± 19.0

DAYS = DAYS OF LACTATION

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TABLE E8 (PAGE 1): ABSOLUTE FEED CONSUMPTION VALUES (G/DAY) - PRECOHABITATION - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	60	60	60	60	60
INCLUDED IN ANALYSES	N	60	59a	59a	59a	55a
FEED CONSUMPTION (G/DAY)						
DAYS 1 - 8	MEAN±S.D.	10.1 ± 1.5	9.4 ± 1.2**	10.0 ± 1.6	10.0 ± 1.7	9.0 ± 1.4**
DAYS 8 - 15	MEAN±S.D.	16.4 ± 2.0	15.0 ± 1.5**	16.2 ± 1.9	15.8 ± 1.8	14.7 ± 1.5** [54]a
DAYS 15 - 22	MEAN±S.D.	19.0 ± 1.9 [58]a,b	18.4 ± 1.4 [57]b	19.1 ± 2.0 [57]b	18.8 ± 2.0	18.0 ± 2.0** [52]a,b
DAYS 22 - 29	MEAN±S.D.	19.4 ± 2.4 [47]a	19.0 ± 2.2 [53]a,b	19.9 ± 2.7 [50]a,b	19.6 ± 2.5 [46]a,b	18.6 ± 1.8 [44]a,b
DAYS 29 - 36	MEAN±S.D.	20.0 ± 2.2 [30]a	19.9 ± 3.2 [30]a,b	20.5 ± 4.4 [30]a,b	19.2 ± 1.7 [29]a,b	18.8 ± 2.3 [29]a,b
DAYS 36 - 43	MEAN±S.D.	20.1 ± 2.5 [29]a,b	19.6 ± 1.9 [28]a,b	20.6 ± 3.0 [29]a,b	20.2 ± 2.4 [30]a	19.2 ± 1.9 [29]a,b
DAYS 43 - 50	MEAN±S.D.	21.6 ± 3.4 [28]a,b	22.0 ± 4.1 [29]a,b	22.3 ± 3.6 [29]a,b	22.8 ± 5.2 [26]a,b	22.2 ± 6.2 [26]a,b
DAYS 50 - 57	MEAN±S.D.	21.1 ± 2.9 [28]a,b	20.2 ± 2.8 [28]a,b	20.4 ± 2.0 [26]a,b	20.9 ± 2.7 [27]a,b	19.8 ± 2.7 [27]a,b
DAYS 57 - 64	MEAN±S.D.	20.6 ± 2.8 [29]a,b	19.9 ± 2.6 [28]a,b	21.0 ± 3.4 [28]a,b	20.6 ± 2.8 [26]a,b	19.1 ± 3.4 [28]a,b
DAYS 64 - 70c	MEAN±S.D.	19.3 ± 1.9 [29]a,b	19.7 ± 3.1 [28]a,b	19.8 ± 2.1 [30]a	19.6 ± 2.3 [29]a,b	19.0 ± 2.8 [27]a,b
DAYS 1 - 70c	MEAN±S.D.	18.6 ± 1.7 [29]a,b	18.3 ± 1.4 [28]a,b	18.9 ± 1.8 [30]a	18.4 ± 1.6 [29]a,b	17.7 ± 1.7 [27]a,b

DAYS = DAYS POSTWEANING
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rats that were sacrificed following sexual maturation or found dead.
b. Excludes values that were not recorded, as well as those associated with spillage, soiled or wet feed.
c. Last weekly value recorded before cohabitation.
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE E9 (PAGE 1): RELATIVE FEED CONSUMPTION VALUES (G/KG/DAY) - PRECOHABITATION - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	60	60	60	60	60
INCLUDED IN ANALYSES	N	60	59a	59a	59a	55a
FEED CONSUMPTION (G/KG/DAY)						
DAYS 1 - 8	MEAN±S.D.	180.7 ± 22.3	177.5 ± 19.4	173.7 ± 18.8	174.2 ± 17.6	172.2 ± 16.7
DAYS 8 - 15	MEAN±S.D.	180.6 ± 16.1	176.3 ± 16.5	174.6 ± 15.6	176.9 ± 17.3	174.2 ± 14.1 [54]a
DAYS 15 - 22	MEAN±S.D.	146.5 ± 13.1 [58]a,b	150.1 ± 12.5 [57]b	146.2 ± 14.2 [57]b	148.1 ± 17.4	149.3 ± 16.4 [52]a,b
DAYS 22 - 29	MEAN±S.D.	119.5 ± 11.6 [47]a	121.9 ± 15.5 [53]a,b	120.1 ± 13.8 [50]a,b	121.5 ± 15.0 [46]a,b	121.9 ± 12.6 [44]a,b
DAYS 29 - 36	MEAN±S.D.	106.8 ± 9.1 [30]a	110.4 ± 24.0 [30]a,b	107.5 ± 24.7 [30]a,b	103.1 ± 7.1 [29]a,b	106.0 ± 12.2 [29]a,b
DAYS 36 - 43	MEAN±S.D.	96.0 ± 8.4 [29]a,b	98.2 ± 16.3 [28]a,b	96.2 ± 12.2 [29]a,b	96.6 ± 9.4 [30]a	96.7 ± 10.2 [29]a,b
DAYS 43 - 50	MEAN±S.D.	94.5 ± 12.1 [28]a,b	101.5 ± 23.1 [29]a,b	95.2 ± 16.2 [29]a,b	99.6 ± 23.5 [26]a,b	103.4 ± 31.6 [26]a,b
DAYS 50 - 57	MEAN±S.D.	86.9 ± 8.9 [28]a,b	85.0 ± 10.9 [28]a,b	82.0 ± 8.0 [26]a,b	86.6 ± 14.3 [27]a,b	86.2 ± 10.6 [27]a,b
DAYS 57 - 64	MEAN±S.D.	81.4 ± 8.8 [29]a,b	79.7 ± 9.1 [28]a,b	80.1 ± 11.4 [28]a,b	80.6 ± 11.6 [26]a,b	79.2 ± 13.2 [28]a,b
DAYS 64 - 70c	MEAN±S.D.	73.4 ± 5.6 [29]a,b	76.2 ± 13.3 [28]a,b	73.1 ± 6.2 [30]a	74.5 ± 7.4 [29]a,b	76.2 ± 11.5 [27]a,b
DAYS 1 - 70c	MEAN±S.D.	103.7 ± 6.0 [29]a,b	104.5 ± 6.0 [28]a,b	102.6 ± 7.7 [30]a	103.0 ± 7.3 [29]a,b	104.6 ± 9.5 [27]a,b

DAYS = DAYS POSTWEANING
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for rats that were sacrificed following sexual maturation or found dead.
b. Excludes values that were not recorded, as well as those associated with spillage, soiled or wet feed.
c. Last weekly value recorded before cohabitation.

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TABLE E10 (PAGE 1): MATERNAL ABSOLUTE FEED CONSUMPTION VALUES (G/DAY) - GESTATION - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	29	29	30	30	30
PREGNANT	N	28	28	28	28	29
MATERNAL FEED CONSUMPTION (G/DAY)						
DAYS 0 - 7	MEAN±S.D.	22.8 ± 2.5 [27]a	22.7 ± 3.0 [25]a	22.2 ± 2.7 [25]a	22.3 ± 2.3 [27]a	21.0 ± 2.6 [27]a
DAYS 7 - 10	MEAN±S.D.	24.2 ± 3.8 [27]a	24.1 ± 3.6	24.1 ± 2.9 [27]a	22.8 ± 2.5 [27]a	22.0 ± 2.7* [28]a
DAYS 10 - 14	MEAN±S.D.	24.4 ± 3.0	23.7 ± 3.3	24.2 ± 2.9	23.4 ± 2.1	22.8 ± 2.6
DAYS 14 - 18	MEAN±S.D.	24.1 ± 3.0	24.0 ± 2.7	25.1 ± 2.6	23.9 ± 2.4	24.2 ± 2.6
DAYS 18 - 21	MEAN±S.D.	23.0 ± 2.8	23.1 ± 2.8 [27]a	23.7 ± 2.7 [25]a	22.5 ± 2.6 [27]a	23.2 ± 2.3 [26]a
DAYS 0 - 21	MEAN±S.D.	23.7 ± 2.7	23.2 ± 2.5 [27]a	23.7 ± 2.4 [25]a	23.0 ± 1.9 [27]a	22.4 ± 2.2 [26]a

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values that were not recorded as well as those associated with spillage or wet feed.
* Significantly different from the Group I value ($p \leq 0.05$).

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TABLE E11 (PAGE 1): MATERNAL RELATIVE FEED CONSUMPTION VALUES (G/KG/DAY) - GESTATION - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	29	29	30	30	30
PREGNANT	N	28	28	28	28	29
MATERNAL FEED CONSUMPTION (G/KG/DAY)						
DAYS 0 - 7	MEAN±S.D.	79.3 ± 7.3 [27]a	78.3 ± 8.1 [25]a	74.3 ± 7.9 [25]a	76.9 ± 7.9 [27]a	76.6 ± 9.8 [27]a
DAYS 7 - 10	MEAN±S.D.	78.3 ± 10.8 [27]a	77.6 ± 7.6	75.4 ± 6.9 [27]a	74.0 ± 7.8 [27]a	74.4 ± 6.8 [28]a
DAYS 10 - 14	MEAN±S.D.	74.8 ± 6.9	72.7 ± 6.5	72.3 ± 6.6	72.7 ± 6.1	74.2 ± 7.7
DAYS 14 - 18	MEAN±S.D.	67.4 ± 6.3	67.2 ± 5.3	68.2 ± 5.4	67.2 ± 6.3	71.0 ± 7.3
DAYS 18 - 21	MEAN±S.D.	57.8 ± 6.4 [27]a,b	58.4 ± 6.8 [26]a,b	58.3 ± 7.0 [20]a,b	56.7 ± 7.5 [25]a,b	61.1 ± 5.9 [24]a,b
DAYS 0 - 21	MEAN±S.D.	70.0 ± 6.0 [27]a,b	68.8 ± 5.0 [26]a,b	68.0 ± 5.8 [20]a,b	68.8 ± 5.8 [25]a,b	70.3 ± 6.5 [24]a,b

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values that were not recorded as well as those associated with spillage or wet feed.
b. Excludes values for dams that delivered.

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TABLE E12 (PAGE 1): MATERNAL ABSOLUTE FEED CONSUMPTION VALUES (G/DAY) - LACTATION - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	28	28	28	28	29
PREGNANT	N	28	28	28	28	29
DELIVERED A LITTER	N	28	28	28	28	29
MATERNAL FEED CONSUMPTION (G/DAY)						
DAYS 1 - 5	MEAN±S.D.	30.3 ± 6.8 [27]a	30.6 ± 5.9	28.6 ± 4.2 [27]a	28.9 ± 5.3 [26]a	29.2 ± 4.9
DAYS 5 - 8	MEAN±S.D.	48.1 ± 8.3	48.5 ± 7.0	46.2 ± 5.8	46.7 ± 8.7	44.6 ± 6.7
DAYS 8 - 11	MEAN±S.D.	54.0 ± 8.5	55.4 ± 7.2	55.2 ± 6.2 [27]a	52.3 ± 8.1	50.4 ± 7.7
DAYS 11 - 15b	MEAN±S.D.	59.0 ± 8.5 [27]a	57.5 ± 9.5	57.3 ± 7.2	56.3 ± 12.4	52.2 ± 9.5
DAYS 1 - 15b	MEAN±S.D.	48.0 ± 6.1 [27]a	47.4 ± 5.3	46.5 ± 4.4	46.0 ± 6.7	43.6 ± 5.5**

DAYS = DAYS OF LACTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values that were associated with spillage.
b. Because it is presumed that the pups begin to consume maternal feed after day 15 of lactation, maternal feed consumption values were not tabulated on days 15 to 22 of lactation.
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE E13 (PAGE 1): MATERNAL RELATIVE FEED CONSUMPTION VALUES (G/KG/DAY) - LACTATION - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	28	28	28	28	29
PREGNANT	N	28	28	28	28	29
DELIVERED A LITTER	N	28	28	28	28	29
MATERNAL FEED CONSUMPTION (G/KG/DAY)						
DAYS 1 - 5	MEAN±S.D.	95.7 ± 18.4 [27]a	96.9 ± 21.0	87.8 ± 15.3 [27]a	92.6 ± 18.7 [26]a	96.5 ± 16.9
DAYS 5 - 8	MEAN±S.D.	147.7 ± 18.5	148.4 ± 21.3	138.5 ± 15.9	145.3 ± 26.9	144.8 ± 18.2
DAYS 8 - 11	MEAN±S.D.	162.7 ± 23.8	164.6 ± 21.0	161.5 ± 21.1 [27]a	158.7 ± 26.1	159.5 ± 21.8
DAYS 11 - 15b	MEAN±S.D.	174.7 ± 22.6 [27]a	169.1 ± 25.3	166.2 ± 19.3	168.2 ± 37.1	161.7 ± 25.9
DAYS 1 - 15b	MEAN±S.D.	146.1 ± 15.4 [27]a	144.1 ± 16.5	138.5 ± 15.0	141.9 ± 21.8	139.7 ± 15.6

DAYS = DAYS OF LACTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values that were associated with spillage.
b. Because it is presumed that the pups begin to consume maternal feed after day 15 of lactation, maternal feed consumption values were not tabulated on days 15 to 22 of lactation.

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TABLE E14 (PAGE 1): SEXUAL MATURATION - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
FEMALE RATS	N	60	60	60	60	60
INCLUDED IN ANALYSES	N	60	58a,b	58a,b	58a,b	54a
VAGINAL PATENCY c	MEAN±S.D.	34.9 ± 2.1	35.5 ± 2.3	34.1 ± 2.6	34.8 ± 2.1	36.6 ± 2.4**

a. Excludes values for rats that were found dead.
b. Excludes values for rats in which testing was discontinued before the rat became sexually mature.
c. Average day postpartum that the vagina was observed to be patent.
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE E15 (PAGE 1): MATING AND FERTILITY, ESTROUS CYCLING AND DAYS IN COHABITATION - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
ESTROUS CYCLING OBSERVATIONS						
PRECOHABITATION ESTROUS CYCLING						
RATS EVALUATED	N	30	29a	30	30	30
ESTROUS STAGES/ 21 DAYS	MEAN±S.D.	4.7 ± 0.9	5.0 ± 0.9	5.0 ± 0.8	5.0 ± 1.1	5.4 ± 0.7**
RATS WITH 6 OR MORE CONSECUTIVE DAYS OF DIESTRUS	N	1	0	0	1	0
RATS WITH 6 OR MORE CONSECUTIVE DAYS OF ESTRUS	N	0	0	0	0	0
ESTROUS STAGE AT SACRIFICE						
RATS EVALUATED	N	30	29	30	30	30
DIESTRUS	N	18	15	20	21	23
PROESTRUS	N	2	1	3	2	2
ESTRUS	N	6	10	5	6	4
METESTRUS	N	4	3	2	1	1

a. Excludes rat 1373, which was found dead prior to cohabitation.
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE E15 (PAGE 2): MATING AND FERTILITY, ESTROUS CYCLING AND DAYS IN COHABITATION - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS IN COHABITATION	N	30	29a	30	30	30
DAYS IN COHABITATION b	MEAN±S.D.	3.0 ± 2.4	3.0 ± 1.1	2.4 ± 1.2	2.7 ± 1.6	2.5 ± 1.2
RATS THAT MATED	N(%)	29(96.7)	29(100.0)	30(100.0)	30(100.0)	30(100.0)
FERTILITY INDEX c	N/N	28/ 29	28/ 29	28/ 30	28/ 30	29/ 30
	(%)	(96.6)	(96.6)	(93.3)	(93.3)	(96.7)
RATS WITH CONFIRMED MATING DATES	N	29	29	30	30	30
RATS MATING d						
DAYS 1-7	N(%)	29(100.0)	29(100.0)	30(100.0)	30(100.0)	30(100.0)
RATS PREGNANT/RATS IN COHABITATION	N/N	28/ 30	28/ 29	28/ 30	28/ 30	29/ 30
	(%)	(93.3)	(96.6)	(93.3)	(93.3)	(96.7)

a. Excludes rat 1373, which was found dead prior to cohabitation.
b. Restricted to rats with a confirmed mating date and rats that did not mate.
c. Number of pregnancies/number of rats that mated.
d. Restricted to rats with a confirmed mating date.

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TABLE E16 (PAGE 1): NECROPSY OBSERVATIONS - SUMMARY - F1 GENERATION FEMALE RATS
(See footnotes on the last page of this table.)

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS EXAMINED a	N	60	60	60	60	60
FOUND DEAD	N	0	2b,c	1d	1e	6f-k
INCLUDED IN ANALYSES	N	60	59 1	60	60	60
APPEARED NORMAL	N	59	57b	59d	60e	59f-k
LIVER:						
LEFT LATERAL LOBE, FIRM MASS CUT SURFACE REVEALED YELLOW AND DARK RED AREAS	N	0	1	0	0	0
CAUDATE LOBE ADHERED TO LEFT LATERAL LOBE	N	0	1	0	0	0
KIDNEYS:						
BILATERAL, PELVIS, SLIGHT DILATION	N	0	0	1	0	0
RIGHT, PELVIS, MODERATE DILATION	N	0	0	0	0	1
URINARY BLADDER:						
WALLS THICKENED	N	0	0	0	0	1
URETER:						
BILATERAL, MODERATE DILATION	N	0	0	0	0	1
ONE CALCULI LOCATED AT THE CAUDAL END	N	0	0	0	0	1

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TABLE E16 (PAGE 2): NECROPSY OBSERVATIONS - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS EXAMINED a	N	60	60	60	60	60
FOUND DEAD	N	0	2b,c	1d	1e	6f-k
INCLUDED IN ANALYSES	N	60	59 l	60	60	60
STOMACH:						
DISTENDED	N	0	1c	0	0	0
INTESTINES:						
DISTENDED	N	0	1c	0	0	0
LUNGS:						
DORSAL SURFACE, RIGHT APICAL LOBE, DEPRESSED WHITE AREA	N	0	1c	0	0	0
SPLEEN:						
SMALL	N	1	0	0	0	0

a. Refer to the individual clinical observations table (Table E26) for external observations confirmed at necropsy.
b. Rat 1365 was found dead on day 4 postweaning.
c. Rat 1373 was found dead on day 51 postweaning.
d. Rat 1432 was found dead on day 7 postweaning.
e. Rat 1484 was found dead on day 3 postweaning.
f. Rat 1549 was found dead on day 8 postweaning.
g. Rat 1559 was found dead on day 6 postweaning.
h. Rat 1562 was found dead on day 2 postweaning.
i. Rat 1563 was found dead on day 2 postweaning.
j. Rat 1574 was found dead on day 3 postweaning.
k. Rat 1575 was found dead on day 3 postweaning.
l. Excludes rat 1362, which did not have necropsy observations recorded.

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TABLE E17 (PAGE 1): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	28	28	28	28	29
TERMINAL BODY WEIGHT	MEAN±S.D.	322.9 ± 23.4	321.7 ± 24.2	329.2 ± 21.5	325.1 ± 23.5	315.7 ± 20.9
PITUITARY	MEAN±S.D.	0.017 ± 0.004	0.016 ± 0.003	0.015 ± 0.003*	0.015 ± 0.002*	0.015 ± 0.003**
BRAIN	MEAN±S.D.	2.07 ± 0.09	2.09 ± 0.12	2.08 ± 0.10	2.10 ± 0.12	2.07 ± 0.10
LIVER	MEAN±S.D.	16.57 ± 1.58	15.96 ± 1.76	16.41 ± 1.40	16.68 ± 1.70	16.78 ± 1.36
KIDNEY LEFT	MEAN±S.D.	1.36 ± 0.13	1.39 ± 0.14	1.41 ± 0.09 [27]a	1.38 ± 0.14	1.34 ± 0.18
KIDNEY RIGHT	MEAN±S.D.	1.38 ± 0.12	1.41 ± 0.14	1.42 ± 0.10	1.42 ± 0.16	1.40 ± 0.20
ADRENAL LEFT	MEAN±S.D.	0.043 ± 0.008	0.044 ± 0.007	0.044 ± 0.006	0.046 ± 0.006	0.045 ± 0.008
ADRENAL RIGHT	MEAN±S.D.	0.040 ± 0.007	0.041 ± 0.007	0.041 ± 0.006	0.042 ± 0.006	0.041 ± 0.006
SPLEEN	MEAN±S.D.	0.60 ± 0.07	0.61 ± 0.12	0.60 ± 0.06	0.59 ± 0.09	0.60 ± 0.11
THYMUS	MEAN±S.D.	0.20 ± 0.06	0.19 ± 0.05	0.21 ± 0.07	0.20 ± 0.08	0.22 ± 0.09
OVARY LEFT	MEAN±S.D.	0.050 ± 0.012	0.054 ± 0.012	0.051 ± 0.012	0.049 ± 0.010	0.052 ± 0.013
OVARY RIGHT	MEAN±S.D.	0.054 ± 0.012	0.053 ± 0.012	0.049 ± 0.010	0.051 ± 0.011	0.052 ± 0.013
UTERUS NON-GRAVID	MEAN±S.D.	0.54 ± 0.16	0.56 ± 0.16	0.57 ± 0.18	0.56 ± 0.12	0.54 ± 0.18

ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Excludes a value that appeared incorrectly recorded.
* Significantly different from the Group I value ($p \leq 0.05$).
** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE E18 (PAGE 1): RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	28	28	28	28	29
TERMINAL BODY WEIGHT	MEAN±S.D.	322.9 ± 23.4	321.7 ± 24.2	329.2 ± 21.5	325.1 ± 23.5	315.7 ± 20.9
PITUITARY a	MEAN±S.D.	5.462 ± 1.605	4.976 ± 0.861	4.648 ± 0.860*	4.715 ± 0.898*	4.749 ± 1.028*
BRAIN	MEAN±S.D.	0.644 ± 0.058	0.653 ± 0.054	0.632 ± 0.045	0.648 ± 0.063	0.659 ± 0.044
LIVER	MEAN±S.D.	5.130 ± 0.305	4.958 ± 0.340	4.991 ± 0.377	5.136 ± 0.409	5.326 ± 0.455
KIDNEY LEFT	MEAN±S.D.	0.421 ± 0.038	0.432 ± 0.040	0.426 ± 0.036 [27]b	0.426 ± 0.038	0.426 ± 0.055
KIDNEY RIGHT	MEAN±S.D.	0.427 ± 0.030	0.438 ± 0.037	0.432 ± 0.034	0.435 ± 0.046	0.444 ± 0.058
ADRENAL LEFT a	MEAN±S.D.	13.285 ± 2.147	13.551 ± 1.994	13.581 ± 2.048	14.046 ± 1.831	14.209 ± 2.762
ADRENAL RIGHT a	MEAN±S.D.	12.301 ± 1.979	12.743 ± 2.192	12.600 ± 1.834	12.881 ± 1.981	13.191 ± 2.177
SPLEEN	MEAN±S.D.	0.184 ± 0.021	0.189 ± 0.041	0.184 ± 0.019	0.183 ± 0.027	0.191 ± 0.034
THYMUS	MEAN±S.D.	0.062 ± 0.020	0.058 ± 0.017	0.064 ± 0.023	0.061 ± 0.025	0.070 ± 0.029
OVARY LEFT a	MEAN±S.D.	15.652 ± 3.706	16.844 ± 3.672	15.616 ± 3.778	15.235 ± 3.166	16.364 ± 4.200
OVARY RIGHT a	MEAN±S.D.	16.754 ± 4.015	16.742 ± 4.266	14.955 ± 3.246	15.235 ± 3.016	16.496 ± 4.132
UTERUS NON-GRAVID	MEAN±S.D.	0.167 ± 0.050	0.176 ± 0.058	0.175 ± 0.059	0.173 ± 0.044	0.171 ± 0.058

ALL WEIGHTS WERE RECORDED IN GRAMS (G). RATIOS (%) = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.
b. Excludes a value that appeared incorrectly recorded.
* Significantly different from the Group I value ($p \leq 0.05$).

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TABLE E19 (PAGE 1): RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS TESTED	N	28	28	28	28	29
BRAIN WEIGHT	MEAN±S.D.	2.07 ± 0.09	2.09 ± 0.12	2.08 ± 0.10	2.10 ± 0.12	2.07 ± 0.10
PITUITARY	MEAN±S.D.	0.84 ± 0.21	0.76 ± 0.14	0.74 ± 0.14*	0.72 ± 0.12*	0.72 ± 0.16**
LIVER	MEAN±S.D.	802.60 ± 85.59	764.62 ± 81.65	790.69 ± 67.15	798.38 ± 91.68	810.62 ± 71.58
KIDNEY LEFT	MEAN±S.D.	65.77 ± 6.04	66.51 ± 6.49	67.59 ± 5.25 [27]a	66.10 ± 6.57	64.85 ± 8.48
KIDNEY RIGHT	MEAN±S.D.	66.76 ± 6.09	67.36 ± 5.83	66.44 ± 6.23	67.61 ± 7.12	67.57 ± 9.54
ADRENAL LEFT	MEAN±S.D.	2.08 ± 0.38	2.08 ± 0.32	2.14 ± 0.30	2.18 ± 0.30	2.16 ± 0.39
ADRENAL RIGHT	MEAN±S.D.	1.93 ± 0.37	1.96 ± 0.34	2.00 ± 0.29	2.00 ± 0.32	2.00 ± 0.30
SPLEEN	MEAN±S.D.	28.89 ± 3.82	29.10 ± 5.58	29.08 ± 2.59	28.35 ± 4.31	29.28 ± 5.67
THYMUS	MEAN±S.D.	9.65 ± 2.74	9.10 ± 2.84	10.23 ± 3.44	9.69 ± 4.04	10.69 ± 4.48
OVARY LEFT	MEAN±S.D.	2.43 ± 0.56	2.58 ± 0.52	2.46 ± 0.57	2.36 ± 0.50	2.48 ± 0.63
OVARY RIGHT	MEAN±S.D.	2.60 ± 0.59	2.56 ± 0.58	2.37 ± 0.52	2.44 ± 0.54	2.50 ± 0.62
UTERUS NON-GRAVID	MEAN±S.D.	25.95 ± 7.78	27.06 ± 7.66	27.58 ± 8.91	26.76 ± 6.12	26.02 ± 8.40

ALL WEIGHTS WERE RECORDED IN GRAMS (G). RATIOS (%) = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Excludes a value that appeared incorrectly recorded.

* Significantly different from the Group I value ($p \leq 0.05$).

** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE E20 (PAGE 1): NATURAL DELIVERY OBSERVATIONS - SUMMARY - F1 GENERATION FEMALE RATS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
RATS ASSIGNED TO NATURAL DELIVERY	N	28	28	28	28	29
PREGNANT	N	28	28	28	28	29
DELIVERED A LITTER	N(%)	28(100.0)	28(100.0)	28(100.0)	28(100.0)	29(100.0)
DURATION OF GESTATION a	MEAN±S.D.	22.8 ± 0.4	22.6 ± 0.6	22.7 ± 0.5	22.8 ± 0.6	22.7 ± 0.5
IMPLANTATION SITES	N	414	443	412	419	420
PER DELIVERED LITTER	MEAN±S.D.	14.8 ± 3.0	15.8 ± 2.1	14.7 ± 2.8	15.0 ± 2.9	14.5 ± 2.9
DAMS WITH STILLBORN PUPS	N(%)	3(10.7)	4(14.3)	3(10.7)	5(18.5)	2(7.1)
DAMS WITH NO LIVEBORN PUPS	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
GESTATION INDEX b	%	100.0	100.0	100.0	100.0	100.0
	N/N	28/ 28	28/ 28	28/ 28	27/ 27	28/ 28
DAMS WITH ALL PUPS DYING DAYS 1-4 POSTPARTUM	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
DAMS WITH ALL PUPS DYING DAYS 5-21 POSTPARTUM	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)

a. Calculated as the time (in days) elapsed between confirmed mating (arbitrarily defined as day 0) and the time (in days) the first pup was delivered.
b. Number of rats with live offspring/number of pregnant rats.

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TABLE E21 (PAGE 1): LITTER OBSERVATIONS (NATURALLY DELIVERED PUPS) - SUMMARY - F2 GENERATION PUPS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
DELIVERED LITTERS WITH ONE OR MORE LIVEBORN PUPS	N	28	28	28	28	29
PUPS DELIVERED (TOTAL)	N	386	388	394	385	389
	MEAN±S.D.	13.8 ± 2.9	13.8 ± 2.5	14.1 ± 3.0	13.8 ± 3.1	13.4 ± 2.8
LIVEBORN	MEAN±S.D.	13.6 ± 2.9	13.7 ± 2.4	13.8 ± 3.0	13.5 ± 3.1	13.3 ± 2.8
	N(%)	380(98.4)	383(98.7)	388(98.5)	378(98.2)	387(99.5)
STILLBORN	MEAN±S.D.	0.2 ± 0.5	0.2 ± 0.5	0.2 ± 0.6	0.2 ± 0.5	0.1 ± 0.2
	N(%)	5(1.3)	5(1.3)	6(1.5)	6(1.6)	2(0.5)
UNKNOWN VITAL STATUS	N	1	0	0	1	0
PUPS FOUND DEAD OR PRESUMED CANNIBALIZED						
DAY 1	N/N(%)	0/380(0.0)	0/383(0.0)	5/388(1.3)**	4/378(1.0)**	1/387(0.2)
DAYS 2- 5	N/N(%)	2/380(0.5)	5/383(1.3)	5/383(1.3)	3/374(0.8)	3/386(0.8)
DAYS 6- 8	N/N(%)	0/378(0.0)	1/378(0.3)	5/378(1.3)	1/371(0.3)	4/383(1.0)
DAYS 9-15	N/N(%)	3/378(0.8)	2/377(0.5)	0/373(0.0)	1/370(0.3)	0/379(0.0)
DAYS 16-22	N/N(%)	2/375(0.5)	1/375(0.3)	0/373(0.0)	1/369(0.3)	1/379(0.3)
VIABILITY INDEX a	%	99.5	98.7	97.4	98.1	99.0
	N/N	378/380	378/383	378/388	371/378	383/387
LACTATION INDEX b	%	98.7	98.9	98.7	99.2	98.7
	N/N	373/378	374/378	373/378	368/371	378/383

DAY(S) = DAY(S) POSTPARTUM

a. Number of live pups on day 5 postpartum/number of liveborn pups on day 1 postpartum.

b. Number of live pups on day 22 postpartum/number of live pups on day 5 postpartum.

** Significantly different from the Group I value ($p \leq 0.01$).

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TABLE E21 (PAGE 2): LITTER OBSERVATIONS (NATURALLY DELIVERED PUPS) - SUMMARY - F2 GENERATION PUPS

DOSAGE GROUP			I	II	III	IV	V
DOSAGE (MG/KG/DAY)			0	1	3	10	30
DELIVERED LITTERS WITH ONE OR MORE LIVEBORN PUPS		N	28	28	28	28	29
SURVIVING PUPS/LITTER a							
DAY 1b		MEAN±S.D.	13.6 ± 2.9	13.7 ± 2.4	13.8 ± 3.0	13.5 ± 3.1	13.3 ± 2.8
DAY 5		MEAN±S.D.	13.5 ± 2.8	13.5 ± 2.3	13.5 ± 2.9	13.2 ± 3.0	13.2 ± 2.8
DAY 8		MEAN±S.D.	13.5 ± 2.8	13.5 ± 2.3	13.3 ± 2.9	13.2 ± 2.9	13.1 ± 2.8
DAY 15		MEAN±S.D.	13.4 ± 2.8	13.4 ± 2.2	13.3 ± 2.9	13.2 ± 2.9	13.1 ± 2.8
DAY 22		MEAN±S.D.	13.3 ± 2.7	13.4 ± 2.2	13.3 ± 2.9	13.1 ± 2.9	13.0 ± 2.7
PERCENT MALE PUPS PER NUMBER OF PUPS SEXED							
DAY 1b		MEAN±S.D.	50.2 ± 11.8	51.9 ± 11.2	51.5 ± 13.1	55.6 ± 15.7	47.3 ± 13.5
DAY 5		MEAN±S.D.	49.9 ± 12.0	52.2 ± 11.5	51.7 ± 13.7	55.6 ± 15.1	47.3 ± 13.5
DAY 8		MEAN±S.D.	49.9 ± 12.0	52.1 ± 11.5	52.1 ± 13.7	55.7 ± 15.0	47.0 ± 13.3
DAY 15		MEAN±S.D.	49.8 ± 11.8	52.4 ± 11.6	52.1 ± 13.7	55.8 ± 15.0	47.0 ± 13.3
DAY 22		MEAN±S.D.	50.0 ± 11.7	52.5 ± 11.8	52.1 ± 13.7	55.9 ± 14.9	47.1 ± 13.3

DAY = DAY POSTPARTUM
a. Average number of live pups per litter, including litters with no surviving pups.
b. Includes pups born alive, found dead day 1 postpartum.

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TABLE E21 (PAGE 3): LITTER OBSERVATIONS (NATURALLY DELIVERED PUPS) - SUMMARY - F2 GENERATION PUPS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
DELIVERED LITTERS WITH ONE OR MORE LIVEBORN PUPS	N	28	28	28	28	29
LIVE LITTER SIZE AT WEIGHING						
DAY 1	MEAN±S.D.	13.6 ± 2.9	13.7 ± 2.4	13.7 ± 2.9	13.4 ± 3.0	13.3 ± 2.8
DAY 5	MEAN±S.D.	13.5 ± 2.8	13.5 ± 2.3	13.5 ± 2.9	13.2 ± 3.0	13.2 ± 2.8
DAY 8	MEAN±S.D.	13.5 ± 2.8	13.5 ± 2.3	13.3 ± 2.9	13.2 ± 2.9	13.1 ± 2.8
DAY 15	MEAN±S.D.	13.4 ± 2.8	13.4 ± 2.2	13.3 ± 2.9	13.2 ± 2.9	13.1 ± 2.8
DAY 22	MEAN±S.D.	13.3 ± 2.7	13.4 ± 2.2	13.3 ± 2.9	13.1 ± 2.9	13.0 ± 2.7
PUP WEIGHT/LITTER (GRAMS)						
DAY 1	MEAN±S.D.	6.5 ± 0.5	6.3 ± 0.5	6.4 ± 0.7	6.4 ± 0.7	6.0 ± 0.5
DAY 5	MEAN±S.D.	10.2 ± 1.2	10.0 ± 1.2	10.1 ± 1.6	10.2 ± 1.5	9.6 ± 1.2
DAY 8	MEAN±S.D.	14.5 ± 2.1	14.4 ± 1.8	14.3 ± 2.3	14.3 ± 2.3	13.5 ± 2.0
DAY 15	MEAN±S.D.	25.4 ± 4.1	25.3 ± 3.4	25.8 ± 4.4	24.8 ± 3.7	23.2 ± 3.7
DAY 22	MEAN±S.D.	38.7 ± 7.1	38.9 ± 5.4	39.6 ± 7.1	39.1 ± 6.6	36.5 ± 6.7

DAY = DAY POSTPARTUM

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TABLE E22 (PAGE 1): CLINICAL OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - SUMMARY - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP	I	II	III	IV	V
MATERNAL DOSAGE (MG/KG/DAY)	0	1	3	10	30
LITTERS EXAMINED (N)	28	28	28	28	29
TRANSIENT CLINICAL OBSERVATIONS: a	TOTAL FREQUENCY (DAYS X PUPS)/LITTERS WITH OBSERVATIONS				
COLD TO TOUCH	2/ 1	5/ 1	1/ 1	1/ 1	3/ 3
TAIL: ABRASION	0/ 0	0/ 0	0/ 0	0/ 0	10/ 2
NO TAIL PRESENT	0/ 0	0/ 0	0/ 0	0/ 0	22/ 1
TIP OF TAIL MISSING	0/ 0	0/ 0	0/ 0	0/ 0	12/ 1
TAIL: SCAB	0/ 0	0/ 0	0/ 0	0/ 0	9/ 1
MOUTH: MASS	0/ 0	0/ 0	0/ 0	0/ 0	8/ 1
BACK: ABRASION	0/ 0	0/ 0	0/ 0	0/ 0	7/ 1
BACK: SCAB	0/ 0	0/ 0	0/ 0	0/ 0	4/ 1
PALE IN APPEARANCE	0/ 0	0/ 0	0/ 0	0/ 0	3/ 1
BASE OF TAIL: ABRASION	0/ 0	0/ 0	0/ 0	0/ 0	3/ 1
TIP OF TAIL BLACK	0/ 0	0/ 0	0/ 0	0/ 0	2/ 1
EMACIATION	1/ 1	0/ 0	0/ 0	1/ 1	1/ 1
DOMED HEAD	0/ 0	0/ 0	0/ 0	0/ 0	1/ 1
DEHYDRATION	34/ 3	1/ 1	0/ 0	2/ 2	0/ 0
TAIL BENT	0/ 0	0/ 0	0/ 0	22/ 1	0/ 0

N/N = TOTAL FREQUENCY (DAYS x PUPS)/LITTERS WITH OBSERVATIONS.
a. Tabulation restricted to adverse observations; all other pups appeared normal.

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TABLE E22 (PAGE 2): CLINICAL OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - SUMMARY - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP	I	II	III	IV	V
MATERNAL DOSAGE (MG/KG/DAY)	0	1	3	10	30
LITTERS EXAMINED (N)	28	28	28	28	29
TRANSIENT CLINICAL OBSERVATIONS: a	TOTAL FREQUENCY (DAYS X PUPS)/LITTERS WITH OBSERVATIONS				
RIGHT EYE: NOT PRESENT	0/ 0	0/ 0	0/ 0	3/ 1	0/ 0
THREAD-LIKE TAIL	0/ 0	22/ 1	0/ 0	0/ 0	0/ 0
NO ANAL OPENING PRESENT	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0
UNGROOMED COAT	16/ 1	0/ 0	0/ 0	0/ 0	0/ 0
NO MILK PRESENT IN STOMACH	1/ 1	0/ 0	0/ 0	0/ 0	0/ 0

N/N = TOTAL FREQUENCY (DAYS x PUPS)/LITTERS WITH OBSERVATIONS.
a. Tabulation restricted to adverse observations; all other pups appeared normal.

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TABLE E23 (PAGE 1): NECROPSY OBSERVATIONS - SUMMARY - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP		I	II	III	IV	V
MATERNAL DOSAGE (MG/KG/DAY)		0	1	3	10	30
LITTERS EXAMINED	N	28	28	28	28	29
TOTAL PUPS STILLBORN OR FOUND DEAD a		3	6	10	10	6
STILLBORN	N	1	3	4	6	2
FOUND DEAD	N	2	3	6	4	4
NO MILK IN STOMACH b	N(%)	1(50.0)	3(100.0)	5(83.3)	3(75.0)	3(75.0)
PUPS SACRIFICED AND NECROPSIED ON DAY 22 POSTPARTUM						
LITTERS EVALUATED	N	28	28	28	28	29
PUPS EVALUATED	N	168	168	167	164	170
APPEARED NORMAL						
LITTER INCIDENCE	N(%)	27(96.4)	27(96.4)	26(92.8)	27(96.4)	29(100.0)
PUP INCIDENCE	N(%)	167(99.4)	167(99.4)	165(98.8)	163(99.4)	170(100.0)
KIDNEYS: PELVIS SLIGHT OR MODERATE DILATION						
LITTER INCIDENCE	N(%)	1(3.6)	1(3.6)	2(7.1)	0(0.0)	0(0.0)
PUP INCIDENCE	N(%)	1(0.6)	1(0.6)	2(1.2)	0(0.0)	0(0.0)
BRAIN: THIRD AND LATERAL VENTRICLES, MARKED DILATION						
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	1(3.6)	0(0.0)
PUP INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	1(0.6)	0(0.0)

a. Restricted to pups in which complete necropsies were performed. Complete necropsies were not performed on pups in which autolysis or cannibalization precluded evaluation.
b. Analysis restricted to pups found dead and necropsied.

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TABLE E24 (PAGE 1): PUP ORGAN WEIGHTS - SUMMARY - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP		I	II	III	IV	V
MATERNAL DOSAGE (MG/KG/DAY)		0	1	3	10	30
LITTERS EXAMINED	N	28	28	28	28	29
TERMINAL BODY WEIGHT						
WEIGHT/LITTER	MEAN±S.D.	39.10 ± 7.23	39.02 ± 5.91	39.70 ± 7.51 [27]a	40.06 ± 6.88	37.02 ± 6.63 [28]a
MALE PUPS	MEAN±S.D.	40.01 ± 7.43	39.73 ± 6.39	39.95 ± 8.48 [27]a	41.15 ± 6.82	37.60 ± 7.28 [28]a
FEMALE PUPS	MEAN±S.D.	38.38 ± 7.37 [27]a	38.30 ± 5.98	39.46 ± 7.19 [27]a	38.24 ± 6.47 [27]b	36.44 ± 6.35 [28]a
BRAIN						
WEIGHT/LITTER	MEAN±S.D.	1.49 ± 0.10	1.47 ± 0.08	1.48 ± 0.11	1.48 ± 0.07	1.44 ± 0.08
MALE PUPS	MEAN±S.D.	1.50 ± 0.15	1.50 ± 0.09	1.50 ± 0.12	1.50 ± 0.07	1.46 ± 0.08
FEMALE PUPS	MEAN±S.D.	1.48 ± 0.11	1.44 ± 0.09	1.45 ± 0.11	1.46 ± 0.10 [27]b	1.42 ± 0.10
SPLEEN						
WEIGHT/LITTER	MEAN±S.D.	0.15 ± 0.04	0.14 ± 0.04	0.14 ± 0.04	0.15 ± 0.04	0.14 ± 0.05
MALE PUPS	MEAN±S.D.	0.14 ± 0.04	0.14 ± 0.04	0.14 ± 0.05	0.15 ± 0.04	0.14 ± 0.06
FEMALE PUPS	MEAN±S.D.	0.15 ± 0.05	0.15 ± 0.04	0.14 ± 0.04	0.14 ± 0.04 [27]b	0.13 ± 0.05
THYMUS						
WEIGHT/LITTER	MEAN±S.D.	0.18 ± 0.06	0.17 ± 0.04	0.16 ± 0.05	0.17 ± 0.04	0.16 ± 0.05
MALE PUPS	MEAN±S.D.	0.19 ± 0.06	0.16 ± 0.05	0.16 ± 0.06	0.17 ± 0.05	0.16 ± 0.06
FEMALE PUPS	MEAN±S.D.	0.18 ± 0.06	0.17 ± 0.04	0.17 ± 0.06	0.17 ± 0.04 [27]b	0.16 ± 0.05

ALL WEIGHTS WERE RECORDED IN GRAMS (G).
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for pups in which the terminal body weight could not be determined because pup identification appeared incorrectly recorded.
b. Excludes values for litter(s) that had no female pups examined.

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TABLE E24 (PAGE 2): PUP ORGAN WEIGHTS - SUMMARY - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP		I	II	III	IV	V
MATERNAL DOSAGE (MG/KG/DAY)		0	1	3	10	30
LITTERS EXAMINED	N	28	28	28	28	29
INCLUDED IN ANALYSES	N	28	28	27a	28	28a
RATIOS (%) OF BRAIN TO TERMINAL BODY WEIGHT						
WEIGHT/LITTER	MEAN±S.D.	3.92 ± 0.65	3.83 ± 0.44	3.83 ± 0.54	3.80 ± 0.55	3.98 ± 0.56
MALE PUPS	MEAN±S.D.	3.86 ± 0.69	3.83 ± 0.46	3.89 ± 0.70	3.73 ± 0.50	3.98 ± 0.57
FEMALE PUPS	MEAN±S.D.	3.97 ± 0.72 [27]a	3.82 ± 0.48	3.77 ± 0.50	3.92 ± 0.68 [27]b	3.99 ± 0.59
RATIOS (%) OF SPLEEN TO TERMINAL BODY WEIGHT						
WEIGHT/LITTER	MEAN±S.D.	0.38 ± 0.07	0.36 ± 0.06	0.35 ± 0.06	0.36 ± 0.06	0.37 ± 0.09
MALE PUPS	MEAN±S.D.	0.36 ± 0.08	0.34 ± 0.08	0.34 ± 0.08	0.36 ± 0.07	0.37 ± 0.10
FEMALE PUPS	MEAN±S.D.	0.39 ± 0.09 [27]a	0.39 ± 0.07	0.36 ± 0.06	0.36 ± 0.07 [27]b	0.37 ± 0.10
RATIOS (%) OF THYMUS TO TERMINAL BODY WEIGHT						
WEIGHT/LITTER	MEAN±S.D.	0.47 ± 0.11	0.42 ± 0.07	0.40 ± 0.08	0.44 ± 0.08	0.42 ± 0.09
MALE PUPS	MEAN±S.D.	0.46 ± 0.11	0.41 ± 0.10	0.40 ± 0.09	0.42 ± 0.10	0.42 ± 0.10
FEMALE PUPS	MEAN±S.D.	0.47 ± 0.11 [27]a	0.43 ± 0.06	0.41 ± 0.09	0.45 ± 0.09 [27]b	0.43 ± 0.10

ALL WEIGHTS WERE RECORDED IN GRAMS (G). RATIOS (%) = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

[ ] = NUMBER OF VALUES AVERAGED

a. Excludes values for pups in which the terminal body weight could not be determined because pup identification appeared incorrectly recorded.

b. Excludes values for litter(s) that had no female pups examined.

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TABLE E24 (PAGE 3): PUP ORGAN WEIGHTS - SUMMARY - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP		I	II	III	IV	V
MATERNAL DOSAGE (MG/KG/DAY)		0	1	3	10	30
LITTERS EXAMINED	N	28	28	28	28	29
RATIOS (%) OF SPLEEN TO BRAIN WEIGHT						
WEIGHT/LITTER	MEAN±S.D.	9.93 ± 2.44	9.70 ± 2.39	9.44 ± 2.38	9.81 ± 2.51	9.46 ± 3.18
MALE PUPS	MEAN±S.D.	9.66 ± 2.62	9.04 ± 2.70	9.06 ± 2.72	9.97 ± 2.67	9.46 ± 3.42
FEMALE PUPS	MEAN±S.D.	10.19 ± 2.95	10.36 ± 2.54	9.82 ± 2.38	9.55 ± 2.78 [27]b	9.44 ± 3.31
RATIOS (%) OF THYMUS TO BRAIN WEIGHT						
WEIGHT/LITTER	MEAN±S.D.	12.34 ± 3.30	11.27 ± 2.52	10.94 ± 3.02	11.75 ± 2.76	10.97 ± 3.41
MALE PUPS	MEAN±S.D.	12.41 ± 3.62	10.98 ± 3.22	10.53 ± 3.32	11.51 ± 3.22	11.05 ± 3.95
FEMALE PUPS	MEAN±S.D.	12.28 ± 3.64	11.57 ± 2.40	11.34 ± 3.21	11.96 ± 3.05 [27]b	10.90 ± 3.38

ALL WEIGHTS WERE RECORDED IN GRAMS (G). RATIOS (%) = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
[ ] = NUMBER OF VALUES AVERAGED
a. Excludes values for pups in which the terminal body weight could not be determined because pup identification appeared incorrectly recorded.
b. Excludes values for litter(s) that had no female pups examined.

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TABLE E25 (PAGE 1): ANOGENITAL DISTANCE - SUMMARY - F2 GENERATION PUPS

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)		0	1	3	10	30
LITTERS WITH ONE OR MORE LIVE PUPS	N	28	28	28	28	29
DAY 1 POSTPARTUM:						
ANOGENITAL DISTANCE (MM)						
DISTANCE/ LITTER	MEAN±S.D.	1.83 ± 0.20	1.86 ± 0.19	1.87 ± 0.22	1.96 ± 0.41	1.83 ± 0.24
MALE PUPS	MEAN±S.D.	2.59 ± 0.17	2.58 ± 0.17	2.60 ± 0.20	2.64 ± 0.26	2.63 ± 0.17
FEMALE PUPS	MEAN±S.D.	1.07 ± 0.06	1.08 ± 0.10	1.10 ± 0.08	1.08 ± 0.08 [27]a	1.12 ± 0.10
DAY 22 POSTPARTUM:						
ANOGENITAL DISTANCE (MM)						
DISTANCE/ LITTER	MEAN±S.D.	11.06 ± 0.92	11.26 ± 1.04	11.01 ± 1.26 [27]b	11.31 ± 1.70	10.55 ± 1.46
MALE PUPS	MEAN±S.D.	13.90 ± 1.10	13.95 ± 1.10	13.58 ± 1.26 [27]b	13.70 ± 1.44	13.31 ± 1.34
FEMALE PUPS	MEAN±S.D.	8.24 ± 0.78	8.28 ± 0.60	8.33 ± 0.86 [27]b	8.10 ± 0.74 [27]a	8.02 ± 0.85

[ ] = NUMBER OF VALUES AVERAGED

a. Litter 1524 had no female pups.

b. Excludes litter 1474, which did not have anogenital distances recorded on day 22 postpartum.

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TABLE E26 (PAGE 1): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP I		0 MG/KG/DAY
RAT #		DESCRIPTION
1301		NO ADVERSE FINDINGS
1302		NO ADVERSE FINDINGS
1303		NO ADVERSE FINDINGS
1304		NO ADVERSE FINDINGS
1305		NO ADVERSE FINDINGS
1306		NO ADVERSE FINDINGS
1307		NO ADVERSE FINDINGS
1308	DP(62- 65)	LOCALIZED ALOPECIA: LIMBS
	DG(19- 20)	LOCALIZED ALOPECIA: LIMBS
	DL(1- 22)	LOCALIZED ALOPECIA: LIMBS a
1309		NO ADVERSE FINDINGS
1310		NO ADVERSE FINDINGS
1311		NO ADVERSE FINDINGS
1312	DG(16- 22)	INCISORS: MISALIGNED
	DL(1- 22)	INCISORS: MISALIGNED a
1313		NO ADVERSE FINDINGS
1314		NO ADVERSE FINDINGS
1315		NO ADVERSE FINDINGS
1316		NO ADVERSE FINDINGS
1317		NO ADVERSE FINDINGS
1318	DP(61- 68)	INCISORS: MISSING/BROKEN
19779		NO ADVERSE FINDINGS
19780	DP(24- 25)	CHROMORHINORRHEA
	DP(24- 28)	DEHYDRATION a
	DP(25- 28)	EMACIATION a
	DP(26- 28)	URINE-STAINED ABDOMINAL FUR
	DP(27)	LACRIMATION
	DP(27- 28)	PTOSIS
	DP(28)	CHROMODACRYORRHEA a
1321	DP(41- 55)	LOCALIZED ALOPECIA: HEAD
1322	DP(27)	HEAD: SCAB (0.5 CM IN DIAMETER)
1323		NO ADVERSE FINDINGS
1324		NO ADVERSE FINDINGS
1325		NO ADVERSE FINDINGS
1326		NO ADVERSE FINDINGS
1327		NO ADVERSE FINDINGS

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
a. Observation confirmed at necropsy.

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TABLE E26 (PAGE 2): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP I		0 MG/KG/DAY
RAT #		DESCRIPTION
1328		NO ADVERSE FINDINGS
1329		NO ADVERSE FINDINGS
1330		NO ADVERSE FINDINGS
1331		NO ADVERSE FINDINGS
1332		NO ADVERSE FINDINGS
1333	DP(3- 7)	URINE-STAINED ABDOMINAL FUR
1334	DP(8- 12)	ABDOMINAL DISTENTION
1335	DG(14- 21)	SWOLLEN EAR(S)
	DL(1- 22)	SWOLLEN EAR(S) a
1336	DP(3- 4)	CHROMORHINORRHEA
	DP(7- 10)	ABDOMINAL DISTENTION
	DP(50- 54)	INCISORS: MISSING/BROKEN
1337		NO ADVERSE FINDINGS
1338	DG(1- 21)	SWOLLEN EAR(S)
	DL(1- 22)	SWOLLEN EAR(S) a
1339	DP(6- 12)	ABDOMINAL DISTENTION
1340	DP(6- 16)	ABDOMINAL DISTENTION
1341	DP(6- 15)	ABDOMINAL DISTENTION
	DG(8- 21)	SWOLLEN EAR(S)
	DL(1- 22)	SWOLLEN EAR(S) a
1342	DP(57- 81)	SWOLLEN EAR(S)
	DG(0- 21)	SWOLLEN EAR(S)
	DL(1- 22)	SWOLLEN EAR(S) a
1343		NO ADVERSE FINDINGS
1344	DP(64- 83)	INCISORS: MISALIGNED
	DG(0- 21)	INCISORS: MISALIGNED
	DL(1- 6)	INCISORS: MISALIGNED
	DL(4- 22)	INCISORS: MISSING/BROKEN a
	DL(22)	INCISORS: MISALIGNED a
1345		NO ADVERSE FINDINGS
1346		NO ADVERSE FINDINGS
1347	DP(6- 15)	ABDOMINAL DISTENTION
1348		NO ADVERSE FINDINGS

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E26 (PAGE 3): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP I		0 MG/KG/DAY
RAT #		DESCRIPTION
1349		NO ADVERSE FINDINGS
1350		NO ADVERSE FINDINGS
1351		NO ADVERSE FINDINGS
1352		NO ADVERSE FINDINGS
1353		NO ADVERSE FINDINGS
1354		NO ADVERSE FINDINGS
1355	DP(62- 81)	PTOSIS
	DG(0- 21)	PTOSIS
	DL(1- 22)	PTOSIS
1356		NO ADVERSE FINDINGS
1357		NO ADVERSE FINDINGS
1358		NO ADVERSE FINDINGS
1359	DP(1- 4)	CHROMODACRYORRHEA
1360		NO ADVERSE FINDINGS

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E26 (PAGE 4): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP II		1 MG/KG/DAY
RAT #		DESCRIPTION
1361		NO ADVERSE FINDINGS
1362		NO ADVERSE FINDINGS
1363	DP(63- 64)	INCISORS: MISSING/BROKEN
1364	DP(3- 5)	CHROMORHINORRHEA
1365	DP(1- 3)	TIP OF TAIL MISSING a
	DP(3)	DECREASED MOTOR ACTIVITY
	DP(3)	CHROMORHINORRHEA a
	DP(3)	COLD TO TOUCH
	DP(4)	FOUND DEAD
1366		NO ADVERSE FINDINGS
1367		NO ADVERSE FINDINGS
1368		NO ADVERSE FINDINGS
1369		NO ADVERSE FINDINGS
1370	DP(9- 14)	ABDOMINAL DISTENTION
	DP(17)	HEAD: SWOLLEN
	DP(17)	SNOUT: SWOLLEN
	DP(17- 20)	LACRIMATION
	DP(17- 20)	RIGHT EYE: SWOLLEN
1371		NO ADVERSE FINDINGS
1372	DP(2)	SOFT OR LIQUID FECES
1373	DP(28- 35)	CHROMORHINORRHEA
	DP(29- 50)	DEHYDRATION a
	DP(32- 50)	URINE-STAINED ABDOMINAL FUR
	DP(35)	CHROMODACRYORRHEA
	DP(35- 50)	EMACIATION a
	DP(45- 50)	DECREASED MOTOR ACTIVITY
	DP(51)	FOUND DEAD
1374	DP(26- 31)	ANNULAR CONSTRICTION OF THE TAIL
1375	DP(26- 35)	ANNULAR CONSTRICTION OF THE TAIL
1376		NO ADVERSE FINDINGS

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E26 (PAGE 5): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP II		1 MG/KG/DAY
RAT #		DESCRIPTION
1377	DP(2)	DEHYDRATION
	DP(2- 3)	CHROMORHINORRHEA
	DP(2- 10)	URINE-STAINED ABDOMINAL FUR
	DP(9- 19)	ABDOMINAL DISTENTION
1378		NO ADVERSE FINDINGS
1379		NO ADVERSE FINDINGS
1380		NO ADVERSE FINDINGS
1381		NO ADVERSE FINDINGS
1382	DG(6- 21)	SWOLLEN EAR(S)
	DL(1- 22)	SWOLLEN EAR(S)a
1383		NO ADVERSE FINDINGS
1384		NO ADVERSE FINDINGS
1385		NO ADVERSE FINDINGS
1386	DP(9- 12)	ABDOMINAL DISTENTION
1387		NO ADVERSE FINDINGS
1388		NO ADVERSE FINDINGS
1389	DP(67- 83)	SWOLLEN EAR(S)
	DG(0- 6)	SWOLLEN EAR(S)
1390	DP(8- 14)	ABDOMINAL DISTENTION
1391		NO ADVERSE FINDINGS
1392		NO ADVERSE FINDINGS
1393		NO ADVERSE FINDINGS
1394		NO ADVERSE FINDINGS
1395		NO ADVERSE FINDINGS
1396		NO ADVERSE FINDINGS
1397		NO ADVERSE FINDINGS
1398	DP(1- 9)	URINE-STAINED ABDOMINAL FUR
1399		NO ADVERSE FINDINGS
1400		NO ADVERSE FINDINGS
1401		NO ADVERSE FINDINGS
1402		NO ADVERSE FINDINGS
1403		NO ADVERSE FINDINGS

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E26 (PAGE 6): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP II		1 MG/KG/DAY
RAT #		DESCRIPTION
1404		NO ADVERSE FINDINGS
1405	DP(3- 6)	URINE-STAINED ABDOMINAL FUR
	DP(7- 13)	ABDOMINAL DISTENTION
1406		NO ADVERSE FINDINGS
1407	DP(24- 83)	TIP OF TAIL MISSING
	DG(0- 21)	TIP OF TAIL MISSING
	DL(1- 22)	TIP OF TAIL MISSING a
1408		NO ADVERSE FINDINGS
1409		NO ADVERSE FINDINGS
1410		NO ADVERSE FINDINGS
1411		NO ADVERSE FINDINGS
1412	DP(6- 15)	ABDOMINAL DISTENTION
1413	DP(59- 83)	LOCALIZED ALOPECIA: LIMBS
	DG(0- 21)	LOCALIZED ALOPECIA: LIMBS a
1413	DL(1- 22)	LOCALIZED ALOPECIA: LIMBS
1414		NO ADVERSE FINDINGS
1415	DP(1- 7)	URINE-STAINED ABDOMINAL FUR
	DP(6- 16)	ABDOMINAL DISTENTION
1416		NO ADVERSE FINDINGS
1417		NO ADVERSE FINDINGS
1418		NO ADVERSE FINDINGS
1419		NO ADVERSE FINDINGS
1420		NO ADVERSE FINDINGS

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E26 (PAGE 7): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP III		3 MG/KG/DAY
RAT #		DESCRIPTION
1421	DL(2)	RED PERIVAGINAL SUBSTANCE
1422		NO ADVERSE FINDINGS
1423		NO ADVERSE FINDINGS
1424		NO ADVERSE FINDINGS
1425		NO ADVERSE FINDINGS
1426	DP(2- 3)	SOFT OR LIQUID FECES
	DP(3- 5)	URINE-STAINED ABDOMINAL FUR
1427	DP(26)	SOFT OR LIQUID FECES
1428	DL(13)	SOFT OR LIQUID FECES
1429		NO ADVERSE FINDINGS
1430	DP(59- 66)	INCISORS: MISSING/BROKEN
1431	DP(4- 11)	URINE-STAINED ABDOMINAL FUR
1432	DP(4- 6)	CHROMORHINORRHEA a
	DP(4- 6)	URINE-STAINED ABDOMINAL FUR
	DP(6)	EMACIATION a
	DP(7)	FOUND DEAD
1433	DP(23)	CHROMORHINORRHEA
	DL(1)	RED PERIVAGINAL SUBSTANCE
1434	DP(2- 4)	CHROMORHINORRHEA
1435		NO ADVERSE FINDINGS
1436	DL(5- 21)	LOCALIZED ALOPECIA: LIMBS
1437		NO ADVERSE FINDINGS
1438		NO ADVERSE FINDINGS
1439	DP(62- 79)	LOCALIZED ALOPECIA: LIMBS
	DG(15- 21)	LOCALIZED ALOPECIA: LIMBS
	DL(1- 22)	LOCALIZED ALOPECIA: LIMBS a
1440		NO ADVERSE FINDINGS
1441	DP(3)	EMACIATION
	DP(3- 10)	URINE-STAINED ABDOMINAL FUR
	DP(9- 13)	ABDOMINAL DISTENTION
1442		NO ADVERSE FINDINGS
1443		NO ADVERSE FINDINGS
1444	DP(1)	CHROMORHINORRHEA
1445		NO ADVERSE FINDINGS

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E26 (PAGE 8): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP III		3 MG/KG/DAY
RAT #		DESCRIPTION
1446		NO ADVERSE FINDINGS
1447		NO ADVERSE FINDINGS
1448		NO ADVERSE FINDINGS
1449		NO ADVERSE FINDINGS
1450	DL(2)	RED PERIVAGINAL SUBSTANCE
	DL(17)	SOFT OR LIQUID FECES
	DL(19- 20)	SOFT OR LIQUID FECES
1451		NO ADVERSE FINDINGS
1452	DP(37)	CHROMORHINORRHEA
1453		NO ADVERSE FINDINGS
1454		NO ADVERSE FINDINGS
1455		NO ADVERSE FINDINGS
1456		NO ADVERSE FINDINGS
1457		NO ADVERSE FINDINGS
1458		NO ADVERSE FINDINGS
1459	DP(41- 64)	LOCALIZED ALOPECIA: LIMBS
	DP(51- 53)	CHROMORHINORRHEA
	DP(51- 82)	INCISORS: MISSING/BROKEN
	DP(54)	INCISORS: MISALIGNED
	DP(54- 55)	CHROMODACRYORRHEA
	DP(65- 82)	CHROMODACRYORRHEA
	DG(0- 21)	CHROMODACRYORRHEA
	DG(0- 21)	INCISORS: MISSING/BROKEN
	DL(1- 22)	CHROMODACRYORRHEA a
	DL(1- 22)	INCISORS: MISSING/BROKEN a
	DL(1- 22)	LOCALIZED ALOPECIA: LIMBS a
1460		NO ADVERSE FINDINGS
1461		NO ADVERSE FINDINGS
1462		NO ADVERSE FINDINGS
1463	DL(3- 22)	LOCALIZED ALOPECIA: LIMBS a
1464		NO ADVERSE FINDINGS
1465	DP(1- 3)	CHROMORHINORRHEA
	DP(6- 18)	ABDOMINAL DISTENTION
	DP(14- 15)	CHROMORHINORRHEA

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E26 (PAGE 9): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP III		3 MG/KG/DAY
RAT #		DESCRIPTION
1466	DP(6- 12)	ABDOMINAL DISTENTION
1467	DP(7- 10)	ABDOMINAL DISTENTION
1468		NO ADVERSE FINDINGS
1469	DL(22)	SOFT OR LIQUID FECES
1470		NO ADVERSE FINDINGS
1471		NO ADVERSE FINDINGS
1472	DL(2)	RED PERIVAGINAL SUBSTANCE
1473		NO ADVERSE FINDINGS
1474	DP(60- 63)	INCISORS: MISSING/BROKEN
	DP(64- 77)	INCISORS: MISALIGNED
	DG(16- 21)	INCISORS: MISSING/BROKEN
	DL(1- 22)	INCISORS: MISSING/BROKEN a
1475		NO ADVERSE FINDINGS
1476		NO ADVERSE FINDINGS
1477		NO ADVERSE FINDINGS
1478		NO ADVERSE FINDINGS
1479		NO ADVERSE FINDINGS
1480	DP(57- 59)	SWOLLEN EAR(S)

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E26 (PAGE 10): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP IV		10 MG/KG/DAY
RAT #		DESCRIPTION
1481		NO ADVERSE FINDINGS
1482		NO ADVERSE FINDINGS
1483	DP(2- 8)	URINE-STAINED ABDOMINAL FUR
	DP(3)	EMACIATION
	DP(9- 18)	ABDOMINAL DISTENTION
1484	DP(1- 2)	URINE-STAINED ABDOMINAL FUR
	DP(2)	DECREASED MOTOR ACTIVITY
	DP(2)	COLD TO TOUCH
	DP(2)	LABORED BREATHING
	DP(3)	FOUND DEAD
1485		NO ADVERSE FINDINGS
1486	DP(5- 8)	URINE-STAINED ABDOMINAL FUR
	DP(9- 20)	ABDOMINAL DISTENTION
1487		NO ADVERSE FINDINGS
1488		NO ADVERSE FINDINGS
1489	DP(8- 10)	ABDOMINAL DISTENTION
	DP(15- 17)	LOCALIZED ALOPECIA: NECK
1490		NO ADVERSE FINDINGS
1491	DP(8- 9)	ABDOMINAL DISTENTION
	DP(13- 83)	TIP OF TAIL MISSING
	DG(0- 21)	TIP OF TAIL MISSING
	DL(18)	URINE-STAINED ABDOMINAL FUR
	DL(18- 22)	SOFT OR LIQUID FECES
	DL(1- 22)	TIP OF TAIL MISSING
1492		NO ADVERSE FINDINGS
1493		NO ADVERSE FINDINGS
1494		NO ADVERSE FINDINGS
1495	DP(30)	LACRIMATION
	DP(30)	LEFT EYE: SWOLLEN
1496		NO ADVERSE FINDINGS
1497		NO ADVERSE FINDINGS
1498	DP(6)	CHROMORHINORRHEA
	DP(6)	URINE-STAINED ABDOMINAL FUR
1499		NO ADVERSE FINDINGS
1500		NO ADVERSE FINDINGS

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E26 (PAGE 11): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP IV		10 MG/KG/DAY
RAT #		DESCRIPTION
1501		NO ADVERSE FINDINGS
1502		NO ADVERSE FINDINGS
1503		NO ADVERSE FINDINGS
1504		NO ADVERSE FINDINGS
1505	DP(7- 18)	ABDOMINAL DISTENTION
	DP(65- 79)	LOCALIZED ALOPECIA: LIMBS
	DL(5- 22)	LOCALIZED ALOPECIA: LIMBS a
1506		NO ADVERSE FINDINGS
1507		NO ADVERSE FINDINGS
1508		NO ADVERSE FINDINGS
1509		NO ADVERSE FINDINGS
1510		NO ADVERSE FINDINGS
1511		NO ADVERSE FINDINGS
1512		NO ADVERSE FINDINGS
1513	DP(59- 67)	BACK: SCAB (DID NOT EXCEED 0.5 CM X 0.3 CM)
1514		NO ADVERSE FINDINGS
1515		NO ADVERSE FINDINGS
1516		NO ADVERSE FINDINGS
1517	DL(8- 22)	LOCALIZED ALOPECIA: LIMBS a
1518		NO ADVERSE FINDINGS
1519		NO ADVERSE FINDINGS
1520		NO ADVERSE FINDINGS
1521		NO ADVERSE FINDINGS
1522		NO ADVERSE FINDINGS
1523		NO ADVERSE FINDINGS
1524		NO ADVERSE FINDINGS
1525		NO ADVERSE FINDINGS
1526		NO ADVERSE FINDINGS
1527	DL(14)	SOFT OR LIQUID FECES
	DL(15- 16)	URINE-STAINED ABDOMINAL FUR
1528		NO ADVERSE FINDINGS

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E26 (PAGE 12): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP IV		10 MG/KG/DAY
RAT #		DESCRIPTION
1529		NO ADVERSE FINDINGS
1530		NO ADVERSE FINDINGS
1531	DP(71- 83)	INCISORS: MISALIGNED
	DG(0- 2)	INCISORS: MISALIGNED
1532		NO ADVERSE FINDINGS
1533		NO ADVERSE FINDINGS
1534		NO ADVERSE FINDINGS
1535		NO ADVERSE FINDINGS
1536		NO ADVERSE FINDINGS
1537		NO ADVERSE FINDINGS
1538		NO ADVERSE FINDINGS
1539		NO ADVERSE FINDINGS
1540		NO ADVERSE FINDINGS

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E26 (PAGE 13): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP V		30 MG/KG/DAY
RAT #		DESCRIPTION
1541	DP(10- 19)	ABDOMINAL DISTENTION
1542	DP(10- 11)	ABDOMINAL DISTENTION
1543		NO ADVERSE FINDINGS
1544	DP(61- 66)	BACK: SCAB (0.5 CM X 0.2 CM)
	DP(62- 66)	LOCALIZED ALOPECIA: LIMBS
1545	DP(56)	CHROMORHINORRHEA
	DL(2)	RED PERIVAGINAL SUBSTANCE
1546		NO ADVERSE FINDINGS
1547	DP(9- 13)	ABDOMINAL DISTENTION
1548	DL(5- 22)	SWOLLEN EAR(S) a
1549	DP(2- 3)	DECREASED MOTOR ACTIVITY
	DP(2- 7)	CHROMORHINORRHEA a
	DP(3- 7)	COLD TO TOUCH
	DP(5- 7)	URINE-STAINED ABDOMINAL FUR
	DP(8)	FOUND DEAD
1550	DP(9- 13)	ABDOMINAL DISTENTION
	DP(40)	ANNULAR CONSTRICTIONS OF THE TAIL
1551	DP(9- 14)	ABDOMINAL DISTENTION
	DP(13)	TAIL BENT
	DP(14- 31)	TIP OF TAIL MISSING a
1552		NO ADVERSE FINDINGS
1553		NO ADVERSE FINDINGS
1554		NO ADVERSE FINDINGS
1555	DG(17- 21)	LOCALIZED ALOPECIA: LIMBS
	DL(1- 22)	LOCALIZED ALOPECIA: LIMBS a
1556		NO ADVERSE FINDINGS
1557		NO ADVERSE FINDINGS
1558	DP(8- 13)	ABDOMINAL DISTENTION
1559	DP(3- 5)	URINE-STAINED ABDOMINAL FUR
	DP(5)	COLD TO TOUCH
	DP(5)	EMACIATION a
	DP(6)	FOUND DEAD
1560		NO ADVERSE FINDINGS
1561		NO ADVERSE FINDINGS
1562	DP(2)	FOUND DEAD b
1563	DP(2)	FOUND DEAD b
1564		NO ADVERSE FINDINGS

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Observation confirmed at necropsy.

b. Clinical observations were not recorded on day 1 postweaning.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E26 (PAGE 14): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP V		30 MG/KG/DAY
RAT #		DESCRIPTION
1565	DP(39)	ANNULAR CONSTRICTIONS OF THE TAIL
	DG(14- 21)	LOCALIZED ALOPECIA: LIMBS
	DL(1- 22)	LOCALIZED ALOPECIA: LIMBS a
1566	DG(21)	LOCALIZED ALOPECIA: LIMBS
	DL(1- 22)	LOCALIZED ALOPECIA: LIMBS a
1567		NO ADVERSE FINDINGS
1568		NO ADVERSE FINDINGS
1569		NO ADVERSE FINDINGS
1570		NO ADVERSE FINDINGS
1571		NO ADVERSE FINDINGS
1572		NO ADVERSE FINDINGS
1573	DP(8- 19)	ABDOMINAL DISTENTION
1574	DP(2- 3)	COLD TO TOUCH
	DP(2- 3)	URINE-STAINED ABDOMINAL FUR
	DP(3)	FOUND DEAD
1575	DP(3)	FOUND DEAD
1576	DP(3- 8)	URINE-STAINED ABDOMINAL FUR
	DP(9- 13)	ABDOMINAL DISTENTION
	DP(38)	ANNULAR CONSTRICTIONS OF THE TAIL
1577		NO ADVERSE FINDINGS
1578		NO ADVERSE FINDINGS
1579		NO ADVERSE FINDINGS
1580		NO ADVERSE FINDINGS
1581		NO ADVERSE FINDINGS
1582		NO ADVERSE FINDINGS
1583		NO ADVERSE FINDINGS
1584		NO ADVERSE FINDINGS
1585		NO ADVERSE FINDINGS
1586	DG(14- 21)	RIGHT AXILLA: MASS (0.5 CM X 0.5 CM X 0.5 CM)
	DL(1- 19)	RIGHT AXILLA: MASS (DID NOT EXCEED 0.5 CM X 0.5 CM X 0.5 CM)
1587		NO ADVERSE FINDINGS
1588		NO ADVERSE FINDINGS
1589	DP(24)	RALES
1590		NO ADVERSE FINDINGS
1591	DG(20- 21)	LOCALIZED ALOPECIA: LIMBS
	DL(1- 6)	LOCALIZED ALOPECIA: LIMBS

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION
a. Observation confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E26 (PAGE 15): CLINICAL OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP V		30 MG/KG/DAY
RAT #		DESCRIPTION
1592	DP(6- 12)	URINE-STAINED ABDOMINAL FUR
	DP(7- 15)	ABDOMINAL DISTENTION
1593		NO ADVERSE FINDINGS
1594		NO ADVERSE FINDINGS
1595		NO ADVERSE FINDINGS
1596	DP(8)	RALES
1597	DP(5- 16)	ABDOMINAL DISTENTION
1598		NO ADVERSE FINDINGS
1599		NO ADVERSE FINDINGS
1600		NO ADVERSE FINDINGS

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E27 (PAGE 1): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP I				0 MG/KG/DAY							
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1301	39.	71.	107.	146.	176.							
1302	41.	69.	105.	137.	162.	180.	196.	206.	219.	220.	235.	237.
1303	40.	69.	109.	144.	173.							
1304	46.	76.	115.	144.	172.	194.	208.	217.	233.	246.	246.	266.
1305	53.	86.	131.	176.	201.							
1306	31.	66.	107.	148.	178.	208.	219.	236.	252.	260.	264.	276.
1307	31.	59.	99.	134.	163.							
1308	47.	76.	116.	150.	176.	201.	215.	234.	241.	253.	256.	279.
1309	44.	74.	115.	151.	180.							
1310	46.	74.	123.	158.	190.	220.	239.	249.	267.	285.	285.	306.
1311	40.	71.	108.	145.	170.							
1312	49.	74.	116.	158.	192.	230.	248.	263.	274.	295.	304.	312.
1313	45.	70.	104.	140.	168.	194.	211.	222.	242.	254.	258.	268.
1314	46.	83.	124.	160.	196.							
1315	50.	95.	144.	191.	236.							
1316	45.	87.	134.	169.	196.	228.	248.	254.	276.	279.	288.	297.
1317	48.	85.	132.	169.	202.							
1318	39.	72.	119.	159.	192.	228.	271.	271.	284.	298.	305.	327.
19779	32.	58.	94.	136.								
19780	41.	71.	108.	124.								
1321	46.	77.	116.	153.	183.	196.	242.	274.	262.	274.	280.	287.
1322	51.	84.	119.	156.	188.							
1323	47.	78.	117.	160.	182.							
1324	33.	59.	98.	131.	152.							
1325	35.	60.	97.	133.	159.	191.	203.	224.	235.	245.	253.	267.
1326	34.	63.	109.	143.	180.							
1327	33.	61.	102.	151.	192.							
1328	35.	67.	111.	146.	181.	199.	225.	239.	254.	268.	270.	279.
1329	39.	67.	103.	132.	159.							
1330	34.	62.	96.	133.	162.	184.	200.	222.	230.	239.	246.	255.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.

b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E27 (PAGE 2): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP I				0 MG/KG/DAY							
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1331	44.	72.	112.	151.	183.	201.	223.	238.	252.	268.	263.	280.
1332	40.	69.	110.	144.	173.							
1333	28.	52.	88.	130.	155.							
1334	28.	48.	79.	120.	146.	167.	187.	201.	211.	225.	227.	238.
1335	40.	69.	102.	146.	171.	194.	212.	232.	250.	253.	268.	275.
1336	37.	66.	100.	136.	167.	187.	212.	226.	238.	243.	249.	262.
1337	47.	72.	107.	152.								
1338	48.	77.	115.	152.	181.	204.	229.	247.	254.	272.	278.	303.
1339	32.	59.	96.	141.								
1340	37.	58.	93.	137.	168.	200.	220.	258.	250.	272.	285.	279.
1341	40.	72.	114.	146.	174.	198.	217.	237.	253.	266.	263.	291.
1342	42.	73.	110.	144.	170.	200.	222.	237.	254.	274.	276.	295.
1343	53.	91.	134.	173.								
1344	60.	91.	138.	173.	196.	215.	229.	250.	257.	259.	261.	266.
1345	47.	80.	122.	160.	186.	213.	232.	255.	268.	280.	288.	295.
1346	44.	76.	118.	155.	174.	197.	214.	229.	237.	241.	247.	253.
1347	36.	68.	108.	148.								
1348	41.	68.	102.	142.	168.	190.	213.	234.	244.	259.	264.	275.
1349	40.	68.	106.	144.								
1350	49.	86.	133.	172.	191.	222.	234.	263.	262.	276.	275.	298.
1351	45.	79.	123.	158.								
1352	49.	85.	125.	172.								
1353	38.	62.	100.	137.	163.	180.	205.	223.	240.	245.	256.	262.
1354	44.	74.	108.	140.								
1355	43.	80.	123.	157.	180.	209.	226.	251.	263.	273.	279.	295.
1356	48.	83.	124.	167.								
1357	35.	60.	99.	135.								
1358	33.	64.	100.	137.	154.	177.	192.	211.	228.	232.	238.	240.
1359	36.	65.	99.	137.	159.	189.	201.	210.	228.	234.	239.	239.
1360	37.	70.	112.									

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.

b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E27 (PAGE 3): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP II				1 MG/KG/DAY							
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1361	40.	66.	100.	139.	169.							
1362	40.	64.	92.	124.	152.	172.	188.	202.	212.	226.	236.	245.
1363	35.	66.	103.	148.	176.	201.	216.	228.	246.	261.	264.	282.
1364	35.	59.	95.	143.	170.	197.	211.	230.	241.	257.	262.	272.
1365	31.	FOUND DEAD ON DAY 4 POSTWEANING										
1366	36.	61.	98.	131.	163.							
1367	29.	48.	76.	112.	140.	158.	177.	186.	197.	202.	220.	223.
1368	38.	64.	102.	138.	162.	181.	200.	213.	230.	243.	247.	266.
1369	41.	70.	106.	137.	162.							
1370	40.	66.	108.	151.	186.							
1371	37.	65.	105.	146.	181.	210.	236.	251.	260.	282.	281.	303.
1372	49.	80.	120.	156.	181.							
1373	44.	73.	112.	151.	151.	130.	118.	107.	FOUND DEAD ON DAY 51 POSTWEANING			
1374	41.	70.	107.	147.	177.							
1375	40.	66.	104.	143.	170.	201.	221.	233.	239.	255.	265.	278.
1376	37.	62.	96.	127.	161.	194.	223.	236.	267.	284.	296.	316.
1377	26.	43.	84.	134.	172.							
1378	47.	79.	121.	158.	188.	210.	224.	242.	258.	270.	278.	288.
1379	49.	78.	118.	162.	187.	213.	232.	259.	267.	278.	280.	295.
1380	40.	65.	98.	135.	156.							
1381	38.	62.	96.	136.	159.	182.	202.	217.	228.	239.	242.	256.
1382	31.	58.	96.	133.	160.	188.	210.	229.	239.	249.	248.	265.
1383	29.	49.	85.	124.	153.	178.	202.	219.	232.	245.	253.	274.
1384	40.	68.	110.	140.	156.	176.	183.	202.	203.	219.	225.	236.
1385	39.	76.	111.	150.	179.							
1386	36.	65.	98.	132.	160.							
1387	40.	69.	111.	158.	184.	221.	240.	254.	272.	286.	286.	308.
1388	42.	70.	107.	149.	183.							
1389	44.	73.	113.	154.	181.	214.	237.	253.	273.	291.	291.	302.
1390	38.	73.	113.	148.	170.							

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.

b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E27 (PAGE 4): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP II				1 MG/KG/DAY							
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1391	36.	64.	103.	142.	174.							
1392	38.	73.	122.	158.	187.	213.	235.	246.	269.	258.	289.	316.
1393	39.	65.	101.	139.	171.	191.	214.	230.	234.	260.	267.	279.
1394	40.	68.	109.	153.	186.							
1395	34.	58.	95.	131.	166.							
1396	42.	74.	108.	153.	182.							
1397	40.	72.	116.	159.	189.	206.	233.	253.	257.	261.	284.	301.
1398	31.	53.	88.	132.	162.							
1399	58.	85.	121.	157.	181.	205.	231.	244.	251.	260.	275.	288.
1400	57.	82.	117.	150.	177.							
1401	34.	63.	98.	132.	158.	177.	194.	208.	222.	230.	235.	250.
1402	38.	68.	104.	138.	164.							
1403	32.	62.	95.	135.	153.							
1404	31.	57.	94.	134.	165.	188.	212.	230.	242.	258.	263.	285.
1405	28.	50.	84.	126.	166.							
1406	44.	72.	105.	136.	164.							
1407	47.	75.	116.	155.	183.	210.	229.	242.	259.	263.	274.	277.
1408	42.	65.	101.	136.	162.							
1409	41.	66.	104.	142.	174.	204.	212.	252.	263.	258.	269.	280.
1410	40.	72.	112.	157.	189.	221.	239.	266.	275.	285.	294.	315.
1411	44.	74.	114.	154.								
1412	49.	84.	128.	163.								
1413	40.	68.	106.	148.	177.	195.	216.	237.	245.	252.	264.	273.
1414	35.	63.	98.	135.								
1415	30.	58.	89.	129.	157.	180.	208.	222.	232.	249.	250.	264.
1416	46.	74.	114.	150.	181.	203.	225.	239.	240.	248.	256.	265.
1417	45.	72.	112.	151.								
1418	41.	65.	99.	138.	163.	186.	206.	219.	230.	245.	246.	262.
1419	38.	69.	108.	149.								
1420	42.	64.	104.	145.								

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.

b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E27 (PAGE 5): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP III				3 MG/KG/DAY							
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1421	31.	62.	97.	138.	170.	191.	209.	222.	234.	245.	251.	266.
1422	34.	62.	100.	143.	167.							
1423	33.	64.	106.	143.	180.							
1424	37.	72.	111.	150.	177.	211.	223.	232.	249.	268.	267.	280.
1425	32.	61.	104.	145.	177.							
1426	34.	60.	97.	136.	157.	191.	223.	238.	266.	276.	287.	299.
1427	44.	74.	121.	163.	191.							
1428	45.	78.	119.	158.	191.	213.	233.	249.	260.	280.	289.	307.
1429	42.	76.	112.	150.	177.							
1430	35.	65.	110.	160.	199.	233.	258.	275.	283.	297.	308.	329.
1431	31.	52.	86.	138.	176.	209.	232.	257.	271.	282.	290.	297.
1432	31.	FOUND DEAD ON DAY 7 POSTWEANING										
1433	40.	71.	112.	148.	182.	212.	234.	246.	263.	284.	282.	303.
1434	43.	52.	102.	147.	183.							
1435	51.	85.	128.	169.	199.							
1436	42.	81.	124.	162.	189.	217.	228.	244.	259.	271.	281.	298.
1437	42.	76.	114.	145.	168.	192.	206.	227.	248.	255.	255.	264.
1438	38.	75.	113.	136.	144.							
1439	47.	76.	120.	160.	184.	214.	233.	254.	271.	287.	293.	304.
1440	45.	76.	122.	162.	189.							
1441	32.	51.	90.	140.	172.							
1442	33.	61.	94.	143.	169.	196.	229.	237.	238.	248.	258.	278.
1443	35.	62.	94.	136.	166.	194.	215.	240.	261.	279.	279.	300.
1444	37.	65.	107.	150.	179.							
1445	39.	72.	108.	150.	166.							
1446	41.	70.	103.	137.	173.	189.	207.	222.	231.	246.	253.	260.
1447	46.	74.	109.	145.	191.							
1448	52.	80.	117.	158.	180.	216.	234.	256.	263.	275.	287.	302.
1449	57.	93.	135.	156.	182.							
1450	56.	90.	131.	159.	180.	200.	218.	233.	238.	250.	263.	277.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.

b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E27 (PAGE 6): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP III				3 MG/KG/DAY							
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1451	56.	93.	136.	176.	208.							
1452	50.	82.	119.	151.	179.	169.	224.	251.	254.	264.	272.	290.
1453	54.	96.	138.	170.	197.							
1454	57.	93.	133.	168.	189.							
1455	46.	78.	116.	151.	184.	211.	231.	246.	270.	288.	287.	300.
1456	61.	96.	131.	169.	192.	216.	231.	246.	250.	265.	266.	279.
1457	39.	70.	108.	143.	162.							
1458	38.	69.	113.	154.	178.	202.	222.	232.	243.	247.	265.	271.
1459	52.	93.	138.	172.	207.	243.	258.	277.	290.	300.	311.	323.
1460	43.	77.	117.	160.	196.							
1461	42.	71.	108.	152.	188.	211.	234.	250.	266.	273.	287.	297.
1462	46.	76.	112.	158.	181.							
1463	42.	73.	113.	149.	176.	200.	216.	240.	253.	265.	269.	283.
1464	53.	92.	139.	178.	217.							
1465	30.	49.	83.	128.	164.	192.	222.	242.	254.	272.	278.	302.
1466	32.	53.	92.	133.								
1467	34.	60.	101.	140.								
1468	36.	60.	92.	130.	157.	178.	206.	230.	239.	245.	261.	267.
1469	38.	62.	97.	132.	160.	196.	217.	242.	244.	258.	262.	272.
1470	33.	58.	100.	135.								
1471	47.	78.	114.	150.								
1472	46.	75.	110.	144.	170.	189.	214.	228.	243.	253.	251.	260.
1473	53.	83.	126.	156.								
1474	50.	81.	121.	152.	175.	195.	213.	220.	233.	231.	248.	265.
1475	37.	68.	103.	134.								
1476	46.	76.	116.	156.	188.	213.	237.	259.	265.	272.	286.	292.
1477	67.	100.	125.	173.	200.	216.	242.	269.	256.	268.	267.	279.
1478	57.	91.	128.	166.								
1479	44.	76.	120.	154.								
1480	42.	71.	115.	152.	185.	205.	218.	242.	244.	263.	273.	278.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.
b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E27 (PAGE 7): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP IV				10 MG/KG/DAY							
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1481	48.	76.	116.	155.	184.							
1482	47.	75.	112.	149.	172.	200.	215.	231.	243.	256.	270.	279.
1483	29.	48.	82.	124.	153.	183.	202.	221.	231.	247.	251.	275.
1484	28.	FOUND DEAD ON DAY 3 POSTWEANING										
1485	30.	53.	93.	134.	170.							
1486	27.	36.	63.	99.	136.	159.	186.	202.	219.	230.	232.	248.
1487	46.	78.	115.	146.	168.							
1488	46.	78.	119.	153.	185.	209.	241.	262.	280.	300.	312.	329.
1489	39.	70.	105.	142.	178.							
1490	39.	64.	104.	150.	186.	206.	221.	225.	253.	265.	268.	276.
1491	43.	73.	102.	140.	169.	192.	219.	231.	240.	246.	248.	261.
1492	42.	67.	104.	138.	168.							
1493	46.	82.	127.	171.	196.							
1494	48.	89.	101.	161.	191.	217.	236.	248.	259.	277.	284.	290.
1495	44.	78.	110.	144.	164.							
1496	44.	78.	116.	154.	176.	193.	217.	235.	240.	250.	265.	271.
1497	64.	98.	140.	182.	213.	233.	252.	267.	281.	294.	293.	304.
1498	53.	55.	93.	141.	182.							
1499	43.	71.	107.	140.	169.							
1500	39.	66.	100.	139.	167.	184.	205.	216.	230.	235.	238.	254.
1501	40.	68.	102.	147.	181.							
1502	42.	71.	110.	156.	186.	210.	250.	256.	255.	277.	280.	304.
1503	43.	72.	104.	143.	173.							
1504	39.	67.	103.	142.	174.							
1505	40.	66.	99.	135.	161.	184.	208.	223.	236.	247.	258.	273.
1506	34.	63.	97.	132.	162.							
1507	40.	69.	103.	145.	173.	192.	210.	228.	233.	250.	258.	259.
1508	54.	89.	130.	171.	202.	230.	247.	264.	271.	288.	296.	300.
1509	53.	81.	112.	147.	167.							
1510	43.	72.	117.	154.	193.							

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.
b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E27 (PAGE 8): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP IV				10 MG/KG/DAY							
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1511	38.	64.	103.	139.	169.	197.	222.	238.	253.	276.	275.	288.
1512	46.	75.	113.	157.	182.							
1513	43.	75.	111.	150.	175.	201.	217.	233.	247.	253.	256.	268.
1514	53.	90.	131.	172.	196.	223.	241.	256.	274.	283.	289.	304.
1515	47.	73.	108.	143.	167.							
1516	45.	84.	121.	152.	181.	202.	217.	237.	242.	257.	270.	274.
1517	45.	79.	120.	155.	183.	208.	234.	250.	268.	293.	296.	311.
1518	36.	64.	105.	149.	182.							
1519	34.	58.	95.	134.	162.	190.	211.	229.	242.	247.	262.	264.
1520	52.	81.	119.	159.								
1521	50.	74.	107.	140.	159.	180.	198.	216.	225.	236.	248.	251.
1522	49.	85.	122.	157.								
1523	45.	72.	102.	136.	159.	175.	194.	211.	219.	227.	241.	251.
1524	36.	63.	91.	133.	161.	186.	211.	233.	234.	247.	257.	255.
1525	35.	60.	91.	130.								
1526	52.	88.	123.	164.								
1527	48.	79.	119.	157.	184.	201.	225.	240.	251.	268.	269.	282.
1528	40.	70.	103.	125.	142.	162.	179.	197.	207.	214.	219.	233.
1529	34.	50.	85.	114.								
1530	50.	83.	123.	163.								
1531	47.	76.	117.	160.	180.	208.	220.	246.	252.	254.	264.	272.
1532	55.	86.	132.	170.								
1533	56.	92.	136.	175.	199.	226.	239.	258.	274.	286.	289.	305.
1534	44.	78.	118.	154.	178.	206.	226.	247.	251.	259.	267.	277.
1535	38.	72.	114.	154.								
1536	42.	67.	105.	133.								
1537	37.	58.	94.	127.	158.	188.	205.	227.	234.	242.	251.	262.
1538	36.	60.	98.	135.								
1539	47.	73.	112.	153.	182.	210.	232.	252.	267.	278.	281.	291.
1540	44.	71.	102.	138.								

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.
b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E27 (PAGE 9): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP V				30 MG/KG/DAY							
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1541	34.	53.	84.	115.	144.	165.	181.	191.	205.	220.	228.	247.
1542	34.	62.	97.	139.	171.							
1543	35.	56.	86.	114.	136.							
1544	37.	58.	93.	143.	179.	215.	234.	252.	270.	285.	293.	304.
1545	33.	62.	104.	140.	169.	199.	218.	232.	247.	263.	265.	282.
1546	36.	65.	101.	142.	171.	201.	217.	233.	250.	263.	270.	273.
1547	34.	58.	91.	135.	165.							
1548	34.	58.	88.	124.	152.	174.	194.	205.	220.	234.	233.	251.
1549	28.	FOUND DEAD ON DAY 8 POSTWEANING										
1550	33.	54.	80.	108.	132.	148.	171.	189.	201.	209.	217.	224.
1551	42.	68.	108.	150.	178.							
1552	42.	70.	116.	142.	167.	196.	206.	215.	231.	245.	239.	252.
1553	38.	59.	85.	119.	144.							
1554	44.	70.	108.	147.	172.							
1555	39.	64.	94.	133.	164.	182.	201.	214.	221.	231.	238.	250.
1556	43.	72.	106.	139.	166.							
1557	43.	77.	113.	153.	186.	212.	234.	255.	268.	275.	290.	300.
1558	30.	57.	91.	131.	163.	180.	205.	225.	236.	256.	264.	272.
1559	22.	FOUND DEAD ON DAY 6 POSTWEANING										
1560	43.	74.	110.	145.	171.	186.	200.	215.	234.	241.	248.	258.
1561	39.	71.	109.	143.	179.							
1562	c	FOUND DEAD ON DAY 2 POSTWEANING										
1563	c	FOUND DEAD ON DAY 2 POSTWEANING										
1564	36.	63.	97.	129.	156.	175.	195.	206.	214.	226.	234.	239.
1565	40.	67.	100.	135.	167.	178.	198.	212.	219.	226.	236.	243.
1566	44.	73.	107.	141.	176.	207.	226.	240.	258.	272.	275.	252.
1567	43.	75.	116.	151.	182.							
1568	67.	106.	152.	183.	210.	229.	250.	265.	270.	281.	289.	290.
1569	58.	89.	123.	151.	168.							
1570	39.	70.	108.	146.	178.							

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.
b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.
c. Value not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E27 (PAGE 10): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP V				30 MG/KG/DAY							
DAY	1	8	15	22	29	36	43	50	57	64	70a	PRECOHABITATION b
1571	36.	60.	89.	123.	153.	176.	198.	212.	216.	229.	241.	247.
1572	44.	68.	106.	150.	188.							
1573	42.	71.	110.	156.	190.	212.	234.	250.	265.	280.	286.	302.
1574	23.	FOUND DEAD ON DAY 3 POSTWEANING										
1575	23.	FOUND DEAD ON DAY 3 POSTWEANING										
1576	25.	43.	68.	108.	140.	163.	190.	208.	214.	228.	241.	250.
1577	33.	54.	85.	126.	154.							
1578	35.	61.	98.	135.	161.	186.	207.	221.	226.	235.	246.	251.
1579	49.	77.	120.	156.	186.	209.	234.	247.	269.	285.	285.	303.
1580	46.	73.	104.	145.	180.							
1581	48.	76.	112.	149.	177.							
1582	39.	57.	91.	125.								
1583	41.	64.	97.	140.	164.	182.	204.	220.	227.	242.	240.	245.
1584	33.	58.	94.	128.	148.	171.	200.	215.	222.	235.	245.	251.
1585	33.	57.	98.	134.								
1586	37.	62.	96.	131.	152.	168.	183.	198.	210.	217.	227.	231.
1587	39.	64.	97.	134.	157.	176.	196.	209.	220.	228.	231.	236.
1588	45.	73.	112.	149.	169.	194.	220.	230.	244.	259.	255.	275.
1589	39.	76.	117.	156.	176.	206.	216.	236.	253.	267.	274.	291.
1590	45.	73.	107.	136.								
1591	44.	72.	109.	143.	169.	194.	210.	220.	233.	246.	246.	262.
1592	44.	67.	103.	140.								
1593	46.	78.	120.	152.	195.	217.	228.	239.	244.	259.	265.	275.
1594	47.	73.	106.	139.								
1595	45.	74.	115.	148.								
1596	46.	71.	111.	147.								
1597	31.	59.	94.	133.								
1598	36.	65.	106.	141.	172.	195.	215.	239.	240.	252.	257.	266.
1599	44.	69.	110.	154.								
1600	44.	69.	110.	149.	180.	206.	226.	239.	255.	273.	278.	290.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because body weight values were recorded at weekly intervals, based on each rat's day postweaning, day 70 postweaning was the last day on which the youngest rats (in this group) had a body weight value recorded.

b. Precohabitation body weights were recorded on the day cohabitation was begun for the F1 generation rats; at that time these rats were 92 to 106 days of age.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E28 (PAGE 1): MATERNAL BODY WEIGHTS - PRESUMED GESTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #		DOSAGE GROUP I						0 MG/KG/DAY
	PREGNANCY STATUS	DAY 0	7	10	14	18	21	25
1302	P	236.	262.	269.	287.	324.	366.	
1304	P	266.	294.	311.	324.	371.	410.	
1306	P	273.	306.	314.	341.	391.	441.	
1308	P	269.	291.	298.	321.	377.		
1310	P	303.	332.	342.	360.	417.	451.	
1312	P	305.	327.	338.	360.	374.	385.	
1313	P	264.	288.	299.	316.	363.	400.	
1316	NP	299.	304.	315.	314.	315.	308.	311.
1318	P	322.	366.	379.	400.	456.	498.	
1321	P	292.	325.	340.	349.	409.	454.	
1325	P	264.	296.	312.	328.	367.	398.	
1328	P	284.	313.	322.	344.	382.	429.	
1330	P	253.	274.	285.	298.	341.	382.	
1331	P	277.	307.	319.	338.	376.	418.	
1334	P	239.	258.	271.	286.	324.	351.	
1335	P	271.	309.	327.	333.	390.	425.	
1336	P	264.	296.	321.	336.	396.	428.	
1338	P	297.	324.	336.	354.	412.	457.	
1340	P	282.	312.	324.	351.	380.	425.	
1341	P	286.	314.	328.	345.	390.	416.	
1342	P	281.	314.	334.	346.	395.	422.	
1344	P	267.	298.	313.	332.	373.	421.	
1345	P	293.	311.	326.	346.	408.	450.	
1346	P	250.	278.	291.	309.	344.	365.	
1348	P	271.	306.	314.	325.	382.	430.	
1350	P	292.	321.	329.	351.	404.	442.	
1353	P	255.	293.	302.	322.	352.	397.	
1355	P	295.	324.	342.	349.	404.	441.	
1358	NP	MATING NOT CONFIRMED						
1359	P	245.	273.	284.	299.	343.	382.	

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E28 (PAGE 2): MATERNAL BODY WEIGHTS - PRESUMED GESTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP II				1 MG/KG/DAY		
PREGNANCY STATUS	DAY 0	7	10	14	18	21	25
1362 P	248.	268.	275.	289.	309.	336.	
1363 P	277.	298.	315.	327.	379.	422.	
1364 P	272.	299.	311.	324.	376.	413.	
1367 P	225.	262.	272.	292.	334.	385.	
1368 P	246.	289.	294.	311.	378.	413.	
1371 P	305.	333.	355.	376.	422.	469.	
1375 P	277.	292.	303.	324.	378.	419.	
1376 P	318.	354.	360.	378.	440.	474.	
1378 NP	292.	306.	304.	306.	316.	309.	314.
1379 P	303.	339.	353.	370.	406.	440.	
1381 P	255.	279.	277.	298.	344.	381.	
1382 P	264.	283.	297.	310.	358.	400.	
1383 P	275.	297.	310.	323.	367.	395.	
1384 P	237.	261.	276.	293.	347.	378.	
1387 P	300.	330.	344.	373.	434.	477.	
1389 P	301.	328.	345.	359.	418.	453.	
1392 P	322.	353.	367.	380.	429.		
1393 P	278.	308.	322.	336.	385.	417.	
1397 P	290.	314.	340.	360.	402.	432.	
1399 P	271.	297.	307.	324.	377.	415.	
1401 P	255.	279.	299.	309.	357.		
1404 P	282.	320.	334.	365.	401.	443.	
1407 P	270.	290.	306.	320.	376.	407.	
1409 P	280.	306.	320.	341.	374.	423.	
1410 P	298.	333.	346.	361.	415.	466.	
1413 P	279.	310.	322.	334.	363.	406.	
1415 P	262.	292.	302.	314.	359.	395.	
1416 P	264.	303.	311.	329.	377.	413.	
1418 P	256.	278.	312.	310.	358.	395.	

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E28 (PAGE 3): MATERNAL BODY WEIGHTS - PRESUMED GESTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP III					3 MG/KG/DAY	
PREGNANCY STATUS	DAY 0	7	10	14	18	21	25
1421 P	264.	282.	297.	320.	380.	417.	
1424 P	275.	297.	320.	328.	390.		
1426 P	301.	342.	359.	371.	434.	465.	
1428 P	298.	320.	339.	356.	411.	444.	
1430 P	321.	348.	360.	387.	458.	494.	
1431 P	296.	322.	344.	366.	429.	472.	
1433 P	300.	324.	335.	362.	432.		
1436 P	301.	340.	352.	371.	413.	452.	
1437 P	255.	285.	299.	314.	361.		
1439 P	296.	323.	335.	366.	424.	450.	
1442 P	268.	303.	314.	327.	356.	379.	
1443 P	301.	318.	329.	342.	390.	427.	
1446 NP	262.	287.	293.	301.	295.	297.	296.
1448 P	292.	316.	327.	342.	406.	445.	
1450 P	278.	297.	308.	320.	369.	406.	
1452 P	282.	312.	331.	347.	395.		
1455 P	305.	338.	351.	370.	411.		
1456 P	274.	301.	315.	328.	365.	385.	
1458 NP	270.	297.	301.	316.	321.	325.	334.
1459 P	315.	345.	359.	369.	420.	448.	
1461 P	293.	315.	332.	344.	382.	417.	
1463 P	274.	298.	314.	336.	396.	425.	
1465 P	296.	318.	335.	357.	416.	438.	
1468 P	271.	304.	316.	335.	379.		
1469 P	265.	287.	304.	319.	368.	400.	
1472 P	264.	293.	300.	315.	356.	390.	
1474 P	257.	284.	301.	316.	362.	394.	
1476 P	295.	330.	346.	364.	411.		
1477 P	283.	299.	303.	316.	370.		
1480 P	271.	300.	306.	318.	370.	407.	

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E28 (PAGE 4): MATERNAL BODY WEIGHTS - PRESUMED GESTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #		DOSAGE GROUP IV						10 MG/KG/DAY
	PREGNANCY STATUS	DAY 0	7	10	14	18	21	25
1482	P	277.	321.	332.	358.	414.	449.	
1483	NP	275.	279.	281.	284.	288.	293.	290.
1486	P	237.	266.	285.	308.	352.	389.	
1488	P	326.	354.	366.	381.	444.	468.	
1490	P	274.	302.	310.	340.	395.	437.	
1491	P	259.	280.	293.	304.	351.	390.	
1494	P	296.	330.	337.	353.	385.	431.	
1496	P	271.	293.	308.	322.	386.	424.	
1497	P	304.	337.	348.	365.	391.	426.	
1500	P	252.	271.	286.	308.	363.	400.	
1502	P	296.	329.	339.	351.	393.	430.	
1505	P	272.	289.	299.	314.	366.	399.	
1507	P	262.	293.	299.	314.	369.		
1508	P	296.	327.	344.	358.	399.	437.	
1511	NP	296.	319.	329.	338.	338.	339.	335.
1513	P	275.	295.	303.	316.	372.	407.	
1514	P	294.	324.	336.	348.	402.	437.	
1516	P	281.	304.	309.	334.	379.		
1517	P	310.	344.	350.	368.	430.		
1519	P	261.	289.	296.	313.	375.	413.	
1521	P	242.	269.	276.	289.	329.	373.	
1523	P	252.	288.	296.	313.	347.	384.	
1524	P	250.	290.	299.	309.	332.	342.	
1527	P	284.	303.	312.	335.	387.	434.	
1528	P	230.	259.	274.	292.	339.	360.	
1531	P	270.	306.	316.	335.	381.	429.	
1533	P	291.	324.	339.	360.	434.	459.	
1534	P	277.	304.	309.	319.	373.	407.	
1537	P	260.	289.	304.	322.	371.	400.	
1539	P	300.	313.	326.	351.	399.	452.	

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E28 (PAGE 5): MATERNAL BODY WEIGHTS - PRESUMED GESTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP V					30 MG/KG/DAY	
PREGNANCY STATUS	DAY 0	7	10	14	18	21	25
1541 P	247.	259.	273.	287.	347.	370.	
1544 P	300.	330.	345.	371.	405.	452.	
1545 P	269.	299.	310.	334.	408.	455.	
1546 P	277.	304.	311.	330.	371.		
1548 P	248.	274.	282.	296.	354.		
1550 P	224.	247.	265.	280.	333.	361.	
1552 P	257.	276.	290.	303.	343.	381.	
1555 P	254.	277.	286.	298.	338.	382.	
1557 P	294.	314.	322.	349.	406.	435.	
1558 P	268.	302.	319.	341.	393.	434.	
1560 P	258.	288.	302.	314.	368.	401.	
1564 P	240.	256.	272.	286.	338.	373.	
1565 P	237.	262.	274.	292.	340.	377.	
1566 P	288.	306.	318.	337.	384.	427.	
1568 P	280.	295.	308.	326.	390.	430.	
1571 P	236.	265.	280.	291.	342.		
1573 P	299.	317.	334.	351.	411.	441.	
1576 P	244.	276.	282.	305.	360.	394.	
1578 NP	249.	258.	254.	261.	264.	260.	268.
1579 P	299.	321.	332.	344.	408.		
1583 P	238.	278.	283.	301.	356.	378.	
1584 P	247.	273.	277.	289.	324.	332.	
1586 P	230.	260.	269.	284.	321.	359.	
1587 P	230.	260.	273.	287.	340.	368.	
1588 P	269.	295.	309.	325.	377.	401.	
1589 P	282.	315.	330.	348.	404.		
1591 P	254.	282.	293.	308.	361.	395.	
1593 P	272.	292.	308.	323.	347.	366.	
1598 P	268.	292.	308.	318.	359.	416.	
1600 P	293.	319.	332.	348.	405.	453.	

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E29 (PAGE 1): MATERNAL BODY WEIGHTS - LACTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP I				0 MG/KG/DAY	
DAY	1	5	8	11	15	22
1302	267.	284.	299.	303.	298.	284.
1304	304.	324.	331.	343.	332.	320.
1306	324.	338.	346.	363.	341.	335.
1308	302.	318.	329.	352.	340.	357.
1310	342.	346.	345.	361.	335.	331.
1312	334.	329.	339.	333.	339.	336.
1313	292.	308.	316.	289.	318.	298.
1316	NOT PREGNANT					
1318	370.	385.	396.	398.	412.	369.
1321	326.	338.	352.	357.	345.	329.
1325	308.	305.	315.	318.	314.	323.
1328	326.	329.	349.	363.	356.	328.
1330	265.	285.	258.	297.	309.	280.
1331	322.	323.	330.	336.	322.	300.
1334	276.	272.	287.	285.	307.	284.
1335	327.	331.	333.	327.	346.	324.
1336	311.	341.	349.	364.	331.	331.
1338	350.	357.	359.	330.	377.	345.
1340	321.	317.	325.	357.	354.	338.
1341	328.	331.	329.	323.	341.	316.
1342	312.	326.	325.	321.	331.	294.
1344	314.	310.	328.	342.	330.	333.
1345	323.	338.	351.	331.	369.	364.
1346	301.	293.	303.	308.	314.	325.
1348	307.	305.	321.	348.	331.	339.
1350	329.	330.	344.	348.	355.	339.
1353	296.	292.	299.	328.	322.	293.
1355	334.	332.	349.	352.	340.	313.
1358	NOT PREGNANT; MATING NOT CONFIRMED					
1359	271.	279.	298.	318.	324.	313.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E29 (PAGE 2): MATERNAL BODY WEIGHTS - LACTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP II				1 MG/KG/DAY	
DAY	1	5	8	11	15	22
1362	273.	277.	284.	298.	288.	287.
1363	303.	323.	319.	322.	329.	308.
1364	309.	319.	326.	329.	315.	323.
1367	276.	290.	307.	328.	328.	297.
1368	287.	315.	339.	343.	339.	310.
1371	337.	346.	358.	372.	360.	352.
1375	303.	319.	328.	332.	321.	299.
1376	359.	370.	369.	384.	359.	360.
1378	NOT PREGNANT					
1379	355.	341.	362.	385.	367.	355.
1381	288.	289.	299.	312.	307.	282.
1382	296.	312.	323.	336.	310.	308.
1383	321.	328.	333.	344.	368.	350.
1384	288.	306.	313.	320.	312.	262.
1387	351.	355.	367.	376.	358.	338.
1389	340.	340.	363.	353.	357.	344.
1392	357.	346.	356.	362.	361.	347.
1393	324.	332.	338.	345.	355.	330.
1397	330.	334.	355.	345.	365.	331.
1399	310.	309.	322.	336.	318.	320.
1401	278.	305.	315.	306.	310.	297.
1404	337.	341.	344.	359.	349.	332.
1407	299.	316.	328.	335.	344.	325.
1409	327.	323.	333.	337.	340.	327.
1410	338.	339.	356.	359.	363.	344.
1413	322.	312.	336.	360.	343.	320.
1415	300.	304.	321.	320.	335.	339.
1416	315.	311.	319.	321.	336.	303.
1418	290.	306.	319.	326.	329.	317.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E29 (PAGE 3): MATERNAL BODY WEIGHTS - LACTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP III				3 MG/KG/DAY	
DAY	1	5	8	11	15	22
1421	297.	312.	320.	331.	313.	326.
1424	326.	321.	321.	336.	330.	307.
1426	368.	364.	374.	371.	376.	369.
1428	341.	338.	353.	353.	358.	334.
1430	366.	357.	357.	367.	370.	308.
1431	348.	345.	364.	358.	379.	358.
1433	350.	355.	364.	350.	337.	314.
1436	347.	353.	357.	359.	347.	341.
1437	290.	309.	320.	306.	314.	311.
1439	340.	352.	371.	347.	370.	361.
1442	309.	312.	330.	338.	338.	344.
1443	327.	342.	341.	356.	357.	336.
1446	NOT PREGNANT					
1448	328.	326.	350.	361.	344.	343.
1450	307.	313.	316.	315.	324.	331.
1452	324.	310.	317.	327.	313.	301.
1455	351.	342.	358.	366.	335.	332.
1456	328.	329.	334.	333.	343.	329.
1458	NOT PREGNANT					
1459	349.	363.	380.	375.	378.	368.
1461	333.	349.	348.	362.	351.	336.
1463	316.	315.	326.	330.	319.	302.
1465	324.	330.	343.	348.	337.	297.
1468	309.	315.	316.	342.	330.	300.
1469	298.	296.	319.	341.	353.	317.
1472	301.	303.	317.	324.	338.	309.
1474	284.	289.	296.	322.	320.	310.
1476	348.	326.	353.	370.	366.	358.
1477	297.	313.	317.	357.	333.	335.
1480	309.	324.	326.	353.	340.	340.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E29 (PAGE 4): MATERNAL BODY WEIGHTS - LACTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP IV				10 MG/KG/DAY	
DAY	1	5	8	11	15	22
1482	322.	326.	312.	315.	331.	313.
1483	NOT PREGNANT					
1486	276.	291.	300.	308.	317.	316.
1488	351.	350.	354.	367.	353.	359.
1490	317.	327.	331.	353.	356.	368.
1491	281.	292.	305.	311.	319.	316.
1494	324.	340.	341.	374.	369.	353.
1496	313.	310.	313.	329.	324.	319.
1497	347.	342.	378.	385.	375.	355.
1500	287.	300.	306.	328.	315.	302.
1502	343.	344.	348.	350.	341.	322.
1505	296.	294.	291.	298.	321.	318.
1507	301.	308.	309.	333.	334.	341.
1508	353.	348.	355.	353.	332.	338.
1511	NOT PREGNANT					
1513	293.	308.	323.	341.	317.	250.
1514	320.	333.	341.	358.	343.	325.
1516	309.	317.	327.	347.	329.	316.
1517	357.	333.	344.	351.	346.	325.
1519	295.	307.	320.	328.	322.	317.
1521	280.	276.	294.	299.	314.	312.
1523	294.	306.	319.	327.	328.	313.
1524	321.	318.	311.	318.	319.	326.
1527	325.	333.	328.	355.	326.	315.
1528	282.	291.	284.	306.	307.	310.
1531	319.	328.	341.	349.	362.	350.
1533	320.	327.	342.	336.	345.	347.
1534	309.	305.	318.	313.	343.	316.
1537	302.	303.	310.	318.	303.	306.
1539	332.	343.	363.	358.	373.	355.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E29 (PAGE 5): MATERNAL BODY WEIGHTS - LACTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP V					30 MG/KG/DAY
DAY	1	5	8	11	15	22
1541	264.	281.	278.	294.	291.	296.
1544	360.	350.	348.	376.	371.	342.
1545	318.	322.	340.	342.	332.	298.
1546	300.	317.	279.	310.	338.	329.
1548	296.	276.	280.	295.	303.	306.
1550	265.	271.	280.	276.	293.	298.
1552	284.	302.	315.	324.	310.	319.
1555	276.	288.	294.	317.	285.	312.
1557	325.	324.	333.	348.	329.	319.
1558	320.	336.	330.	339.	343.	288.
1560	297.	320.	325.	313.	348.	325.
1564	265.	277.	277.	319.	306.	309.
1565	280.	280.	294.	291.	307.	275.
1566	324.	312.	314.	322.	320.	324.
1568	324.	322.	336.	343.	338.	339.
1571	292.	279.	288.	311.	289.	304.
1573	341.	334.	344.	350.	355.	336.
1576	284.	271.	288.	299.	303.	292.
1578	NOT PREGNANT					
1579	320.	328.	327.	329.	356.	346.
1583	306.	308.	319.	331.	325.	303.
1584	296.	291.	295.	295.	302.	294.
1586	270.	272.	286.	303.	289.	294.
1587	278.	290.	286.	282.	290.	300.
1588	312.	322.	321.	340.	350.	322.
1589	326.	317.	334.	339.	364.	354.
1591	296.	304.	310.	322.	306.	318.
1593	314.	322.	318.	328.	346.	342.
1598	301.	302.	303.	320.	333.	317.
1600	325.	332.	344.	373.	364.	354.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E30 (PAGE 1): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP I									0 MG/KG/DAY
STATUS	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a
1301	63.	110.	128.	129.						
1302	61.	112.	125.	119.	118.	119.	109.	117.	115.	102.
1303	70.	115.	133.	127.						
1304	61.	117.	140.	145.	132.	132.	127.	138.	131.	107.
1305	89.	144.	171.	197.						
1306	71.	125.	135.	133.	131.	131.	138.	134.	128.	112.
1307	68.	123.	129.	136.						
1308	89.	115.	124.	137.	131.	130.	193.	130.	134.	109.
1309	73.	113.	140.	159.						
1310	74.	131.	147.	154.	163.	167.	161.	193.	162.	125.
1311	76.	110.	114.	120.						
1312	102.	116.	143.	147.	180.	167.	180.	168.	181.	141.
1313	64.	106.	123.	126.	127.	125.	126.	129.	127.	112.
1314	91.	146.	147.	183.						
1315	98.	155.	181.	174.						
1316	77.	119.	137.	136.	145.	149.	151.	148.	141.	116.
1317	56.	140.	147.	143.						
1318	69.	107.	154.	153.	157.	189.	157.	b	169.	128.
19779	61.	97.	129.							
19780	78.	126.	159.							
1321	72.	123.	136.	126.	146.	180.	210.	158.	159.	123.
1322	71.	106.	127.	124.						
1323	63.	110.	130.	121.						
1324	64.	104.	124.	112.						
1325	63.	96.	134.	136.	146.	145.	174.	164.	165.	106.
1326	64.	120.	129.	134.						
1327	58.	102.	144.	155.						
1328	48.	110.	131.	132.	148.	148.	156.	159.	167.	142.
1329	74.	112.	c	116.						
1330	69.	104.	126.	146.	122.	121.	130.	118.	120.	108.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. Soiled feed precluded the calculation of this value.
c. Wet feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E30 (PAGE 2): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP I				0 MG/KG/DAY					
STATUS	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a
1331	65.	108.	118.	133.	166.	129.	b	137.	140.	104.
1332	57.	119.	129.	133.						
1333	60.	104.	125.	131.						
1334	55.	101.	127.	139.	129.	130.	142.	120.	122.	108.
1335	71.	92.	125.	134.	135.	140.	145.	145.	140.	130.
1336	64.	112.	116.	126.	128.	138.	132.	139.	136.	b
1337	70.	105.	127.							
1338	77.	118.	125.	134.	144.	146.	171.	168.	186.	122.
1339	62.	107.	139.							
1340	57.	106.	126.	134.	127.	120.	140.	126.	129.	117.
1341	72.	128.	122.	128.	135.	137.	169.	158.	157.	108.
1342	73.	107.	114.	115.	124.	132.	139.	170.	149.	108.
1343	77.	131.	142.							
1344	77.	129.	140.	135.	145.	c	b	152.	137.	99.
1345	79.	127.	134.	136.	146.	151.	182.	167.	b	130.
1346	80.	124.	141.	139.	146.	145.	174.	162.	166.	122.
1347	63.	109.	128.							
1348	69.	110.	123.	124.	163.	125.	133.	132.	139.	108.
1349	70.	114.	129.							
1350	84.	137.	147.	142.	139.	133.	160.	178.	175.	119.
1351	80.	136.	148.							
1352	80.	124.	143.							
1353	55.	94.	111.	113.	114.	126.	121.	140.	118.	104.
1354	76.	102.	114.							
1355	84.	124.	140.	140.	150.	151.	154.	167.	136.	129.
1356	85.	129.	145.							
1357	67.	106.	127.							
1358	66.	106.	119.	120.	132.	140.	130.	125.	126.	105.
1359	74.	87.	116.	127.	134.	138.	127.	b	139.	110.
1360	80.	106.								

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. Spilled feed precluded the calculation of this value.
c. Soiled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E30 (PAGE 3): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP II				1 MG/KG/DAY					
STATUS	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a
1361	63.	98.	117.	114.						
1362	49.	88.	109.	118.	119.	114.	118.	113.	124.	181.
1363	61.	99.	136.	127.	133.	139.	134.	136.	134.	116.
1364	57.	91.	133.	184.	194.	b	b	b	157.	89.
1365	FOUND DEAD ON DAY 4 POSTWEANING									
1366	63.	79.	129.	109.						
1367	52.	85.	116.	116.	109.	116.	109.	108.	108.	98.
1368	69.	115.	142.	131.	140.	144.	150.	157.	174.	148.
1369	76.	122.	141.	136.						
1370	63.	98.	129.	152.	b					
1371	65.	113.	130.	138.	145.	159.	175.	150.	157.	127.
1372	73.	122.	132.	131.						
1373	68.	110.	139.	196.	221.	152.	137.	FOUND DEAD ON DAY 51 POSTWEANING		
1374	75.	113.	141.	141.						
1375	62.	103.	130.	140.	134.	130.	132.	130.	133.	113.
1376	66.	95.	105.	127.	127.	139.	169.	152.	151.	126.
1377	44.	92.	131.	151.						
1378	75.	122.	141.	140.	136.	137.	148.	134.	141.	125.
1379	69.	116.	146.	136.	141.	152.	164.	156.	157.	129.
1380	56.	104.	136.	139.						
1381	62.	101.	124.	117.	121.	128.	138.	134.	128.	115.
1382	66.	109.	126.	141.	134.	135.	189.	129.	129.	100.
1383	49.	94.	126.	147.	131.	133.	189.	133.	131.	108.
1384	54.	89.	118.	130.	111.	115.	133.	119.	129.	101.
1385	80.	122.	137.	133.						
1386	54.	101.	119.	118.						
1387	70.	114.	136.	134.	161.	153.	200.	153.	157.	126.
1388	74.	108.	131.	130.						
1389	71.	106.	c	127.	150.	151.	179.	156.	165.	126.
1390	75.	116.	c	130.						

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. Spilled feed precluded the calculation of this value.
c. Wet feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E30 (PAGE 4): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP II				1 MG/KG/DAY					
STATUS	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a
1391	68.	101.	129.	132.						
1392	61.	102.	137.	126.	148.	b	159.	165.	176.	145.
1393	65.	89.	130.	127.	129.	127.	122.	108.	129.	106.
1394	64.	105.	138.	135.						
1395	59.	105.	129.	130.						
1396	72.	93.	149.	127.						
1397	81.	126.	152.	151.	150.	161.	152.	139.	135.	125.
1398	51.	102.	130.	130.						
1399	77.	118.	136.	126.	136.	138.	142.	134.	126.	107.
1400	74.	109.	129.	123.						
1401	79.	102.	125.	137.	123.	129.	154.	124.	116.	108.
1402	74.	116.	126.	135.						
1403	68.	106.	128.	121.						
1404	68.	114.	133.	134.	147.	146.	157.	151.	166.	123.
1405	57.	91.	123.	142.						
1406	69.	106.	126.	123.						
1407	71.	125.	144.	116.	154.	157.	173.	154.	141.	129.
1408	67.	99.	116.	113.						
1409	64.	102.	113.	125.	133.	122.	136.	151.	109.	b
1410	68.	108.	132.	134.	140.	138.	144.	143.	127.	116.
1411	69.	106.	117.							
1412	73.	116.	126.							
1413	67.	114.	143.	147.	130.	129.	136.	144.	138.	116.
1414	62.	103.	116.							
1415	60.	100.	121.	126.	133.	140.	150.	149.	146.	105.
1416	74.	110.	130.	135.	133.	143.	137.	146.	128.	107.
1417	72.	108.	126.							
1418	62.	95.	110.	112.	117.	120.	252.	204.	b	96.
1419	64.	102.	124.	b						
1420	52.	99.	120.							

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E30 (PAGE 5): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP III				3 MG/KG/DAY					
STATUS	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a
1421	61.	99.	124.	121.	123.	121.	124.	126.	127.	106.
1422	67.	105.	125.	121.						
1423	67.	109.	130.	140.						
1424	75.	114.	131.	139.	120.	127.	124.	127.	124.	104.
1425	66.	116.	149.	173.						
1426	51.	82.	110.	108.	124.	138.	150.	149.	158.	123.
1427	68.	120.	144.	153.						
1428	73.	113.	142.	180.	141.	151.	149.	153.	154.	124.
1429	70.	111.	141.	161.						
1430	71.	131.	164.	185.	175.	174.	164.	162.	172.	135.
1431	51.	103.	129.	147.	140.	145.	150.	151.	141.	123.
1432	FOUND DEAD ON DAY 7 POSTWEANING									
1433	73.	115.	129.	138.	140.	137.	145.	149.	155.	117.
1434	61.	108.	134.	145.						
1435	84.	124.	149.	170.						
1436	73.	129.	142.	144.	140.	130.	150.	143.	143.	130.
1437	60.	115.	124.	130.	128.	123.	163.	148.	132.	108.
1438	69.	117.	121.	110.						
1439	69.	115.	151.	149.	137.	215.	153.	153.	177.	134.
1440	74.	127.	146.	157.						
1441	45.	95.	126.	138.						
1442	67.	99.	130.	134.	135.	162.	158.	136.	138.	130.
1443	61.	94.	118.	123.	126.	129.	140.	137.	192.	114.
1444	49.	93.	133.	130.						
1445	70.	128.	173.	172.						
1446	69.	112.	120.	121.	132.	130.	235.	b	124.	114.
1447	64.	105.	125.	c						
1448	72.	106.	134.	135.	142.	145.	177.	128.	130.	117.
1449	77.	125.	c	161.	b					
1450	79.	124.	c	124.	139.	140.	135.	124.	125.	103.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. Spilled feed precluded the calculation of this value.
c. Wet feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E30 (PAGE 6): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP III				3 MG/KG/DAY					
STATUS	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a
1451	85.	127.	146.	145.						
1452	70.	129.	133.	135.	276.	163.	182.	b	205.	122.
1453	89.	133.	143.	147.						
1454	74.	126.	143.	136.						
1455	84.	129.	180.	167.	202.	b	196.	b	189.	153.
1456	85.	117.	128.	117.	123.	117.	123.	110.	122.	96.
1457	82.	118.	128.	120.						
1458	82.	121.	145.	145.	137.	132.	127.	123.	111.	109.
1459	97.	132.	145.	160.	162.	163.	166.	151.	137.	126.
1460	80.	101.	135.	143.						
1461	76.	108.	131.	148.	139.	147.	147.	147.	129.	116.
1462	72.	100.	123.	111.						
1463	71.	108.	125.	128.	136.	138.	156.	147.	142.	129.
1464	86.	131.	142.	148.						
1465	45.	84.	119.	138.	145.	157.	191.	b	168.	129.
1466	49.	96.	127.							
1467	62.	101.	142.							
1468	59.	97.	117.	116.	115.	125.	152.	148.	145.	109.
1469	69.	81.	101.	115.	136.	134.	149.	161.	159.	104.
1470	64.	103.	125.							
1471	72.	125.	124.							
1472	71.	120.	122.	121.	119.	130.	b	170.	b	101.
1473	80.	132.	135.							
1474	78.	119.	126.	125.	126.	127.	136.	146.	b	108.
1475	62.	103.	117.							
1476	75.	118.	145.	144.	150.	153.	162.	150.	151.	123.
1477	87.	123.	131.	135.	160.	180.	196.	157.	146.	133.
1478	73.	130.	147.							
1479	73.	121.	136.							
1480	67.	113.	136.	132.	141.	158.	134.	126.	126.	119.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E30 (PAGE 7): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP IV				10 MG/KG/DAY					
STATUS	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a
1481	71.	117.	129.	144.						
1482	83.	117.	144.	140.	125.	127.	130.	132.	125.	118.
1483	45.	92.	133.	135.	131.	127.	125.	126.	146.	104.
1484	FOUND DEAD ON DAY 3 POSTWEANING									
1485	56.	110.	145.	170.						
1486	35.	74.	107.	122.	123.	127.	128.	130.	129.	108.
1487	79.	127.	138.	137.						
1488	73.	132.	140.	145.	135.	156.	163.	163.	168.	143.
1489	67.	105.	139.	145.						
1490	64.	116.	147.	169.	157.	194.	292.	174.	118.	b
1491	73.	101.	133.	120.	133.	146.	189.	150.	146.	122.
1492	69.	107.	129.	131.						
1493	84.	123.	150.	140.						
1494	88.	109.	140.	138.	138.	168.	128.	130.	139.	116.
1495	89.	124.	128.	125.						
1496	82.	116.	133.	129.	124.	129.	131.	123.	124.	116.
1497	89.	128.	145.	146.	149.	149.	165.	149.	138.	120.
1498	36.	103.	136.	150.						
1499	65.	104.	127.	133.						
1500	65.	91.	179.	c	b	142.	187.	138.	128.	109.
1501	70.	115.	141.	138.						
1502	67.	116.	144.	166.	165.	177.	206.	149.	173.	163.
1503	69.	104.	113.	122.						
1504	76.	101.	124.	134.						
1505	65.	110.	136.	133.	131.	139.	139.	140.	135.	123.
1506	67.	108.	111.	124.						
1507	66.	93.	123.	130.	124.	126.	132.	123.	121.	104.
1508	85.	127.	139.	152.	146.	146.	141.	138.	136.	109.
1509	80.	103.	118.	115.						
1510	75.	135.	178.	155.						

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. Spilled feed precluded the calculation of this value.
c. Value was not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E30 (PAGE 8): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP IV									
	10 MG/KG/DAY									
STATUS	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a
1511	55.	105.	119.	127.	137.	142.	143.	140.	136.	141.
1512	85.	124.	134.	136.						
1513	71.	107.	129.	139.	137.	138.	173.	161.	177.	115.
1514	83.	117.	128.	133.	137.	140.	190.	166.	145.	114.
1515	69.	106.	116.	115.						
1516	91.	110.	124.	126.	137.	143.	157.	146.	150.	128.
1517	79.	120.	133.	136.	127.	136.	142.	145.	142.	119.
1518	68.	118.	138.	147.						
1519	60.	101.	124.	135.	125.	129.	125.	130.	116.	102.
1520	70.	125.	127.							
1521	71.	95.	119.	121.	121.	124.	b	138.	b	116.
1522	82.	129.	127.							
1523	64.	100.	109.	108.	115.	124.	b	b	b	108.
1524	62.	76.	114.	118.	130.	137.	b	b	187.	109.
1525	59.	96.	114.							
1526	78.	116.	137.							
1527	92.	124.	142.	144.	138.	148.	b	b	b	121.
1528	68.	122.	118.	b	114.	116.	151.	211.	b	92.
1529	52.	96.	109.							
1530	75.	113.	134.							
1531	71.	113.	140.	140.	145.	143.	150.	144.	137.	115.
1532	75.	127.	142.							
1533	81.	132.	144.	129.	151.	135.	152.	153.	151.	121.
1534	71.	118.	131.	123.	133.	128.	143.	142.	148.	101.
1535	68.	113.	129.							
1536	67.	119.	120.							
1537	58.	102.	123.	130.	132.	134.	199.	143.	176.	119.
1538	62.	110.	132.							
1539	69.	111.	133.	209.	141.	165.	167.	166.	164.	127.
1540	70.	102.	119.							

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E30 (PAGE 9): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP V				30 MG/KG/DAY					
STATUS	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a
1541	49.	85.	111.	120.	114.	105.	108.	113.	116.	100.
1542	57.	101.	133.	135.						
1543	56.	89.	108.	110.						
1544	58.	102.	142.	157.	152.	157.	158.	168.	165.	136.
1545	66.	113.	130.	157.	192.	169.	167.	181.	193.	128.
1546	65.	95.	119.	119.	123.	130.	142.	141.	137.	116.
1547	65.	96.	124.	138.						
1548	62.	95.	117.	128.	115.	130.	133.	133.	139.	111.
1549	15.	FOUND DEAD ON DAY 8 POSTWEANING								
1550	57.	92.	107.	115.	104.	126.	121.	123.	127.	108.
1551	62.	103.	128.	137.						
1552	65.	107.	120.	123.	119.	113.	116.	126.	125.	99.
1553	58.	91.	110.	122.						
1554	66.	104.	128.	136.						
1555	64.	95.	124.	138.	118.	131.	143.	113.	120.	106.
1556	70.	96.	110.	112.						
1557	79.	107.	124.	124.	138.	137.	149.	133.	130.	118.
1558	63.	106.	137.	143.	136.	146.	248.	b	141.	124.
1559	FOUND DEAD ON DAY 6 POSTWEANING									
1560	67.	118.	141.	b	137.	155.	291.	149.	140.	b
1561	72.	116.	135.	144.						
1562	FOUND DEAD ON DAY 2 POSTWEANING									
1563	FOUND DEAD ON DAY 2 POSTWEANING									
1564	65.	100.	c	125.	133.	130.	170.	136.	129.	114.
1565	64.	95.	c	123.	115.	113.	113.	104.	107.	95.
1566	70.	113.	123.	131.	b	139.	137.	140.	132.	110.
1567	70.	119.	138.	140.						
1568	83.	133.	138.	134.	138.	143.	145.	132.	129.	109.
1569	79.	118.	122.	116.						
1570	62.	93.	130.	126.						

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. Spilled feed precluded the calculation of this value.
c. Wet feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E30 (PAGE 10): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP V				30 MG/KG/DAY					
STATUS	DAY 1 - 8	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 70a
1571	60.	88.	110.	113.	129.	132.	129.	122.	51.	175.
1572	54.	99.	140.	146.						
1573	66.	116.	143.	143.	146.	b	153.	155.	158.	134.
1574	FOUND DEAD ON DAY 3 POSTWEANING									
1575	FOUND DEAD ON DAY 3 POSTWEANING									
1576	49.	82.	114.	123.	130.	141.	144.	137.	129.	111.
1577	53.	94.	116.	120.						
1578	56.	104.	122.	143.	139.	125.	148.	107.	117.	94.
1579	66.	107.	124.	130.	127.	134.	137.	139.	128.	b
1580	63.	99.	114.	121.						
1581	71.	106.	130.	128.						
1582	52.	90.	118.							
1583	62.	106.	120.	115.	137.	136.	b	159.	b	97.
1584	60.	94.	118.	126.	129.	135.	144.	132.	130.	99.
1585	62.	106.	131.							
1586	61.	93.	113.	114.	117.	121.	235.	140.	140.	103.
1587	61.	106.	129.	135.	133.	134.	b	153.	148.	113.
1588	62.	103.	114.	113.	118.	128.	b	137.	125.	98.
1589	72.	127.	174.	144.	136.	133.	b	b	b	b
1590	68.	109.	141.							
1591	69.	108.	175.	164.	144.	142.	204.	b	156.	107.
1592	67.	105.	120.							
1593	76.	103.	122.	138.	140.	132.	135.	165.	151.	114.
1594	63.	103.	112.							
1595	70.	111.	120.							
1596	59.	105.	126.							
1597	62.	89.	134.							
1598	72.	109.	130.	135.	139.	147.	149.	156.	146.	130.
1599	63.	108.	128.							
1600	68.	104.	119.	133.	125.	129.	132.	145.	145.	126.

DAY = DAY POSTWEANING
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because feed consumption was recorded at weekly intervals, based on each rat's day postweaning, days 64-70 postweaning was the last interval in which a feed consumption value was recorded for the youngest rats in this group.
b. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E31 (PAGE 1): MATERNAL FEED CONSUMPTION VALUES - PRESUMED GESTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #		DOSAGE GROUP I				0 MG/KG/DAY
	PREGNANCY STATUS	DAYS 0 - 7	7 - 10	10 - 14	14 - 18	18 - 21
1302	P	125.	60.	76.	77.	62.
1304	P	156.	71.	91.	95.	66.
1306	P	149.	71.	96.	91.	71.
1308	P	156.	68.	95.	99.	70.
1310	P	175.	78.	112.	112.	73.
1312	P	167.	77.	114.	105.	74.
1313	P	146.	68.	92.	90.	67.
1316	NP	141.	64.	83.	63.	52.
1318	P	a	a	126.	119.	82.
1321	P	193.	93.	112.	112.	77.
1325	P	184.	79.	116.	110.	84.
1328	P	154.	74.	95.	89.	66.
1330	P	141.	32.	82.	76.	56.
1331	P	148.	75.	97.	92.	59.
1334	P	136.	68.	92.	94.	67.
1335	P	183.	85.	111.	117.	79.
1336	P	188.	87.	114.	107.	72.
1338	P	159.	68.	94.	100.	81.
1340	P	147.	65.	88.	82.	56.
1341	P	165.	77.	89.	98.	64.
1342	P	159.	72.	94.	91.	55.
1344	P	138.	88.	106.	95.	69.
1345	P	172.	73.	99.	110.	83.
1346	P	160.	68.	88.	87.	63.
1348	P	153.	68.	90.	92.	62.
1350	P	151.	68.	86.	92.	66.
1353	P	154.	68.	86.	79.	64.
1355	P	189.	87.	100.	107.	77.
1359	P	158.	68.	86.	80.	70.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E31 (PAGE 2): MATERNAL FEED CONSUMPTION VALUES - PRESUMED GESTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP II				1 MG/KG/DAY
PREGNANCY STATUS	DAYS 0 - 7	7 - 10	10 - 14	14 - 18	18 - 21
1362 P	123.	62.	77.	79.	70.
1363 P	a	68.	90.	90.	61.
1364 P	a	67.	89.	99.	52.
1367 P	139.	70.	88.	87.	67.
1368 P	183.	78.	105.	112.	75.
1371 P	170.	95.	117.	120.	89.
1375 P	135.	59.	87.	84.	70.
1376 P	182.	81.	110.	106.	69.
1378 NP	149.	55.	81.	79.	50.
1379 P	191.	87.	108.	105.	62.
1381 P	136.	58.	86.	90.	67.
1382 P	a	62.	84.	90.	69.
1383 P	144.	67.	88.	92.	66.
1384 P	148.	62.	80.	88.	68.
1387 P	177.	83.	117.	110.	84.
1389 P	194.	86.	108.	109.	80.
1392 P	191.	94.	118.	108.	b
1393 P	163.	71.	88.	93.	67.
1397 P	157.	83.	99.	102.	79.
1399 P	130.	58.	83.	93.	66.
1401 P	170.	73.	93.	101.	58.
1404 P	175.	85.	124.	106.	70.
1407 P	154.	65.	91.	97.	70.
1409 P	143.	71.	88.	87.	79.
1410 P	158.	69.	85.	90.	57.
1413 P	159.	73.	89.	80.	67.
1415 P	142.	67.	87.	88.	68.
1416 P	179.	74.	93.	100.	77.
1418 P	133.	59.	80.	80.	64.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled feed precluded the calculation of this value.
b. Value was not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E31 (PAGE 3): MATERNAL FEED CONSUMPTION VALUES - PRESUMED GESTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP III				3 MG/KG/DAY
PREGNANCY STATUS	DAYS 0 - 7	7 - 10	10 - 14	14 - 18	18 - 21
1421 P	a	60.	84.	86.	68.
1424 P	134.	65.	82.	90.	b
1426 P	178.	85.	104.	115.	87.
1428 P	a	75.	105.	105.	72.
1430 P	173.	81.	110.	126.	79.
1431 P	158.	70.	101.	111.	87.
1433 P	159.	68.	106.	107.	75.
1436 P	184.	84.	111.	93.	64.
1437 P	146.	70.	88.	90.	61.
1439 P	168.	79.	123.	114.	77.
1442 P	193.	79.	108.	112.	82.
1443 P	145.	71.	96.	99.	72.
1446 NP	136.	66.	85.	73.	47.
1448 P	123.	56.	74.	96.	70.
1450 P	128.	58.	80.	89.	66.
1452 P	160.	82.	100.	102.	b
1455 P	183.	90.	113.	107.	75.
1456 P	158.	76.	104.	109.	80.
1458 NP	152.	61.	89.	83.	54.
1459 P	160.	74.	93.	99.	80.
1461 P	146.	68.	92.	92.	66.
1463 P	156.	73.	100.	112.	64.
1465 P	a	78.	102.	106.	56.
1468 P	168.	a	101.	100.	64.
1469 P	129.	65.	87.	86.	65.
1472 P	133.	61.	86.	88.	69.
1474 P	135.	71.	86.	98.	61.
1476 P	163.	82.	104.	95.	b
1477 P	147.	67.	87.	94.	69.
1480 P	165.	65.	87.	94.	70.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled feed precluded the calculation of this value.
b. Value was not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E31 (PAGE 4): MATERNAL FEED CONSUMPTION VALUES - PRESUMED GESTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP IV				10 MG/KG/DAY
PREGNANCY STATUS	DAYS 0 - 7	7 - 10	10 - 14	14 - 18	18 - 21
1482 P	173.	75.	101.	101.	64.
1483 NP	128.	54.	73.	72.	55.
1486 P	a	66.	95.	96.	66.
1488 P	175.	76.	102.	95.	62.
1490 P	181.	b	109.	112.	82.
1491 P	165.	84.	98.	97.	68.
1494 P	176.	76.	95.	83.	61.
1496 P	144.	68.	84.	93.	70.
1497 P	168.	72.	94.	89.	61.
1500 P	157.	63.	96.	96.	70.
1502 P	192.	81.	107.	117.	78.
1505 P	153.	67.	93.	96.	64.
1507 P	136.	64.	82.	82.	b
1508 P	135.	73.	102.	97.	63.
1511 NP	143.	68.	88.	77.	52.
1513 P	158.	70.	91.	102.	75.
1514 P	150.	68.	86.	91.	60.
1516 P	155.	67.	97.	106.	78.
1517 P	159.	55.	91.	98.	65.
1519 P	125.	55.	82.	93.	61.
1521 P	132.	58.	71.	77.	61.
1523 P	150.	68.	91.	82.	56.
1524 P	164.	63.	100.	95.	76.
1527 P	148.	72.	98.	99.	73.
1528 P	145.	60.	88.	85.	61.
1531 P	145.	73.	94.	91.	81.
1533 P	150.	70.	104.	105.	61.
1534 P	139.	57.	82.	86.	63.
1537 P	175.	69.	90.	100.	61.
1539 P	165.	76.	99.	113.	84.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled feed precluded the calculation of this value.
b. Value was not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E31 (PAGE 5): MATERNAL FEED CONSUMPTION VALUES - PRESUMED GESTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP V				30 MG/KG/DAY
PREGNANCY STATUS	DAYS 0 - 7	7 - 10	10 - 14	14 - 18	18 - 21
1541 P	119.	63.	79.	87.	60.
1544 P	171.	87.	112.	104.	75.
1545 P	183.	79.	111.	119.	76.
1546 P	149.	70.	92.	91.	65.
1548 P	a	57.	87.	106.	b
1550 P	147.	a	94.	102.	66.
1552 P	143.	57.	84.	79.	58.
1555 P	130.	59.	78.	80.	63.
1557 P	135.	62.	83.	92.	71.
1558 P	168.	76.	96.	103.	74.
1560 P	170.	67.	102.	111.	75.
1564 P	150.	60.	95.	94.	75.
1565 P	121.	57.	74.	81.	66.
1566 P	131.	62.	83.	86.	60.
1568 P	115.	58.	92.	96.	69.
1571 P	134.	59.	84.	96.	b
1573 P	157.	75.	95.	106.	76.
1576 P	156.	65.	97.	104.	78.
1578 NP	104.	37.	57.	57.	43.
1579 P	128.	65.	72.	93.	64.
1583 P	c	62.	86.	99.	74.
1584 P	168.	56.	81.	86.	62.
1586 P	136.	60.	82.	81.	56.
1587 P	143.	67.	93.	104.	78.
1588 P	136.	57.	89.	92.	67.
1589 P	166.	73.	106.	111.	b
1591 P	158.	72.	98.	109.	71.
1593 P	144.	69.	97.	98.	72.
1598 P	160.	76.	94.	89.	78.
1600 P	162.	74.	106.	106.	77.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Wet feed precluded the calculation of this value.
b. Value was not recorded.
c. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E32 (PAGE 1): MATERNAL FEED CONSUMPTION VALUES - LACTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP I			0 MG/KG/DAY
DAY	1 - 5	5 - 8	8 - 11	11 - 15a
1302	118.	118.	145.	185.
1304	125.	148.	180.	199.
1306	149.	153.	176.	239.
1308	185.	167.	193.	255.
1310	b	170.	200.	234.
1312	84.	101.	119.	158.
1313	120.	134.	138.	186.
1316	NOT PREGNANT			
1318	154.	184.	170.	270.
1321	129.	180.	120.	250.
1325	104.	157.	170.	272.
1328	115.	141.	180.	277.
1330	90.	117.	163.	232.
1331	108.	127.	140.	198.
1334	83.	107.	126.	b
1335	113.	138.	151.	225.
1336	161.	168.	192.	200.
1338	195.	190.	150.	254.
1340	125.	132.	165.	306.
1341	110.	132.	117.	211.
1342	113.	150.	133.	214.
1344	124.	155.	174.	244.
1345	131.	159.	184.	271.
1346	109.	128.	144.	227.
1348	103.	156.	205.	244.
1350	103.	151.	183.	245.
1353	115.	98.	159.	273.
1355	113.	166.	180.	246.
1358	NOT PREGNANT; MATING NOT CONFIRMED			
1359	96.	114.	177.	256.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because it is presumed that the pups begin to consume maternal feed after day 15 of lactation, maternal feed consumption values were not tabulated on days 15 to 22 of lactation.
b. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E32 (PAGE 2): MATERNAL FEED CONSUMPTION VALUES - LACTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP II			1 MG/KG/DAY
DAY	1 - 5	5 - 8	8 - 11	11 - 15a
1362	90.	97.	118.	191.
1363	122.	148.	177.	213.
1364	127.	145.	167.	197.
1367	137.	152.	171.	286.
1368	174.	194.	210.	242.
1371	142.	171.	161.	278.
1375	116.	139.	155.	200.
1376	122.	138.	164.	224.
1378	NOT PREGNANT			
1379	99.	134.	168.	252.
1381	125.	141.	157.	230.
1382	151.	166.	215.	303.
1383	112.	148.	171.	259.
1384	160.	123.	164.	169.
1387	125.	146.	180.	213.
1389	161.	159.	159.	230.
1392	94.	129.	162.	246.
1393	97.	142.	170.	232.
1397	109.	163.	147.	263.
1399	102.	121.	145.	169.
1401	139.	146.	167.	155.
1404	129.	113.	159.	257.
1407	161.	163.	196.	203.
1409	113.	111.	145.	256.
1410	121.	177.	197.	242.
1413	93.	154.	190.	297.
1415	91.	141.	130.	222.
1416	102.	156.	154.	210.
1418	118.	160.	156.	198.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because it is presumed that the pups begin to consume maternal feed after day 15 of lactation, maternal feed consumption values were not tabulated on days 15 to 22 of lactation.

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TABLE E32 (PAGE 3): MATERNAL FEED CONSUMPTION VALUES - LACTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP III			3 MG/KG/DAY
DAY	1 - 5	5 - 8	8 - 11	11 - 15a
1421	122.	152.	186.	212.
1424	109.	143.	162.	189.
1426	93.	132.	157.	230.
1428	113.	154.	181.	221.
1430	108.	127.	160.	238.
1431	133.	154.	171.	268.
1433	133.	163.	169.	230.
1436	109.	117.	143.	207.
1437	128.	152.	152.	230.
1439	109.	148.	138.	219.
1442	118.	121.	152.	205.
1443	123.	155.	183.	262.
1446	NOT PREGNANT			
1448	107.	150.	177.	196.
1450	99.	124.	141.	206.
1452	80.	114.	157.	171.
1455	110.	139.	167.	237.
1456	107.	121.	133.	198.
1458	NOT PREGNANT			
1459	123.	177.	152.	239.
1461	103.	126.	153.	239.
1463	110.	135.	175.	209.
1465	118.	161.	179.	210.
1468	136.	114.	b	243.
1469	b	130.	176.	256.
1472	126.	136.	142.	233.
1474	99.	128.	206.	246.
1476	82.	140.	196.	276.
1477	149.	110.	180.	307.
1480	147.	159.	187.	241.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Because it is presumed that the pups begin to consume maternal feed after day 15 of lactation, maternal feed consumption values were not tabulated on days 15 to 22 of lactation.
b. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E32 (PAGE 4): MATERNAL FEED CONSUMPTION VALUES - LACTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP IV			10 MG/KG/DAY
DAY	1 - 5	5 - 8	8 - 11	11 - 15a
1482	100.	121.	160.	185.
1483	NOT PREGNANT			
1486	134.	158.	178.	253.
1488	102.	158.	178.	205.
1490	b	152.	176.	198.
1491	157.	166.	188.	273.
1494	127.	133.	154.	309.
1496	99.	90.	166.	225.
1497	123.	152.	168.	238.
1500	117.	133.	178.	252.
1502	b	149.	156.	228.
1505	118.	130.	113.	249.
1507	92.	169.	140.	293.
1508	96.	122.	135.	143.
1511	NOT PREGNANT			
1513	114.	153.	168.	168.
1514	117.	155.	190.	151.
1516	152.	138.	167.	231.
1517	87.	120.	172.	248.
1519	115.	156.	182.	278.
1521	103.	140.	159.	217.
1523	126.	145.	152.	257.
1524	79.	64.	79.	112.
1527	123.	154.	141.	153.
1528	110.	86.	153.	237.
1531	145.	155.	133.	274.
1533	116.	158.	155.	261.
1534	82.	130.	137.	193.
1537	118.	157.	178.	189.
1539	154.	178.	138.	289.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because it is presumed that the pups begin to consume maternal feed after day 15 of lactation, maternal feed consumption values were not tabulated on days 15 to 22 of lactation.
b. Spilled feed precluded the calculation of this value.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E32 (PAGE 5): MATERNAL FEED CONSUMPTION VALUES - LACTATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

RAT #	DOSAGE GROUP V			30 MG/KG/DAY
DAY	1 - 5	5 - 8	8 - 11	11 - 15a
1541	122.	130.	152.	216.
1544	130.	147.	171.	289.
1545	140.	179.	186.	257.
1546	128.	122.	112.	205.
1548	75.	113.	152.	246.
1550	141.	154.	151.	203.
1552	120.	137.	158.	181.
1555	111.	119.	146.	179.
1557	112.	131.	162.	207.
1558	131.	181.	184.	218.
1560	135.	151.	155.	241.
1564	123.	118.	152.	263.
1565	110.	123.	116.	189.
1566	101.	111.	115.	224.
1568	121.	119.	162.	216.
1571	84.	123.	168.	174.
1573	120.	148.	177.	223.
1576	92.	116.	145.	197.
1578	NOT PREGNANT			
1579	108.	142.	155.	194.
1583	127.	144.	169.	167.
1584	68.	87.	91.	134.
1586	123.	129.	164.	173.
1587	113.	126.	128.	173.
1588	118.	137.	132.	273.
1589	91.	137.	143.	237.
1591	140.	145.	182.	192.
1593	129.	120.	131.	129.
1598	143.	128.	153.	225.
1600	133.	160.	170.	234.

DAY = DAY OF LACTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Because it is presumed that the pups begin to consume maternal feed after day 15 of lactation, maternal feed consumption values were not tabulated on days 15 to 22 of lactation.

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TABLE E33 (PAGE 1): SEXUAL MATURATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP - MG/KG/DAY									
I		II		III		IV		V	
0		1		3		10		30	
RAT #	VAGINAL PATENCY (DAY)	RAT #	VAGINAL PATENCY (DAY)	RAT #	VAGINAL PATENCY (DAY)	RAT #	VAGINAL PATENCY (DAY)	RAT #	VAGINAL PATENCY (DAY)
1301	37	1361	35	1421	37	1481	35	1541	42
1302	37	1362	37	1422	36	1482	34	1542	37
1303	36	1363	37	1423	33	1483	41	1543	40
1304	38	1364	37	1424	34	1484	a	1544	36
1305	36	1365	a	1425	35	1485	36	1545	36
1306	35	1366	35	1426	35	1486	43	1546	35
1307	36	1367	35	1427	33	1487	32	1547	38
1308	36	1368	35	1428	34	1488	35	1548	35
1309	35	1369	34	1429	35	1489	b	1549	c
1310	34	1370	37	1430	36	1490	37	1550	37
1311	36	1371	35	1431	38	1491	33	1551	39
1312	36	1372	36	1432	c	1492	34	1552	36
1313	35	1373	36	1433	35	1493	35	1553	43
1314	31	1374	38	1434	36	1494	33	1554	38
1315	29	1375	38	1435	33	1495	35	1555	40
1316	31	1376	38	1436	33	1496	32	1556	35
1317	34	1377	38	1437	33	1497	34	1557	36
1318	34	1378	36	1438	33	1498	36	1558	36
19779	36	1379	34	1439	35	1499	35	1559	c
19780	36	1380	37	1440	33	1500	35	1560	34
1321	31	1381	37	1441	37	1501	36	1561	36
1322	31	1382	38	1442	36	1502	36	1562	a
1323	31	1383	39	1443	40	1503	36	1563	a
1324	35	1384	36	1444	35	1504	35	1564	39
1325	36	1385	33	1445	34	1505	36	1565	37
1326	35	1386	34	1446	35	1506	34	1566	35
1327	34	1387	36	1447	35	1507	37	1567	32
1328	34	1388	32	1448	33	1508	34	1568	31
1329	36	1389	31	1449	32	1509	33	1569	34
1330	36	1390	36	1450	34	1510	34	1570	36

DAY = DAY POSTPARTUM

a. Rat was found dead before the start of sexual maturation evaluation.
b. Sexual maturation testing was discontinued before rat became sexually mature.
c. Rat was found dead.

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TABLE E33 (PAGE 2): SEXUAL MATURATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP - MG/KG/DAY									
I		II		III		IV		V	
0		1		3		10		30	
RAT #	VAGINAL PATENCY (DAY)	RAT #	VAGINAL PATENCY (DAY)	RAT #	VAGINAL PATENCY (DAY)	RAT #	VAGINAL PATENCY (DAY)	RAT #	VAGINAL PATENCY (DAY)
1331	38	1391	36	1451	31	1511	34	1571	37
1332	36	1392	35	1452	31	1512	35	1572	36
1333	36	1393	39	1453	29	1513	36	1573	36
1334	40	1394	35	1454	29	1514	31	1574	a
1335	35	1395	35	1455	29	1515	34	1575	a
1336	34	1396	32	1456	35	1516	37	1576	41
1337	35	1397	32	1457	36	1517	34	1577	40
1338	35	1398	38	1458	35	1518	35	1578	39
1339	36	1399	34	1459	33	1519	36	1579	34
1340	35	1400	35	1460	31	1520	32	1580	36
1341	34	1401	38	1461	38	1521	31	1581	34
1342	36	1402	33	1462	31	1522	35	1582	39
1343	33	1403	32	1463	31	1523	36	1583	38
1344	34	1404	35	1464	31	1524	35	1584	38
1345	38	1405	43	1465	41	1525	37	1585	38
1346	34	1406	37	1466	39	1526	32	1586	38
1347	36	1407	30	1467	34	1527	33	1587	36
1348	36	1408	38	1468	b	1528	35	1588	37
1349	37	1409	b	1469	34	1529	39	1589	31
1350	31	1410	34	1470	34	1530	34	1590	37
1351	34	1411	33	1471	34	1531	34	1591	35
1352	33	1412	34	1472	38	1532	34	1592	35
1353	33	1413	36	1473	34	1533	32	1593	36
1354	34	1414	37	1474	32	1534	34	1594	38
1355	35	1415	37	1475	35	1535	33	1595	34
1356	32	1416	35	1476	34	1536	34	1596	36
1357	36	1417	34	1477	30	1537	35	1597	38
1358	37	1418	35	1478	32	1538	37	1598	35
1359	37	1419	35	1479	33	1539	34	1599	37
1360	36	1420	34	1480	35	1540	35	1600	35

DAY = DAY POSTPARTUM

a. Rat was found dead before the start of sexual maturation evaluation.

b. Sexual maturation testing was discontinued before rat became sexually mature.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E34 (PAGE 1): MATING AND FERTILITY, ESTROUS CYCLING AND DAYS IN COHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP I 0 MG/KG/DAY

RAT #	ESTROUS STAGES/ 21 DAYS	DAYS IN COHABITATION	MATING STATUS	MATING DATE	PREGNANCY STATUS	ESTROUS STAGE AT SACRIFICE
1302	6	4	M	C	P	MET
1304	5	2	M	C	P	E
1306	6	4	M	C	P	D
1308	5	2	M	C	P	D
1310	5	3	M	C	P	E
1312	4	1	M	C	P	MET
1313	3	2	M	C	P	D
1316	5	1	M	C	NP	D
1318	3	2	M	C	P	D
1321	4	3	M	C	P	E
1325	6	1	M	C	P	D
1328	6	4	M	C	P	E
1330	5	3	M	C	P	D
1331	3	4	M	C	P	D
1334	5	2	M	C	P	D
1335	5	3	M	C	P	D
1336	5	3	M	C	P	MET
1338	5	2	M	C	P	D
1340	3a	5	M	C	P	D
1341	5	2	M	C	P	E
1342	4	2	M	C	P	E
1344	5	4	M	C	P	D
1345	4	2	M	C	P	D
1346	5	1	M	C	P	D
1348	5	1	M	C	P	MET
1350	5	2	M	C	P	D
1353	4	5	M	C	P	PRO
1355	5	3	M	C	P	D
1358	5	14	DID NOT MATE	-	NP	PRO
1359	4	4	M	C	P	D

M = MATED C = CONFIRMED NC = NOT CONFIRMED P = PREGNANT NP = NOT PREGNANT
PRO = PROESTRUS E = ESTRUS MET = METESTRUS D = DIESTRUS
a. Six or more consecutive days of diestrus were observed.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E34 (PAGE 2): MATING AND FERTILITY, ESTROUS CYCLING AND DAYS IN COHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP II 1 MG/KG/DAY

RAT #	ESTROUS STAGES/ 21 DAYS	DAYS IN COHABITATION	MATING STATUS	MATING DATE	PREGNANCY STATUS	ESTROUS STAGE AT SACRIFICE
1362	6	4	M	C	P	E
1363	5	3	M	C	P	E
1364	5	3	M	C	P	MET
1367	6	4	M	C	P	E
1368	5	3	M	C	P	D
1371	5	4	M	C	P	D
1373	FOUND DEAD ON DAY 51 POSTWEANING					
1375	6	2	M	C	P	D
1376	5	4	M	C	P	D
1378	6	3	M	C	NP	E
1379	6	4	M	C	P	MET
1381	6	4	M	C	P	D
1382	5	3	M	C	P	D
1383	4	2	M	C	P	D
1384	5	2	M	C	P	E
1387	5	3	M	C	P	E
1389	3	2	M	C	P	D
1392	6	4	M	C	P	D
1393	5	2	M	C	P	E
1397	6	2	M	C	P	MET
1399	5	3	M	C	P	D
1401	5	2	M	C	P	E
1404	5	4	M	C	P	D
1407	5	3	M	C	P	D
1409	3	6	M	C	P	D
1410	3	3	M	C	P	E
1413	6	4	M	C	P	E
1415	4	1	M	C	P	D
1416	5	1	M	C	P	PRO
1418	5	2	M	C	P	D

M = MATED C = CONFIRMED NC = NOT CONFIRMED P = PREGNANT NP = NOT PREGNANT
PRO = PROESTRUS E = ESTRUS MET = METESTRUS D = DIESTRUS

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E34 (PAGE 3): MATING AND FERTILITY, ESTROUS CYCLING AND DAYS IN COHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP III 3 MG/KG/DAY

RAT #	ESTROUS STAGES/ 21 DAYS	DAYS IN COHABITATION	MATING STATUS	MATING DATE	PREGNANCY STATUS	ESTROUS STAGE AT SACRIFICE
1421	6	1	M	C	P	D
1424	4	2	M	C	P	D
1426	6	1	M	C	P	D
1428	5	3	M	C	P	MET
1430	5	2	M	C	P	E
1431	4	1	M	C	P	D
1433	6	3	M	C	P	PRO
1436	6	4	M	C	P	D
1437	6	4	M	C	P	D
1439	5	3	M	C	P	MET
1442	5	1	M	C	P	D
1443	4	2	M	C	P	PRO
1446	4	4	M	C	NP	D
1448	4	2	M	C	P	D
1450	5	3	M	C	P	D
1452	4	2	M	C	P	D
1455	6	4	M	C	P	D
1456	5	1	M	C	P	E
1458	5	1	M	C	NP	D
1459	4	2	M	C	P	D
1461	5	3	M	C	P	D
1463	6	2	M	C	P	E
1465	5	2	M	C	P	D
1468	6	4	M	C	P	PRO
1469	4	1	M	C	P	E
1472	5	4	M	C	P	D
1474	5	2	M	C	P	D
1476	6	4	M	C	P	E
1477	6	4	M	C	P	D
1480	4	1	M	C	P	D

M = MATED C = CONFIRMED NC = NOT CONFIRMED P = PREGNANT NP = NOT PREGNANT
PRO = PROESTRUS E = ESTRUS MET = METESTRUS D = DIESTRUS

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E34 (PAGE 4): MATING AND FERTILITY, ESTROUS CYCLING AND DAYS IN COHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP IV 10 MG/KG/DAY

RAT #	ESTROUS STAGES/ 21 DAYS	DAYS IN COHABITATION	MATING STATUS	MATING DATE	PREGNANCY STATUS	ESTROUS STAGE AT SACRIFICE
1482	6	1	M	C	P	D
1483	5	1	M	C	NP	E
1486	5	1	M	C	P	E
1488	6	1	M	C	P	D
1490	7	1	M	C	P	D
1491	5	2	M	C	P	E
1494	4	4	M	C	P	D
1496	5	2	M	C	P	PRO
1497	5	4	M	C	P	E
1500	5	3	M	C	P	D
1502	2a	1	M	C	P	PRO
1505	5	3	M	C	P	D
1507	6	4	M	C	P	D
1508	6	4	M	C	P	D
1511	3	7	M	C	NP	D
1513	3	2	M	C	P	D
1514	5	2	M	C	P	D
1516	6	4	M	C	P	D
1517	6	1	M	C	P	E
1519	5	1	M	C	P	D
1521	6	4	M	C	P	D
1523	6	4	M	C	P	MET
1524	6	1	M	C	P	E
1527	5	4	M	C	P	D
1528	5	3	M	C	P	D
1531	4	4	M	C	P	D
1533	5	3	M	C	P	D
1534	5	1	M	C	P	D
1537	5	3	M	C	P	D
1539	4	5	M	C	P	D

M = MATED C = CONFIRMED NC = NOT CONFIRMED P = PREGNANT NP = NOT PREGNANT
PRO = PROESTRUS E = ESTRUS MET = METESTRUS D = DIESTRUS
a. Six or more consecutive days of diestrus were observed.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E34 (PAGE 5): MATING AND FERTILITY, ESTROUS CYCLING AND DAYS IN COHABITATION - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP V 30 MG/KG/DAY

RAT #	ESTROUS STAGES/ 21 DAYS	DAYS IN COHABITATION	MATING STATUS	MATING DATE	PREGNANCY STATUS	ESTROUS STAGE AT SACRIFICE
1541	6	2	M	C	P	D
1544	6	5	M	C	P	MET
1545	5	3	M	C	P	D
1546	6	4	M	C	P	D
1548	5	3	M	C	P	D
1550	6	1	M	C	P	D
1552	6	3	M	C	P	E
1555	6	4	M	C	P	D
1557	5	2	M	C	P	D
1558	6	1	M	C	P	D
1560	6	1	M	C	P	D
1564	5	3	M	C	P	PRO
1565	5	2	M	C	P	D
1566	5	4	M	C	P	D
1568	5	3	M	C	P	D
1571	5	3	M	C	P	D
1573	5	2	M	C	P	E
1576	5	1	M	C	P	D
1578	6	3	M	C	NP	E
1579	6	2	M	C	P	D
1583	5	1	M	C	P	D
1584	7	1	M	C	P	D
1586	6	4	M	C	P	D
1587	5	1	M	C	P	PRO
1588	5	3	M	C	P	D
1589	4	3	M	C	P	D
1591	4	2	M	C	P	D
1593	5	1	M	C	P	E
1598	5	4	M	C	P	D
1600	6	4	M	C	P	D

M = MATED C = CONFIRMED NC = NOT CONFIRMED P = PREGNANT NP = NOT PREGNANT
PRO = PROESTRUS E = ESTRUS MET = METESTRUS D = DIESTRUS

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E35 (PAGE 1): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
I					
0	1301	DP 32	-	31	ALL TISSUES APPEARED NORMAL.
	1302	DL 22	P	130	ALL TISSUES APPEARED NORMAL.
	1303	DP 32	-	31	ALL TISSUES APPEARED NORMAL.
	1304	DL 22	P	128	ALL TISSUES APPEARED NORMAL.
	1305	DP 32	-	31	ALL TISSUES APPEARED NORMAL.
	1306	DL 22	P	129	ALL TISSUES APPEARED NORMAL.
	1307	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1308	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1309	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1310	DL 22	P	127	ALL TISSUES APPEARED NORMAL.
	1311	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1312	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1313	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1314	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1315	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1316	DG 25	NP	107	ALL TISSUES APPEARED NORMAL.
	1317	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1318	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	19779	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	19780	DP 28	-	27	SPLEEN: SMALL (0.099 G). ALL OTHER TISSUES APPEARED NORMAL.
	1321	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1322	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1323	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1324	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1325	DL 22	P	124	ALL TISSUES APPEARED NORMAL.
	1326	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1327	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1328	DL 22	P	128	ALL TISSUES APPEARED NORMAL.
	1329	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1330	DL 22	P	125	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Refer to the individual clinical observations table (Table E26) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E35 (PAGE 2): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
I					
0	1331	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
CONT.	1332	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1333	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1334	DL 22	P	124	ALL TISSUES APPEARED NORMAL.
	1335	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1336	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1337	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1338	DL 22	P	123	ALL TISSUES APPEARED NORMAL.
	1339	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1340	DL 22	P	127	ALL TISSUES APPEARED NORMAL.
	1341	DL 22	P	123	ALL TISSUES APPEARED NORMAL.
	1342	DL 22	P	123	ALL TISSUES APPEARED NORMAL.
	1343	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1344	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1345	DL 22	P	123	ALL TISSUES APPEARED NORMAL.
	1346	DL 22	P	123	ALL TISSUES APPEARED NORMAL.
	1347	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1348	DL 22	P	122	ALL TISSUES APPEARED NORMAL.
	1349	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1350	DL 22	P	123	ALL TISSUES APPEARED NORMAL.
	1351	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1352	DP 27	-	26	ALL TISSUES APPEARED NORMAL.
	1353	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1354	DP 27	-	26	ALL TISSUES APPEARED NORMAL.
	1355	DL 22	P	123	ALL TISSUES APPEARED NORMAL.
	1356	DP 27	-	26	ALL TISSUES APPEARED NORMAL.
	1357	DP 24	-	23	ALL TISSUES APPEARED NORMAL.
	1358	DP 114	NP	113	ALL TISSUES APPEARED NORMAL.
	1359	DL 22	P	116	ALL TISSUES APPEARED NORMAL.
	1360	DP 18	-	17	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Refer to the individual clinical observations table (Table E26) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E35 (PAGE 3): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
II 1	1361	DP 32	-	31	ALL TISSUES APPEARED NORMAL.
	1362	DL 22	P	130	NECROPSY OBSERVATIONS WERE NOT RECORDED.
	1363	DL 22	P	129	ALL TISSUES APPEARED NORMAL.
	1364	DL 22	P	129	ALL TISSUES APPEARED NORMAL.
	1365	DP 4	-	3	FOUND DEAD ON DAY 4 POSTWEANING (DEATH OCCURRED OVERNIGHT). ALL TISSUES APPEARED NORMAL.
	1366	DP 32	-	31	ALL TISSUES APPEARED NORMAL.
	1367	DL 22	P	130	ALL TISSUES APPEARED NORMAL.
	1368	DL 22	P	129	ALL TISSUES APPEARED NORMAL.
	1369	DP 32	-	31	ALL TISSUES APPEARED NORMAL.
	1370	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1371	DL 22	P	128	ALL TISSUES APPEARED NORMAL.
	1372	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1373	DP 51	-	50	FOUND DEAD ON DAY 51 POSTWEANING. STOMACH: DISTENDED. INTESTINES: DISTENDED. LUNGS: DORSAL SURFACE, RIGHT APICAL LOBE, DEPRESSED WHITE AREA (0.3 CM IN DIAMETER). ALL OTHER TISSUES APPEARED NORMAL.
	1374	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1375	DL 22	P	127	ALL TISSUES APPEARED NORMAL.
	1376	DL 22	P	128	ALL TISSUES APPEARED NORMAL.
	1377	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1378	DG 25	NP	110	ALL TISSUES APPEARED NORMAL.
	1379	DL 22	P	129	ALL TISSUES APPEARED NORMAL.
	1380	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1381	DL 22	P	129	ALL TISSUES APPEARED NORMAL.
	1382	DL 22	P	128	ALL TISSUES APPEARED NORMAL.
	1383	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1384	DL 22	P	127	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Refer to the individual clinical observations table (Table E26) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E35 (PAGE 4): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
II					
1	1385	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
CONT.	1386	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1387	DL 22	P	127	ALL TISSUES APPEARED NORMAL.
	1388	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1389	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1390	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1391	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1392	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1393	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1394	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1395	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1396	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1397	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1398	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1399	DL 22	P	127	ALL TISSUES APPEARED NORMAL.
	1400	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1401	DL 22	P	124	ALL TISSUES APPEARED NORMAL.
	1402	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1403	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1404	DL 22	P	127	ALL TISSUES APPEARED NORMAL.
	1405	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1406	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1407	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1408	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1409	DL 22	P	129	ALL TISSUES APPEARED NORMAL.
	1410	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1411	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1412	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1413	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1414	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1415	DL 22	P	122	LIVER: LEFT LATERAL LOBE, FIRM MASS (2.0 CM X 1.2 CM X 0.4 CM), CUT SURFACE REVEALED YELLOW AND DARK RED AREAS; CAUDATE LOBE ADHERED TO LEFT LATERAL LOBE. ALL OTHER TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Refer to the individual clinical observations table (Table E26) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E35 (PAGE 5): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
II					
1	1416	DL 22	P	122	ALL TISSUES APPEARED NORMAL.
CONT.	1417	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1418	DL 22	P	124	ALL TISSUES APPEARED NORMAL.
	1419	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1420	DP 28	-	27	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Refer to the individual clinical observations table (Table E26) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E35 (PAGE 6): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
III					
3	1421	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1422	DP 32	-	31	ALL TISSUES APPEARED NORMAL.
	1423	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1424	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1425	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1426	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1427	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1428	DL 22	P	127	KIDNEYS: BILATERAL, PELVIS, SLIGHT DILATION. ALL OTHER TISSUES APPEARED NORMAL.
	1429	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1430	DL 22	P	127	ALL TISSUES APPEARED NORMAL.
	1431	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1432	DP 7	-	6	FOUND DEAD ON DAY 7 POSTWEANING (DEATH OCCURRED OVERNIGHT). ALL TISSUES APPEARED NORMAL.
	1433	DL 22	P	127	ALL TISSUES APPEARED NORMAL.
	1434	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1435	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1436	DL 22	P	129	ALL TISSUES APPEARED NORMAL.
	1437	DL 22	P	128	ALL TISSUES APPEARED NORMAL.
	1438	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1439	DL 22	P	127	ALL TISSUES APPEARED NORMAL.
	1440	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1441	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1442	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1443	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1444	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1445	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1446	DG 25	NP	110	ALL TISSUES APPEARED NORMAL.
	1447	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1448	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1449	DP 30	-	29	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Refer to the individual clinical observations table (Table E26) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E35 (PAGE 7): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
III					
3	1450	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
CONT.	1451	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1452	DL 22	P	124	ALL TISSUES APPEARED NORMAL.
	1453	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1454	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1455	DL 22	P	127	ALL TISSUES APPEARED NORMAL.
	1456	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1457	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1458	DG 25	NP	106	ALL TISSUES APPEARED NORMAL.
	1459	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1460	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1461	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1462	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1463	DL 22	P	124	ALL TISSUES APPEARED NORMAL.
	1464	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1465	DL 22	P	124	ALL TISSUES APPEARED NORMAL.
	1466	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1467	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1468	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1469	DL 22	P	123	ALL TISSUES APPEARED NORMAL.
	1470	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1471	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1472	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1473	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1474	DL 22	P	123	ALL TISSUES APPEARED NORMAL.
	1475	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1476	DL 22	P	124	ALL TISSUES APPEARED NORMAL.
	1477	DL 22	P	124	ALL TISSUES APPEARED NORMAL.
	1478	DP 27	-	26	ALL TISSUES APPEARED NORMAL.
	1479	DP 24	-	23	ALL TISSUES APPEARED NORMAL.
	1480	DL 22	P	119	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Refer to the individual clinical observations table (Table E26) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E35 (PAGE 8): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
IV					
10	1481	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1482	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1483	DG 25	NP	108	ALL TISSUES APPEARED NORMAL.
	1484	DP 3	-	2	FOUND DEAD ON DAY 3 POSTWEANING (DEATH OCCURRED OVERNIGHT). ALL TISSUES APPEARED NORMAL.
	1485	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1486	DL 22	P	127	ALL TISSUES APPEARED NORMAL.
	1487	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1488	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1489	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1490	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1491	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1492	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1493	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1494	DL 22	P	127	ALL TISSUES APPEARED NORMAL.
	1495	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1496	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1497	DL 22	P	127	ALL TISSUES APPEARED NORMAL.
	1498	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1499	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1500	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1501	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1502	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1503	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1504	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1505	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1506	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1507	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1508	DL 22	P	127	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Refer to the individual clinical observations table (Table E26) for external observations confirmed at necropsy.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E35 (PAGE 9): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
IV 10 CONT.	1509	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1510	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1511	DG 25	NP	112	ALL TISSUES APPEARED NORMAL.
	1512	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1513	DL 22	P	124	ALL TISSUES APPEARED NORMAL.
	1514	DL 22	P	124	ALL TISSUES APPEARED NORMAL.
	1515	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1516	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1517	DL 22	P	122	ALL TISSUES APPEARED NORMAL.
	1518	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1519	DL 22	P	124	ALL TISSUES APPEARED NORMAL.
	1520	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1521	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1522	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1523	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1524	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1525	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1526	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1527	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1528	DL 22	P	124	ALL TISSUES APPEARED NORMAL.
	1529	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1530	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1531	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1532	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1533	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1534	DL 22	P	122	ALL TISSUES APPEARED NORMAL.
	1535	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1536	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1537	DL 22	P	124	ALL TISSUES APPEARED NORMAL.
	1538	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1539	DL 22	P	127	ALL TISSUES APPEARED NORMAL.
	1540	DP 28	-	27	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Refer to the individual clinical observations table (Table E26) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E35 (PAGE 10): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
V					
30	1541	DL 22	P	128	ALL TISSUES APPEARED NORMAL.
	1542	DP 32	-	31	ALL TISSUES APPEARED NORMAL.
	1543	DP 32	-	31	ALL TISSUES APPEARED NORMAL.
	1544	DL 22	P	129	ALL TISSUES APPEARED NORMAL.
	1545	DL 22	P	127	ALL TISSUES APPEARED NORMAL.
	1546	DL 22	P	128	ALL TISSUES APPEARED NORMAL.
	1547	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1548	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1549	DP 8	-	7	FOUND DEAD ON DAY 8 POSTWEANING. ALL TISSUES APPEARED NORMAL.
	1550	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1551	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1552	DL 22	P	127	ALL TISSUES APPEARED NORMAL.
	1553	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1554	DP 31	-	30	ALL TISSUES APPEARED NORMAL.
	1555	DL 22	P	128	ALL TISSUES APPEARED NORMAL.
	1556	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1557	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1558	DL 22	P	124	ALL TISSUES APPEARED NORMAL.
	1559	DP 6	-	5	FOUND DEAD ON DAY 6 POSTWEANING. ALL TISSUES APPEARED NORMAL.
	1560	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1561	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1562	DP 2	-	0	FOUND DEAD ON DAY 2 POSTWEANING (DEATH OCCURRED OVERNIGHT). ALL TISSUES APPEARED NORMAL.
	1563	DP 2	-	0	FOUND DEAD ON DAY 2 POSTWEANING. ALL TISSUES APPEARED NORMAL.
	1564	DL 22	P	127	ALL TISSUES APPEARED NORMAL.
	1565	DL 22	P	126	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Refer to the individual clinical observations table (Table E26) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E35 (PAGE 11): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
V					
30	1566	DL 22	P	128	ALL TISSUES APPEARED NORMAL.
CONT.	1567	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1568	DL 22	P	127	ALL TISSUES APPEARED NORMAL.
	1569	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1570	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1571	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1572	DP 30	-	29	ALL TISSUES APPEARED NORMAL.
	1573	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1574	DP 3	-	3	FOUND DEAD ON DAY 3 POSTWEANING (DEATH OCCURRED 67 MINUTES AFTER DOSAGE ADMINISTRATION). ALL TISSUES APPEARED NORMAL.
	1575	DP 3	-	2	FOUND DEAD ON DAY 3 POSTWEANING (DEATH OCCURRED OVERNIGHT). ALL TISSUES APPEARED NORMAL.
	1576	DL 22	P	124	ALL TISSUES APPEARED NORMAL.
	1577	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1578	DG 25	NP	108	ALL TISSUES APPEARED NORMAL.
	1579	DL 22	P	124	ALL TISSUES APPEARED NORMAL.
	1580	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1581	DP 29	-	28	ALL TISSUES APPEARED NORMAL.
	1582	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1583	DL 22	P	123	ALL TISSUES APPEARED NORMAL.
	1584	DL 22	P	122	ALL TISSUES APPEARED NORMAL.
	1585	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1586	DL 22	P	126	ALL TISSUES APPEARED NORMAL.
	1587	DL 22	P	123	ALL TISSUES APPEARED NORMAL.
	1588	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1589	DL 22	P	123	ALL TISSUES APPEARED NORMAL.
	1590	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1591	DL 22	P	124	ALL TISSUES APPEARED NORMAL.
	1592	DP 28	-	27	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Refer to the individual clinical observations table (Table E26) for external observations confirmed at necropsy.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E35 (PAGE 12): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RAT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
V 30 CONT.	1593	DL 22	P	123	KIDNEYS: RIGHT, PELVIS, MODERATE DILATION. URINARY BLADDER: WALLS THICKENED. URETER: BILATERAL, MODERATE DILATION; ONE CALCULI LOCATED AT THE CAUDAL END (1.0 CM X 0.5 CM). ALL OTHER TISSUES APPEARED NORMAL.
	1594	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1595	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1596	DP 28	-	27	ALL TISSUES APPEARED NORMAL.
	1597	DP 27	-	26	ALL TISSUES APPEARED NORMAL.
	1598	DL 22	P	125	ALL TISSUES APPEARED NORMAL.
	1599	DP 26	-	25	ALL TISSUES APPEARED NORMAL.
	1600	DL 22	P	123	ALL TISSUES APPEARED NORMAL.

DP = DAY POSTWEANING DG = DAY OF PRESUMED GESTATION DL = DAY OF LACTATION

a. Refer to the individual clinical observations table (Table E26) for external observations confirmed at necropsy.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E36 (PAGE 1): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP I — 0 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	PITUITARY		BRAIN		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT	
		ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a
1302	284.	0.022	7.75	2.10	0.74	14.52	5.11	1.30	0.46	1.38	0.48	0.027	9.51
1304	320.	0.021	6.56	2.10	0.66	17.50	5.47	1.38	0.43	1.40	0.44	0.044	13.75
1306	335.	0.017	5.07	2.05	0.61	17.30	5.16	1.45	0.43	1.55	0.46	0.050	14.92
1308	357.	0.018	5.04	2.01	0.56	18.06	5.06	1.29	0.36	1.32	0.37	0.041	11.48
1310	331.	0.014	4.23	1.99	0.60	18.04	5.45	1.30	0.39	1.33	0.40	0.040	12.08
1312	336.	0.022	6.55	2.15	0.64	14.95	4.45	1.24	0.37	1.36	0.40	0.036	10.71
1313	298.	0.020	6.71	2.14	0.72	15.73	5.28	1.26	0.42	1.28	0.43	0.036	12.08
1316	NOT PREGNANT												
1318	369.	0.017	4.61	2.06	0.56	17.38	4.71	1.53	0.41	1.43	0.39	0.039	10.57
1321	329.	0.014	4.26	2.05	0.62	18.67	5.67	1.36	0.41	1.46	0.44	0.047	14.28
1325	323.	0.009	2.79	2.00	0.62	17.15	5.31	1.35	0.42	1.39	0.43	0.044	13.62
1328	328.	0.015	4.57	2.09	0.64	17.40	5.30	1.41	0.43	1.47	0.45	0.044	13.41
1330	280.	0.018	6.43	2.00	0.71	12.61	4.50	1.22	0.44	1.17	0.42	0.047	16.78
1331	300.	0.018	6.00	2.33	0.78	14.43	4.81	1.11	0.37	1.26	0.42	0.041	13.67
1334	284.	0.016	5.63	1.96	0.69	15.10	5.32	1.26	0.44	1.22	0.43	0.036	12.68
1335	324.	0.012	3.70	1.93	0.60	15.81	4.88	1.28	0.40	1.40	0.43	0.036	11.11
1336	331.	0.016	4.83	2.06	0.62	17.19	5.19	1.42	0.43	1.46	0.44	0.046	13.90
1338	345.	0.022	6.38	2.10	0.61	18.61	5.39	1.56	0.45	1.53	0.44	0.051	14.78
1340	338.	0.015	4.44	2.07	0.61	16.97	5.02	1.60	0.47	1.65	0.49	0.043	12.72
1341	316.	0.029	9.18	2.06	0.65	16.15	5.11	1.17	0.37	1.18	0.37	0.039	12.34
1342	294.	0.023	7.82	1.93	0.66	14.09	4.79	1.22	0.41	1.25	0.42	0.039	13.26
1344	333.	0.020	6.01	2.26	0.68	17.38	5.22	1.61	0.48	1.41	0.42	0.053	15.92
1345	364.	0.014	3.85	2.03	0.56	17.73	4.87	1.28	0.35	1.32	0.36	0.047	12.91
1346	325.	0.018	5.54	2.03	0.62	17.30	5.32	1.35	0.42	1.41	0.43	0.052	16.00
1348	339.	0.015	4.42	2.05	0.60	18.89	5.57	1.46	0.43	1.57	0.46	0.055	16.22
1350	339.	0.016	4.72	2.03	0.60	18.24	5.38	1.37	0.40	1.42	0.42	0.063	18.58
1353	293.	0.024	8.19	2.22	0.76	15.33	5.23	1.54	0.52	1.31	0.45	0.038	12.97
1355	313.	0.007	2.24	2.04	0.65	16.39	5.24	1.40	0.45	1.38	0.44	0.037	11.82
1358	NOT PREGNANT; MATING NOT CONFIRMED												
1359	313.	0.017	5.43	2.10	0.67	15.16	4.84	1.35	0.43	1.31	0.42	0.031	9.90

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.
a. Value was multiplied by 1000.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E36 (PAGE 2): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP I — 0 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	ADRENAL RIGHT		SPLEEN		THYMUS		OVARY LEFT		OVARY RIGHT		UTERUS NON-GRAVID	
		ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW
1302	284.	0.028	9.86	0.63	0.22	0.13	0.04	0.054	19.01	0.068	23.94	0.48	0.17
1304	320.	0.038	11.88	0.53	0.16	0.26	0.08	0.053	16.56	0.063	19.69	0.80	0.25
1306	335.	0.037	11.04	0.59	0.18	0.21	0.06	0.045	13.43	0.057	17.01	0.65	0.19
1308	357.	0.041	11.48	0.72	0.20	0.11	0.03	0.033	9.24	0.042	11.76	0.34	0.10
1310	331.	0.047	14.20	0.66	0.20	0.18	0.05	0.045	13.60	0.049	14.80	0.70	0.21
1312	336.	0.035	10.42	0.57	0.17	0.26	0.08	0.054	16.07	0.054	16.07	0.45	0.13
1313	298.	0.030	10.07	0.62	0.21	0.30	0.10	0.043	14.43	0.050	16.78	0.58	0.19
1316	NOT PREGNANT												
1318	369.	0.036	9.76	0.64	0.17	0.24	0.06	0.055	14.90	0.054	14.63	0.49	0.13
1321	329.	0.041	12.46	0.71	0.22	0.16	0.05	0.045	13.68	0.051	15.50	0.38	0.12
1325	323.	0.035	10.84	0.57	0.18	0.23	0.07	0.037	11.46	0.032	9.91	0.78	0.24
1328	328.	0.047	14.33	0.61	0.18	0.15	0.04	0.044	13.41	0.053	16.16	0.87	0.26
1330	280.	0.040	14.28	0.56	0.20	0.16	0.06	0.040	14.28	0.046	16.43	0.33	0.12
1331	300.	0.037	12.33	0.56	0.19	0.20	0.07	0.050	16.67	0.050	16.67	0.66	0.22
1334	284.	0.031	10.92	0.52	0.18	0.22	0.08	0.029	10.21	0.033	11.62	0.40	0.14
1335	324.	0.037	11.42	0.56	0.17	0.20	0.06	0.039	12.04	0.058	17.90	0.48	0.15
1336	331.	0.043	12.99	0.47	0.14	0.10	0.03	0.047	14.20	0.055	16.62	0.39	0.12
1338	345.	0.047	13.62	0.65	0.19	0.19	0.06	0.044	12.75	0.047	13.62	0.30b	0.09
1340	338.	0.041	12.13	0.76	0.22	0.30	0.09	0.070	20.71	0.092	27.22	0.79	0.23
1341	316.	0.037	11.71	0.55	0.17	0.31	0.10	0.057	18.04	0.064	20.25	0.51	0.16
1342	294.	0.036	12.24	0.60	0.20	0.20	0.07	0.058	19.73	0.034	11.56	0.53	0.18
1344	333.	0.048	14.41	0.64	0.19	0.20	0.06	0.068	20.42	0.042	12.61	0.70	0.21
1345	364.	0.041	11.26	0.65	0.18	0.13	0.04	0.049	13.46	0.055	15.11	0.32b	0.09
1346	325.	0.047	14.46	0.52	0.16	0.20	0.06	0.085	26.15	0.061	18.77	0.42	0.13
1348	339.	0.052	15.34	0.57	0.17	0.18	0.05	0.063	18.58	0.062	18.29	0.60	0.18
1350	339.	0.062	18.29	0.66	0.19	0.15	0.04	0.052	15.34	0.060	17.70	0.43	0.13
1353	293.	0.035	11.94	0.52	0.18	0.26	0.09	0.061	20.82	0.075	25.60	0.52	0.18
1355	313.	0.031	9.90	0.43	0.14	0.12	0.04	0.045	14.38	0.050	15.97	0.42	0.13
1358	NOT PREGNANT; MATING NOT CONFIRMED												
1359	313.	0.034	10.86	0.64	0.20	0.25	0.08	0.046	14.70	0.053	16.93	0.74	0.24

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E36 (PAGE 3): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP II — 1 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	PITUITARY		BRAIN		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT	
		ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a
1362	287.	0.015	5.23	2.09	0.73	14.91	5.20	1.29	0.45	1.28	0.44	0.041	14.28
1363	308.	0.017	5.52	2.13	0.69	15.01	4.87	1.42	0.46	1.38	0.45	0.045	14.61
1364	323.	0.019	5.88	2.10	0.65	17.48	5.41	1.39	0.43	1.40	0.43	0.042	13.00
1367	297.	0.016	5.39	1.98	0.67	13.92	4.69	1.35	0.45	1.33	0.45	0.044	14.81
1368	310.	0.014	4.52	1.95	0.63	15.62	5.04	1.45	0.47	1.44	0.46	0.053	17.10
1371	352.	0.013	3.69	2.34	0.66	19.98	5.68	1.58	0.45	1.64	0.46	0.054	15.34
1375	299.	0.017	5.68	2.00	0.67	14.17	4.74	1.25	0.42	1.32	0.44	0.048	16.05
1376	360.	0.014	3.89	2.05	0.57	16.89	4.69	1.67	0.46	1.62	0.45	0.044	12.22
1378	NOT PREGNANT												
1379	355.	0.021	5.92	2.32	0.65	14.44	4.07	1.49	0.42	1.48	0.42	0.056	15.77
1381	282.	0.016	5.67	2.13	0.76	13.26	4.70	1.52	0.54	1.51	0.54	0.038	13.48
1382	308.	0.017	5.52	2.06	0.67	15.82	5.14	1.37	0.44	1.29	0.42	0.058	18.83
1383	350.	0.023	6.57	1.97	0.56	17.23	4.92	1.52	0.43	1.51	0.43	0.041	11.71
1384	262.	0.014	5.34	1.94	0.74	12.14	4.63	1.08	0.41	1.15	0.44	0.032	12.21
1387	338.	0.012	3.55	2.06	0.61	17.48	5.17	1.26	0.37	1.43	0.42	0.046	13.61
1389	344.	0.017	4.94	2.04	0.59	16.17	4.70	1.33	0.39	1.29	0.38	0.041	11.92
1392	347.	0.021	6.05	2.23	0.64	18.85	5.43	1.62	0.47	1.59	0.46	0.048	13.83
1393	330.	0.013	3.94	2.02	0.61	16.60	5.03	1.25	0.38	1.29	0.39	0.041	12.42
1397	331.	0.018	5.44	2.10	0.63	17.41	5.26	1.49	0.45	1.57	0.47	0.046	13.90
1399	320.	0.013	4.06	2.26	0.71	16.58	5.18	1.38	0.43	1.38	0.43	0.032	10.00
1401	297.	0.014	4.71	1.95	0.66	13.63	4.59	1.28	0.43	1.19	0.40	0.034	11.45
1404	332.	0.017	5.12	2.03	0.61	15.01	4.52	1.16	0.35	1.22	0.37	0.047	14.16
1407	325.	0.015	4.62	2.07	0.64	15.09	4.64	1.40	0.43	1.36	0.42	0.040	12.31
1409	327.	0.015	4.59	2.06	0.63	15.90	4.86	1.22	0.37	1.28	0.39	0.031	9.48
1410	344.	0.019	5.52	2.05	0.60	18.06	5.25	1.45	0.42	1.51	0.44	0.044	12.79
1413	320.	0.015	4.69	2.29	0.72	16.36	5.11	1.46	0.46	1.55	0.48	0.043	13.44
1415	339.	0.011	3.24	1.92	0.57	17.79	5.25	1.51	0.44	1.52	0.45	0.046	13.57
1416	303.	0.018	5.94	2.23	0.74	15.44	5.10	1.48	0.49	1.55	0.51	0.044	14.52
1418	317.	0.013	4.10	2.15	0.68	15.71	4.96	1.22	0.38	1.32	0.42	0.040	12.62

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.
a. Value was multiplied by 1000.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E36 (PAGE 4): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP II — 1 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	ADRENAL RIGHT		SPLEEN		THYMUS		OVARY LEFT		OVARY RIGHT		UTERUS NON-GRAVID	
		ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW
1362	287.	0.038	13.24	0.73	0.25	0.20	0.07	0.062	21.60	0.064	22.30	0.80	0.28
1363	308.	0.049	15.91	0.50	0.16	0.17	0.06	0.055	17.86	0.076	24.68	0.68	0.22
1364	323.	0.039	12.07	0.47	0.14	0.07	0.02	0.055	17.03	0.061	18.88	0.46	0.14
1367	297.	0.041	13.80	0.50	0.17	0.11	0.04	0.054	18.18	0.058	19.53	0.62	0.21
1368	310.	0.047	15.16	0.53	0.17	0.20	0.06	0.054	17.42	0.054	17.42	0.50	0.16
1371	352.	0.046	13.07	0.56	0.16	0.21	0.06	0.087	24.72	0.032	9.09	0.55	0.16
1375	299.	0.043	14.38	0.64	0.21	0.19	0.06	0.050	16.72	0.040	13.38	0.67	0.22
1376	360.	0.042	11.67	0.58	0.16	0.24	0.07	0.046	12.78	0.056	15.56	0.38	0.10
1378	NOT PREGNANT												
1379	355.	0.053	14.93	0.60	0.17	0.17	0.05	0.054	15.21	0.068	19.15	0.69	0.19
1381	282.	0.036	12.76	0.50	0.18	0.27	0.10	0.055	19.50	0.076	26.95	0.63	0.22
1382	308.	0.052	16.88	0.83	0.27	0.16	0.05	0.043	13.96	0.046	14.94	0.53	0.17
1383	350.	0.031	8.86	0.59	0.17	0.24	0.07	0.059	16.86	0.066	18.86	0.57	0.16
1384	262.	0.028	10.69	0.57	0.22	0.12	0.04	0.051	19.46	0.060	22.90	0.83	0.32
1387	338.	0.042	12.43	0.59	0.17	0.20	0.06	0.056	16.57	0.056	16.57	0.55	0.16
1389	344.	0.047	13.66	0.68	0.20	0.14	0.04	0.047	13.66	0.058	16.86	0.74	0.22
1392	347.	0.041	11.82	0.61	0.18	0.12	0.03	0.047	13.54	0.056	16.14	0.38	0.11
1393	330.	0.041	12.42	0.57	0.17	0.23	0.07	0.054	16.36	0.035	10.61	0.37	0.11
1397	331.	0.043	12.99	0.63	0.19	0.21	0.06	0.053	16.01	0.060	18.13	0.46	0.14
1399	320.	0.031	9.69	0.63	0.20	0.18	0.06	0.058	18.12	0.053	16.56	0.47	0.15
1401	297.	0.033	11.11	0.67	0.22	0.21	0.07	0.042	14.14	0.045	15.15	0.57	0.19
1404	332.	0.039	11.75	0.48	0.14	0.28	0.08	0.085	25.60	0.061	18.37	0.42b	0.13
1407	325.	0.039	12.00	0.65	0.20	0.20	0.06	0.044	13.54	0.036	11.08	0.40	0.12
1409	327.	0.028	8.56	0.41	0.12	0.20	0.06	0.045	13.76	0.041	12.54	0.34	0.10
1410	344.	0.035	10.17	0.58	0.17	0.20	0.06	0.054	15.70	0.051	14.82	0.60	0.17
1413	320.	0.054	16.88	1.03	0.32	0.17	0.05	0.078	24.38	0.048	15.00	1.00	0.31
1415	339.	0.052	15.34	0.72	0.21	0.32	0.09	0.040	11.80	0.038	11.21	0.69	0.20
1416	303.	0.041	13.53	0.59	0.19	0.14	0.05	0.044	14.52	0.038	12.54	0.43	0.14
1418	317.	0.035	11.04	0.57	0.18	0.14	0.04	0.040	12.62	0.062	19.56	0.46	0.14

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E36 (PAGE 5): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP III — 3 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	PITUITARY		BRAIN		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT	
		ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a
1421	326.	0.009	2.76	1.96	0.60	16.89	5.18	1.44	0.44	1.40	0.43	0.049	15.03
1424	307.	0.013	4.23	2.05	0.67	16.43	5.35	1.42	0.46	1.36	0.44	0.048	15.64
1426	369.	0.019	5.15	2.12	0.57	18.04	4.89	1.37	0.37	1.40	0.38	0.051	13.82
1428	334.	0.016	4.79	2.18	0.65	16.19	4.85	1.50b	0.45	1.54b	0.46	0.046	13.77
1430	308.	0.017	5.52	1.85	0.60	15.49	5.03	15.30c	4.97c	1.63	0.53	0.048	15.58
1431	358.	0.015	4.19	2.02	0.56	19.48	5.44	1.49	0.42	1.63	0.46	0.042	11.73
1433	314.	0.014	4.46	1.95	0.62	16.49	5.25	1.36	0.43	1.42	0.45	0.041	13.06
1436	341.	0.018	5.28	2.20	0.64	15.80	4.63	1.28	0.38	1.30	0.38	0.041	12.02
1437	311.	0.015	4.82	2.18	0.70	17.76	5.71	1.41	0.45	1.47	0.47	0.044	14.15
1439	361.	0.017	4.71	2.01	0.56	16.30	4.52	1.48	0.41	1.43	0.40	0.048	13.30
1442	344.	0.016	4.65	2.05	0.60	15.42	4.48	1.35	0.39	1.38	0.40	0.046	13.37
1443	336.	0.018	5.36	2.07	0.62	14.80	4.40	1.28	0.38	1.33	0.40	0.053	15.77
1446	NOT PREGNANT												
1448	343.	0.015	4.37	2.23	0.65	17.20	5.01	1.45	0.42	1.50	0.44	0.040	11.66
1450	331.	0.015	4.53	2.13	0.64	18.62	5.62	1.29	0.39	1.36	0.41	0.041	12.39
1452	301.	0.016	5.32	1.96	0.65	15.77	5.24	1.34	0.44	1.38	0.46	0.043	14.28
1455	332.	0.012	3.61	2.27	0.68	18.40	5.54	1.51	0.45	1.44	0.43	0.041	12.35
1456	329.	0.017	5.17	2.13	0.65	16.01	4.87	1.54	0.47	1.55	0.47	0.032	9.73
1458	NOT PREGNANT												
1459	368.	0.018	4.89	2.04	0.55	17.41	4.73	1.45	0.39	1.48	0.40	0.043	11.68
1461	336.	0.017	5.06	2.00	0.60	13.89	4.13	1.29	0.38	1.32	0.39	0.037	11.01
1463	302.	0.016	5.30	2.07	0.68	14.98	4.96	1.34	0.44	1.32	0.44	0.043	14.24
1465	297.	0.006	2.02	1.99	0.67	15.23	5.13	1.38	0.46	1.25	0.42	0.041	13.80
1468	300.	0.015	5.00	2.02	0.67	14.72	4.91	1.45	0.48	1.45	0.48	0.046	15.33
1469	317.	0.016	5.05	2.17	0.68	15.62	4.93	1.24	0.39	1.26	0.40	0.051	16.09
1472	309.	0.013	4.21	2.08	0.67	15.33	4.96	1.62	0.52	1.32	0.43	0.036	11.65
1474	310.	0.014	4.52	2.10	0.68	14.41	4.65	1.31	0.42	1.37	0.44	0.050	16.13
1476	358.	0.013	3.63	1.96	0.55	17.55	4.90	1.50	0.42	1.48	0.41	0.033	9.22
1477	335.	0.021	6.27	2.25	0.67	17.98	5.37	1.48	0.44	1.50	0.45	0.055	16.42
1480	340.	0.018	5.29	2.13	0.63	17.23	5.07	1.43	0.42	1.44	0.42	0.058	17.06

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.
b. Rat 1428 had slight dilation of the pelvis in both kidneys.
c. Value was presumed incorrectly recorded; values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E36 (PAGE 6): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP III — 3 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	ADRENAL RIGHT		SPLEEN		THYMUS		OVARY LEFT		OVARY RIGHT		UTERUS NON-GRAVID	
		ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW
1421	326.	0.043	13.19	0.58	0.18	0.23	0.07	0.034	10.43	0.035	10.74	0.34	0.10
1424	307.	0.046	14.98	0.64	0.21	0.20	0.06	0.057	18.57	0.031	10.10	0.64	0.21
1426	369.	0.046	12.47	0.61	0.16	0.21	0.06	0.047	12.74	0.053	14.36	0.49	0.13
1428	334.	0.047	14.07	0.62	0.18	0.14	0.04	0.059	17.66	0.055	16.47	0.47	0.14
1430	308.	0.042	13.64	0.58	0.19	0.20	0.06	0.056	18.18	0.064	20.78	0.62	0.20
1431	358.	0.043	12.01	0.71	0.20	0.29	0.08	0.075	20.95	0.056	15.64	0.59	0.16
1433	314.	0.050	15.92	0.55	0.18	0.28	0.09	0.055	17.52	0.043	13.69	1.18	0.38
1436	341.	0.039	11.44	0.64	0.19	0.26	0.08	0.068	19.94	0.034	9.97	0.83	0.24
1437	311.	0.039	12.54	0.58	0.19	0.07	0.02	0.037	11.90	0.044	14.15	0.46	0.15
1439	361.	0.044	12.19	0.52	0.14	0.23	0.06	0.042	11.63	0.056	15.51	0.37	0.10
1442	344.	0.042	12.21	0.73	0.21	0.11	0.03	0.062	18.02	0.057	16.57	0.51	0.15
1443	336.	0.052	15.48	0.60	0.18	0.22	0.06	0.045	13.39	0.041	12.20	0.54	0.16
1446	NOT PREGNANT												
1448	343.	0.037	10.79	0.70	0.20	0.20	0.06	0.042	12.24	0.045	13.12	0.50b	0.14
1450	331.	0.039	11.78	0.58	0.18	0.21	0.06	0.033	9.97	0.044	13.29	0.42	0.13
1452	301.	0.037	12.29	0.62	0.20	0.23	0.08	0.047	15.61	0.043	14.28	0.45	0.15
1455	332.	0.028	8.43	0.67	0.20	0.35	0.10	0.069	20.78	0.062	18.67	0.75	0.22
1456	329.	0.042	12.76	0.70	0.21	0.29	0.09	0.052	15.80	0.068	20.67	0.67	0.20
1458	NOT PREGNANT												
1459	368.	0.036	9.78	0.57	0.15	0.12	0.03	0.038	10.33	0.045	12.23	0.28	0.08
1461	336.	0.033	9.82	0.55	0.16	0.18	0.05	0.038	11.31	0.035	10.42	0.56	0.17
1463	302.	0.041	13.58	0.57	0.19	0.18	0.06	0.046	15.23	0.046	15.23	0.60	0.20
1465	297.	0.036	12.12	0.51	0.17	0.22	0.07	0.056	18.86	0.056	18.86	0.49	0.16
1468	300.	0.033	11.00	0.55	0.18	0.18	0.06	0.071	23.67	0.057	19.00	0.58	0.19
1469	317.	0.039	12.30	0.56	0.18	0.17	0.05	0.054	17.03	0.056	17.66	0.51	0.16
1472	309.	0.043	13.92	0.61	0.20	0.40	0.13	0.064	20.71	0.062	20.06	0.83	0.27
1474	310.	0.042	13.55	0.62	0.20	0.24	0.08	0.043	13.87	0.037	11.94	0.72	0.23
1476	358.	0.038	10.61	0.51	0.14	0.19	0.05	0.050	13.97	0.059	16.48	0.56	0.16
1477	335.	0.053	15.82	0.63	0.19	0.10	0.03	0.040	11.94	0.039	11.64	0.50	0.15
1480	340.	0.048	14.12	0.60	0.18	0.23	0.07	0.051	15.00	0.051	15.00	0.54	0.16

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E36 (PAGE 7): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP IV — 10 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	PITUITARY		BRAIN		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT	
		ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a
1482	313.	0.015	4.79	2.23	0.71	15.34	4.90	1.26	0.40	1.25	0.40	0.045	14.38
1483	NOT PREGNANT												
1486	316.	0.017	5.38	1.90	0.60	18.55	5.87	1.37	0.43	1.31	0.41	0.054	17.09
1488	359.	0.013	3.62	2.06	0.57	17.62	4.91	1.33	0.37	1.41	0.39	0.042	11.70
1490	368.	0.015	4.08	2.12	0.58	20.37	5.54	1.65	0.45	1.56	0.42	0.052	14.13
1491	316.	0.014	4.43	2.05	0.65	16.20	5.13	1.24	0.39	1.28	0.40	0.044	13.92
1494	353.	0.016	4.53	2.12	0.60	16.00	4.53	1.52	0.43	1.49	0.42	0.042	11.90
1496	319.	0.015	4.70	1.76	0.55	16.62	5.21	1.33	0.42	1.28	0.40	0.047	14.73
1497	355.	0.016	4.51	2.23	0.63	15.83	4.46	1.50	0.42	1.48	0.42	0.044	12.39
1500	302.	0.018	5.96	1.97	0.65	16.39	5.43	1.48	0.49	1.49	0.49	0.042	13.91
1502	322.	0.014	4.35	2.05	0.64	14.76	4.58	1.18	0.37	1.22	0.38	0.041	12.73
1505	318.	0.015	4.72	2.05	0.64	16.77	5.27	1.51	0.47	1.68	0.53	0.046	14.46
1507	341.	0.015	4.40	2.21	0.65	18.65	5.47	1.46	0.43	1.51	0.44	0.051	14.96
1508	338.	0.013	3.85	2.20	0.65	16.98	5.02	1.39	0.41	1.46	0.43	0.041	12.13
1511	NOT PREGNANT												
1513	250.	0.017	6.80	2.24	0.90	13.67	5.47	1.28	0.51	1.30	0.52	0.043	17.20
1514	325.	0.016	4.92	2.19	0.67	15.60	4.80	1.32	0.41	1.38	0.42	0.053	16.31
1516	316.	0.014	4.43	2.15	0.68	15.89	5.03	1.28	0.40	1.27	0.40	0.036	11.39
1517	325.	0.013	4.00	2.03	0.62	17.35	5.34	1.13	0.35	1.13	0.35	0.043	13.23
1519	317.	0.017	5.36	2.08	0.66	17.52	5.53	1.45	0.46	1.56	0.49	0.047	14.83
1521	312.	0.016	5.13	2.18	0.70	15.27	4.89	1.35	0.43	1.42	0.46	0.046	14.74
1523	313.	0.011	3.51	2.02	0.64	15.78	5.04	1.32	0.42	1.38	0.44	0.041	13.10
1524	326.	0.010	3.07	1.98	0.61	13.46	4.13	1.24	0.38	1.21	0.37	0.030	9.20
1527	315.	0.023	7.30	2.14	0.68	18.04	5.73	1.35	0.43	1.42	0.45	0.051	16.19
1528	310.	0.015	4.84	2.11	0.68	15.96	5.15	1.46	0.47	1.53	0.49	0.044	14.19
1531	350.	0.014	4.00	2.15	0.61	18.68	5.34	1.49	0.42	1.58	0.45	0.054	15.43
1533	347.	0.017	4.90	2.11	0.61	19.96	5.75	1.56	0.45	1.61	0.46	0.053	15.27
1534	316.	0.015	4.75	2.20	0.70	16.16	5.11	1.38	0.44	1.37	0.43	0.041	12.97
1537	306.	0.015	4.90	1.93	0.63	15.08	4.93	1.21	0.40	1.25	0.41	0.046	15.03
1539	355.	0.017	4.79	2.22	0.62	18.63	5.25	1.69	0.48	1.81	0.51	0.056	15.77

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.
a. Value was multiplied by 1000.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E36 (PAGE 8): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP IV — 10 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	ADRENAL RIGHT		SPLEEN		THYMUS		OVARY LEFT		OVARY RIGHT		UTERUS NON-GRAVID	
		ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW
1482	313.	0.035	11.18	0.53	0.17	0.29	0.09	0.046	14.70	0.044	14.06	0.68	0.22
1483	NOT PREGNANT												
1486	316.	0.047	14.87	0.58	0.18	0.11	0.03	0.065	20.57	0.049	15.51	0.57	0.18
1488	359.	0.043	11.98	0.61	0.17	0.33	0.09	0.041	11.42	0.033	9.19	0.44	0.12
1490	368.	0.045	12.23	0.66	0.18	0.26	0.07	0.076	20.65	0.068	18.48	0.53	0.14
1491	316.	0.040	12.66	0.56	0.18	0.10	0.03	0.031	9.81	0.049	15.51	0.67	0.21
1494	353.	0.042	11.90	0.46	0.13	0.12	0.03	0.039	11.05	0.059	16.71	0.60	0.17
1496	319.	0.047	14.73	0.57	0.18	0.15	0.05	0.045	14.11	0.063	19.75	0.56	0.18
1497	355.	0.040	11.27	0.68	0.19	0.26	0.07	0.065	18.31	0.070	19.72	0.84	0.24
1500	302.	0.041	13.58	0.48	0.16	0.24	0.08	0.046	15.23	0.054	17.88	0.69	0.23
1502	322.	0.042	13.04	0.48	0.15	0.13	0.04	0.063	19.56	0.066	20.5[illegible]	0.42	0.13
1505	318.	0.040	12.58	0.70	0.22	0.23	0.07	0.048	15.09	0.045	14.1[illegible]	0.41	0.13
1507	341.	0.050	14.66	0.54	0.16	0.21	0.06	0.040	11.73	0.056	16.42	0.42	0.12
1508	338.	0.042	12.43	0.64	0.19	0.13	0.04	0.048	14.20	0.044	13.02	0.74	0.22
1511	NOT PREGNANT												
1513	250.	0.044	17.60	0.51	0.20	0.10	0.04	0.048	19.20	0.048	19.20	0.62	0.25
1514	325.	0.043	13.23	0.67	0.21	0.16	0.05	0.042	12.92	0.046	14.15	0.50	0.15
1516	316.	0.033	10.44	0.55	0.17	0.18	0.06	0.064	20.25	0.045	14.24	0.54	0.17
1517	325.	0.041	12.62	0.58	0.18	0.10	0.03	0.041	12.62	0.051	15.69	0.65	0.20
1519	317.	0.041	12.93	0.52	0.16	0.17	0.05	0.044	13.88	0.056	17.66	0.51	0.16
1521	312.	0.045	14.42	0.60	0.19	0.08	0.02	0.045	14.42	0.040	12.82	0.49	0.16
1523	313.	0.040	12.78	0.54	0.17	0.35	0.11	0.051	16.29	0.039	12.46	0.84	0.27
1524	326.	0.026	7.98	0.74	0.23	0.38	0.12	0.050	15.34	0.057	17.48	0.47	0.14
1527	315.	0.042	13.33	0.82	0.26	0.23	0.07	0.056	17.78	0.035	11.11	0.68	0.22
1528	310.	0.035	11.29	0.67	0.22	0.26	0.08	0.037	11.94	0.052	16.77	0.43	0.14
1531	350.	0.049	14.00	0.67	0.19	0.30	0.08	0.042	12.00	0.049	14.00	0.53	0.15
1533	347.	0.041	11.82	0.66	0.19	0.20	0.06	0.045	12.97	0.053	15.27	0.52	0.15
1534	316.	0.031	9.81	0.50	0.16	0.17	0.05	0.060	18.99	0.035	11.08	0.42	0.13
1537	306.	0.051	16.67	0.51	0.17	0.15	0.05	0.044	14.38	0.043	14.05	0.49	0.16
1539	355.	0.052	14.65	0.57	0.16	0.29	0.08	0.061	17.18	0.075	21.13	0.40	0.11

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.
a. Value was multiplied by 1000.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E36 (PAGE 9): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP V — 30 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	PITUITARY		BRAIN		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT	
		ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a
1541	296.	0.022	7.43	2.00	0.68	14.69	4.96	1.11	0.38	1.20	0.40	0.050	16.89
1544	342.	0.016	4.68	2.12	0.62	16.14	4.72	1.57	0.46	1.65	0.48	0.040	11.70
1545	298.	0.012	4.03	2.13	0.71	17.89	6.00	1.40	0.47	1.47	0.49	0.065	21.81
1546	329.	0.019	5.78	2.04	0.62	17.75	5.40	1.32	0.40	1.45	0.44	0.032	9.73
1548	306.	0.017	5.56	2.02	0.66	18.02	5.89	1.49	0.49	1.50	0.49	0.053	17.32
1550	298.	0.016	5.37	2.05	0.69	19.33	6.49	1.29	0.43	1.33	0.45	0.055	18.46
1552	319.	0.018	5.64	2.19	0.69	16.81	5.27	1.43	0.45	1.56	0.49	0.042	13.17
1555	312.	0.009	2.88	2.03	0.65	15.58	4.99	1.21	0.39	1.25	0.40	0.045	14.42
1557	319.	0.018	5.64	2.20	0.69	15.27	4.79	1.30	0.41	1.24	0.39	0.039	12.22
1558	288.	0.011	3.82	2.01	0.70	17.49	6.07	1.50	0.52	1.55	0.54	0.042	14.58
1560	325.	0.015	4.62	2.21	0.68	18.14	5.58	1.37	0.42	1.57	0.48	0.041	12.62
1564	309.	0.012	3.88	2.00	0.65	17.80	5.76	1.37	0.44	1.39	0.45	0.044	14.24
1565	275.	0.013	4.73	2.03	0.74	14.42	5.24	1.11	0.40	1.22	0.44	0.042	15.27
1566	324.	0.010	3.09	2.13	0.66	17.00	5.25	1.30	0.40	1.28	0.40	0.053	16.36
1568	339.	0.018	5.31	2.21	0.65	15.50	4.57	1.24	0.36	1.27	0.37	0.040	11.80
1571	304.	0.010	3.29	1.91	0.63	15.97	5.25	1.14	0.38	1.23	0.40	0.043	14.14
1573	336.	0.015	4.46	2.03	0.60	17.15	5.10	1.20	0.36	1.20	0.36	0.033	9.82
1576	292.	0.015	5.14	1.78	0.61	15.62	5.35	1.20	0.41	1.29	0.44	0.043	14.73
1578	NOT PREGNANT												
1579	346.	0.013	3.76	1.99	0.58	17.26	4.99	1.37	0.40	1.37	0.40	0.044	12.72
1583	303.	0.014	4.62	2.11	0.70	16.59	5.48	1.38	0.46	1.42	0.47	0.044	14.52
1584	294.	0.016	5.44	2.13	0.72	13.71	4.66	1.19	0.40	1.19	0.40	0.024	8.16
1586	294.	0.015	5.10	2.15	0.73	15.78	5.37	1.49	0.51	1.40	0.48	0.050	17.01
1587	300.	0.014	4.67	2.02	0.67	15.72	5.24	1.23	0.41	1.35	0.45	0.041	13.67
1588	322.	0.016	4.97	2.10	0.65	17.39	5.40	1.34	0.42	1.35	0.42	0.047	14.60
1589	354.	0.015	4.24	2.02	0.57	17.58	4.97	1.21	0.34	1.30	0.37	0.046	12.99
1591	318.	0.015	4.72	2.11	0.66	18.89	5.94	1.38	0.43	1.40	0.44	0.047	14.78
1593	342.	0.023	6.72	2.04	0.60	17.20	5.03	1.98	0.58	2.18b	0.64	0.046	13.45
1598	317.	0.015	4.73	2.18	0.69	17.75	5.60	1.59	0.50	1.52	0.48	0.045	14.20
1600	354.	0.012	3.39	2.18	0.62	18.06	5.10	1.25	0.35	1.45	0.41	0.059	16.67

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Rat 1593 had moderate dilation of the pelvis in the right kidney.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E36 (PAGE 10): TERMINAL BODY WEIGHTS AND ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP V — 30 MG/KG/DAY

RAT NUMBER	TERMINAL BODY WEIGHT	ADRENAL RIGHT		SPLEEN		THYMUS		OVARY LEFT		OVARY RIGHT		UTERUS NON-GRAVID	
		ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW a	ABS. WT.	REL. % TBW
1541	296.	0.043	14.53	0.50	0.17	0.20	0.07	0.037	12.50	0.049	16.55	0.56	0.19
1544	342.	0.050	14.62	0.76	0.22	0.44	0.13	0.098	28.65	0.089	26.02	0.82	0.24
1545	298.	0.054	18.12	0.64	0.21	0.23	0.08	0.038	12.75	0.068	22.82	0.39	0.13
1546	329.	0.044	13.37	0.59	0.18	0.25	0.08	0.058	17.63	0.065	19.76	0.37	0.11
1548	306.	0.049	16.01	0.80	0.26	0.21	0.07	0.062	20.26	0.049	16.01	0.82	0.27
1550	298.	0.053	17.78	0.60	0.20	0.14	0.05	0.050	16.78	0.049	16.44	0.27	0.09
1552	319.	0.039	12.22	0.57	0.18	0.11	0.03	0.058	18.18	0.055	17.24	0.94	0.29
1555	312.	0.040	12.82	0.52	0.17	0.21	0.07	0.040	12.82	0.031	9.94	0.49	0.16
1557	319.	0.034	10.66	0.48	0.15	0.12	0.04	0.044	13.79	0.043	13.48	0.36	0.11
1558	288.	0.039	13.54	0.74	0.26	0.24	0.08	0.058	20.14	0.058	20.14	0.71	0.25
1560	325.	0.043	13.23	0.65	0.20	0.29	0.09	0.038	11.69	0.068	20.92	0.82	0.25
1564	309.	0.048	15.53	0.65	0.21	0.24	0.08	0.051	16.50	0.068	22.01	0.45	0.14
1565	275.	0.044	16.00	0.64	0.23	0.26	0.09	0.064	23.27	0.054	19.64	0.67	0.24
1566	324.	0.035	10.80	0.56	0.17	0.19	0.06	0.045	13.89	0.043	13.27	0.46b	0.14
1568	339.	0.034	10.03	0.56	0.16	0.19	0.06	0.046	13.57	0.052	15.34	0.42	0.12
1571	304.	0.044	14.47	0.56	0.18	0.12	0.04	0.032	10.53	0.035	11.51	0.31	0.10
1573	336.	0.030	8.93	0.47	0.14	0.20	0.06	0.043	12.80	0.042	12.50	0.39	0.12
1576	292.	0.039	13.36	0.62	0.21	0.17	0.06	0.043	14.73	0.054	18.49	0.34	0.12
1578	NOT PREGNANT												
1579	346.	0.037	10.69	0.69	0.20	0.13	0.04	0.051	14.74	0.041	11.85	0.66	0.19
1583	303.	0.036	11.88	0.48	0.16	0.16	0.05	0.068	22.44	0.040	13.20	0.38	0.12
1584	294.	0.039	13.26	0.51	0.17	0.33	0.11	0.052	17.69	0.066	22.45	0.51	0.17
1586	294.	0.040	13.60	0.50	0.17	0.12	0.04	0.043	14.62	0.035	11.90	0.45	0.15
1587	300.	0.034	11.33	0.52	0.17	0.26	0.09	0.060	20.00	0.055	18.33	0.59	0.20
1588	322.	0.046	14.28	0.58	0.18	0.37	0.11	0.043	13.35	0.045	13.98	0.83	0.26
1589	354.	0.042	11.86	0.59	0.17	0.16	0.04	0.043	12.15	0.045	12.71	0.45	0.13
1591	318.	0.043	13.52	0.64	0.20	0.22	0.07	0.049	15.41	0.041	12.89	0.56	0.18
1593	342.	0.041	11.99	0.95	0.28	0.50	0.15	0.069	20.18	0.069	20.18	0.61	0.18
1598	317.	0.037	11.67	0.51	0.16	0.20	0.06	0.065	20.50	0.051	16.09	0.60	0.19
1600	354.	0.044	12.43	0.66	0.19	0.16	0.04	0.046	12.99	0.045	12.71	0.44	0.12

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) X 100.

a. Value was multiplied by 1000.

b. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E37 (PAGE 1): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP I — 0 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	PITUITARY		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
1302	2.10	0.022	1.05	14.52	691.43	1.30	61.90	1.38	65.71	0.027	1.28	0.028	1.33
1304	2.10	0.021	1.00	17.50	833.33	1.38	65.71	1.40	66.67	0.044	2.10	0.038	1.81
1306	2.05	0.017	0.83	17.30	843.90	1.45	70.73	1.55	75.61	0.050	2.44	0.037	1.80
1308	2.01	0.018	0.90	18.06	898.51	1.29	64.18	1.32	65.67	0.041	2.04	0.041	2.04
1310	1.99	0.014	0.70	18.04	906.53	1.30	65.33	1.33	66.83	0.040	2.01	0.047	2.36
1312	2.15	0.022	1.02	14.95	695.35	1.24	57.67	1.36	63.26	0.036	1.67	0.035	1.63
1313	2.14	0.020	0.93	15.73	735.05	1.26	58.88	1.28	59.81	0.036	1.68	0.030	1.40
1316	NOT PREGNANT												
1318	2.06	0.017	0.82	17.38	843.69	1.53	74.27	1.43	69.42	0.039	1.89	0.036	1.75
1321	2.05	0.014	0.68	18.67	910.73	1.36	66.34	1.46	71.22	0.047	2.29	0.041	2.00
1325	2.00	0.009	0.45	17.15	857.50	1.35	67.50	1.39	69.50	0.044	2.20	0.035	1.75
1328	2.09	0.015	0.72	17.40	832.54	1.41	67.46	1.47	70.33	0.044	2.10	0.047	2.25
1330	2.00	0.018	0.90	12.61	630.50	1.22	61.00	1.17	58.50	0.047	2.35	0.040	2.00
1331	2.33	0.018	0.77	14.43	619.31	1.11	47.64	1.26	54.08	0.041	1.76	0.037	1.59
1334	1.96	0.016	0.82	15.10	770.41	1.26	64.28	1.22	62.24	0.036	1.84	0.031	1.58
1335	1.93	0.012	0.62	15.81	819.17	1.28	66.32	1.40	72.54	0.036	1.86	0.037	1.92
1336	2.06	0.016	0.78	17.19	834.47	1.42	68.93	1.46	70.87	0.046	2.23	0.043	2.09
1338	2.10	0.022	1.05	18.61	886.19	1.56	74.28	1.53	72.86	0.051	2.43	0.047	2.24
1340	2.07	0.015	0.72	16.97	819.81	1.60	77.29	1.65	79.71	0.043	2.08	0.041	1.98
1341	2.06	0.029	1.41	16.15	783.98	1.17	56.80	1.18	57.28	0.039	1.89	0.037	1.80
1342	1.93	0.023	1.19	14.09	730.05	1.22	63.21	1.25	64.77	0.039	2.02	0.036	1.86
1344	2.26	0.020	0.88	17.38	769.03	1.61	71.24	1.41	62.39	0.053	2.34	0.048	2.12
1345	2.03	0.014	0.69	17.73	873.40	1.28	63.05	1.32	65.02	0.047	2.32	0.041	2.02
1346	2.03	0.018	0.89	17.30	852.22	1.35	66.50	1.41	69.46	0.052	2.56	0.047	2.32
1348	2.05	0.015	0.73	18.89	921.46	1.46	71.22	1.57	76.58	0.055	2.68	0.052	2.54
1350	2.03	0.016	0.79	18.24	898.52	1.37	67.49	1.42	69.95	0.063	3.10	0.062	3.05
1353	2.22	0.024	1.08	15.33	690.54	1.54	69.37	1.31	59.01	0.038	1.71	0.035	1.58
1355	2.04	0.007	0.34	16.39	803.43	1.40	68.63	1.38	67.65	0.037	1.81	0.031	1.52
1358	NOT PREGNANT; MATING NOT CONFIRMED												
1359	2.10	0.017	0.81	15.16	721.90	1.35	64.28	1.31	62.38	0.031	1.48	0.034	1.62

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E37 (PAGE 2): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP I — 0 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	SPLEEN		THYMUS		OVARY LEFT		OVARY RIGHT		UTERUS NON-GRAVID	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
1302	2.10	0.63	30.00	0.13	6.19	0.054	2.57	0.068	3.24	0.48	22.86
1304	2.10	0.53	25.24	0.26	12.38	0.053	2.52	0.063	3.00	0.80	38.10
1306	2.05	0.59	28.78	0.21	10.24	0.045	2.20	0.057	2.78	0.65	31.71
1308	2.01	0.72	35.82	0.11	5.47	0.033	1.64	0.042	2.09	0.34	16.92
1310	1.99	0.66	33.16	0.18	9.04	0.045	2.26	0.049	2.46	0.70	35.18
1312	2.15	0.57	26.51	0.26	12.09	0.054	2.51	0.054	2.51	0.45	20.93
1313	2.14	0.62	28.97	0.30	14.02	0.043	2.01	0.050	2.34	0.58	27.10
1316	NOT PREGNANT										
1318	2.06	0.64	31.07	0.24	11.65	0.055	2.67	0.054	2.62	0.49	23.79
1321	2.05	0.71	34.63	0.16	7.80	0.045	2.20	0.051	2.49	0.38	18.54
1325	2.00	0.57	28.50	0.23	11.50	0.037	1.85	0.032	1.60	0.78	39.00
1328	2.09	0.61	29.19	0.15	7.18	0.044	2.10	0.053	2.54	0.87	41.63
1330	2.00	0.56	28.00	0.16	8.00	0.040	2.00	0.046	2.30	0.33	16.50
1331	2.33	0.56	24.03	0.20	8.58	0.050	2.14	0.050	2.14	0.66	28.33
1334	1.96	0.52	26.53	0.22	11.22	0.029	1.48	0.033	1.68	0.40	20.41
1335	1.93	0.56	29.02	0.20	10.36	0.039	2.02	0.058	3.00	0.48	24.87
1336	2.06	0.47	22.82	0.10	4.85	0.047	2.28	0.055	2.67	0.39	18.93
1338	2.10	0.65	30.95	0.19	9.05	0.044	2.10	0.047	2.24	0.30a	14.28
1340	2.07	0.76	36.71	0.30	14.49	0.070	3.38	0.092	4.44	0.79	38.16
1341	2.06	0.55	26.70	0.31	15.05	0.057	2.77	0.064	3.11	0.51	24.76
1342	1.93	0.60	31.09	0.20	10.36	0.058	3.00	0.034	1.76	0.53	27.46
1344	2.26	0.64	28.32	0.20	8.85	0.068	3.01	0.042	1.86	0.70	30.97
1345	2.03	0.65	32.02	0.13	6.40	0.049	2.41	0.055	2.71	0.32a	15.76
1346	2.03	0.52	25.62	0.20	9.85	0.085	4.19	0.061	3.00	0.42	20.69
1348	2.05	0.57	27.80	0.18	8.78	0.063	3.07	0.062	3.02	0.60	29.27
1350	2.03	0.66	32.51	0.15	7.39	0.052	2.56	0.060	2.96	0.43	21.18
1353	2.22	0.52	23.42	0.26	11.71	0.061	2.75	0.075	3.38	0.52	23.42
1355	2.04	0.43	21.08	0.12	5.88	0.045	2.20	0.050	2.45	0.42	20.59
1358	NOT PREGNANT; MATING NOT CONFIRMED										
1359	2.10	0.64	30.48	0.25	11.90	0.046	2.19	0.053	2.52	0.74	35.24

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Damaged during processing (weight not affected).

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E37 (PAGE 3): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP II — 1 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	PITUITARY		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
1362	2.09	0.015	0.72	14.91	713.40	1.29	61.72	1.28	61.24	0.041	1.96	0.038	1.82
1363	2.13	0.017	0.80	15.01	704.69	1.42	66.67	1.38	64.79	0.045	2.11	0.049	2.30
1364	2.10	0.019	0.90	17.48	832.38	1.39	66.19	1.40	66.67	0.042	2.00	0.039	1.86
1367	1.98	0.016	0.81	13.92	703.03	1.35	68.18	1.33	67.17	0.044	2.22	0.041	2.07
1368	1.95	0.014	0.72	15.62	801.02	1.45	74.36	1.44	73.85	0.053	2.72	0.047	2.41
1371	2.34	0.013	0.56	19.98	853.85	1.58	67.52	1.64	70.08	0.054	2.31	0.046	1.96
1375	2.00	0.017	0.85	14.17	708.50	1.25	62.50	1.32	66.00	0.048	2.40	0.043	2.15
1376	2.05	0.014	0.68	16.89	823.90	1.67	81.46	1.62	79.02	0.044	2.15	0.042	2.05
1378	NOT PREGNANT												
1379	2.32	0.021	0.90	14.44	622.41	1.49	64.22	1.48	63.79	0.056	2.41	0.053	2.28
1381	2.13	0.016	0.75	13.26	622.54	1.52	71.36	1.51	70.89	0.038	1.78	0.036	1.69
1382	2.06	0.017	0.82	15.82	767.96	1.37	66.50	1.29	62.62	0.058	2.82	0.052	2.52
1383	1.97	0.023	1.17	17.23	874.62	1.52	77.16	1.51	76.65	0.041	2.08	0.031	1.57
1384	1.94	0.014	0.72	12.14	625.77	1.08	55.67	1.15	59.28	0.032	1.65	0.028	1.44
1387	2.06	0.012	0.58	17.48	848.54	1.26	61.16	1.43	69.42	0.046	2.23	0.042	2.04
1389	2.04	0.017	0.83	16.17	792.65	1.33	65.20	1.29	63.24	0.041	2.01	0.047	2.30
1392	2.23	0.021	0.94	18.85	845.29	1.62	72.64	1.59	71.30	0.048	2.15	0.041	1.84
1393	2.02	0.013	0.64	16.60	821.78	1.25	61.88	1.29	63.86	0.041	2.03	0.041	2.03
1397	2.10	0.018	0.86	17.41	829.05	1.49	70.95	1.57	74.76	0.046	2.19	0.043	2.05
1399	2.26	0.013	0.58	16.58	733.63	1.38	61.06	1.38	61.06	0.032	1.42	0.031	1.37
1401	1.95	0.014	0.72	13.63	698.97	1.28	65.64	1.19	61.02	0.034	1.74	0.033	1.69
1404	2.03	0.017	0.84	15.01	739.41	1.16	57.14	1.22	60.10	0.047	2.32	0.039	1.92
1407	2.07	0.015	0.72	15.09	728.98	1.40	67.63	1.36	65.70	0.040	1.93	0.039	1.88
1409	2.06	0.015	0.73	15.90	771.84	1.22	59.22	1.28	62.14	0.031	1.50	0.028	1.36
1410	2.05	0.019	0.93	18.06	880.98	1.45	70.73	1.51	73.66	0.044	2.15	0.035	1.71
1413	2.29	0.015	0.66	16.36	714.41	1.46	63.76	1.55	67.68	0.043	1.88	0.054	2.36
1415	1.92	0.011	0.57	17.79	926.56	1.51	78.64	1.52	79.17	0.046	2.40	0.052	2.71
1416	2.23	0.018	0.81	15.44	692.38	1.48	66.37	1.55	69.51	0.044	1.97	0.041	1.84
1418	2.15	0.013	0.60	15.71	730.70	1.22	56.74	1.32	61.40	0.040	1.86	0.035	1.63

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E37 (PAGE 4): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP II — 1 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	SPLEEN ABS. WT.	SPLEEN REL. % BRW	THYMUS ABS. WT.	THYMUS REL. % BRW	OVARY LEFT ABS. WT.	OVARY LEFT REL. % BRW	OVARY RIGHT ABS. WT.	OVARY RIGHT REL. % BRW	UTERUS NON-GRAVID ABS. WT.	UTERUS NON-GRAVID REL. % BRW
1362	2.09	0.73	34.93	0.20	9.57	0.062	2.97	0.064	3.06	0.80	38.28
1363	2.13	0.50	23.47	0.17	7.98	0.055	2.58	0.076	3.57	0.68	31.92
1364	2.10	0.47	22.38	0.07	3.33	0.055	2.62	0.061	2.90	0.46	21.90
1367	1.98	0.50	25.25	0.11	5.56	0.054	2.73	0.058	2.93	0.62	31.31
1368	1.95	0.53	27.18	0.20	10.26	0.054	2.77	0.054	2.77	0.50	25.64
1371	2.34	0.56	23.93	0.21	8.97	0.087	3.72	0.032	1.37	0.55	23.50
1375	2.00	0.64	32.00	0.19	9.50	0.050	2.50	0.040	2.00	0.67	33.50
1376	2.05	0.58	28.29	0.24	11.71	0.046	2.24	0.056	2.73	0.38	18.54
1378	NOT PREGNANT										
1379	2.32	0.60	25.86	0.17	7.33	0.054	2.33	0.068	2.93	0.69	29.74
1381	2.13	0.50	23.47	0.27	12.68	0.055	2.58	0.076	3.57	0.63	29.58
1382	2.06	0.83	40.29	0.16	7.77	0.043	2.09	0.046	2.23	0.53	25.73
1383	1.97	0.59	29.95	0.24	12.18	0.059	2.99	0.066	3.35	0.57	28.93
1384	1.94	0.57	29.38	0.12	6.18	0.051	2.63	0.060	3.09	0.83	42.78
1387	2.06	0.59	28.64	0.20	9.71	0.056	2.72	0.056	2.72	0.55	26.70
1389	2.04	0.68	33.33	0.14	6.86	0.047	2.30	0.058	2.84	0.74	36.27
1392	2.23	0.61	27.35	0.12	5.38	0.047	2.11	0.056	2.51	0.38	17.04
1393	2.02	0.57	28.22	0.23	11.39	0.054	2.67	0.035	1.73	0.37	18.32
1397	2.10	0.63	30.00	0.21	10.00	0.053	2.52	0.060	2.86	0.46	21.90
1399	2.26	0.63	27.88	0.18	7.96	0.058	2.57	0.053	2.34	0.47	20.80
1401	1.95	0.67	34.36	0.21	10.77	0.042	2.15	0.045	2.31	0.57	29.23
1404	2.03	0.48	23.64	0.28	13.79	0.085	4.19	0.061	3.00	0.42a	20.69
1407	2.07	0.65	31.40	0.20	9.66	0.044	2.12	0.036	1.74	0.40	19.32
1409	2.06	0.41	19.90	0.20	9.71	0.045	2.18	0.041	1.99	0.34	16.50
1410	2.05	0.58	28.29	0.20	9.76	0.054	2.63	0.051	2.49	0.60	29.27
1413	2.29	1.03	44.98	0.17	7.42	0.078	3.41	0.048	2.10	1.00	43.67
1415	1.92	0.72	37.50	0.32	16.67	0.040	2.08	0.038	1.98	0.69	35.94
1416	2.23	0.59	26.46	0.14	6.28	0.044	1.97	0.038	1.70	0.43	19.28
1418	2.15	0.57	26.51	0.14	6.51	0.040	1.86	0.062	2.88	0.46	21.40

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E37 (PAGE 5): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP III — 3 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	PITUITARY		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
1421	1.96	0.009	0.46	16.89	861.73	1.44	73.47	1.40	71.43	0.049	2.50	0.043	2.19
1424	2.05	0.013	0.63	16.43	801.46	1.42	69.27	1.36	66.34	0.048	2.34	0.046	2.24
1426	2.12	0.019	0.90	18.04	850.94	1.37	64.62	1.40	66.04	0.051	2.40	0.046	2.17
1428	2.18	0.016	0.73	16.19	742.66	1.50a	68.81	1.54a	70.64	0.046	2.11	0.047	2.16
1430	1.85	0.017	0.92	15.49	837.30	15.30b	827.03b	1.63	88.11	0.048	2.59	0.042	2.27
1431	2.02	0.015	0.74	19.48	964.36	1.49	73.76	1.63	80.69	0.042	2.08	0.043	2.13
1433	1.95	0.014	0.72	16.49	845.64	1.36	69.74	1.42	72.82	0.041	2.10	0.050	2.56
1436	2.20	0.018	0.82	15.80	718.18	1.28	58.18	1.30	59.09	0.041	1.86	0.039	1.77
1437	2.18	0.015	0.69	17.76	814.68	1.41	64.68	1.47	67.43	0.044	2.02	0.039	1.79
1439	2.01	0.017	0.84	16.30	810.94	1.48	73.63	1.43	71.14	0.048	2.39	0.044	2.19
1442	2.05	0.016	0.78	15.42	752.20	1.35	65.85	1.38	67.32	0.046	2.24	0.042	2.05
1443	2.07	0.018	0.87	14.80	714.98	1.28	61.84	1.33	64.25	0.053	2.56	0.052	2.51
1446	NOT PREGNANT												
1448	2.23	0.015	0.67	17.20	771.30	1.45	65.02	1.50	67.26	0.040	1.79	0.037	1.66
1450	2.13	0.015	0.70	18.62	874.18	1.29	60.56	1.36	63.85	0.041	1.92	0.039	1.83
1452	1.96	0.016	0.82	15.77	804.59	1.34	68.37	1.38	70.41	0.043	2.19	0.037	1.89
1455	2.27	0.012	0.53	18.40	810.57	1.51	66.52	1.44	63.44	0.041	1.81	0.028	1.23
1456	2.13	0.017	0.80	16.01	751.64	1.54	72.30	1.55	72.77	0.032	1.50	0.042	1.97
1458	NOT PREGNANT												
1459	2.04	0.018	0.88	17.41	853.43	1.45	71.08	1.48	72.55	0.043	2.11	0.036	1.76
1461	2.00	0.017	0.85	13.89	694.50	1.29	64.50	1.32	66.00	0.037	1.85	0.033	1.65
1463	2.07	0.016	0.77	14.98	723.67	1.34	64.73	1.32	63.77	0.043	2.08	0.041	1.98
1465	1.99	0.006	0.30	15.23	765.33	1.38	69.35	1.25	62.81	0.041	2.06	0.036	1.81
1468	2.02	0.015	0.74	14.72	728.71	1.45	71.78	1.45	71.78	0.046	2.28	0.033	1.63
1469	2.17	0.016	0.74	15.62	719.82	1.24	57.14	1.26	58.06	0.051	2.35	0.039	1.80
1472	2.08	0.013	0.62	15.33	737.02	1.62	77.88	1.32	63.46	0.036	1.73	0.043	2.07
1474	2.10	0.014	0.67	14.41	686.19	1.31	62.38	1.37	65.24	0.050	2.38	0.042	2.00
1476	1.96	0.013	0.66	17.55	895.41	1.50	76.53	1.48	75.51	0.033	1.68	0.038	1.94
1477	2.25	0.021	0.93	17.98	799.11	1.48	65.78	1.50	66.67	0.055	2.44	0.053	2.36
1480	2.13	0.018	0.84	17.23	808.92	1.43	67.14	1.44	67.60	0.058	2.72	0.048	2.25

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Rat 1428 had slight dilation of the pelvis in both kidneys.

b. Value appeared incorrectly recorded; values excluded from group averages and statistical analyses.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E37 (PAGE 6): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP III — 3 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	SPLEEN		THYMUS		OVARY LEFT		OVARY RIGHT		UTERUS NON-GRAVID	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
1421	1.96	0.58	29.59	0.23	11.73	0.034	1.73	0.035	1.78	0.34	17.35
1424	2.05	0.64	31.22	0.20	9.76	0.057	2.78	0.031	1.51	0.64	31.22
1426	2.12	0.61	28.77	0.21	9.90	0.047	2.22	0.053	2.50	0.49	23.11
1428	2.18	0.62	28.44	0.14	6.42	0.059	2.71	0.055	2.52	0.47	21.56
1430	1.85	0.58	31.35	0.20	10.81	0.056	3.03	0.064	3.46	0.62	33.51
1431	2.02	0.71	35.15	0.29	14.36	0.075	3.71	0.056	2.77	0.59	29.21
1433	1.95	0.55	28.20	0.28	14.36	0.055	2.82	0.043	2.20	1.18	60.51
1436	2.20	0.64	29.09	0.26	11.82	0.068	3.09	0.034	1.54	0.83	37.73
1437	2.18	0.58	26.60	0.07	3.21	0.037	1.70	0.044	2.02	0.46	21.10
1439	2.01	0.52	25.87	0.23	11.44	0.042	2.09	0.056	2.79	0.37	18.41
1442	2.05	0.73	35.61	0.11	5.36	0.062	3.02	0.057	2.78	0.51	24.88
1443	2.07	0.60	28.98	0.22	10.63	0.045	2.17	0.041	1.98	0.54	26.09
1446	NOT PREGNANT										
1448	2.23	0.70	31.39	0.20	8.97	0.042	1.88	0.045	2.02	0.50a	22.42
1450	2.13	0.58	27.23	0.21	9.86	0.033	1.55	0.044	2.06	0.42	19.72
1452	1.96	0.62	31.63	0.23	11.73	0.047	2.40	0.043	2.19	0.45	22.96
1455	2.27	0.67	29.52	0.35	15.42	0.069	3.04	0.062	2.73	0.75	33.04
1456	2.13	0.70	32.86	0.29	13.62	0.052	2.44	0.068	3.19	0.67	31.46
1458	NOT PREGNANT										
1459	2.04	0.57	27.94	0.12	5.88	0.038	1.86	0.045	2.20	0.28	13.72
1461	2.00	0.55	27.50	0.18	9.00	0.038	1.90	0.035	1.75	0.56	28.00
1463	2.07	0.57	27.54	0.18	8.70	0.046	2.22	0.046	2.22	0.60	28.98
1465	1.99	0.51	25.63	0.22	11.06	0.056	2.81	0.056	2.81	0.49	24.62
1468	2.02	0.55	27.23	0.18	8.91	0.071	3.51	0.057	2.82	0.58	28.71
1469	2.17	0.56	25.81	0.17	7.83	0.054	2.49	0.056	2.58	0.51	23.50
1472	2.08	0.61	29.33	0.40	19.23	0.064	3.08	0.062	2.98	0.83	39.90
1474	2.10	0.62	29.52	0.24	11.43	0.043	2.05	0.037	1.76	0.72	34.28
1476	1.96	0.51	26.02	0.19	9.69	0.050	2.55	0.059	3.01	0.56	28.57
1477	2.25	0.63	28.00	0.10	4.44	0.040	1.78	0.039	1.73	0.50	22.22
1480	2.13	0.60	28.17	0.23	10.80	0.051	2.39	0.051	2.39	0.54	25.35

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.
a. Damaged during processing (weight not affected).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E37 (PAGE 7): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP IV 10 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	PITUITARY		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
1482	2.23	0.015	0.67	15.34	687.89	1.26	56.50	1.25	56.05	0.045	2.02	0.035	1.57
1483	NOT PREGNANT												
1486	1.90	0.017	0.89	18.55	976.32	1.37	72.10	1.31	68.95	0.054	2.84	0.047	2.47
1488	2.06	0.013	0.63	17.62	855.34	1.33	64.56	1.41	68.45	0.042	2.04	0.043	2.09
1490	2.12	0.015	0.71	20.37	960.85	1.65	77.83	1.56	73.58	0.052	2.45	0.045	2.12
1491	2.05	0.014	0.68	16.20	790.24	1.24	60.49	1.28	62.44	0.044	2.15	0.040	1.95
1494	2.12	0.016	0.75	16.00	754.72	1.52	71.70	1.49	70.28	0.042	1.98	0.042	1.98
1496	1.76	0.015	0.85	16.62	944.32	1.33	75.57	1.28	72.73	0.047	2.67	0.047	2.67
1497	2.23	0.016	0.72	15.83	709.86	1.50	67.26	1.48	66.37	0.044	1.97	0.040	1.79
1500	1.97	0.018	0.91	16.39	831.98	1.48	75.13	1.49	75.63	0.042	2.13	0.041	2.08
1502	2.05	0.014	0.68	14.76	720.00	1.18	57.56	1.22	59.51	0.041	2.00	0.042	2.05
1505	2.05	0.015	0.73	16.77	818.05	1.51	73.66	1.68	81.95	0.046	2.24	0.040	1.95
1507	2.21	0.015	0.68	18.65	843.89	1.46	66.06	1.51	68.32	0.051	2.31	0.050	2.26
1508	2.20	0.013	0.59	16.98	771.82	1.39	63.18	1.46	66.36	0.041	1.86	0.042	1.91
1511	NOT PREGNANT												
1513	2.24	0.017	0.76	13.67	610.27	1.28	57.14	1.30	58.04	0.043	1.92	0.044	1.96
1514	2.19	0.016	0.73	15.60	712.33	1.32	60.27	1.38	63.01	0.053	2.42	0.043	1.96
1516	2.15	0.014	0.65	15.89	739.07	1.28	59.53	1.27	59.07	0.036	1.67	0.033	1.53
1517	2.03	0.013	0.64	17.35	854.68	1.13	55.66	1.13	55.66	0.043	2.12	0.041	2.02
1519	2.08	0.017	0.82	17.52	842.31	1.45	69.71	1.56	75.00	0.047	2.26	0.041	1.97
1521	2.18	0.016	0.73	15.27	700.46	1.35	61.93	1.42	65.14	0.046	2.11	0.045	2.06
1523	2.02	0.011	0.54	15.78	781.19	1.32	65.35	1.38	68.32	0.041	2.03	0.040	1.98
1524	1.98	0.010	0.50	13.46	679.80	1.24	62.63	1.21	61.11	0.030	1.52	0.026	1.31
1527	2.14	0.023	1.07	18.04	842.99	1.35	63.08	1.42	66.36	0.051	2.38	0.042	1.96
1528	2.11	0.015	0.71	15.96	756.40	1.46	69.19	1.53	72.51	0.044	2.08	0.035	1.66
1531	2.15	0.014	0.65	18.68	868.84	1.49	69.30	1.58	73.49	0.054	2.51	0.049	2.28
1533	2.11	0.017	0.80	19.96	945.97	1.56	73.93	1.61	76.30	0.053	2.51	0.041	1.94
1534	2.20	0.015	0.68	16.16	734.54	1.38	62.73	1.37	62.27	0.041	1.86	0.031	1.41
1537	1.93	0.015	0.78	15.08	781.35	1.21	62.69	1.25	64.77	0.046	2.38	0.051	2.64
1539	2.22	0.017	0.76	18.63	839.19	1.69	76.13	1.81	81.53	0.056	2.52	0.052	2.34

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E37 (PAGE 8): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP IV 10 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	SPLEEN ABS. WT.	SPLEEN REL. % BRW	THYMUS ABS. WT.	THYMUS REL. % BRW	OVARY LEFT ABS. WT.	OVARY LEFT REL. % BRW	OVARY RIGHT ABS. WT.	OVARY RIGHT REL. % BRW	UTERUS NON-GRAVID ABS. WT.	UTERUS NON-GRAVID REL. % BRW
1482	2.23	0.53	23.77	0.29	13.00	0.046	2.06	0.044	1.97	0.68	30.49
1483	NOT PREGNANT										
1486	1.90	0.58	30.53	0.11	5.79	0.065	3.42	0.049	2.58	0.57	30.00
1488	2.06	0.61	29.61	0.33	16.02	0.041	1.99	0.033	1.60	0.44	21.36
1490	2.12	0.66	31.13	0.26	12.26	0.076	3.58	0.068	3.21	0.53	25.00
1491	2.05	0.56	27.32	0.10	4.88	0.031	1.51	0.049	2.39	0.67	32.68
1494	2.12	0.46	21.70	0.12	5.66	0.039	1.84	0.059	2.78	0.60	28.30
1496	1.76	0.57	32.39	0.15	8.52	0.045	2.56	0.063	3.58	0.56	31.82
1497	2.23	0.68	30.49	0.26	11.66	0.065	2.91	0.070	3.14	0.84	37.67
1500	1.97	0.48	24.36	0.24	12.18	0.046	2.34	0.054	2.74	0.69	35.02
1502	2.05	0.48	23.41	0.13	6.34	0.063	3.07	0.066	3.22	0.42	20.49
1505	2.05	0.70	34.15	0.23	11.22	0.048	2.34	0.045	2.20	0.41	20.00
1507	2.21	0.54	24.43	0.21	9.50	0.040	1.81	0.056	2.53	0.42	19.00
1508	2.20	0.64	29.09	0.13	5.91	0.048	2.18	0.044	2.00	0.74	33.64
1511	NOT PREGNANT										
1513	2.24	0.51	22.77	0.10	4.46	0.048	2.14	0.048	2.14	0.62	27.68
1514	2.19	0.67	30.59	0.16	7.30	0.042	1.92	0.046	2.10	0.50	22.83
1516	2.15	0.55	25.58	0.18	8.37	0.064	2.98	0.045	2.09	0.54	25.12
1517	2.03	0.58	28.57	0.10	4.93	0.041	2.02	0.051	2.51	0.65	32.02
1519	2.08	0.52	25.00	0.17	8.17	0.044	2.12	0.056	2.69	0.51	24.52
1521	2.18	0.60	27.52	0.08	3.67	0.045	2.06	0.040	1.83	0.49	22.48
1523	2.02	0.54	26.73	0.35	17.33	0.051	2.52	0.039	1.93	0.84	41.58
1524	1.98	0.74	37.37	0.38	19.19	0.050	2.52	0.057	2.88	0.47	23.74
1527	2.14	0.82	38.32	0.23	10.75	0.056	2.62	0.035	1.64	0.68	31.78
1528	2.11	0.67	31.75	0.26	12.32	0.037	1.75	0.052	2.46	0.43	20.38
1531	2.15	0.67	31.16	0.30	13.95	0.042	1.95	0.049	2.28	0.53	24.65
1533	2.11	0.66	31.28	0.20	9.48	0.045	2.13	0.053	2.51	0.52	24.64
1534	2.20	0.50	22.73	0.17	7.73	0.060	2.73	0.035	1.59	0.42	19.09
1537	1.93	0.51	26.42	0.15	7.77	0.044	2.28	0.043	2.23	0.49	25.39
1539	2.22	0.57	25.68	0.29	13.06	0.061	2.75	0.075	3.38	0.40	18.02

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E37 (PAGE 9): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP V — 30 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	PITUITARY		LIVER		KIDNEY LEFT		KIDNEY RIGHT		ADRENAL LEFT		ADRENAL RIGHT	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
1541	2.00	0.022	1.10	14.69	734.50	1.11	55.50	1.20	60.00	0.050	2.50	0.043	2.15
1544	2.12	0.016	0.75	16.14	761.32	1.57	74.06	1.65	77.83	0.040	1.89	0.050	2.36
1545	2.13	0.012	0.56	17.89	839.91	1.40	65.73	1.47	69.01	0.065	3.05	0.054	2.54
1546	2.04	0.019	0.93	17.75	870.10	1.32	64.70	1.45	71.08	0.032	1.57	0.044	2.16
1548	2.02	0.017	0.84	18.02	892.08	1.49	73.76	1.50	74.26	0.053	2.62	0.049	2.42
1550	2.05	0.016	0.78	19.33	942.93	1.29	62.93	1.33	64.88	0.055	2.68	0.053	2.58
1552	2.19	0.018	0.82	16.81	767.58	1.43	65.30	1.56	71.23	0.042	1.92	0.039	1.78
1555	2.03	0.009	0.44	15.58	767.49	1.21	59.60	1.25	61.58	0.045	2.22	0.040	1.97
1557	2.20	0.018	0.82	15.27	694.09	1.30	59.09	1.24	56.36	0.039	1.77	0.034	1.54
1558	2.01	0.011	0.55	17.49	870.15	1.50	74.63	1.55	77.11	0.042	2.09	0.039	1.94
1560	2.21	0.015	0.68	18.14	820.81	1.37	61.99	1.57	71.04	0.041	1.86	0.043	1.94
1564	2.00	0.012	0.60	17.80	890.00	1.37	68.50	1.39	69.50	0.044	2.20	0.048	2.40
1565	2.03	0.013	0.64	14.42	710.34	1.11	54.68	1.22	60.10	0.042	2.07	0.044	2.17
1566	2.13	0.010	0.47	17.00	798.12	1.30	61.03	1.28	60.09	0.053	2.49	0.035	1.64
1568	2.21	0.018	0.81	15.50	701.36	1.24	56.11	1.27	57.47	0.040	1.81	0.034	1.54
1571	1.91	0.010	0.52	15.97	836.12	1.14	59.68	1.23	64.40	0.043	2.25	0.044	2.30
1573	2.03	0.015	0.74	17.15	844.83	1.20	59.11	1.20	59.11	0.033	1.62	0.030	1.48
1576	1.78	0.015	0.84	15.62	877.53	1.20	67.42	1.29	72.47	0.043	2.42	0.039	2.19
1578	NOT PREGNANT												
1579	1.99	0.013	0.65	17.26	867.34	1.37	68.84	1.37	68.84	0.044	2.21	0.037	1.86
1583	2.11	0.014	0.66	16.59	786.26	1.38	65.40	1.42	67.30	0.044	2.08	0.036	1.71
1584	2.13	0.016	0.75	13.71	643.66	1.19	55.87	1.19	55.87	0.024	1.13	0.039	1.83
1586	2.15	0.015	0.70	15.78	733.95	1.49	69.30	1.40	65.12	0.050	2.32	0.040	1.86
1587	2.02	0.014	0.69	15.72	778.22	1.23	60.89	1.35	66.83	0.041	2.03	0.034	1.68
1588	2.10	0.016	0.76	17.39	828.10	1.34	63.81	1.35	64.28	0.047	2.24	0.046	2.19
1589	2.02	0.015	0.74	17.58	870.30	1.21	59.90	1.30	64.36	0.046	2.28	0.042	2.08
1591	2.11	0.015	0.71	18.89	895.26	1.38	65.40	1.40	66.35	0.047	2.23	0.043	2.04
1593	2.04	0.023	1.13	17.20	843.14	1.98	97.06	2.18a	106.86	0.046	2.25	0.041	2.01
1598	2.18	0.015	0.69	17.75	814.22	1.59	72.94	1.52	69.72	0.045	2.06	0.037	1.70
1600	2.18	0.012	0.55	18.06	828.44	1.25	57.34	1.45	66.51	0.059	2.71	0.044	2.02

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Rat 1593 had moderate dilation of the pelvis in the right kidney.

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TABLE E37 (PAGE 10): BRAIN WEIGHTS, ORGAN WEIGHTS AND RATIOS (%) OF ORGAN WEIGHT TO BRAIN WEIGHT - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS

DOSAGE GROUP V — 30 MG/KG/DAY

RAT NUMBER	BRAIN WEIGHT	SPLEEN		THYMUS		OVARY LEFT		OVARY RIGHT		UTERUS NON-GRAVID	
		ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW	ABS. WT.	REL. % BRW
1541	2.00	0.50	25.00	0.20	10.00	0.037	1.85	0.049	2.45	0.56	28.00
1544	2.12	0.76	35.85	0.44	20.75	0.098	4.62	0.089	4.20	0.82	38.68
1545	2.13	0.64	30.05	0.23	10.80	0.038	1.78	0.068	3.19	0.39	18.31
1546	2.04	0.59	28.92	0.25	12.25	0.058	2.84	0.065	3.19	0.37	18.14
1548	2.02	0.80	39.60	0.21	10.40	0.062	3.07	0.049	2.42	0.82	40.59
1550	2.05	0.60	29.27	0.14	6.83	0.050	2.44	0.049	2.39	0.27	13.17
1552	2.19	0.57	26.03	0.11	5.02	0.058	2.65	0.055	2.51	0.94	42.92
1555	2.03	0.52	25.62	0.21	10.34	0.040	1.97	0.031	1.53	0.49	24.14
1557	2.20	0.48	21.82	0.12	5.45	0.044	2.00	0.043	1.95	0.36	16.36
1558	2.01	0.74	36.82	0.24	11.94	0.058	2.88	0.058	2.88	0.71	35.32
1560	2.21	0.65	29.41	0.29	13.12	0.038	1.72	0.068	3.08	0.82	37.10
1564	2.00	0.65	32.50	0.24	12.00	0.051	2.55	0.068	3.40	0.45	22.50
1565	2.03	0.64	31.53	0.26	12.81	0.064	3.15	0.054	2.66	0.67	33.00
1566	2.13	0.56	26.29	0.19	8.92	0.045	2.11	0.043	2.02	0.46a	21.60
1568	2.21	0.56	25.34	0.19	8.60	0.046	2.08	0.052	2.35	0.42	19.00
1571	1.91	0.56	29.32	0.12	6.28	0.032	1.68	0.035	1.83	0.31	16.23
1573	2.03	0.47	23.15	0.20	9.85	0.043	2.12	0.042	2.07	0.39	19.21
1576	1.78	0.62	34.83	0.17	9.55	0.043	2.42	0.054	3.03	0.34	19.10
1578	NOT PREGNANT										
1579	1.99	0.69	34.67	0.13	6.53	0.051	2.56	0.041	2.06	0.66	33.16
1583	2.11	0.48	22.75	0.16	7.58	0.068	3.22	0.040	1.90	0.38	18.01
1584	2.13	0.51	23.94	0.33	15.49	0.052	2.44	0.066	3.10	0.51	23.94
1586	2.15	0.50	23.26	0.12	5.58	0.043	2.00	0.035	1.63	0.45	20.93
1587	2.02	0.52	25.74	0.26	12.87	0.060	2.97	0.055	2.72	0.59	29.21
1588	2.10	0.58	27.62	0.37	17.62	0.043	2.05	0.045	2.14	0.83	39.52
1589	2.02	0.59	29.21	0.16	7.92	0.043	2.13	0.045	2.23	0.45	22.28
1591	2.11	0.64	30.33	0.22	10.43	0.049	2.32	0.041	1.94	0.56	26.54
1593	2.04	0.95	46.57	0.50	24.51	0.069	3.38	0.069	3.38	0.61	29.90
1598	2.18	0.51	23.39	0.20	9.17	0.065	2.98	0.051	2.34	0.60	27.52
1600	2.18	0.66	30.28	0.16	7.34	0.046	2.11	0.045	2.06	0.44	20.18

ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/BRAIN WEIGHT) X 100.

a. Damaged during processing (weight not affected).

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TABLE E38 (PAGE 1): NATURAL DELIVERY, IMPLANTATION SITES, AND PUP VIABILITY AND SEX - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS/F2 GENERATION LITTERS

DOSAGE GROUP I — 0 MG/KG/DAY

RAT/ LITTER NUMBER	DURATION OF GESTATION (DAYS) N	LITTER DELIVERED LIVE BORN N	STILL-BORN N	TOTAL BORN N	NUMBER OF LIVE PUPS AT COMPLETION OF DAY POSTPARTUM 1 M	1 F	5 M	5 F	8 M	8 F	15 M	15 F	22 M	22 F	TOTAL IMPLAN-TATIONS N
1302	22	11	0	11	5	6	5	6	5	6	5	6	5	6	13
1304	23	12	0	12	6	6	6	6	6	6	6	6	6	6	14
1306	22	16	0	16	8	8	8	8	8	8	8	8	8	8	17
1308	22	16	0	16	6	10	6	10	6	10	6	10	6	10	17
1310	23	14	0	14	9	5	9	5	9	5	9	5	9	5	15
1312	23	4	0	4	2	2	2	2	2	2	2	2	2	2	4
1313	23	13	0	13	5	8	5	8	5	8	5	8	5	7	15
1316	NOT PREGNANT														
1318	23	15	0	15	9	6	8	6	8	6	8	6	8	6	16
1321	23	17	0	17	8	9	8	9	8	9	7	8	7	8	17
1325	23	11	0	11	5	6	5	6	5	6	5	6	5	6	12
1328	22	13	0	13	7	6	7	6	7	6	7	6	7	6	16
1330	23	16	0	16	7	9	7	9	7	9	7	9	7	9	16
1331	23	16	0	16	12	4	12	4	12	4	11	4	11	4	16
1334	23	9	0	9	6	3	6	3	6	3	6	3	6	3	10
1335	23	12	0	12	6	6	6	6	6	6	6	6	6	6	13
1336	23	15	0	15	7	8	7	8	7	8	7	8	7	8	16
1338	23	17	0	17	8	9	8	9	8	9	8	9	8	8	18
1340	22	14	0	14	8	6	8	6	8	6	8	6	8	6	16
1341	23	12	0	12	4	8	4	8	4	8	4	8	4	8	14
1342	23	16	0	16	9	7	9	7	9	7	9	7	9	7	16
1344	23	15	0	15	7	8	7	8	7	8	7	8	7	8	16
1345	23	14	2	16	5	9	4	9	4	9	4	9	4	9	16
1346	23	10	0	10	6	4	6	4	6	4	6	4	6	4	10
1348	23	14	2	16	8	6	8	6	8	6	8	6	8	6	18
1350	23	17	0	17	13	4	13	4	13	4	13	4	13	4	18
1353	22	13	0	14[1]	6	7	6	7	6	7	6	7	6	7	15
1355	23	15	0	15	4	11	4	11	4	11	4	11	4	11	16
1358	NOT PREGNANT; MATING NOT CONFIRMED														
1359	23	13	1	14	5	8	5	8	5	8	5	8	5	8	14

M = MALE F = FEMALE

[ ] = NUMBER OF PUPS IN WHICH CANNIBALIZATION AND/OR AUTOLYSIS PRECLUDED THE DETERMINATION OF VIABILITY.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E38 (PAGE 2): NATURAL DELIVERY, IMPLANTATION SITES, AND PUP VIABILITY AND SEX - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS/F2 GENERATION LITTERS

DOSAGE GROUP II — 1 MG/KG/DAY

RAT/ LITTER NUMBER	DURATION OF GESTATION (DAYS) N	LITTER DELIVERED LIVE BORN N	STILL-BORN N	TOTAL BORN N	NUMBER OF LIVE PUPS AT COMPLETION OF DAY POSTPARTUM 1 M	1 F	5 M	5 F	8 M	8 F	15 M	15 F	22 M	22 F	TOTAL IMPLAN-TATIONS N
1362	23	7	0	7	4	3	4	3	4	3	4	3	4	3	12
1363	22	17	1	18	7	10	7	9	7	9	7	9	7	9	20
1364	22	15	0	15	7	8	7	8	7	8	7	8	7	8	17
1367	22	13	0	13	8	5	8	5	8	5	8	5	8	5	14
1368	23	15	0	15	8	7	8	7	8	7	8	7	8	7	18
1371	23	17	0	17	11	6	11	6	11	6	11	5	11	5	18
1375	22	14	0	14	9	5	9	5	9	5	9	5	9	4	14
1376	23	15	2	17	10	5	10	5	10	5	10	5	10	5	17
1378	NOT PREGNANT														
1379	23	12	0	12	6	6	6	6	6	6	6	6	6	6	16
1381	23	12	0	12	6	6	6	6	6	6	6	6	6	6	13
1382	23	13	0	13	5	8	5	8	5	8	5	8	5	8	16
1383	23	11	0	11	6	5	6	5	6	5	6	5	6	5	20
1384	22	13	0	13	6	7	5	7	5	7	5	7	5	7	15
1387	23	16	1	17	9	7	9	7	9	7	9	7	9	7	17
1389	22	16	0	16	8	8	8	8	7	8	7	8	7	8	16
1392	22	17	0	17	9	8	9	8	9	8	9	8	9	8	18
1393	23	11	1	12	5	6	5	6	5	6	5	6	5	6	14
1397	23	12	0	12	7	5	7	5	7	5	7	5	7	5	15
1399	23	10	0	10	4	6	4	6	4	6	4	6	4	6	16
1401	22	12	0	12	5	7	5	7	5	7	5	7	5	7	15
1404	23	15	0	15	10	5	10	5	10	5	10	5	10	5	16
1407	23	15	0	15	7	8	7	8	7	8	7	8	7	8	17
1409	23	12	0	12	7	5	7	5	7	5	7	5	7	5	12
1410	21	17	0	17	13	4	13	3	13	3	13	3	13	3	18
1413	23	13	0	13	7	6	7	6	7	6	7	6	7	6	14
1415	23	13	0	13	7	6	7	6	7	6	7	6	7	6	13
1416	23	14	0	14	3	11	3	11	3	11	3	11	3	11	16
1418	23	16	0	16	6	10	6	8	6	8	6	7	6	7	16

M = MALE F = FEMALE

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E38 (PAGE 3): NATURAL DELIVERY, IMPLANTATION SITES, AND PUP VIABILITY AND SEX - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS/F2 GENERATION LITTERS

DOSAGE GROUP III — 3 MG/KG/DAY

RAT/ LITTER NUMBER	DURATION OF GESTATION (DAYS) N	LITTER DELIVERED LIVE BORN N	STILL-BORN N	TOTAL BORN N	NUMBER OF LIVE PUPS AT COMPLETION OF DAY POSTPARTUM 1 M	1 F	5 M	5 F	8 M	8 F	15 M	15 F	22 M	22 F	TOTAL IMPLAN-TATIONS N
1421	23	17(2)	0	17	10	5	10	5	10	5	10	5	10	5	17
1424	22	17	0	17	9	8	9	8	9	8	9	8	9	8	17
1426	23	13	0	13	7	6	7	6	7	6	7	6	7	6	14
1428	23	15	0	15	6	9	6	9	6	9	6	9	6	9	16
1430	23	17	0	17	6	11	6	11	6	11	6	11	6	11	17
1431	23	16(1)	0	16	9	6	9	5	9	5	9	5	9	5	16
1433	22	18	0	18	10	8	10	8	10	7	10	7	10	7	19
1436	23	12	0	12	8	4	8	4	8	4	8	4	8	4	14
1437	22	16	0	16	9	7	9	7	9	7	9	7	9	7	16
1439	23	10(1)	2	12	6	3	6	3	6	3	6	3	6	3	14
1442	23	7	0	7	4	3	4	3	4	3	4	3	4	3	7
1443	23	14	0	14	8	6	8	6	8	6	8	6	8	6	14
1446	NOT PREGNANT														
1448	23	14	2	16	6	8	6	8	6	8	6	8	6	8	16
1450	23	14	0	14	4	10	4	10	4	10	4	10	4	10	16
1452	22	14	0	14	8	6	8	5	8	5	8	5	8	5	15
1455	22	15	0	15	8	7	6	7	5	5	5	5	5	5	16
1456	23	6	0	6	4	2	4	2	4	2	4	2	4	2	7
1458	NOT PREGNANT														
1459	23	14	0	14	9	5	8	5	8	5	8	5	8	5	15
1461	23	11	0	11	4	7	4	7	4	7	4	7	4	7	12
1463	23	13	2	15	7	6	7	6	7	6	7	6	7	6	16
1465	23	16	0	16	6	10	6	10	6	10	6	10	6	10	16
1468	22	16	0	16	5	11	5	11	5	11	5	11	5	11	16
1469	23	12	0	12	9	3	9	3	9	3	9	3	9	3	12
1472	23	10	0	10	5	5	5	5	5	5	5	5	5	5	11
1474	23	14	0	14	10	4	10	4	10	4	10	4	10	4	15
1476	22	17(1)	0	17	7	9	7	9	7	9	7	9	7	9	17
1477	22	17	0	17	8	9	8	9	8	8	8	8	8	8	17
1480	23	13	0	13	3	10	3	10	3	10	3	10	3	10	14

M = MALE F = FEMALE
( ) = NUMBER OF PUPS DYING PRIOR TO WEIGHING ON DAY 1 POSTPARTUM.

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TABLE E38 (PAGE 4): NATURAL DELIVERY, IMPLANTATION SITES, AND PUP VIABILITY AND SEX - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS/F2 GENERATION LITTERS

DOSAGE GROUP IV — 10 MG/KG/DAY

RAT/ LITTER NUMBER	DURATION OF GESTATION (DAYS) N	LITTER DELIVERED LIVE BORN N	STILL-BORN N	TOTAL BORN N	NUMBER OF LIVE PUPS AT COMPLETION OF DAY POSTPARTUM 1 M	1 F	5 M	5 F	8 M	8 F	15 M	15 F	22 M	22 F	TOTAL IMPLAN-TATIONS N
1482	23	15(1)	1	16	6	8	6	8	6	8	6	8	6	8	16
1483	NOT PREGNANT														
1486	23	15	0	15	9	6	9	6	9	6	9	6	9	6	15
1488	23	15	0	15	8	7	8	7	8	7	8	7	8	7	15
1490	23	10	0	10	7	3	7	3	7	3	7	3	7	3	16
1491	22	14	0	15[1]	4	10	4	10	4	10	4	10	4	10	15
1494	23	14(1)	0	14	8	5	8	5	8	5	8	5	8	5	17
1496	22	13	0	13	7	6	7	6	7	6	7	6	7	6	15
1497	23	11	0	11	4	7	4	7	4	7	4	7	4	7	11
1500	23	14	1	15	9	5	9	5	9	5	9	5	9	5	20
1502	23	13	0	13	4	9	4	8	4	8	4	8	4	8	16
1505	23	16	0	16	7	9	7	9	7	9	7	9	7	9	16
1507	22	16	0	16	9	7	9	7	9	7	9	7	9	7	16
1508	23	13	0	13	4	9	4	8	4	8	4	8	4	8	15
1511	NOT PREGNANT														
1513	23	13	1	14	9	4	9	4	9	4	9	4	9	4	15
1514	23	17	0	17	9	8	9	8	9	8	9	7	9	7	17
1516	22	13	0	13	9	4	9	4	9	4	9	4	9	4	15
1517	22	15	0	15	8	7	8	7	8	7	8	7	8	7	15
1519	23	16	0	16	8	8	8	8	8	8	8	8	8	7	16
1521	23	12	0	12	7	5	7	5	7	5	7	5	7	5	12
1523	22	12(1)	0	12	7	4	7	4	7	4	7	4	7	4	14
1524	25	2	0	2	2	-	2	-	2	-	2	-	2	-	4
1527	23	17	0	17	11	6	10	6	10	6	10	6	10	6	17
1528	23	10	0	10	6	4	6	4	6	4	6	4	6	4	11
1531	23	13	2	15	8	5	8	5	8	5	8	5	8	5	15
1533	22	19(1)	0	19	6	12	6	12	6	11	6	11	6	11	20
1534	23	12	0	12	6	6	6	6	6	6	6	6	6	6	14
1537	23	14	1	15	10	4	10	4	10	4	10	4	10	4	15
1539	23	14	0	14	9	5	9	5	9	5	9	5	9	5	16

M = MALE F = FEMALE
( ) = NUMBER OF PUPS DYING PRIOR TO WEIGHING ON DAY 1 POSTPARTUM.
[ ] = NUMBER OF PUPS IN WHICH CANNIBALIZATION AND/OR AUTOLYSIS PRECLUDED THE DETERMINATION OF VIABILITY.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E38 (PAGE 5): NATURAL DELIVERY, IMPLANTATION SITES, AND PUP VIABILITY AND SEX - INDIVIDUAL DATA - F1 GENERATION FEMALE RATS/F2 GENERATION LITTERS

DOSAGE GROUP V — 30 MG/KG/DAY

RAT/ LITTER NUMBER	DURATION OF GESTATION (DAYS) N	LITTER DELIVERED LIVE BORN N	STILL-BORN N	TOTAL BORN N	NUMBER OF LIVE PUPS AT COMPLETION OF DAY POSTPARTUM 1 M	1 F	5 M	5 F	8 M	8 F	15 M	15 F	22 M	22 F	TOTAL IMPLAN-TATIONS N
1541	23	14	0	14	4	10	4	10	4	10	4	10	4	10	15
1544	23	13	1	14	6	7	6	6	6	6	6	6	6	6	15
1545	23	19	0	19	9	10	9	9	9	9	9	9	9	8	19
1546	22	15	0	15	8	7	8	7	8	7	8	7	8	7	17
1548	22	13	1	14	4	9	4	9	4	9	4	9	4	9	14
1550	22	12	0	12	5	7	5	7	5	7	5	7	5	7	14
1552	23	14	0	14	7	7	7	7	7	7	7	7	7	7	16
1555	23	15	0	15	7	8	7	8	7	7	7	7	7	7	15
1557	23	13	0	13	5	8	5	8	5	8	5	8	5	8	14
1558	23	16	0	16	10	6	10	6	10	6	10	6	10	6	17
1560	23	15	0	15	7	8	7	8	6	8	6	8	6	8	15
1564	23	13	0	13	6	7	6	7	6	7	6	7	6	7	15
1565	23	12	0	12	6	6	6	6	6	6	6	6	6	6	16
1566	23	15	0	15	2	13	2	13	2	13	2	13	2	13	15
1568	23	13	0	13	7	6	7	6	7	6	7	6	7	6	17
1571	22	13	0	13	6	7	6	7	6	7	6	7	6	7	15
1573	23	15	0	15	7	8	7	8	7	8	7	8	7	8	16
1576	22	13	0	13	8	5	8	5	6	5	6	5	6	5	13
1578	NOT PREGNANT														
1579	22	15	0	15	8	7	8	7	8	7	8	7	8	7	15
1583	22	12	0	12	5	7	4	7	4	7	4	7	4	7	12
1584	23	4	0	4	3	1	3	1	3	1	3	1	3	1	5
1586	23	13	0	13	7	6	7	6	7	6	7	6	7	6	13
1587	22	11	0	11	5	6	5	6	5	6	5	6	5	6	13
1588	23	13	0	13	4	9	4	9	4	9	4	9	4	9	14
1589	22	14	0	14	6	8	6	8	6	8	6	8	6	8	16
1591	23	14	0	14	10	4	10	4	10	4	10	4	10	4	14
1593	23	6	0	6	2	4	2	4	2	4	2	4	2	4	6
1598	23	17	0	17	7	10	7	10	7	10	7	10	7	10	17
1600	23	15(1)	0	15	10	4	10	4	10	4	10	4	10	4	17

M = MALE F = FEMALE
( ) = NUMBER OF PUPS DYING PRIOR TO WEIGHING ON DAY 1 POSTPARTUM.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E39 (PAGE 1): PUP BODY WEIGHT LITTER AVERAGES FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP I — 0 MG/KG/DAY

RAT/ LITTER NUMBER	DAY 1			DAY 5			DAY 8			DAY 15			DAY 22		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
1302	6.9	6.3	6.6	11.7	10.4	11.0	16.2	15.0	15.6	28.4	26.5	27.4	47.4	44.1	45.6
1304	6.5	6.1	6.3	11.6	10.5	11.1	17.2	15.6	16.4	28.6	26.3	27.4	45.6	43.3	44.4
1306	6.2	5.9	6.1	9.7	9.9	9.8	14.0	13.4	13.7	23.2	22.5	22.8	34.2	34.0	34.1
1308	6.2	6.1	6.1	8.3	8.6	8.4	12.0	11.6	11.7	22.1	22.4	22.3	27.6	28.5	28.2
1310	6.8	6.1	6.5	10.7	10.2	10.5	15.9	14.9	15.6	27.8	25.0	26.8	44.6	40.0	43.0
1312	8.4	8.0	8.2	13.8	14.2	14.0	21.2	21.8	21.5	36.9	39.2	38.0	53.0	53.3	53.2
1313	6.7	6.2	6.4	10.8	10.5	10.6	15.5	14.8	15.0	24.4	22.0	23.0	40.7	38.4	39.4
1316	NOT PREGNANT														
1318	7.3	7.0	7.2	12.3	12.2	12.2	17.7	17.6	17.6	28.4	28.2	28.3	48.3	48.1	48.2
1321	6.4	6.2	6.3	8.8	8.6	8.7	12.7	12.3	12.5	18.9	16.4	17.6	31.2	27.4	29.2
1325	6.8	6.6	6.7	10.7	10.6	10.7	15.4	15.3	15.3	28.6	28.2	28.4	36.5	36.2	36.3
1328	6.2	6.0	6.1	9.8	9.5	9.6	14.9	14.3	14.6	29.1	27.9	28.5	48.9	45.4	47.3
1330	6.6	6.3	6.5	8.8	8.3	8.5	11.5	10.9	11.2	21.3	19.0	20.0	27.9	23.4	25.4
1331	6.1	6.0	6.1	8.8	8.2	8.6	11.8	11.0	11.6	22.0	20.0	21.5	30.8	28.0	30.0
1334	7.2	6.5	7.0	11.1	10.4	10.9	15.3	14.7	15.1	28.4	28.2	28.3	38.7	38.3	38.5
1335	6.6	6.0	6.3	9.8	9.4	9.6	14.8	14.2	14.5	25.4	25.0	25.2	41.6	39.9	40.7
1336	7.1	6.9	7.0	10.4	10.4	10.4	15.6	15.8	15.7	24.8	25.5	25.2	40.9	41.2	41.1
1338	6.4	6.3	6.3	10.4	10.0	10.2	15.0	14.6	14.8	20.2	17.7	18.9	29.0	27.9	28.4
1340	6.4	5.9	6.2	10.9	10.2	10.6	14.6	13.8	14.3	27.0	25.1	26.2	42.5	40.6	41.7
1341	7.2	6.7	6.9	11.3	10.7	10.9	16.2	15.7	15.8	28.7	27.6	28.0	47.6	45.4	46.1
1342	6.3	5.8	6.1	10.3	9.5	10.0	14.6	13.2	14.0	23.6	19.8	21.9	38.2	33.6	36.2
1344	7.0	6.6	6.8	10.7	9.9	10.3	14.5	14.0	14.2	25.0	24.3	24.7	43.8	42.4	43.1
1345	7.3	6.5	6.8	10.6	9.9	10.1	15.7	14.9	15.1	29.4	28.3	28.6	40.0	39.4	39.6
1346	6.2	5.8	6.0	11.1	10.6	10.9	16.8	16.2	16.5	31.8	30.8	31.4	42.2	40.7	41.6
1348	6.3	6.0	6.2	9.1	8.7	9.0	13.4	12.9	13.2	26.4	25.4	26.0	37.1	35.4	36.3
1350	6.1	5.7	6.0	8.6	8.0	8.4	12.1	11.2	11.9	21.3	19.6	20.9	25.8	24.2	25.4
1353	6.3	6.1	6.2	11.0	10.5	10.7	13.0	12.4	12.7	24.4	23.7	24.0	41.4	40.5	40.9
1355	6.8	6.5	6.6	9.9	9.8	9.8	14.4	13.8	14.0	26.5	25.5	25.8	41.3	39.8	40.2
1358	NOT PREGNANT; MATING NOT CONFIRMED														
1359	6.3	6.0	6.1	9.3	9.2	9.3	12.3	12.0	12.1	25.2	24.0	24.4	41.9	39.7	40.5

M = MALE F = FEMALE T = TOTAL (SUM OF PUP WEIGHTS/NUMBER OF LIVE PUPS) DAY = DAY POSTPARTUM
ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.

ARGUS 418-020

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E39 (PAGE 2): PUP BODY WEIGHT LITTER AVERAGES FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP II 1 MG/KG/DAY

RAT/ LITTER NUMBER	DAY 1			DAY 5			DAY 8			DAY 15			DAY 22		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
1362	6.6	6.2	6.4	12.0	11.5	11.7	17.6	17.1	17.4	33.8	32.8	33.3	42.7	42.3	42.5
1363	6.0	5.7	5.8	8.6	8.5	8.6	12.8	12.4	12.6	21.8	20.7	21.2	32.5	32.1	32.3
1364	5.4	5.1	5.3	9.1	8.7	8.9	13.5	12.8	13.1	23.0	21.5	22.2	32.9	30.6	31.7
1367	6.9	6.6	6.8	11.1	10.8	11.0	16.0	15.5	15.8	28.8	27.4	28.3	37.4	35.8	36.7
1368	6.5	5.9	6.2	10.9	10.2	10.6	15.8	15.1	15.5	24.9	24.0	24.4	42.2	38.8	40.6
1371	6.6	6.4	6.5	8.9	9.0	8.9	12.0	12.1	12.0	21.3	22.5	21.7	33.7	36.2	34.5
1375	6.6	6.0	6.4	10.2	9.1	9.8	14.6	12.8	14.0	26.1	22.2	24.7	34.5	30.5	33.3
1376	6.2	6.1	6.1	9.1	9.2	9.2	12.9	13.0	12.9	22.4	22.2	22.3	36.7	36.0	36.4
1378	NOT PREGNANT														
1379	6.6	6.4	6.5	11.0	10.0	10.5	16.0	14.8	15.4	28.9	27.2	28.0	38.8	36.0	37.4
1381	7.6	6.8	7.2	12.3	11.1	11.7	16.9	15.2	16.0	29.3	27.0	28.2	50.9	47.3	49.1
1382	6.3	5.7	5.9	10.2	9.1	9.5	15.7	14.1	14.7	31.0	28.5	29.5	38.3	35.1	36.3
1383	6.4	6.1	6.2	10.7	10.4	10.6	15.9	15.8	15.8	29.9	29.8	29.9	46.8	47.1	46.9
1384	7.1	6.5	6.8	11.9	11.2	11.5	17.5	16.7	17.0	28.3	27.6	27.9	41.8	41.5	41.7
1387	6.9	6.4	6.7	10.4	9.9	10.2	14.6	14.3	14.5	24.4	24.7	24.5	36.0	36.4	36.2
1389	6.0	5.3	5.6	8.3	8.0	8.2	12.3	11.6	11.9	23.0	21.3	22.1	36.8	34.7	35.7
1392	5.9	5.6	5.7	8.6	7.7	8.2	12.3	11.2	11.8	22.8	21.7	22.3	30.2	28.6	29.4
1393	6.6	6.1	6.4	11.2	10.4	10.8	17.1	16.1	16.5	32.4	31.1	31.7	44.4	43.0	43.6
1397	7.5	7.4	7.5	12.1	12.3	12.2	17.9	17.4	17.7	26.7	26.0	26.4	49.5	47.1	48.5
1399	7.0	6.7	6.8	12.4	11.8	12.0	17.3	16.3	16.7	27.9	26.2	26.9	47.4	45.0	46.0
1401	6.8	6.6	6.6	11.4	11.2	11.3	15.9	15.9	15.9	24.7	24.3	24.5	44.3	41.5	42.6
1404	6.1	5.8	6.0	10.1	10.0	10.1	12.9	12.5	12.8	23.4	21.9	22.9	37.2	33.4	35.9
1407	6.5	6.1	6.3	8.7	8.7	8.7	13.0	13.1	13.0	21.4	21.6	21.6	34.5	35.7	35.1
1409	6.0	5.8	5.9	10.1	10.0	10.1	14.1	14.0	14.0	27.7	27.0	27.4	47.5	45.2	46.6
1410	6.0	5.5	5.9	9.6	9.2	9.5	14.0	13.0	13.8	24.2	22.0	23.8	39.5	36.2	38.9
1413	6.5	5.9	6.2	9.4	8.5	9.0	12.8	12.2	12.5	26.1	25.7	25.9	45.2	43.6	44.5
1415	6.6	6.0	6.4	9.4	8.8	9.1	13.2	12.5	12.9	22.6	21.4	22.1	37.8	36.6	37.2
1416	6.3	6.5	6.4	9.3	9.2	9.2	12.9	13.2	13.1	21.9	21.9	21.9	35.3	35.4	35.4
1418	6.4	6.0	6.2	9.0	8.0	8.4	13.9	11.4	12.5	23.2	20.6	21.8	36.2	32.7	34.3

M = MALE F = FEMALE T = TOTAL (SUM OF PUP WEIGHTS/NUMBER OF LIVE PUPS) DAY = DAY POSTPARTUM
ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E39 (PAGE 3): PUP BODY WEIGHT LITTER AVERAGES FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP III — 3 MG/KG/DAY

RAT/ LITTER NUMBER	DAY 1			DAY 5			DAY 8			DAY 15			DAY 22		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
1421	6.7	6.3	6.6	9.8	9.6	9.8	13.9	13.2	13.6	24.5	22.6	23.8	31.6	30.0	31.0
1424	5.5	5.2	5.3	8.3	7.8	8.1	12.2	11.4	11.8	20.0	19.2	19.6	27.5	27.2	27.4
1426	6.7	6.2	6.5	10.2	9.5	9.9	14.0	13.4	13.7	27.5	25.6	26.6	35.7	33.8	34.8
1428	6.9	6.2	6.5	10.4	9.7	10.0	15.1	14.1	14.5	24.6	22.5	23.3	39.6	37.2	38.2
1430	6.7	6.1	6.3	9.4	8.7	9.0	12.3	11.4	11.7	21.8	19.7	20.4	32.9	30.2	31.1
1431	6.3	6.5	6.4	10.3	10.3	10.3	14.7	14.6	14.7	26.9	26.2	26.6	43.3	43.0	43.2
1433	6.1	5.9	6.0	9.4	9.0	9.2	13.6	13.8	13.7	23.4	24.2	23.7	37.1	38.8	37.8
1436	6.4	5.8	6.2	10.4	9.8	10.2	15.3	14.3	14.9	27.7	25.9	27.1	37.8	35.8	37.2
1437	6.0	5.9	6.0	9.4	9.2	9.3	13.4	13.0	13.2	23.7	21.5	22.8	39.1	36.8	38.1
1439	6.8	6.5	6.7	11.3	10.8	11.2	17.4	16.5	17.1	32.6	29.9	31.7	54.2	50.7	53.0
1442	8.3	7.9	8.1	14.3	14.1	14.2	20.6	20.0	20.3	37.4	36.8	37.2	52.0	53.1	52.4
1443	6.3	6.2	6.2	10.0	10.0	10.0	14.5	14.4	14.5	26.6	26.2	26.4	40.3	40.0	40.2
1446	NOT PREGNANT														
1448	6.8	6.3	6.5	10.8	9.2	9.9	14.6	13.0	13.7	25.9	23.6	24.6	42.3	37.8	39.8
1450	6.1	6.0	6.0	8.6	8.6	8.6	12.6	12.5	12.5	24.1	23.5	23.7	31.4	29.7	30.2
1452	5.6	5.0	5.3	8.5	7.9	8.2	12.7	11.8	12.4	22.3	21.2	21.8	34.1	32.9	33.6
1455	6.0	5.6	5.8	9.5	8.6	9.0	15.2	14.2	14.7	32.2	29.5	30.9	49.0	45.1	47.0
1456	7.1	6.8	7.0	13.2	12.7	13.0	19.4	18.0	18.9	36.8	36.6	36.7	50.1	49.4	49.9
1458	NOT PREGNANT														
1459	6.3	5.9	6.2	10.9	10.7	10.8	16.5	16.3	16.4	25.9	25.6	25.8	44.8	44.4	44.6
1461	6.8	6.7	6.7	9.9	10.6	10.4	14.8	16.1	15.6	28.4	30.2	29.5	49.1	49.9	49.6
1463	6.5	6.0	6.3	10.4	9.8	10.1	14.5	13.4	14.0	25.0	24.0	24.5	37.3	37.7	37.5
1465	6.9	6.7	6.8	10.9	10.7	10.8	14.8	14.8	14.8	25.6	24.3	24.8	43.7	40.8	41.9
1468	5.9	5.5	5.6	10.0	9.1	9.4	13.0	11.9	12.2	20.1	20.8	20.6	32.4	31.6	31.9
1469	6.4	6.5	6.4	9.9	9.8	9.8	13.5	13.8	13.6	27.5	27.1	27.4	36.1	35.1	35.8
1472	8.3	7.9	8.1	14.2	13.0	13.6	19.0	17.1	18.0	28.8	26.8	27.8	49.9	46.5	48.2
1474	6.5	6.4	6.5	10.2	9.7	10.0	13.8	13.9	13.8	24.9	24.8	24.8	40.9	39.8	40.6
1476	6.0	5.7	5.8	8.1	7.5	7.8	11.3	10.4	10.8	23.4	23.2	23.3	36.5	35.4	35.9
1477	5.5	5.5	5.5	8.5	8.3	8.4	10.0	10.2	10.1	18.8	20.9	19.8	29.9	34.7	32.3
1480	7.7	7.4	7.4	12.1	11.6	11.7	17.1	16.4	16.5	28.2	28.4	28.3	46.1	44.6	45.0

M = MALE F = FEMALE T = TOTAL (SUM OF PUP WEIGHTS/NUMBER OF LIVE PUPS) DAY = DAY POSTPARTUM
ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E39 (PAGE 4): PUP BODY WEIGHT LITTER AVERAGES FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP IV 10 MG/KG/DAY

RAT/ LITTER NUMBER	DAY 1			DAY 5			DAY 8			DAY 15			DAY 22		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
1482	7.1	6.8	6.9	10.8	10.1	10.4	14.3	12.8	13.4	23.6	21.4	22.4	37.9	34.5	35.9
1483	NOT PREGNANT														
1486	7.1	6.8	7.0	10.4	9.9	10.2	14.6	14.1	14.4	25.7	25.2	25.5	33.1	34.4	33.6
1488	6.5	6.0	6.3	10.8	9.8	10.3	15.6	14.2	15.0	26.9	24.3	25.7	39.4	36.1	37.9
1490	7.9	7.1	7.7	14.1	13.1	13.8	19.8	18.3	19.4	31.0	28.7	30.4	52.2	49.3	51.4
1491	6.0	5.7	5.8	10.0	9.2	9.4	14.3	13.2	13.5	27.3	25.7	26.1	34.1	31.8	32.4
1494	6.7	6.0	6.4	10.2	9.4	9.8	14.0	13.0	13.6	24.7	23.6	24.3	43.3	40.1	42.1
1496	6.3	6.3	6.3	9.2	9.7	9.4	11.3	11.2	11.2	22.1	22.0	22.0	37.7	37.7	37.7
1497	7.0	6.9	6.9	11.4	11.0	11.2	17.2	17.0	17.1	30.2	30.3	30.3	52.4	48.3	49.8
1500	6.1	6.2	6.2	9.0	8.8	9.0	12.4	12.7	12.5	24.6	24.2	24.5	40.1	40.7	40.3
1502	6.4	5.8	6.0	11.4	10.4	10.8	16.6	15.5	15.9	31.1	28.4	29.3	47.9	45.9	46.5
1505	6.3	6.1	6.2	9.3	8.6	8.9	12.1	11.9	12.0	19.4	19.4	19.4	29.3	29.3	29.3
1507	5.5	5.4	5.4	7.7	7.6	7.7	10.8	10.4	10.6	22.6	21.1	22.0	33.6	31.4	32.7
1508	6.5	5.7	6.0	11.1	10.0	10.4	16.0	15.0	15.3	29.4	27.7	28.2	40.8	39.9	40.2
1511	NOT PREGNANT														
1513	6.8	6.7	6.8	10.1	10.2	10.1	14.7	13.7	14.4	23.7	22.4	23.3	38.3	36.6	37.8
1514	6.3	6.1	6.2	9.2	8.8	9.0	13.3	12.1	12.8	20.7	19.4	20.1	32.4	31.0	31.8
1516	6.8	6.8	6.8	11.4	11.1	11.3	16.3	15.7	16.1	28.6	27.2	28.2	46.2	43.8	45.4
1517	5.8	5.6	5.7	9.8	9.3	9.6	14.2	13.2	13.7	26.8	25.8	26.4	35.0	31.9	33.6
1519	6.3	5.7	6.0	9.8	8.4	9.1	13.3	11.9	12.6	23.1	19.8	21.4	36.4	33.2	34.9
1521	7.1	6.9	7.0	10.7	10.4	10.6	14.5	14.1	14.3	24.7	23.3	24.1	43.2	41.3	42.4
1523	6.1	5.8	6.0	10.6	10.1	10.4	15.8	14.7	15.4	30.1	27.0	29.0	46.8	44.3	45.9
1524	8.6	---	8.6	15.0	---	15.0	21.5	---	21.5	33.6	---	33.6	54.4	---	54.4
1527	6.3	5.9	6.2	9.3	8.6	9.0	13.2	12.0	12.7	18.7	16.8	18.0	28.5	25.4	27.3
1528	7.1	6.5	6.8	11.0	10.2	10.7	13.0	12.1	12.6	26.4	24.3	25.6	44.1	40.5	42.6
1531	6.7	5.8	6.3	10.8	9.7	10.4	15.7	13.9	15.0	24.4	22.9	23.8	40.0	37.4	39.0
1533	5.6	5.3	5.4	8.9	8.4	8.6	12.6	12.9	12.8	21.1	21.9	21.6	35.2	36.0	35.7
1534	7.3	6.9	7.1	10.1	9.6	9.8	13.8	13.2	13.5	22.5	22.2	22.4	39.4	37.8	38.6
1537	6.4	5.8	6.2	10.0	8.6	9.6	14.1	12.2	13.6	22.6	20.6	22.0	34.9	33.2	34.4
1539	6.4	6.4	6.4	11.2	11.2	11.2	16.3	16.3	16.3	25.4	24.8	25.2	40.6	40.7	40.6

M = MALE F = FEMALE T = TOTAL (SUM OF PUP WEIGHTS/NUMBER OF LIVE PUPS) DAY = DAY POSTPARTUM
ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E39 (PAGE 5): PUP BODY WEIGHT LITTER AVERAGES FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP V 30 MG/KG/DAY

RAT/ LITTER NUMBER	DAY 1			DAY 5			DAY 8			DAY 15			DAY 22		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
1541	6.0	5.6	5.7	10.4	9.6	9.8	14.4	13.4	13.6	25.1	23.8	24.2	33.2	33.3	33.3
1544	6.4	6.4	6.4	11.1	10.9	11.0	15.7	15.0	15.3	30.3	29.7	30.0	45.0	45.0	45.0
1545	6.3	6.1	6.2	9.5	8.7	9.1	13.8	12.4	13.1	21.8	19.9	20.9	33.4	32.5	33.0
1546	5.6	5.4	5.5	9.4	9.1	9.2	13.0	12.3	12.7	18.7	17.8	18.3	32.0	31.3	31.7
1548	5.3	5.2	5.2	8.7	8.6	8.6	12.6	12.4	12.4	24.3	23.9	24.0	37.0	36.5	36.7
1550	6.6	6.0	6.2	10.5	9.6	10.0	14.9	13.8	14.2	24.0	22.3	23.0	41.0	37.3	38.9
1552	6.3	6.0	6.2	9.0	8.6	8.8	12.6	12.6	12.6	21.1	21.1	21.1	34.0	33.5	33.7
1555	6.3	5.4	5.8	9.0	8.3	8.7	12.8	11.9	12.4	21.7	20.2	20.9	31.4	28.4	29.9
1557	6.8	6.5	6.6	11.3	11.1	11.1	15.5	15.3	15.4	27.3	27.3	27.3	33.5	33.8	33.7
1558	6.5	6.5	6.5	9.9	10.2	10.0	13.9	13.9	13.9	23.3	22.9	23.1	34.5	34.8	34.6
1560	5.8	5.5	5.7	7.4	7.0	7.2	10.6	10.0	10.2	20.3	18.1	19.0	33.4	29.9	31.4
1564	6.2	5.8	6.0	10.2	9.2	9.7	13.0	12.3	12.6	22.9	21.6	22.2	38.7	35.3	36.9
1565	6.2	5.8	6.0	11.0	9.9	10.5	15.4	13.9	14.6	24.6	23.0	23.8	38.9	38.1	38.5
1566	6.2	5.9	5.9	9.4	8.4	8.5	12.4	11.4	11.5	21.7	19.2	19.5	37.8	33.5	34.0
1568	6.8	6.5	6.7	10.4	10.3	10.3	14.3	14.4	14.4	25.7	25.7	25.7	43.5	45.4	44.4
1571	5.6	5.2	5.3	8.0	7.4	7.6	11.3	10.4	10.8	21.3	19.8	20.5	31.2	29.2	30.1
1573	6.5	6.0	6.3	10.3	9.5	9.9	14.2	13.9	14.1	24.2	23.4	23.8	37.6	36.8	37.2
1576	5.8	5.8	5.8	7.3	7.4	7.3	10.5	10.8	10.7	20.3	20.5	20.4	32.2	32.9	32.5
1578	NOT PREGNANT														
1579	6.4	6.0	6.2	10.4	10.1	10.3	14.0	13.5	13.8	21.7	20.9	21.3	34.1	32.8	33.5
1583	5.4	5.2	5.3	10.1	9.6	9.8	15.5	14.6	14.9	25.2	24.4	24.7	40.0	40.8	40.5
1584	6.8	6.5	6.8	12.3	10.9	12.0	18.6	17.4	18.3	35.5	32.0	34.6	58.2	50.7	56.4
1586	5.7	5.4	5.6	9.3	9.0	9.2	13.1	12.7	12.9	21.3	20.4	20.9	37.8	36.6	37.2
1587	5.8	5.6	5.6	9.8	9.3	9.5	13.9	13.9	13.9	23.7	22.6	23.1	39.5	37.6	38.4
1588	6.4	6.0	6.2	9.2	9.5	9.4	13.1	13.5	13.4	23.8	24.4	24.2	39.3	39.6	39.5
1589	5.7	5.4	5.5	8.4	7.8	8.1	11.4	10.8	11.1	21.0	20.7	20.8	25.6	25.9	25.8
1591	6.1	5.9	6.0	9.9	9.6	9.8	13.7	14.0	13.8	22.1	22.0	22.1	35.5	35.4	35.5
1593	7.0	7.1	7.1	12.4	12.9	12.7	19.0	19.6	19.4	30.1	31.3	30.9	51.6	53.8	53.1
1598	5.9	5.8	5.8	9.3	8.8	9.0	11.6	11.0	11.3	19.8	18.5	19.0	27.8	26.2	26.9
1600	6.3	5.7	6.1	10.4	9.6	10.2	14.6	13.5	14.3	23.4	21.8	23.0	38.1	36.0	37.5

M = MALE F = FEMALE T = TOTAL (SUM OF PUP WEIGHTS/NUMBER OF LIVE PUPS) DAY = DAY POSTPARTUM
ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 1): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP I						0 MG/KG/DAY					POSTPARTUM DAY 1								
1302	7.0	6.9	6.9	7.2	6.5	5.8	6.9	6.3	6.7	6.0	6.2									
1304	6.3	6.5	7.2	6.8	6.4	5.7	6.4	5.8	5.8	6.5	5.6	6.4								
1306	6.4	6.2	6.4	6.4	6.6	5.6	6.3	6.0	5.8	6.1	5.6	5.4	5.8	5.9	6.2	6.3				
1308	5.9	6.5	6.3	6.3	6.2	6.2	6.5	6.1	6.1	5.8	6.1	6.3	5.9	5.7	6.6	5.8				
1310	6.5	6.9	7.1	7.3	6.7	6.7	6.7	6.3	6.8	6.5	6.2	6.4	5.9	5.5						
1312	8.1	8.6	8.4	7.5																
1313	6.8	6.4	6.8	6.8	6.8	6.7	6.6	6.3	5.9	6.1	5.9	6.1	6.4							
1316	NOT PREGNANT																			
1318	7.5	7.8	7.7	7.4	6.9	7.2	6.7	7.6	6.8	5.8	7.2	7.3	6.9	7.4	7.2					
1321	6.2	6.7	6.6	6.7	6.2	6.0	6.4	6.4	6.3	6.2	6.1	6.5	6.1	6.0	6.5	5.7	6.0			
1325	6.3	6.4	7.1	6.7	7.5	6.0	6.6	6.9	6.0	7.3	6.5									
1328	6.1	6.2	6.6	6.2	6.1	5.6	6.5	6.1	5.8	6.1	5.8	6.0	6.1							
1330	6.7	6.8	6.5	6.8	6.3	6.9	6.3	6.3	6.2	6.2	6.0	6.5	6.4	6.7	6.5	6.3				
1331	6.8	5.4	6.1	6.0	5.7	6.1	6.7	5.9	6.7	6.0	6.1	6.2	5.6	6.4	6.2	5.8				
1334	7.2	7.3	7.3	7.1	7.3	7.1	6.9	6.5	6.2											
1335	6.9	6.1	6.9	6.6	6.6	6.2	5.9	5.9	6.2	6.0	6.1	6.0								
1336	6.8	7.4	7.4	6.5	7.1	7.0	7.6	7.1	7.2	6.7	6.5	6.5	7.2	7.2	6.8					
1338	6.6	6.4	6.3	5.8	6.4	6.7	6.2	6.6	6.5	6.3	6.6	5.9	6.8	6.5	6.3	5.7	6.3			
1340	6.7	6.0	6.3	5.8	6.6	7.0	6.5	6.5	6.5	5.3	6.0	5.8	5.5	6.3						
1341	7.1	7.1	7.5	7.3	6.7	6.8	6.6	6.0	7.0	6.6	7.0	6.9								
1342	6.6	6.4	6.2	6.1	6.1	6.2	6.7	6.1	6.3	5.7	5.7	5.7	5.6	5.9	6.2	5.8				
1344	7.1	7.4	6.9	6.8	6.7	7.1	7.3	6.3	6.6	6.7	6.4	7.2	7.1	6.8	5.6					
1345	7.6	6.5	7.3	7.6	7.5	MS	6.7	6.8	6.3	7.2	7.0	6.2	6.1	5.8	6.7	FS				
1346	6.4	6.3	6.2	6.2	6.2	6.0	5.6	6.1	5.7	5.8										
1348	5.9	6.8	5.7	5.9	6.5	6.8	MS	6.2	6.7	5.8	6.8	6.7	4.9	5.5	6.4	FS				
1350	6.1	6.0	6.7	6.1	5.3	5.4	5.9	7.0	6.9	6.5	4.8	6.0	6.8	6.8	5.5	4.9	5.6			
1353	6.0	6.5	7.4	6.7	5.5	5.5	6.1	6.1	6.2	6.4	6.0	5.7	6.1	FU						
1355	6.6	6.7	7.0	6.9	6.7	6.5	6.4	6.3	6.5	6.3	6.3	6.8	6.4	6.4	6.7					
1358	NOT PREGNANT; MATING NOT CONFIRMED																			
1359	6.4	6.7	5.7	6.2	6.5	6.3	6.1	5.9	6.1	6.0	6.2	5.7	6.1	FS						

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 2): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP II						1 MG/KG/DAY						POSTPARTUM DAY 1							
1362	6.8	6.4	6.7	6.3	6.5	5.9	6.1													
1363	5.7	6.3	6.3	6.3	5.6	6.0	6.1	5.5	5.6	6.2	4.7	5.0	6.6	5.6	6.0	6.1	5.6	FS		
1364	5.5	5.6	5.1	5.6	5.0	5.3	5.9	5.1	5.5	5.2	5.3	4.5	5.1	5.0	5.4					
1367	6.6	7.4	7.0	7.4	6.6	6.7	7.0	6.8	6.4	6.7	6.6	6.2	7.0							
1368	6.6	5.7	6.7	7.1	6.7	6.6	6.5	6.0	5.8	5.2	6.0	6.3	5.4	5.7	7.2					
1371	6.3	7.2	6.5	6.4	6.7	6.4	6.5	6.7	6.6	6.6	6.6	6.3	6.1	6.3	6.7	6.4	6.4			
1375	6.4	6.9	7.2	6.7	6.4	6.6	6.4	6.6	6.5	6.4	6.1	5.5	5.5	6.3						
1376	6.4	6.6	6.2	6.7	6.2	6.0	5.8	6.2	5.8	5.8	MS	MS	6.6	5.9	6.3	6.1	5.4			
1378	NOT PREGNANT																			
1379	6.4	6.2	6.6	7.0	6.8	6.5	5.9	6.8	6.3	6.7	6.5	6.4								
1381	7.6	7.9	7.0	8.2	7.1	7.6	7.4	6.8	6.5	6.8	6.5	6.7								
1382	6.1	6.0	6.0	6.9	6.3	5.7	5.8	5.8	5.9	5.6	5.5	5.6	5.9							
1383	5.4	6.3	7.0	6.6	6.2	6.8	6.1	6.0	5.7	6.7	6.0									
1387	7.3	6.9	7.1	6.7	6.6	7.0	6.8	6.7	6.9	6.1	6.3	7.2	6.8	6.4	6.1	6.0	FS			
1389	6.3	6.0	6.2	6.3	6.0	5.2	6.1	5.6	5.2	5.2	5.7	5.4	5.0	5.3	5.4	5.4				
1392	5.5	5.6	6.5	6.2	6.1	6.1	5.8	5.7	5.8	5.5	5.6	5.9	5.1	5.8	5.7	5.4	5.4			
1393	7.0	7.3	6.5	6.4	6.0	MS	6.4	6.5	6.6	6.6	5.4	5.3								
1397	7.8	7.5	7.3	8.1	6.8	7.6	7.7	7.1	7.4	7.4	8.1	6.9								
1399	7.1	7.2	7.1	6.7	6.5	6.8	7.3	7.3	6.1	6.4										
1401	6.9	6.9	6.2	7.0	7.0	7.1	6.0	6.1	6.7	6.9	6.5	6.6								
1404	5.7	6.2	6.4	6.4	6.8	5.0	5.7	6.4	6.0	6.2	6.4	5.6	5.4	6.0	5.7					
1407	6.5	6.2	6.1	6.5	6.3	6.8	7.2	6.6	5.6	6.3	6.0	6.4	6.1	5.8	6.3					
1409	6.2	6.1	5.9	6.0	6.2	6.0	5.8	5.8	5.4	5.8	5.7	6.3								
1410	5.7	6.0	5.9	5.7	6.0	6.0	6.7	5.7	6.2	6.2	6.2	5.2	6.3	5.8	6.2	5.4	4.5			
1413	6.5	6.4	6.6	6.4	6.9	6.7	6.3	6.0	5.9	6.1	5.5	6.5	5.4							
1415	6.5	6.4	6.7	6.6	6.7	6.9	6.6	5.8	6.0	5.8	5.9	6.8	6.0							
1416	6.2	6.7	6.1	6.4	6.0	6.6	6.6	6.4	6.5	6.5	6.8	6.5	6.8	6.3						
1418	6.6	6.6	6.4	6.0	6.6	6.0	5.9	6.0	6.1	6.2	5.8	6.0	6.3	6.2	5.7	6.0				

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 3): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP III						3 MG/KG/DAY					POSTPARTUM DAY 1								
1421	7.3	6.3	6.6	6.8	6.6	6.8	7.1	6.5	6.8	6.6	6.2	6.9	5.9	6.2	6.4	FD 1	FD 1			
1424	5.9	5.8	5.4	5.4	5.4	5.1	5.4	5.3	5.6	5.4	5.4	5.2	4.9	4.9	5.0	5.1	5.3			
1426	6.8	6.5	6.7	6.9	7.1	6.7	6.3	6.2	5.9	6.1	6.4	6.6	6.2							
1428	7.0	6.3	7.2	6.8	7.0	6.9	5.8	5.6	6.1	6.8	6.0	6.7	6.4	6.6	6.2					
1430	6.2	7.2	6.7	6.7	6.6	7.0	5.7	6.1	6.0	6.2	7.0	5.8	6.1	5.9	6.5	6.4	5.6			
1431	6.4	6.6	5.6	6.8	6.3	6.4	6.6	6.5	5.9	MD 1	6.6	6.6	6.1	6.4	6.2	6.9				
1433	6.2	6.1	6.1	5.6	5.9	5.4	6.4	6.2	6.7	6.7	6.0	6.0	5.5	6.2	5.8	5.8	6.0	5.6		
1436	5.8	6.5	6.6	6.4	6.8	6.9	6.2	6.0	5.8	5.8	5.9	5.6								
1437	6.4	5.9	5.5	6.2	6.4	6.0	6.2	6.7	5.1	6.1	6.2	6.0	6.1	5.7	5.5	5.8				
1439	6.7	6.9	7.1	6.7	6.6	6.5	6.2	6.4	6.9	FD 1	FS	FS								
1442	8.7	8.2	8.0	8.3	8.3	8.0	7.4													
1443	6.4	6.4	6.3	6.6	6.4	6.5	6.8	5.1	6.1	6.4	6.5	6.1	6.0	6.0						
1446	NOT PREGNANT																			
1448	6.6	7.4	6.8	6.6	7.3	6.1	MS	MS	6.4	6.1	6.0	6.0	5.9	6.5	6.7	6.5				
1450	5.8	6.6	5.7	6.3	6.2	6.4	5.6	5.6	6.3	5.9	6.6	5.9	6.0	5.8						
1452	5.8	5.4	5.7	5.5	5.8	5.5	5.3	5.4	5.5	4.5	5.4	5.2	4.7	4.9						
1455	6.2	5.7	5.9	5.8	5.9	6.1	6.0	6.4	5.4	5.2	5.9	5.5	5.2	5.8	5.9					
1456	7.2	6.9	7.1	7.1	6.9	6.6														
1458	NOT PREGNANT																			
1459	6.8	6.0	6.0	6.1	6.2	6.4	6.2	6.8	6.3	5.9	6.4	6.0	5.5	5.9						
1461	7.0	6.5	7.2	6.6	7.2	6.0	6.7	6.7	7.1	6.6	6.6									
1463	6.4	6.5	6.0	6.5	6.9	6.5	6.9	MS	5.9	5.9	5.9	6.5	5.9	5.9	FS					
1465	6.6	7.3	6.9	6.6	6.7	7.1	6.8	6.4	7.1	7.0	6.5	6.3	6.9	6.1	7.0	6.7				
1468	5.9	5.9	6.1	5.7	6.0	4.7	5.7	5.3	5.4	5.5	5.7	5.8	5.6	5.8	5.5	5.8				
1469	6.3	6.5	6.8	6.0	5.9	5.9	6.3	7.0	6.6	6.3	6.3	6.8								
1472	8.7	8.8	8.5	7.7	7.8	8.5	7.6	7.6	7.7	8.2										
1474	6.7	6.3	6.0	6.5	7.0	6.7	6.0	6.5	6.5	6.8	6.4	6.3	6.5	6.6						
1476	6.0	5.7	5.6	6.2	6.0	6.4	6.1	MD 1	6.0	5.4	5.3	6.1	6.1	5.3	5.9	5.7	5.3			
1477	5.9	5.8	5.0	5.0	6.1	4.9	5.1	6.2	5.9	4.8	6.1	5.9	4.9	5.7	5.2	5.3	5.5			
1480	8.0	7.6	7.5	8.0	7.7	7.4	7.2	7.3	7.5	7.1	7.4	7.6	6.5							

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 4): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP IV						10 MG/KG/DAY						POSTPARTUM DAY 1							
1482	7.2	7.2	7.1	7.3	7.0	6.9	6.3	5.9	6.9	7.3	7.1	7.1	6.9	6.7	FD 1	FS				
1483	NOT PREGNANT																			
1486	7.1	7.3	7.7	6.8	7.4	7.4	6.5	7.2	6.5	6.7	7.3	6.7	6.2	7.1	6.7					
1488	6.1	7.2	6.3	6.0	6.0	6.7	6.5	7.2	6.1	6.5	6.2	6.2	5.7	6.1	5.6					
1490	8.5	7.5	8.1	8.9	7.1	6.6	8.5	7.5	6.2	7.7										
1491	5.9	6.1	5.9	6.0	5.7	5.9	4.8	6.2	5.9	5.6	5.8	6.0	5.9	4.9	UU					
1494	6.2	6.6	6.9	6.6	7.0	6.7	6.6	6.9	MD 1	6.4	5.6	6.7	4.9	6.2						
1496	6.6	5.7	6.7	6.4	6.2	6.8	5.9	6.0	6.3	6.5	6.3	6.1	6.5							
1497	6.9	7.2	6.9	7.0	6.8	6.8	6.6	7.3	6.8	6.5	7.4									
1500	6.3	6.0	6.5	6.8	5.9	5.2	5.9	6.3	6.3	6.3	6.1	6.2	6.4	6.0	FS					
1502	6.3	6.6	6.7	6.2	5.5	5.6	6.0	5.8	6.5	5.7	5.7	6.2	5.5							
1505	6.6	6.1	6.2	6.1	6.7	6.6	6.0	6.3	6.1	6.1	5.7	6.0	5.9	6.6	5.7	6.3				
1507	5.9	5.6	5.3	5.4	5.6	5.4	5.4	5.7	4.9	5.8	5.5	4.8	5.3	5.5	5.4	5.5				
1508	6.2	7.0	6.4	6.4	5.6	5.4	5.9	5.6	5.6	5.3	5.4	6.8	5.9							
1511	NOT PREGNANT																			
1513	7.0	6.5	6.7	7.3	6.0	7.2	7.1	6.8	6.9	6.7	6.4	6.6	7.0	MS						
1514	6.7	6.5	6.5	6.8	6.0	6.6	6.0	5.6	6.2	5.7	5.9	6.0	6.3	6.3	5.7	6.4	6.2			
1516	6.8	7.1	7.0	6.9	6.7	7.1	6.3	6.4	7.4	7.2	6.8	6.7	6.7							
1517	6.3	6.0	5.5	5.4	5.5	6.0	5.9	6.1	5.8	5.6	5.6	5.9	5.6	5.5	5.4					
1519	5.9	6.3	6.7	6.4	5.8	6.4	6.4	6.2	6.5	5.5	5.0	6.1	6.3	5.3	5.6	5.3				
1521	7.0	7.7	6.3	7.4	7.5	7.0	6.7	6.6	7.2	6.7	7.1	6.8								
1523	6.4	6.3	6.6	6.2	6.3	6.6	4.6	MD 1	4.6	5.9	6.2	6.6								
1524	8.4	8.9																		
1527	6.5	6.9	6.5	6.7	6.3	6.3	6.8	6.3	4.4	6.6	6.5	5.7	5.6	6.4	6.0	5.5	6.0			
1528	7.1	7.6	6.6	7.0	7.3	7.0	6.3	6.6	6.5	6.5										
1531	6.6	7.2	6.5	6.2	7.0	6.3	6.7	6.9	MS	4.9	6.2	5.8	5.9	6.3	FS					
1533	5.0	5.5	5.7	6.2	5.7	5.5	5.4	5.3	5.9	5.4	5.8	5.7	2.9	5.3	5.3	5.9	5.0	5.7	FD 1	
1534	6.9	7.2	7.8	7.6	6.8	7.4	7.3	7.2	7.0	6.6	6.5	6.8								
1537	6.2	6.6	6.9	5.6	6.4	6.7	6.3	6.6	6.6	6.5	5.8	6.1	4.9	6.3	FS					
1539	6.9	6.6	6.1	6.7	6.4	6.4	6.4	6.7	5.8	6.5	6.3	6.4	6.5	6.5						

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 5): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP V						30 MG/KG/DAY					POSTPARTUM DAY 1								
1541	5.8	5.8	6.2	6.4	5.7	5.7	5.2	6.1	5.6	5.4	5.4	5.8	5.7	5.3						
1544	5.1	7.3	6.6	6.7	6.1	6.3	6.3	6.4	6.2	6.4	6.2	6.5	6.6	FS						
1545	6.2	6.6	5.3	6.3	6.6	6.6	6.5	6.5	5.8	7.0	5.0	6.0	4.6	6.3	6.1	6.2	6.2	6.6	6.6	
1546	5.9	5.6	5.7	4.9	5.9	5.5	6.0	5.1	5.0	5.2	5.9	5.4	5.3	5.3	5.7					
1548	5.5	5.4	5.1	5.2	5.1	5.2	5.7	5.6	5.0	5.0	5.0	5.4	5.0	FS						
1550	6.3	6.6	6.6	6.9	6.8	5.8	6.4	6.4	6.0	5.7	5.6	5.9								
1552	5.6	6.8	5.5	6.4	5.9	7.4	6.7	6.4	5.9	6.0	5.4	6.2	6.0	5.9						
1555	6.9	6.1	6.0	6.2	5.4	7.0	6.5	5.8	5.3	5.6	5.4	5.4	5.8	4.9	5.3					
1557	7.0	6.6	7.0	6.4	6.8	6.3	6.4	6.4	6.7	6.8	6.3	6.4	6.6							
1558	6.8	6.4	6.2	6.9	6.8	6.2	6.8	6.6	6.3	6.1	6.5	6.8	6.4	6.4	6.5	6.6				
1560	5.8	5.7	5.5	6.0	5.9	6.1	6.0	5.7	5.8	5.3	5.3	5.7	5.2	5.7	5.3					
1564	6.2	6.1	6.8	6.6	5.4	6.0	6.2	6.1	5.1	5.7	5.5	5.8	5.9							
1565	6.3	5.7	6.3	6.3	6.2	6.4	5.5	5.6	6.0	5.6	5.8	6.0								
1566	6.2	6.2	5.6	5.7	5.5	6.2	6.5	6.2	6.1	5.9	5.6	5.6	5.3	6.2	6.1					
1568	7.3	4.7	7.5	7.2	7.9	7.1	5.8	6.9	6.7	6.5	6.9	6.2	5.9							
1571	5.6	5.8	5.0	5.1	5.9	5.9	5.3	5.3	4.8	5.1	5.3	5.1	5.3							
1573	6.2	7.1	6.1	6.2	6.8	6.7	6.5	6.6	6.0	5.6	6.3	5.8	5.7	6.3	6.1					
1576	6.6	5.8	5.8	5.6	5.5	5.6	5.6	5.9	6.1	5.3	5.7	5.9	5.8							
1578	NOT PREGNANT																			
1579	6.5	6.6	6.3	5.8	6.4	6.9	6.2	6.7	6.7	6.3	6.1	5.8	5.4	6.0	6.1					
1583	5.7	5.2	5.7	5.1	5.4	4.8	5.2	5.0	5.4	5.1	5.4	5.2								
1584	6.9	6.9	6.7	6.5																
1586	5.4	5.9	4.9	5.8	5.8	6.2	6.0	5.4	5.0	5.7	5.6	5.2	5.7							
1587	6.2	5.6	5.3	6.2	5.5	5.7	5.4	5.5	5.6	5.5	5.7									
1588	6.3	5.9	6.7	6.7	6.3	6.3	6.0	6.5	5.7	5.8	6.6	5.8	5.5							
1589	5.7	5.7	5.5	5.9	5.6	5.8	5.4	5.0	5.2	5.0	5.3	6.0	5.1	6.0						
1591	6.3	6.4	6.0	6.1	6.2	4.9	6.1	6.5	6.3	6.0	6.1	6.0	6.7	4.7						
1593	7.0	7.0	7.6	6.5	7.8	6.6														
1598	5.9	5.6	6.3	6.0	6.1	6.0	5.6	6.0	6.0	5.9	5.4	6.2	5.6	5.4	5.5	5.8	6.2			
1600	6.2	7.1	5.9	6.3	6.6	6.3	6.5	6.0	6.1	6.0	MD 1	6.0	5.5	5.6	5.8					

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 6): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP I						0 MG/KG/DAY					POSTPARTUM DAY 5								
1302	11.6	12.9	11.5	11.0	11.7	11.2	11.4	11.2	10.9	10.6	7.4									
1304	12.2	11.6	10.3	12.6	11.8	11.3	10.7	8.3	11.5	10.6	10.2	11.7								
1306	9.5	10.3	9.0	9.5	10.4	9.6	9.7	9.8	11.0	9.9	10.2	8.8	8.8	10.2	9.9	10.2				
1308	8.4	7.8	8.1	9.0	8.2	8.1	8.3	9.3	8.3	8.1	8.7	7.9	9.2	7.8	9.4	8.6				
1310	10.6	10.9	10.8	10.3	10.1	10.4	11.0	10.9	11.2	9.5	9.5	10.8	10.4	10.6						
1312	14.2	13.5	13.6	14.9																
1313	11.2	10.3	11.2	11.0	10.5	10.1	11.1	10.5	10.6	9.9	10.4	10.7	11.0							
1316	NOT PREGNANT																			
1318	12.0	11.0	11.9	12.5	13.3	13.5	11.4	12.8	MM 2	12.1	13.0	13.0	10.6	12.0	12.2					
1321	8.3	9.0	8.5	9.5	9.2	7.4	9.6	8.9	8.0	8.2	9.0	8.4	8.8	8.5	8.4	9.1	8.6			
1325	9.9	10.3	11.0	11.6	10.7	11.5	10.2	9.7	11.3	10.9	10.2									
1328	9.9	9.4	10.3	9.9	8.9	9.8	10.3	10.2	9.4	9.0	9.4	9.5	9.4							
1330	8.6	9.1	9.0	9.0	8.4	9.1	8.1	8.1	9.0	8.7	7.3	8.1	8.6	8.2	7.9	9.0				
1331	10.3	9.5	9.2	8.4	8.6	7.4	8.8	8.4	9.1	8.6	9.4	7.8	8.2	8.2	7.7	8.8				
1334	10.3	11.4	11.2	11.2	11.3	11.4	10.0	10.5	10.7											
1335	10.0	9.7	10.0	9.8	9.3	10.1	9.5	9.5	9.4	9.6	9.4	8.9								
1336	10.5	10.7	10.4	10.8	10.0	10.2	10.6	10.6	10.2	10.0	10.7	11.3	10.7	10.9	8.8					
1338	10.1	11.2	10.2	9.2	10.3	11.2	10.3	10.9	11.4	10.2	9.1	9.9	9.1	9.3	10.5	11.1	9.5			
1340	10.8	11.1	10.4	11.2	11.4	10.7	10.5	10.8	10.8	9.3	10.6	10.2	10.6	9.5						
1341	12.3	10.8	11.0	11.2	9.8	11.3	10.8	10.0	11.2	10.8	9.9	12.1								
1342	10.6	10.9	9.5	10.9	9.6	10.9	11.0	10.1	9.2	9.6	9.6	9.6	9.2	8.6	9.7	10.5				
1344	10.7	11.5	10.3	10.8	10.9	10.9	10.0	9.3	10.0	9.5	11.1	10.5	10.3	10.1	8.4					
1345	10.3	11.0	11.1	10.2	MD 4	MS	8.8	9.5	9.4	11.0	10.3	10.2	9.5	10.3	10.2	FS				
1346	11.1	12.1	10.7	11.0	10.7	11.0	10.3	9.9	10.4	11.7										
1348	8.8	8.7	9.3	8.6	9.7	9.1	MS	9.8	9.1	9.7	10.0	10.0	6.9	8.3	7.5	FS				
1350	8.7	9.1	8.8	8.5	7.6	9.4	8.3	9.5	9.3	8.5	7.6	8.1	8.4	7.2	7.8	8.9	8.0			
1353	10.4	12.3	11.4	9.8	10.6	11.2	11.6	9.4	10.5	10.8	10.6	10.8	10.0	FU						
1355	10.6	10.0	9.7	9.4	9.9	9.8	10.6	10.4	9.8	9.0	9.4	9.7	9.6	10.2	9.4					
1358	NOT PREGNANT; MATING NOT CONFIRMED																			
1359	9.1	9.5	10.0	9.5	8.6	9.6	9.2	9.4	9.0	9.2	8.9	9.5	9.2	FS						

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 7): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP II						1 MG/KG/DAY						POSTPARTUM DAY 5							
1362	11.4	12.1	12.1	12.2	10.9	11.5	12.0													
1363	8.3	9.0	8.0	8.8	8.8	9.0	8.0	9.3	8.3	9.2	9.7	7.2	9.3	7.8	7.3	8.8	FD 4	FS		
1364	8.1	9.3	9.2	9.7	9.8	8.8	8.9	9.2	9.2	7.6	9.4	9.2	8.5	8.8	7.7					
1367	10.6	10.9	11.2	11.2	11.6	11.2	11.7	10.5	10.3	11.2	10.8	10.7	10.9							
1368	10.8	11.0	10.5	11.5	10.8	9.9	12.2	10.5	9.6	9.9	8.9	9.9	11.7	10.6	11.1					
1371	7.0	8.5	7.6	8.0	8.7	9.8	9.3	10.1	10.0	8.9	9.6	9.3	9.0	8.3	10.2	9.1	8.1			
1375	10.0	10.6	10.0	10.1	10.1	10.9	9.9	10.1	10.5	9.2	8.5	10.2	9.8	7.6						
1376	9.5	9.1	9.3	9.7	8.4	8.3	9.7	9.5	9.1	8.7	MS	MS	9.3	8.5	10.1	8.5	9.7			
1378	NOT PREGNANT																			
1379	11.6	11.8	10.9	10.9	10.7	10.1	9.8	10.0	10.5	9.8	9.9	10.1								
1381	11.8	12.6	11.7	11.8	12.6	13.2	11.0	11.1	11.4	10.1	12.1	11.1								
1382	11.4	9.8	10.2	9.4	10.0	9.4	9.8	8.7	9.0	9.4	8.5	9.9	8.4							
1383	11.1	9.0	11.1	10.4	11.3	11.2	9.7	10.5	9.8	11.3	10.8									
1384	12.8	11.5	11.7	11.7	11.9	MM 4	11.3	11.4	10.9	11.0	10.9	11.5	11.2							
1387	11.2	9.8	9.5	10.8	10.4	10.1	10.9	10.3	10.5	10.3	9.5	10.2	8.7	9.5	10.6	10.3	FS			
1389	8.3	7.2	8.0	7.2	9.6	8.4	8.8	9.0	8.5	8.3	8.0	7.5	7.6	8.2	8.2	7.7				
1392	7.6	9.7	8.0	9.5	8.5	8.4	8.0	9.3	8.7	7.1	7.6	8.0	8.1	8.1	7.4	7.7	7.5			
1393	11.2	12.0	10.8	10.4	11.7	MS	11.1	9.4	11.0	11.3	9.8	9.8								
1397	11.3	12.2	12.0	13.4	11.8	12.5	11.3	11.7	11.5	12.4	12.7	13.2								
1399	12.5	12.6	11.9	12.6	11.1	12.2	12.9	11.8	11.1	11.5										
1401	11.7	12.0	10.8	11.2	11.2	12.0	10.4	11.2	10.2	11.7	11.2	11.6								
1404	10.5	10.3	10.4	9.0	10.8	9.4	9.8	9.7	10.4	10.9	10.7	9.8	10.2	10.4	8.7					
1407	9.2	7.4	9.5	8.8	9.6	9.0	7.4	9.6	6.2	9.2	8.8	8.3	9.6	8.9	8.7					
1409	10.5	10.1	9.8	10.1	9.9	10.5	9.7	9.9	9.9	9.6	10.4	10.4								
1410	10.4	9.9	9.5	9.1	8.7	10.4	9.5	8.1	9.8	9.5	9.9	10.4	9.5	8.6	9.7	9.4	FM 5			
1413	9.0	9.9	9.7	9.0	9.3	9.3	9.5	8.9	8.1	8.4	8.0	8.6	8.9							
1415	8.9	9.8	9.1	9.7	9.3	9.6	9.4	8.5	9.1	8.8	8.9	8.8	8.5							
1416	9.7	8.5	9.7	8.9	9.4	8.9	8.8	8.9	9.2	10.5	8.0	9.9	10.0	9.0						
1418	7.2	8.6	9.6	9.1	9.8	9.7	7.0	7.9	8.1	6.4	6.8	8.9	9.5	9.2	FD 3	FM 3				

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 8): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP III						3 MG/KG/DAY					POSTPARTUM DAY 5								
1421	11.0	9.8	9.3	9.5	9.7	10.1	10.0	10.3	10.0	8.7	9.1	9.8	9.5	9.9	9.8	FD 1	FD 1			
1424	7.8	8.0	8.9	7.6	8.5	7.8	8.0	8.9	9.1	7.9	8.0	8.0	8.4	7.7	7.9	7.1	7.7			
1426	10.2	10.5	10.7	10.2	9.8	9.4	10.5	9.8	8.5	10.3	8.6	9.2	10.6							
1428	10.9	10.7	10.8	9.6	10.6	10.0	9.6	10.4	9.3	8.9	9.7	9.5	10.4	10.0	9.8					
1430	9.0	9.3	9.4	9.1	9.5	10.0	8.1	8.3	8.9	8.9	8.7	9.2	8.1	9.5	8.5	9.1	8.8			
1431	10.7	11.5	10.5	10.0	10.6	9.9	10.9	10.1	8.3	MD 1	10.9	10.8	9.8	9.9	10.2	FM 2				
1433	10.1	9.7	10.1	8.8	10.5	9.6	9.1	8.7	9.1	8.3	9.5	9.1	9.7	8.2	8.3	9.2	7.5	10.6		
1436	10.3	10.6	10.9	9.9	9.8	10.3	10.4	11.0	9.8	9.8	9.7	10.0								
1437	9.4	9.8	9.6	10.8	7.9	9.5	8.9	10.5	8.7	9.1	9.5	8.3	9.5	9.1	9.5	9.4				
1439	11.3	11.1	11.5	11.2	11.2	11.7	11.1	10.8	10.5	FD 1	FS	FS								
1442	14.9	14.2	13.2	15.0	14.1	14.6	13.7													
1443	10.3	10.4	10.3	9.5	10.3	8.1	10.4	10.5	9.9	10.5	9.2	10.3	10.0	10.0						
1446	NOT PREGNANT																			
1448	11.1	11.3	11.1	9.4	11.1	10.7	MS	MS	9.1	9.6	9.5	8.8	8.4	10.4	9.5	8.5				
1450	8.9	7.5	9.2	8.9	9.4	8.8	8.4	8.1	9.2	8.1	8.4	9.5	7.9	8.6						
1452	8.4	8.5	8.9	8.8	8.8	8.6	7.1	8.9	7.1	8.1	7.4	7.6	9.1	FM 2						
1455	10.1	10.4	6.5	10.6	9.4	9.9	MD 5	MM 3	6.6	9.3	6.5	9.5	9.1	9.6	9.6					
1456	12.8	12.9	13.3	13.6	13.0	12.4														
1458	NOT PREGNANT																			
1459	11.5	11.1	9.7	10.4	11.0	11.7	10.5	11.0	MD 2	11.4	10.8	9.9	10.1	11.2						
1461	8.9	10.3	9.8	10.7	10.9	10.0	10.5	11.1	11.0	9.3	11.7									
1463	11.2	10.3	10.9	10.4	8.9	10.1	10.7	MS	9.8	10.4	10.0	9.4	9.8	9.4	FS					
1465	11.2	11.6	10.6	10.0	10.4	11.8	10.9	9.4	10.5	11.1	9.4	10.4	10.6	11.6	11.9	11.0				
1468	10.2	10.4	10.2	9.6	9.7	9.9	8.9	9.2	9.2	8.9	9.7	6.5	8.7	8.7	10.4	10.1				
1469	9.9	9.4	9.3	9.7	10.1	11.0	9.1	9.8	10.5	9.3	10.7	9.5								
1472	14.0	14.5	13.9	13.9	14.5	12.6	12.6	13.3	13.3	13.0										
1474	9.9	11.0	10.0	9.4	10.1	10.2	9.8	11.2	9.8	10.1	10.0	9.1	9.6	10.2						
1476	7.6	7.5	7.8	8.9	8.9	7.7	8.2	MD 1	8.2	6.9	7.9	8.1	7.2	7.7	7.0	6.9	7.9			
1477	8.2	8.5	8.8	7.0	9.4	10.0	7.4	8.7	7.7	9.0	8.6	8.7	8.8	7.9	7.9	6.9	9.1			
1480	12.0	12.1	12.2	11.5	12.3	12.6	10.9	10.4	11.2	12.5	11.1	12.0	11.1							

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FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 9): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP IV						10 MG/KG/DAY					POSTPARTUM DAY 5								
1482	10.7	10.3	11.5	10.7	10.8	10.9	10.1	9.4	10.4	10.0	9.5	9.9	11.0	10.3	FD 1	FS				
1483	NOT PREGNANT																			
1486	9.3	9.8	11.0	10.0	11.1	10.8	11.1	9.4	11.1	8.9	10.2	9.9	9.3	11.0	10.3					
1488	10.7	11.9	11.0	10.6	10.7	10.1	11.8	9.2	10.5	9.8	10.2	9.6	9.6	10.5	8.6					
1490	14.8	15.3	15.0	13.5	15.4	12.8	11.7	11.5	13.9	14.0										
1491	10.4	9.2	10.8	9.7	9.4	6.9	7.7	10.3	10.2	9.4	9.9	8.8	10.0	9.1	UU					
1494	10.3	10.4	10.9	9.8	9.6	9.3	10.2	10.7	MD 1	9.9	9.5	9.8	9.6	8.0						
1496	9.6	9.1	10.3	8.1	9.6	9.6	8.5	9.9	9.4	10.7	10.1	9.1	8.9							
1497	10.8	11.9	11.2	11.6	10.8	11.6	11.6	12.0	10.4	10.7	10.3									
1500	9.1	9.9	10.3	8.7	9.2	7.5	7.8	9.3	9.5	8.3	8.9	9.2	8.7	9.0	FS					
1502	11.4	11.8	11.0	11.3	10.2	11.2	10.8	11.1	10.4	10.2	9.5	10.1	FD 2							
1505	9.4	9.0	9.4	10.1	8.7	8.5	9.9	8.0	9.5	8.9	8.4	8.4	8.6	8.6	8.8	8.3				
1507	7.1	7.4	8.8	7.4	8.5	7.3	7.5	7.8	7.9	7.3	7.9	7.3	8.0	7.8	6.7	8.2				
1508	11.6	8.9	12.2	11.6	7.8	10.2	10.8	10.6	11.7	10.0	9.7	9.1	FD 2							
1511	NOT PREGNANT																			
1513	10.3	9.9	9.9	10.2	10.2	10.4	9.0	10.7	10.4	9.2	10.6	10.3	10.7	MS						
1514	9.5	9.6	9.3	8.8	7.4	10.5	8.9	10.2	8.4	7.6	9.4	8.0	9.1	8.7	8.8	9.4	9.2			
1516	11.6	11.7	12.9	11.4	10.9	11.4	10.2	12.1	10.4	11.1	12.0	10.2	11.2							
1517	10.2	9.7	9.0	10.2	10.1	10.2	8.7	10.5	8.9	9.2	10.0	9.9	9.8	9.0	8.3					
1519	9.5	9.8	10.5	9.8	9.9	9.4	9.6	9.8	8.7	7.6	9.9	8.1	9.4	8.3	7.4	8.1				
1521	10.7	10.6	10.2	10.8	10.4	11.0	11.1	11.1	9.6	10.3	10.7	10.1								
1523	10.9	11.4	11.3	10.6	7.6	11.1	11.1	MD 1	10.7	7.5	11.6	10.6								
1524	14.8	15.2																		
1527	9.6	9.6	8.4	9.2	9.5	8.8	10.1	10.2	8.9	8.9	MM 5	9.1	8.7	8.1	9.0	8.3	8.4			
1528	11.5	10.4	10.5	11.9	10.8	10.8	9.9	10.6	9.6	10.9										
1531	10.9	11.1	10.8	10.7	11.2	11.2	10.0	10.3	MS	10.6	11.0	9.7	10.1	7.3	FS					
1533	8.3	8.5	9.2	9.6	7.9	9.7	9.3	8.1	9.0	9.0	8.6	4.0	9.5	9.1	9.5	8.7	8.7	7.8	FD 1	
1534	10.5	10.2	10.1	9.7	10.5	9.4	8.9	8.3	7.7	11.6	10.3	10.6								
1537	10.0	10.2	9.7	10.3	10.0	9.6	10.4	10.2	10.4	8.8	8.8	9.1	7.5	9.0	FS					
1539	11.3	10.9	11.9	10.3	10.5	10.9	11.4	11.2	12.3	10.4	11.8	10.9	11.0	11.9						

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 10): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP V						30 MG/KG/DAY						POSTPARTUM DAY 5							
1541	10.4	10.1	10.6	10.4	9.5	9.9	8.6	9.0	9.7	9.9	9.8	10.0	9.6	9.7						
1544	12.2	10.8	8.6	11.3	11.5	12.3	11.2	11.1	10.4	11.1	10.8	10.7	FM 2	FS						
1545	10.4	9.9	10.7	9.1	9.6	10.1	8.5	9.0	8.2	9.0	7.7	9.3	6.7	8.8	9.8	8.5	9.4	9.1	FD 3	
1546	10.2	10.0	10.2	10.0	8.8	9.0	8.3	8.5	9.0	9.4	8.3	8.9	9.5	9.0	9.5					
1548	9.1	8.9	9.0	7.7	8.4	8.9	7.8	8.5	8.6	8.5	8.9	8.9	9.2	FS						
1550	11.8	9.8	10.4	10.3	10.2	9.6	10.2	10.2	9.8	9.5	8.3	9.6								
1552	9.8	9.3	8.3	9.3	8.4	8.5	9.3	8.6	8.9	7.8	9.3	8.3	8.4	8.6						
1555	8.6	10.3	8.8	7.9	9.5	9.2	9.0	7.8	7.5	8.1	8.0	9.5	8.2	9.2	8.4					
1557	11.5	11.3	11.3	11.4	10.8	10.9	11.3	10.9	10.9	10.9	11.1	11.2	11.3							
1558	10.8	10.1	10.7	9.8	9.8	9.6	9.5	9.3	9.3	10.4	10.5	10.6	9.6	10.4	9.8	10.2				
1560	7.7	7.6	6.9	8.1	6.7	8.6	6.3	5.9	7.1	7.9	6.2	7.8	7.2	7.2	7.1					
1564	10.2	9.8	9.2	10.0	11.1	10.7	9.3	9.5	9.6	10.1	8.9	9.1	8.3							
1565	11.1	11.6	11.2	11.1	10.6	10.7	10.2	9.9	9.6	8.8	10.5	10.3								
1566	9.2	9.5	7.4	9.1	8.5	7.0	8.2	8.6	9.0	8.5	7.8	9.2	8.4	8.5	8.4					
1568	11.3	7.4	11.8	10.6	11.7	9.0	10.8	10.5	10.6	10.4	9.5	10.7	10.0							
1571	8.1	7.3	7.9	8.2	8.3	7.9	6.7	7.8	7.5	7.4	7.6	7.3	7.3							
1573	11.9	10.0	10.6	8.9	10.4	9.9	10.6	9.4	9.5	9.9	9.0	9.6	8.8	9.9	10.2					
1576	6.8	7.1	6.8	7.6	7.7	7.6	7.5	7.1	7.6	7.7	7.2	7.0	7.4							
1578	NOT PREGNANT																			
1579	10.2	11.2	11.2	11.0	9.8	9.5	10.9	9.6	9.3	10.7	10.2	11.1	10.2	8.7	10.4					
1583	9.6	10.2	9.8	10.7	MM 3	10.0	8.1	10.5	9.9	9.6	9.3	9.7								
1584	12.6	12.4	11.9	10.9																
1586	9.0	9.6	8.8	9.2	8.7	9.9	10.0	9.5	8.6	9.4	8.4	8.6	9.4							
1587	10.4	8.1	10.7	9.0	10.8	9.3	9.1	9.2	9.6	9.2	9.3									
1588	8.8	9.3	8.9	9.9	9.7	9.9	9.3	10.4	9.6	9.5	8.4	9.3	9.1							
1589	8.6	8.4	8.2	8.5	8.8	8.2	8.4	7.5	7.0	8.8	8.1	7.8	7.6	7.6						
1591	10.5	9.3	10.8	9.9	9.9	9.5	7.6	10.7	10.7	9.8	8.5	10.5	9.6	9.9						
1593	12.5	12.3	14.3	12.6	13.0	11.6														
1598	9.4	9.4	8.5	9.7	9.0	9.7	9.2	9.0	7.6	8.4	8.6	9.4	8.5	9.9	8.0	9.6	8.6			
1600	10.0	11.6	11.2	10.1	10.3	10.9	10.3	10.6	10.3	9.1	MD 1	10.0	9.9	8.5	10.1					

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FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
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TABLE E40 (PAGE 11): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP I						0 MG/KG/DAY					POSTPARTUM DAY 8								
1302	16.1	17.5	15.8	15.4	16.4	16.0	14.8	11.2	15.6	16.2	16.3									
1304	16.9	16.9	18.6	18.4	15.4	16.9	16.0	17.2	13.0	16.4	14.8	16.1								
1306	16.0	14.5	15.3	13.2	13.1	13.2	12.5	14.6	13.4	14.0	11.9	13.8	13.6	14.1	12.9	13.2				
1308	12.1	12.2	12.2	11.0	13.2	11.3	12.7	10.5	12.2	11.6	11.5	11.9	10.7	10.9	10.9	12.6				
1310	14.5	17.2	17.0	15.6	16.0	15.5	15.9	15.7	16.1	15.8	15.4	14.0	13.9	15.2						
1312	20.4	22.0	22.5	21.0																
1313	15.9	16.2	15.8	15.6	14.1	14.6	14.8	14.6	14.7	14.5	14.8	15.4	14.6							
1316	NOT PREGNANT																			
1318	18.8	17.5	18.9	16.2	17.5	19.1	18.0	15.5	MM 2	17.8	17.3	18.7	15.7	17.4	18.8					
1321	11.4	12.9	12.7	13.6	12.8	11.2	14.5	12.7	12.0	10.5	13.0	12.9	13.0	10.8	13.0	11.9	13.9			
1325	16.0	16.6	15.0	14.5	14.7	15.0	15.7	14.6	15.8	16.4	14.5									
1328	14.1	15.0	13.4	16.0	15.7	14.6	15.4	13.2	13.7	13.7	15.0	15.1	15.0							
1330	11.4	12.1	11.2	10.0	12.3	11.5	12.1	12.0	10.8	11.4	10.9	10.8	10.7	10.3	11.7	9.8				
1331	11.8	12.1	13.7	12.7	11.1	12.8	11.4	12.5	10.4	9.6	9.0	14.0	10.4	11.2	10.8	11.4				
1334	14.3	16.1	14.6	15.9	15.1	15.7	14.8	14.5	14.9											
1335	14.4	14.2	14.9	15.5	14.9	15.1	14.1	14.1	14.6	14.8	14.6	13.3								
1336	15.7	14.7	16.1	15.9	15.4	15.1	16.0	16.7	15.7	13.6	16.5	15.5	16.0	16.1	16.5					
1338	13.0	14.8	16.9	13.9	15.5	14.2	16.8	15.0	13.6	15.6	12.8	17.0	13.5	13.8	16.1	13.8	14.9			
1340	14.2	14.4	14.6	14.9	14.9	14.5	15.2	14.3	14.7	13.1	14.1	14.0	13.2	13.7						
1341	15.5	15.3	16.4	17.5	16.3	16.0	16.5	13.9	15.5	15.9	14.8	16.7								
1342	15.1	13.2	15.4	13.0	14.4	15.4	14.4	15.5	15.0	13.3	10.8	13.8	13.9	14.1	12.3	13.9				
1344	14.7	13.3	15.5	13.4	14.8	14.1	15.7	14.5	15.0	14.6	16.1	14.3	14.1	11.2	12.5					
1345	15.7	16.1	15.5	15.5	MD 4	MS	12.8	14.4	15.4	16.0	15.0	16.0	15.1	14.4	14.8	FS				
1346	16.5	16.2	18.2	16.6	16.1	16.9	15.8	15.7	17.5	15.7										
1348	12.0	13.5	13.3	13.9	12.8	14.3	MS	13.6	14.1	14.8	13.7	14.2	11.9	12.8	10.2	FS				
1350	12.8	11.3	12.9	10.4	12.0	13.3	13.2	13.8	12.8	11.2	10.1	11.5	12.4	10.3	10.1	10.2	14.0			
1353	13.2	14.8	11.7	13.4	12.6	12.6	11.3	12.4	12.2	13.3	12.4	12.8	12.7	FU						
1355	15.2	13.5	14.1	14.7	13.4	14.8	14.3	14.2	14.6	14.2	11.7	15.8	13.5	12.4	13.4					
1358	NOT PREGNANT; MATING NOT CONFIRMED																			
1359	12.6	12.9	12.4	12.3	11.5	12.6	11.6	12.2	11.9	11.6	11.7	11.7	12.4	FS						

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 12): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP II						1 MG/KG/DAY						POSTPARTUM DAY 8							
1362	18.2	17.6	17.9	16.5	16.1	17.5	17.8													
1363	12.3	12.9	12.9	12.9	12.6	13.6	12.3	14.5	12.9	11.8	11.3	13.1	13.7	8.3	13.9	11.8	FD 4	FS		
1364	13.3	13.6	13.7	14.5	13.6	14.4	11.4	11.4	13.7	11.7	12.9	13.3	12.2	12.6	14.4					
1367	16.6	16.1	15.6	16.5	16.8	15.3	16.3	15.2	15.1	14.9	16.0	15.3	16.0							
1368	14.2	15.5	17.0	15.9	16.2	15.7	15.5	16.1	14.3	15.6	14.9	15.7	14.3	14.1	17.0					
1371	13.9	13.0	10.1	13.1	11.1	10.9	11.3	9.8	12.2	13.0	13.8	10.1	11.5	13.8	12.8	13.7	10.8			
1375	14.1	14.4	15.1	13.0	15.1	15.2	14.6	15.0	14.6	13.8	13.7	14.5	12.1	10.1						
1376	13.6	13.9	12.3	13.1	12.1	13.8	13.0	12.9	11.5	12.7	MS	MS	13.3	12.9	14.0	12.3	12.3			
1378	NOT PREGNANT																			
1379	17.2	16.1	16.3	14.6	15.6	16.1	15.1	15.4	14.8	14.8	14.1	14.8								
1381	16.3	17.0	17.1	15.5	17.4	17.9	15.6	13.1	15.4	15.1	16.7	15.6								
1382	15.4	15.5	15.5	17.1	14.8	14.9	14.3	14.3	13.0	14.9	13.0	13.4	15.2							
1383	16.7	16.0	13.8	15.7	16.4	16.7	14.9	15.6	16.3	17.0	15.1									
1384	18.3	17.5	17.3	18.3	16.1	MM 4	16.8	16.8	16.3	16.7	17.3	16.8	16.3							
1387	13.9	15.0	15.2	15.7	14.9	13.5	15.9	14.2	13.1	15.3	15.4	13.2	14.6	13.5	14.7	13.7	FS			
1389	11.5	8.4	13.1	12.9	12.9	13.9	13.4	MD 7	12.1	11.3	12.6	11.4	12.6	9.9	13.2	10.0				
1392	12.4	11.4	11.7	13.0	11.0	13.8	12.7	11.9	12.8	11.9	10.8	11.3	10.9	12.9	11.0	10.4	10.3			
1393	17.7	17.3	17.9	16.2	16.4	MS	15.4	16.9	17.0	17.1	14.6	15.5								
1397	16.8	18.8	17.9	18.3	18.4	17.0	18.0	15.8	18.0	19.0	17.1	17.1								
1399	17.7	17.4	16.6	17.4	15.4	15.1	15.9	17.4	16.5	17.4										
1401	14.6	16.1	16.3	16.5	16.1	15.9	16.0	16.1	15.1	14.7	17.2	16.3								
1404	13.8	13.0	15.0	12.2	11.7	12.6	12.1	13.8	11.8	13.3	12.0	13.3	12.4	11.3	13.7					
1407	12.6	15.0	14.2	12.1	12.7	11.0	13.2	13.2	12.3	14.2	14.3	11.9	10.5	14.6	13.6					
1409	14.3	14.6	14.1	14.6	13.8	13.7	13.5	13.6	13.5	13.9	15.0	14.1								
1410	14.0	13.9	13.7	14.3	12.2	14.3	15.5	13.1	12.8	13.1	15.1	14.8	14.6	11.8	13.1	14.1	FM 5			
1413	12.6	13.5	12.6	13.1	12.5	12.8	12.2	12.2	12.0	11.6	12.5	12.7	12.2							
1415	12.5	14.0	13.3	13.5	12.9	13.9	12.5	12.9	12.7	12.5	12.0	12.5	12.2							
1416	13.5	12.1	13.0	13.3	12.8	13.1	14.6	13.4	14.4	13.3	12.1	12.3	13.4	12.1						
1418	13.4	13.6	15.0	15.2	15.2	10.9	14.4	14.4	13.3	11.6	8.4	7.5	12.1	9.6	FD 3	FM 3				

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 13): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP III						3 MG/KG/DAY					POSTPARTUM DAY 8								
1421	13.5	13.9	14.2	13.8	14.6	12.7	14.0	13.9	12.7	15.6	14.2	10.7	13.8	13.7	13.4	FD 1	FD 1			
1424	10.5	13.7	11.2	10.5	12.3	12.1	12.8	13.0	14.1	12.0	11.4	10.8	11.0	9.6	11.4	12.9	11.9			
1426	14.5	14.2	12.9	12.8	14.7	14.7	14.1	13.8	13.5	15.2	12.4	11.7	13.7							
1428	14.7	15.2	13.9	15.5	15.6	15.8	14.5	13.5	15.2	12.8	14.4	13.8	14.7	14.3	14.0					
1430	11.8	13.2	12.7	12.3	12.8	11.1	10.2	11.4	12.8	11.0	11.7	10.3	12.1	11.1	12.1	11.2	11.4			
1431	12.1	15.6	14.2	15.0	15.6	15.3	14.2	14.6	16.0	MD 1	14.9	14.6	13.9	15.1	14.3	FM 2				
1433	15.8	13.3	16.8	11.2	11.4	13.5	14.6	15.8	12.0	11.7	17.2	14.7	13.4	10.7	14.6	13.1	13.1	FD 8		
1436	15.8	15.7	16.0	15.5	14.9	13.9	15.6	14.8	14.6	14.1	14.1	14.3								
1437	13.0	14.7	11.7	14.0	10.7	14.2	15.6	13.3	13.8	12.2	13.6	12.7	12.4	13.4	13.2	13.6				
1439	17.7	17.1	16.6	17.7	17.6	17.9	16.4	16.9	16.2	FD 1	FS	FS								
1442	20.7	21.0	19.2	21.3	20.1	19.9	20.0													
1443	15.2	15.1	14.2	15.3	14.4	11.9	14.6	15.3	14.8	13.6	14.4	14.7	14.7	14.5						
1446	NOT PREGNANT																			
1448	15.8	14.2	15.4	15.3	12.9	14.3	MS	MS	11.4	12.8	14.1	15.0	11.6	13.1	13.0	12.8				
1450	13.7	13.1	13.0	10.8	12.5	12.1	12.4	11.0	13.2	13.0	13.3	10.3	14.5	12.3						
1452	13.4	12.4	13.3	10.7	12.6	13.5	14.3	11.7	13.1	11.1	11.7	10.9	12.1	FM 2						
1455	16.6	13.7	16.1	15.0	14.8	MM 6	MD 5	MM 3	13.9	13.9	14.4	14.2	14.5	FM 6	FD 6					
1456	19.8	19.8	19.6	18.2	18.6	17.5														
1458	NOT PREGNANT																			
1459	15.4	17.5	15.9	17.4	16.2	15.9	17.1	16.4	MD 2	16.7	17.6	16.4	15.4	15.6						
1461	15.3	15.8	15.2	13.1	17.4	16.6	14.1	16.0	16.7	15.4	16.6									
1463	13.7	15.5	15.7	15.8	13.9	14.8	12.3	MS	12.8	13.3	13.5	13.5	13.4	13.6	FS					
1465	14.2	16.5	15.2	13.3	14.6	15.2	14.7	16.0	15.1	12.1	13.0	15.8	14.9	14.2	16.3	15.5				
1468	13.7	13.7	12.3	12.3	12.8	12.3	11.9	12.9	12.7	8.3	13.2	12.6	11.8	11.3	12.8	11.0				
1469	12.7	12.8	15.0	14.3	14.0	12.6	12.8	13.6	13.7	13.2	14.4	13.9								
1472	19.0	18.6	18.7	19.2	19.4	17.5	17.7	17.1	16.6	16.6										
1474	14.6	15.3	13.1	13.8	13.8	12.9	14.7	13.0	14.1	12.4	14.2	12.7	14.3	14.4						
1476	10.2	10.7	12.4	12.0	10.7	11.9	11.4	MD 1	10.1	11.4	10.4	9.3	10.2	10.1	8.9	11.1	11.9			
1477	10.8	11.1	10.1	9.6	9.0	9.2	10.6	9.7	9.9	9.4	11.1	10.5	10.3	10.2	9.8	10.8	FD 6			
1480	17.2	16.9	17.2	15.9	15.4	15.9	18.2	16.9	16.2	17.4	15.2	16.8	15.9							

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 14): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP IV							10 MG/KG/DAY						POSTPARTUM DAY 8						
1482	14.5	14.4	14.9	13.9	15.2	12.7	11.5	12.5	13.8	14.6	11.0	13.5	13.5	11.8	FD 1	FS				
1483	NOT PREGNANT																			
1486	16.1	15.8	14.9	14.7	13.1	14.7	12.9	14.5	14.8	14.6	15.3	13.0	14.9	12.4	14.2					
1488	15.5	13.5	15.9	16.1	15.3	15.6	16.4	16.8	14.7	14.2	14.2	14.6	13.7	13.8	14.3					
1490	20.5	20.8	16.4	21.5	19.5	18.4	21.6	16.7	18.5	19.7										
1491	13.5	16.3	12.5	15.0	14.4	11.4	14.8	13.2	9.1	15.7	11.2	13.9	14.0	14.6	UU					
1494	14.2	13.3	14.9	14.2	14.9	13.2	13.5	14.2	MD 1	13.9	11.1	13.4	13.8	12.8						
1496	12.5	11.6	10.7	10.5	12.7	10.5	10.6	11.3	10.2	12.7	11.6	10.5	10.9							
1497	17.8	16.6	17.3	16.9	16.6	17.5	17.6	16.5	16.4	17.6	16.9									
1500	13.7	12.6	11.3	14.1	12.8	12.2	12.6	10.2	12.0	13.5	12.4	11.9	13.0	12.6	FS					
1502	16.9	15.9	16.7	17.1	16.0	16.6	15.0	15.2	14.9	14.6	15.3	16.7	FD 2							
1505	13.0	13.4	11.6	13.3	11.3	11.7	10.6	11.4	11.6	10.6	11.6	12.5	12.3	11.1	13.4	12.4				
1507	10.8	10.7	10.6	10.8	10.8	9.5	10.7	11.5	12.1	10.4	11.2	11.0	9.3	10.5	10.2	10.4				
1508	18.1	11.9	16.6	17.3	15.7	16.5	16.2	13.3	12.1	18.0	14.0	14.4	FD 2							
1511	NOT PREGNANT																			
1513	15.2	14.5	14.1	14.5	15.3	14.4	16.1	13.3	14.7	14.3	14.5	13.6	12.4	MS						
1514	12.2	14.2	13.9	15.2	12.2	11.3	13.3	13.3	14.4	12.1	12.6	14.3	12.1	11.8	8.9	13.4	11.7			
1516	16.9	15.2	14.9	17.5	16.1	17.4	16.4	16.3	15.9	15.5	17.3	13.9	16.0							
1517	14.3	15.0	14.2	15.3	13.2	13.7	13.0	14.7	13.9	14.9	13.7	12.3	12.1	12.3	13.2					
1519	13.1	12.9	13.5	14.5	12.2	12.8	13.0	14.5	13.1	10.3	11.4	10.8	11.1	14.6	13.2	10.7				
1521	14.6	13.8	14.8	13.7	14.8	14.7	14.9	12.3	14.3	14.7	14.7	14.3								
1523	17.1	16.5	16.9	15.9	11.2	17.1	16.2	MD 1	15.3	11.3	16.6	15.6								
1524	21.4	21.6																		
1527	13.7	13.2	12.3	12.5	13.1	12.6	13.8	11.8	14.3	14.2	MM 5	11.7	11.6	12.6	12.0	11.3	13.1			
1528	13.0	13.0	12.7	13.8	12.5	13.0	12.1	12.2	12.5	11.6										
1531	15.7	16.3	15.9	14.9	16.3	16.8	14.3	15.4	MS	14.0	10.1	15.4	15.1	14.8	FS					
1533	10.9	13.2	11.2	14.1	13.0	13.5	13.8	14.1	13.7	13.8	13.9	12.0	13.7	14.3	9.6	11.0	11.7	FM 6	FD 1	
1534	12.4	14.3	14.0	13.8	14.2	14.2	14.4	12.1	13.7	12.6	14.6	11.5								
1537	13.9	15.2	11.3	15.1	14.2	14.3	14.2	14.2	14.1	14.5	10.2	12.4	13.6	12.7	FS					
1539	16.3	14.9	15.8	18.7	15.4	17.5	16.8	16.4	15.2	15.5	16.9	16.1	17.5	15.5						

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 15): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP V						30 MG/KG/DAY						POSTPARTUM DAY 8							
1541	14.0	14.7	14.2	14.6	13.2	12.3	13.4	12.8	13.3	14.2	13.9	13.7	12.7	14.0						
1544	15.7	16.6	16.5	16.0	12.0	17.3	15.8	15.9	14.0	14.9	14.9	14.3	FM 2	FS						
1545	14.6	13.9	15.4	12.0	12.6	11.2	13.7	15.7	15.3	13.2	11.8	13.7	12.5	11.9	8.6	13.6	12.9	13.3	FD 3	
1546	14.8	12.4	13.4	11.9	12.1	13.4	13.8	12.1	12.4	12.3	12.6	13.2	12.9	11.5	11.5					
1548	13.4	13.1	12.1	11.7	12.8	12.2	12.0	12.9	12.6	12.8	12.5	12.7	10.8	FS						
1550	16.8	14.8	14.1	14.1	14.7	13.8	14.3	14.2	14.1	11.9	14.0	14.0								
1552	12.3	12.4	14.2	11.4	12.5	12.3	13.0	13.3	12.0	13.0	12.3	13.2	11.6	12.8						
1555	13.0	12.6	14.6	12.9	11.5	12.1	13.0	12.3	11.1	12.7	11.5	11.6	11.2	12.8	FD 6					
1557	15.8	16.2	15.7	14.9	15.0	15.1	14.7	15.8	15.8	16.0	15.0	15.6	14.3							
1558	13.4	13.9	14.3	13.9	13.5	13.1	13.2	15.3	13.8	14.8	13.8	12.6	13.3	14.9	15.0	13.9				
1560	10.8	11.7	11.6	9.3	10.6	9.6	MD 7	11.1	8.3	8.1	10.4	9.7	10.4	10.8	10.8					
1564	13.7	11.8	12.8	13.8	13.1	12.7	12.5	12.7	10.4	11.8	13.5	12.2	12.8							
1565	15.5	15.1	14.6	16.1	15.4	15.6	12.2	14.8	13.6	14.3	14.2	14.4								
1566	12.3	12.5	12.1	11.6	10.1	10.7	12.6	10.9	12.0	10.4	13.0	11.0	10.3	11.3	12.1					
1568	16.1	14.2	15.8	16.1	14.4	12.3	11.3	15.4	14.6	13.5	15.4	13.4	14.2							
1571	10.4	11.8	10.9	12.0	11.0	11.5	10.9	9.6	9.9	9.6	11.1	10.4	11.0							
1573	13.9	14.5	13.5	14.9	14.8	13.5	14.7	14.0	13.0	14.5	13.6	13.3	14.5	14.3	14.2					
1576	10.8	9.6	10.3	10.6	10.9	11.0	MM 8	MD 7	10.6	11.6	11.2	10.1	10.6							
1578	NOT PREGNANT																			
1579	14.3	13.2	14.6	13.9	14.0	14.7	13.1	14.3	13.9	14.0	14.5	12.6	14.3	14.0	11.2					
1583	16.4	15.1	15.6	14.8	MM 3	13.2	14.9	14.7	14.9	15.0	15.1	14.7								
1584	18.3	18.4	19.0	17.4																
1586	11.8	14.1	13.1	13.1	12.9	13.0	13.9	13.0	12.9	12.9	12.0	12.9	12.6							
1587	15.4	13.0	14.5	15.3	11.3	13.4	13.9	13.9	14.1	14.1	13.8									
1588	13.4	13.9	12.1	13.0	13.1	13.1	13.0	13.2	13.4	14.7	14.1	14.4	12.2							
1589	12.4	11.1	10.8	10.5	11.3	12.3	10.9	10.3	10.3	10.4	12.0	11.6	10.4	10.8						
1591	13.9	15.2	13.7	14.0	14.1	14.5	10.3	13.1	14.0	14.4	14.6	14.2	12.5	14.7						
1593	19.0	18.9	21.4	19.7	19.8	17.5														
1598	12.3	12.7	12.1	10.7	10.2	12.3	10.9	10.9	10.8	10.7	10.3	11.0	11.4	11.5	12.1	9.6	12.2			
1600	12.7	15.4	13.8	14.9	15.3	15.4	15.1	15.4	15.1	12.8	MD 1	13.4	12.0	14.4	14.2					

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 16): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP I						0 MG/KG/DAY					POSTPARTUM DAY 15								
1302	28.1	29.4	28.3	27.4	28.7	26.7	27.5	28.1	27.7	20.9	28.1									
1304	25.6	28.7	28.9	31.2	28.0	29.0	28.7	25.9	24.7	25.7	26.7	26.1								
1306	26.3	25.1	22.3	20.7	24.0	22.7	22.2	22.1	19.7	24.4	23.6	22.8	22.5	19.5	24.0	23.3				
1308	22.9	20.7	23.4	21.7	21.1	22.8	21.6	19.8	23.1	19.1	22.3	22.9	23.7	25.9	25.7	19.8				
1310	28.3	27.3	28.4	25.9	27.2	27.5	28.1	27.9	29.4	25.7	24.4	24.5	26.3	24.0						
1312	38.8	35.0	39.1	39.3																
1313	24.2	24.8	23.3	24.9	25.0	22.7	15.7	20.8	23.3	23.9	23.8	21.8	24.3							
1316	NOT PREGNANT																			
1318	29.1	28.4	26.6	26.0	30.5	29.4	26.7	30.3	MM 2	28.5	28.5	29.4	27.6	26.5	28.6					
1321	15.4	19.0	17.8	20.4	20.9	18.6	20.3	MM11	16.4	16.0	15.0	18.1	15.9	16.9	20.7	12.4	FD10			
1325	30.0	27.7	27.2	29.8	28.1	27.9	27.4	29.7	27.4	29.6	27.2									
1328	27.7	31.6	30.2	28.5	27.8	30.0	27.7	26.2	27.6	26.9	29.7	28.5	28.6							
1330	22.5	21.5	22.1	21.3	22.2	20.0	19.8	20.1	20.0	18.3	20.6	19.2	19.9	18.7	17.0	17.0				
1331	20.6	24.7	22.0	19.5	23.3	21.5	24.9	20.6	23.4	21.8	20.0	MM12	20.5	19.0	20.0	20.4				
1334	28.4	28.1	29.1	28.3	27.4	29.1	28.8	27.9	27.8											
1335	25.1	27.0	23.1	25.9	25.3	26.2	25.1	24.4	24.2	26.5	24.6	25.3								
1336	21.8	24.4	25.2	23.7	25.7	27.1	25.5	23.6	27.1	28.1	25.8	26.1	24.5	25.4	23.4					
1338	18.4	22.9	18.4	21.4	18.8	18.2	18.8	24.7	18.8	20.5	20.2	15.3	15.6	18.7	15.8	18.4	16.2			
1340	27.2	27.2	27.3	26.5	29.4	27.9	25.2	25.3	23.7	27.2	24.6	24.4	26.6	24.0						
1341	27.9	29.1	28.9	28.8	28.9	28.2	25.2	30.0	26.5	26.6	28.3	27.1								
1342	25.2	25.7	22.4	25.7	21.5	19.7	22.7	25.3	24.2	20.7	16.4	20.2	20.2	19.4	20.0	21.6				
1344	29.1	27.0	25.6	24.1	25.5	21.2	22.9	23.1	23.9	25.1	28.0	24.5	21.6	24.5	24.0					
1345	29.5	30.6	28.5	28.9	MD 4	MS	30.4	28.4	28.7	28.5	27.1	29.8	25.5	27.6	28.6	FS				
1346	30.5	32.7	32.7	30.5	33.9	30.5	30.2	30.0	30.4	32.7										
1348	27.7	27.3	26.9	27.2	25.9	26.5	MS	25.8	24.0	26.1	25.5	25.3	20.5	26.9	28.0	FS				
1350	20.2	24.5	18.4	22.7	22.4	22.9	19.4	21.5	20.4	24.6	23.8	16.4	20.3	19.3	17.1	18.6	23.3			
1353	23.1	24.2	25.6	23.6	24.0	25.6	25.1	23.5	23.8	22.8	24.5	22.8	23.2	FU						
1355	26.5	25.4	25.9	28.2	26.7	26.2	26.3	26.4	27.0	24.8	28.4	23.0	22.4	26.5	22.8					
1358	NOT PREGNANT; MATING NOT CONFIRMED																			
1359	25.0	25.8	25.9	24.8	24.4	24.3	24.0	23.3	24.9	23.7	23.9	25.0	22.5	FS						

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 17): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP II						1 MG/KG/DAY						POSTPARTUM DAY 15							
1362	34.2	34.2	33.0	33.6	33.9	31.1	33.4													
1363	21.8	21.6	21.6	20.2	22.1	22.1	23.5	20.9	22.3	22.8	19.7	21.5	18.8	24.8	14.3	21.0	FD 4	FS		
1364	23.5	24.1	22.8	23.2	22.1	21.4	23.8	22.1	22.5	22.4	19.6	23.2	20.8	23.2	18.0					
1367	30.9	28.3	30.8	29.5	29.2	26.5	27.8	27.5	27.7	28.5	28.2	24.3	28.4							
1368	23.6	25.8	23.9	24.2	23.5	26.6	25.1	26.3	23.2	21.8	23.8	22.8	23.9	26.6	25.6					
1371	20.1	22.2	21.5	17.1	24.0	21.1	23.8	21.9	23.1	21.9	18.1	26.1	22.8	18.3	22.8	22.3	FD 9			
1375	26.0	26.6	25.7	26.6	26.5	26.7	27.2	23.6	25.9	24.4	13.9	25.3	23.5	23.7						
1376	21.7	21.3	22.6	23.5	20.4	22.9	22.1	21.8	22.9	24.7	MS	MS	20.6	22.1	24.4	22.1	22.0			
1378	NOT PREGNANT																			
1379	26.1	28.7	29.1	31.0	28.6	30.0	27.2	26.4	26.3	28.1	27.7	27.3								
1381	29.2	28.5	30.2	28.5	28.3	31.0	27.4	27.4	30.6	27.0	26.4	23.5								
1382	30.4	31.6	33.0	30.7	29.3	28.5	26.7	31.6	27.7	27.7	30.3	26.9	28.9							
1383	30.3	29.8	31.1	27.8	30.5	30.0	28.2	28.2	29.6	30.8	32.3									
1384	27.5	28.8	27.9	29.8	27.5	MM 4	27.3	28.3	27.0	26.4	28.4	27.9	27.7							
1387	25.2	19.3	23.7	24.7	25.1	26.5	23.4	24.7	26.9	24.7	25.6	24.1	26.6	24.8	23.0	24.1	FS			
1389	17.7	24.6	24.5	19.7	24.0	25.6	24.9	MD 7	21.6	19.1	20.8	22.5	23.6	21.8	21.5	19.8				
1392	26.8	25.5	19.2	23.6	19.8	22.4	22.8	23.4	21.9	25.9	22.6	22.1	23.6	23.3	18.1	19.0	18.9			
1393	32.2	33.6	32.2	32.2	31.7	MS	29.8	29.3	32.9	30.3	32.7	31.5								
1397	26.8	27.3	25.7	28.1	26.7	26.4	25.9	25.0	25.2	28.0	26.1	25.5								
1399	28.8	25.9	28.4	28.6	26.7	26.6	27.0	27.7	25.6	23.6										
1401	23.9	24.2	24.3	25.1	26.1	24.8	23.6	23.3	24.3	24.6	24.5	25.1								
1404	23.6	23.3	20.1	24.0	24.8	23.5	21.4	23.9	24.5	25.0	24.2	25.2	21.6	18.1	20.2					
1407	23.9	23.1	21.0	18.0	21.3	22.4	20.5	23.2	19.9	18.5	22.8	19.5	21.6	23.2	24.5					
1409	28.1	28.7	27.0	26.2	29.4	26.7	27.6	27.2	27.6	26.5	27.4	26.1								
1410	24.0	23.3	24.3	24.6	24.4	24.4	27.2	24.1	25.1	23.0	23.1	24.7	23.1	23.1	21.2	21.7	FM 5			
1413	26.7	26.1	26.0	27.4	23.6	28.1	24.9	25.8	24.1	26.7	25.9	25.7	26.0							
1415	21.4	21.7	23.5	22.7	23.6	22.9	22.5	22.1	20.3	21.4	21.9	21.2	21.6							
1416	21.0	23.7	21.1	23.4	22.4	21.2	22.0	21.3	21.4	21.7	20.0	21.3	22.9	23.3						
1418	24.3	24.4	19.9	24.4	23.5	23.0	24.3	18.1	16.2	23.6	15.5	24.2	22.3	FM14	FD 3	FM 3				

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 18): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP III						3 MG/KG/DAY					POSTPARTUM DAY 15								
1421	24.3	23.9	26.1	26.1	25.4	24.9	23.5	23.3	24.4	22.8	25.5	24.6	21.9	19.7	21.1	FD 1	FD 1			
1424	23.3	17.1	18.8	22.4	20.2	20.4	20.3	20.5	16.9	19.4	20.2	19.3	19.4	20.9	19.8	16.0	19.0			
1426	28.5	27.1	27.7	27.7	27.2	28.6	25.8	24.6	27.4	26.3	26.4	23.8	25.1							
1428	23.6	26.5	24.2	25.0	25.4	23.0	22.5	24.4	23.9	23.6	22.4	21.6	18.9	24.4	20.6					
1430	24.0	22.8	21.0	20.7	18.9	23.1	20.4	20.9	20.4	19.8	19.7	15.7	18.0	18.9	20.0	22.1	21.3			
1431	28.0	29.0	28.4	26.8	29.2	22.5	24.4	25.1	28.5	MD 1	24.9	27.3	25.5	26.5	26.6	FM 2				
1433	23.1	25.7	25.1	19.0	26.0	18.7	26.3	24.2	24.5	21.4	18.3	25.1	21.3	28.2	24.5	24.8	26.9	FD 8		
1436	26.8	26.0	28.6	26.2	27.8	29.6	28.8	27.5	25.3	27.4	26.4	24.6								
1437	27.7	23.6	24.0	19.3	24.1	24.7	25.0	19.9	25.0	20.1	22.1	21.0	21.1	19.9	22.8	23.8				
1439	34.2	32.8	33.4	30.8	33.4	31.1	31.3	29.6	28.9	FD 1	FS	FS								
1442	39.5	35.5	36.9	37.8	37.2	37.2	36.0													
1443	28.1	27.1	23.1	28.9	25.9	27.8	26.6	25.1	26.2	26.7	26.6	25.4	26.8	25.6						
1446	NOT PREGNANT																			
1448	27.9	27.2	24.5	23.0	26.3	26.5	MS	MS	24.8	25.1	23.6	21.1	24.6	20.8	26.8	22.3				
1450	25.2	26.2	25.1	19.9	22.5	19.4	23.5	25.6	25.5	22.9	25.5	20.7	24.8	24.6						
1452	20.3	22.4	22.3	23.8	21.6	22.7	21.8	23.4	21.0	21.5	22.4	20.4	20.5	FM 2						
1455	35.1	30.4	32.8	32.5	30.3	MM 6	MD 5	MM 3	30.0	29.1	29.8	27.8	30.8	FM 6	FD 6					
1456	37.3	34.2	39.2	36.3	37.5	35.8														
1458	NOT PREGNANT																			
1459	27.6	26.6	26.8	24.2	27.2	25.3	23.6	25.8	MD 2	26.0	25.4	25.4	24.5	26.7						
1461	28.0	30.1	25.8	29.8	27.8	30.7	28.8	30.1	31.0	30.6	32.1									
1463	25.5	25.2	22.6	26.6	25.1	26.3	23.7	MS	24.7	23.6	23.3	24.8	22.9	24.7	FS					
1465	29.6	24.6	25.0	22.6	27.1	24.6	27.1	27.3	26.0	23.8	23.4	27.4	22.4	23.9	18.8	23.0				
1468	22.9	16.0	22.1	18.9	20.5	21.5	14.9	21.9	22.6	22.2	20.2	25.2	17.0	23.1	18.6	22.2				
1469	26.4	27.4	29.2	28.1	27.9	27.2	27.2	27.6	26.9	27.5	25.8	28.0								
1472	29.6	28.0	29.7	29.0	27.8	27.3	27.4	27.0	27.0	25.5										
1474	24.5	26.0	24.0	24.0	25.4	24.3	23.9	25.5	23.7	27.5	24.4	23.7	25.1	25.8						
1476	24.4	24.5	25.1	22.5	19.4	27.5	20.7	MD 1	27.1	22.8	21.7	22.4	24.5	25.6	21.3	21.9	22.0			
1477	21.5	21.8	14.6	17.4	23.0	19.8	17.2	14.7	21.0	20.8	20.5	22.8	20.5	23.3	17.9	20.4	FD 6			
1480	27.2	28.2	29.1	31.7	27.8	28.0	28.0	26.0	30.1	30.6	29.4	24.8	27.6							

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 19): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP IV								10 MG/KG/DAY						POSTPARTUM DAY 15					
1482	22.4	22.3	25.5	23.5	24.8	23.4	23.7	21.9	20.4	18.3	20.8	21.8	22.5	21.7	FD 1	FS				
1483	NOT PREGNANT																			
1486	24.7	23.3	25.0	29.0	24.3	28.0	22.3	26.6	28.4	22.1	25.5	27.6	24.9	23.3	27.7					
1488	26.9	25.6	27.3	27.7	29.9	25.9	25.7	26.3	25.3	24.2	22.4	24.9	23.7	24.5	25.2					
1490	32.8	28.2	31.1	33.8	30.5	28.7	32.3	30.3	26.6	29.2										
1491	30.4	24.4	27.9	26.4	25.0	25.5	27.7	24.3	28.0	28.3	24.1	25.0	29.4	19.3	UU					
1494	26.3	25.1	25.6	24.9	24.0	23.4	24.2	24.2	MD 1	23.6	25.5	24.0	24.1	20.7						
1496	17.3	22.1	20.7	25.0	22.3	21.8	25.3	24.7	21.5	22.4	20.2	22.7	20.3							
1497	32.6	29.7	29.2	29.4	31.7	30.8	30.4	28.6	28.5	32.8	29.4									
1500	24.8	23.4	28.1	24.3	26.5	25.1	24.5	24.2	21.0	24.0	23.5	24.7	25.0	23.9	FS					
1502	30.9	31.0	32.9	29.7	27.9	29.5	27.9	27.1	28.9	29.5	27.4	29.0	FD 2							
1505	19.5	21.7	18.6	13.3	21.4	19.0	22.1	14.9	19.9	20.3	19.4	21.2	20.1	22.0	17.7	19.5				
1507	21.5	24.3	22.6	22.0	23.7	23.9	20.1	23.0	22.5	20.7	21.0	22.8	21.9	19.4	21.0	21.0				
1508	30.1	25.2	30.8	31.4	28.2	25.5	28.8	29.2	26.8	27.1	25.1	30.6	FD 2							
1511	NOT PREGNANT																			
1513	24.9	24.1	24.1	25.6	21.1	21.9	24.2	21.1	26.1	21.7	23.6	21.7	22.4	MS						
1514	22.1	21.1	21.0	19.6	19.6	23.4	17.7	20.3	21.7	16.2	20.7	18.2	20.6	19.4	19.2	21.5	FD12			
1516	26.3	28.5	29.7	28.9	28.8	31.5	27.9	27.9	28.3	24.9	28.3	29.3	26.1							
1517	26.6	28.0	26.6	25.4	25.3	28.6	25.6	28.6	26.7	24.2	26.4	24.1	26.8	26.8	25.6					
1519	23.3	22.1	24.4	22.9	21.3	23.5	23.4	24.1	24.4	19.7	10.5	19.6	19.0	22.0	20.8	22.1				
1521	25.3	23.7	24.9	23.9	27.8	24.9	22.7	23.2	23.3	22.6	23.3	24.0								
1523	31.1	32.6	30.3	22.8	30.4	31.4	32.0	MD 1	22.3	27.7	27.6	30.5								
1524	31.3	35.9																		
1527	18.7	20.2	20.3	18.4	17.5	19.9	17.8	18.7	18.5	17.4	MM 5	19.5	17.1	16.4	16.6	16.6	14.7			
1528	28.1	29.8	24.3	27.0	22.3	27.2	24.6	20.9	26.5	25.2										
1531	23.7	28.4	20.5	23.1	25.1	26.8	27.6	20.2	MS	28.2	24.4	22.3	13.4	26.2	FS					
1533	20.2	24.9	21.5	21.8	21.4	16.9	23.0	18.4	23.6	24.8	22.4	17.6	24.0	23.0	22.6	20.3	21.2	FM 6	FD 1	
1534	22.5	21.5	23.4	22.1	22.6	22.8	24.1	21.7	21.4	20.6	23.2	22.4								
1537	23.9	23.3	22.5	22.8	22.6	23.6	24.1	17.5	21.9	23.5	21.8	22.3	17.1	21.4	FS					
1539	25.9	26.2	26.8	24.4	25.6	25.2	24.8	24.4	25.1	26.4	25.0	25.3	23.8	23.5						

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 20): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP V						30 MG/KG/DAY							POSTPARTUM DAY 15						
1541	26.0	25.1	24.5	24.8	24.6	23.4	23.7	24.2	22.7	22.7	24.4	22.0	25.3	25.4						
1544	31.2	31.8	30.1	25.4	31.1	32.4	31.9	29.1	31.5	30.1	29.0	26.5	FM 2	FS						
1545	22.8	17.5	23.0	24.0	23.7	22.9	19.6	17.8	25.2	21.3	22.2	22.2	20.9	9.0	23.8	18.4	23.0	18.6	FD 3	
1546	19.8	18.5	16.7	18.0	18.9	18.8	19.5	19.6	18.2	17.0	16.9	19.2	17.2	18.0	18.3					
1548	25.6	25.1	24.2	22.4	19.6	25.9	23.4	24.5	23.8	23.0	24.8	24.9	24.9	FS						
1550	23.9	25.9	23.7	23.9	22.7	22.8	23.1	22.3	19.8	22.0	23.1	23.0								
1552	20.9	20.1	24.2	21.6	18.9	21.9	20.4	21.0	20.4	20.3	22.0	20.0	21.4	22.4						
1555	22.0	21.4	21.2	22.9	21.2	22.7	20.5	20.1	20.2	19.4	20.0	21.7	19.5	20.3	FD 6					
1557	27.5	27.2	27.3	27.6	27.1	27.9	28.2	25.9	27.9	26.6	27.5	27.6	26.6							
1558	22.7	23.1	24.2	22.9	22.3	22.5	24.4	26.1	22.1	22.5	19.1	24.3	23.4	20.1	25.9	24.4				
1560	19.6	21.1	18.5	21.2	21.9	19.5	MD 7	13.9	19.3	16.4	20.2	17.2	20.7	20.2	16.9					
1564	22.9	23.4	23.0	22.7	23.4	21.8	21.7	22.3	22.2	21.2	22.0	20.1	21.7							
1565	23.3	24.9	25.6	23.7	25.2	25.2	24.0	22.7	23.6	22.8	21.3	23.7								
1566	22.8	20.6	17.8	20.4	17.2	21.2	19.8	17.5	15.8	19.1	19.0	21.0	20.2	20.7	19.8					
1568	27.5	27.6	24.6	27.4	26.1	22.5	24.2	27.6	24.5	26.5	26.3	25.2	24.0							
1571	21.9	20.3	19.6	22.3	21.7	21.9	18.2	21.6	19.5	18.7	22.0	18.5	20.1							
1573	22.8	24.7	23.7	22.5	26.2	24.4	25.5	24.5	22.1	23.7	24.5	23.2	22.9	21.7	24.4					
1576	21.0	20.7	20.4	18.5	20.1	21.2	MM 8	MD 7	21.1	20.1	20.6	20.8	19.8							
1578	NOT PREGNANT																			
1579	21.5	22.6	20.6	22.8	21.5	19.2	22.0	23.6	22.7	21.5	20.5	19.8	22.4	20.8	18.5					
1583	25.8	26.1	23.8	25.1	MM 3	24.6	25.0	24.3	21.4	25.3	24.6	25.5								
1584	37.1	35.5	33.9	32.0																
1586	22.7	22.8	20.7	19.1	21.1	21.1	21.7	21.4	20.8	18.2	20.3	20.7	21.1							
1587	22.6	23.5	25.0	26.3	21.2	22.9	23.1	19.9	23.1	23.2	23.6									
1588	23.0	24.3	24.8	23.3	23.2	24.7	24.7	25.0	24.1	23.1	25.7	24.3	24.4							
1589	22.4	20.6	22.0	21.5	20.8	18.9	23.1	20.8	20.1	20.0	19.9	21.4	21.3	18.7						
1591	23.4	24.2	18.1	21.9	21.7	21.4	23.2	23.0	22.4	21.9	22.7	20.6	22.0	22.5						
1593	29.7	30.5	28.9	33.3	32.7	30.2														
1598	21.2	20.8	17.8	20.4	20.6	19.4	18.3	17.9	19.4	18.8	20.5	19.7	17.3	17.5	19.3	16.0	18.5			
1600	23.7	24.1	24.8	23.4	22.6	23.5	24.9	23.6	22.6	21.1	MD 1	23.2	19.2	22.5	22.4					

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 21): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP I						0 MG/KG/DAY					POSTPARTUM DAY 22								
1302	45.1	46.2	48.1	47.4	50.4	47.2	47.4	44.1	44.0	46.9	34.8									
1304	45.5	43.9	52.5	46.4	44.2	41.0	40.1	39.8	47.2	44.3	43.2	45.1								
1306	42.0	35.9	30.7	40.3	31.9	33.0	28.8	31.4	34.3	34.0	30.9	37.1	33.1	37.7	30.4	34.3				
1308	28.7	27.7	26.7	28.5	28.7	25.6	27.3	28.4	24.4	31.1	32.3	28.6	31.5	26.7	26.0	28.4				
1310	45.5	47.7	43.6	41.7	44.7	42.6	43.3	46.0	46.0	44.9	41.4	41.2	35.1	37.6						
1312	54.7	51.3	53.2	53.4																
1313	39.4	40.3	41.5	41.3	41.0	36.9	36.5	39.1	38.0	38.4	39.0	41.2	FD17							
1316	NOT PREGNANT																			
1318	51.8	46.9	44.4	48.2	52.6	49.0	45.4	47.8	MM 2	46.2	49.1	48.4	48.5	48.1	48.2					
1321	33.4	34.9	30.1	33.3	31.5	31.3	24.1	MM11	30.1	31.8	27.0	28.3	26.4	27.6	28.1	20.1	FD10			
1325	35.8	37.2	38.6	36.0	34.7	35.2	38.1	35.5	38.2	36.1	34.3									
1328	50.0	46.5	43.2	49.4	53.2	52.8	47.5	41.8	47.0	46.7	47.7	44.7	44.8							
1330	28.9	26.6	29.5	32.3	23.7	28.8	25.7	24.3	23.4	26.9	24.0	22.5	23.5	21.9	24.5	19.5				
1331	28.7	35.8	26.9	33.8	27.6	31.1	32.6	27.5	31.1	28.5	34.8	MM12	26.8	28.9	28.9	27.2				
1334	39.1	38.3	39.1	36.2	38.9	40.4	38.7	38.8	37.4											
1335	44.9	41.0	36.9	42.4	42.4	41.8	38.1	44.2	38.7	40.0	37.4	41.1								
1336	40.8	41.1	41.9	45.0	34.1	40.3	42.9	41.8	37.8	43.4	42.7	41.7	36.9	43.1	42.4					
1338	35.6	29.9	26.2	34.2	19.9	29.1	29.5	27.4	20.2	30.0	29.0	32.8	30.9	27.2	29.2	23.9	FD16			
1340	41.2	37.5	44.9	39.7	45.0	44.4	45.1	42.4	43.4	43.3	40.3	37.0	39.6	40.2						
1341	50.4	46.4	45.8	47.7	45.0	46.3	45.4	47.5	42.6	44.7	45.8	46.0								
1342	41.0	41.7	38.4	39.9	37.3	40.1	41.6	33.1	30.8	33.7	36.2	35.9	33.5	25.8	34.0	36.3				
1344	49.9	44.3	45.3	41.2	37.9	41.9	46.1	44.8	38.9	40.8	38.6	42.8	45.7	46.3	41.7					
1345	39.9	39.7	41.7	38.8	MD 4	MS	37.2	40.4	40.9	42.5	37.2	40.9	39.0	41.3	35.4	FS				
1346	43.5	40.8	43.3	43.5	41.7	40.7	43.5	39.8	40.1	39.5										
1348	34.7	39.6	37.4	32.9	39.2	37.2	MS	37.4	38.2	35.8	38.0	38.1	35.5	30.0	34.8	FS				
1350	25.6	22.6	29.5	29.0	24.3	27.4	27.3	21.1	26.2	27.3	23.4	25.3	26.3	23.8	20.9	23.0	29.1			
1353	43.4	44.9	39.1	38.9	41.0	41.4	43.0	40.1	42.3	37.3	39.2	41.2	40.2	FU						
1355	38.7	42.2	43.9	40.4	41.7	37.0	41.7	41.2	36.5	43.6	40.3	39.9	38.2	39.2	38.4					
1358	NOT PREGNANT; MATING NOT CONFIRMED																			
1359	43.1	43.2	38.4	43.4	41.5	38.5	40.0	37.7	38.1	42.3	38.9	41.6	40.2	FS						

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 22): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP II						1 MG/KG/DAY					POSTPARTUM DAY 22								
1362	42.5	42.4	43.3	42.6	43.6	43.8	39.6													
1363	31.4	36.0	31.0	34.4	27.1	34.1	33.6	34.0	35.7	37.7	28.1	33.6	35.2	34.9	27.5	22.1	FD 4	FS		
1364	32.3	32.3	32.7	40.8	28.1	31.5	32.5	32.0	33.2	31.2	32.7	27.6	25.1	32.2	30.8					
1367	38.9	39.5	39.5	40.0	36.4	37.1	33.5	33.9	36.3	36.5	32.8	37.5	35.7							
1368	45.5	38.3	40.1	44.2	45.2	37.2	42.7	44.3	41.0	36.4	40.7	39.3	38.8	39.1	36.0					
1371	41.9	31.3	35.9	36.0	39.8	29.5	31.9	35.2	28.4	34.7	26.2	33.9	29.9	38.3	39.3	39.5	FD 9			
1375	35.4	34.5	36.3	34.9	33.5	35.0	34.3	32.0	35.0	31.1	30.4	29.3	31.2	FD17						
1376	36.8	37.6	42.0	32.3	37.7	36.3	37.7	34.5	37.9	34.1	MS	MS	38.1	40.2	28.6	36.7	36.2			
1378	NOT PREGNANT																			
1379	34.6	39.4	39.7	40.1	39.1	39.7	34.5	37.6	34.4	36.0	37.8	36.0								
1381	48.6	49.1	49.7	54.7	53.9	49.5	52.3	46.7	47.4	42.7	50.1	44.4								
1382	36.3	39.1	38.1	37.8	40.1	38.5	36.6	33.4	35.3	33.3	33.4	35.7	34.7							
1383	48.8	47.9	43.2	46.3	48.1	46.4	49.5	46.5	45.0	49.9	44.7									
1384	43.0	44.8	41.4	43.3	36.7	MM 4	41.7	41.6	40.6	43.2	39.6	42.4	41.7							
1387	33.6	32.4	35.4	34.7	35.9	37.5	40.9	38.9	34.8	36.4	32.9	34.2	38.4	36.6	43.1	33.3	FS			
1389	38.9	32.0	41.4	36.7	40.2	40.6	27.8	MD 7	34.7	35.0	35.0	39.9	25.8	36.9	39.3	31.1				
1392	28.6	33.1	30.9	24.9	28.3	29.8	28.6	35.4	31.9	32.4	30.5	27.6	30.9	31.9	25.7	25.1	24.9			
1393	43.3	43.9	45.8	45.5	43.6	MS	41.5	44.3	40.5	45.1	41.5	45.1								
1397	50.7	48.4	48.8	46.1	49.8	50.1	52.4	44.9	45.3	52.8	46.8	45.7								
1399	49.6	50.3	49.3	40.4	46.4	48.4	45.6	48.5	39.1	42.1										
1401	45.8	42.8	42.3	45.5	45.0	45.0	41.9	35.2	39.4	44.9	39.6	44.5								
1404	39.5	34.2	38.2	39.2	32.1	40.2	38.6	37.2	35.7	37.3	28.7	35.9	37.9	32.7	31.6					
1407	29.3	38.0	34.4	35.6	31.1	39.6	33.3	36.3	31.8	42.4	31.6	37.6	36.7	38.1	31.2					
1409	46.7	48.3	50.2	48.0	46.0	45.0	48.2	43.4	44.6	48.0	44.6	45.6								
1410	40.3	42.4	40.3	40.1	38.2	40.6	40.8	45.1	32.7	36.3	35.0	42.0	40.2	37.9	33.5	37.2	FM 5			
1413	47.2	42.3	42.6	45.4	48.3	41.9	48.8	42.9	45.0	41.9	44.4	42.9	44.4							
1415	39.1	36.2	41.1	34.5	38.7	36.4	38.3	36.2	37.6	35.7	36.9	35.4	37.7							
1416	39.2	34.9	31.7	36.9	36.8	33.3	32.9	34.7	35.4	34.1	35.2	38.1	38.0	33.9						
1418	37.6	38.8	36.6	30.8	37.9	35.6	37.0	38.1	35.5	37.7	27.8	26.2	26.8	FM14	FD 3	FM 3				

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
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TABLE E40 (PAGE 23): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP III						3 MG/KG/DAY					POSTPARTUM DAY 22								
1421	34.3	33.3	30.2	32.5	33.3	31.5	27.9	30.0	28.8	33.9	33.6	27.9	34.0	25.5	28.8	FD 1	FD 1			
1424	28.8	26.1	27.9	32.2	25.5	28.3	30.1	27.0	21.8	24.4	28.1	28.6	27.3	27.1	28.6	28.2	25.6			
1426	36.0	33.1	36.6	36.4	35.3	36.6	35.8	34.9	31.2	32.9	34.1	34.2	35.7							
1428	37.2	40.9	40.9	40.1	37.4	41.0	34.3	37.7	41.5	34.1	40.9	36.8	39.4	35.5	34.6					
1430	37.6	34.4	32.6	29.0	26.3	37.4	31.4	33.8	31.3	30.7	24.2	24.7	32.2	33.8	30.2	31.3	28.4			
1431	45.1	40.3	37.5	40.6	43.6	45.9	48.1	42.6	46.2	MD 1	43.8	40.3	40.9	44.2	45.9	FM 2				
1433	42.4	39.6	41.2	37.2	30.0	34.8	40.6	38.3	36.2	31.0	35.0	38.8	39.2	41.9	32.1	41.4	43.6	FD 8		
1436	37.7	39.5	37.4	37.9	35.9	40.5	35.0	38.6	37.0	35.3	35.6	35.5								
1437	40.5	41.5	34.0	39.4	42.4	39.2	41.9	38.6	34.8	39.1	37.6	36.8	34.7	37.5	34.1	38.0				
1439	54.6	54.5	52.4	51.3	58.9	53.3	50.7	53.2	48.3	FD 1	FS	FS								
1442	53.5	52.8	52.8	48.7	50.8	53.9	54.6													
1443	41.0	43.7	41.8	39.7	40.2	34.7	43.5	37.6	41.4	39.2	40.9	37.0	38.5	43.0						
1446	NOT PREGNANT																			
1448	43.9	43.6	39.3	41.2	45.4	40.3	MS	MS	37.7	40.2	35.5	36.3	43.1	32.2	36.5	41.3				
1450	31.6	27.7	32.3	34.2	30.8	31.4	27.8	28.8	26.2	30.5	32.1	31.5	29.5	28.5						
1452	34.7	35.4	35.9	34.9	34.9	31.2	33.7	32.3	33.0	31.6	32.0	36.3	31.5	FM 2						
1455	48.7	50.8	46.8	53.1	45.4	MM 6	MD 5	MM 3	41.9	46.9	45.5	47.6	43.5	FM 6	FD 6					
1456	52.1	50.0	50.2	48.1	51.0	47.8														
1458	NOT PREGNANT																			
1459	42.0	44.5	47.0	44.8	43.3	43.4	46.8	46.6	MD 2	48.7	44.3	44.1	42.3	42.7						
1461	50.3	44.7	51.1	50.2	47.9	51.0	52.4	45.5	50.1	50.7	51.9									
1463	37.2	38.8	36.2	41.1	39.5	35.3	33.1	MS	37.2	37.8	39.0	41.2	36.2	35.0	FS					
1465	38.5	47.9	41.4	49.8	43.3	41.2	44.1	43.9	45.9	41.9	32.5	38.8	38.9	37.3	41.1	43.6				
1468	33.8	35.8	26.2	30.2	36.0	31.0	35.5	36.2	34.3	35.3	32.6	34.3	26.3	29.8	21.4	31.3				
1469	37.6	36.3	39.5	35.0	33.9	35.1	36.2	35.5	35.7	35.9	35.6	33.8								
1472	50.3	49.5	51.1	49.5	49.2	48.6	47.6	41.3	44.7	50.3										
1474	38.4	43.3	42.1	41.6	37.8	41.0	42.3	39.4	42.4	40.8	41.9	39.9	38.8	38.8						
1476	41.3	39.8	38.5	28.8	40.4	35.1	31.6	MD 1	40.2	39.6	33.3	34.5	33.5	36.9	37.7	32.2	31.0			
1477	37.4	36.6	26.8	19.5	27.1	35.9	34.5	21.3	32.6	39.7	38.1	33.4	39.6	33.5	26.2	34.3	FD 6			
1480	45.0	46.5	46.9	43.9	43.0	41.8	47.1	41.8	44.7	45.8	46.7	47.1	44.1							

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 24): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP IV						10 MG/KG/DAY								POSTPARTUM DAY 22					
1482	38.1	33.8	38.4	43.5	39.1	34.3	33.5	37.3	33.7	34.0	35.8	33.6	34.4	33.4	FD 1	FS				
1483	NOT PREGNANT																			
1486	37.1	31.1	35.8	32.1	36.5	31.6	32.6	32.7	28.2	31.5	37.2	36.9	34.3	34.0	32.6					
1488	37.4	41.7	40.1	39.7	38.4	38.8	39.9	39.1	35.7	37.1	36.8	38.0	34.6	37.0	33.8					
1490	48.3	52.3	49.3	52.7	55.9	51.9	55.1	52.7	50.0	45.3										
1491	36.3	36.3	31.3	32.4	30.2	35.0	36.2	30.1	29.7	29.4	29.9	36.2	36.1	24.8	UU					
1494	45.4	40.1	46.5	45.6	39.5	42.2	44.4	42.6	MD 1	39.6	44.0	45.0	29.0	43.1						
1496	38.8	42.1	31.4	35.3	44.4	36.1	35.9	37.4	34.5	38.5	41.6	39.1	35.2							
1497	43.0	55.2	54.0	57.5	50.7	49.5	49.0	54.6	43.1	47.0	44.4									
1500	32.7	40.5	40.4	45.7	38.2	43.1	40.8	40.8	38.7	42.8	40.8	39.2	38.9	42.0	FS					
1502	50.2	47.1	49.3	44.9	47.6	45.5	49.0	44.2	45.6	46.0	44.8	44.3	FD 2							
1505	28.3	34.2	30.8	19.7	29.1	32.6	30.4	31.9	31.8	25.4	34.2	29.8	26.5	31.2	31.1	21.9				
1507	35.4	37.7	30.9	36.2	34.5	33.8	33.1	30.2	30.8	30.4	32.3	29.7	33.2	32.6	30.2	31.7				
1508	39.5	42.9	40.5	40.4	43.0	38.7	39.6	38.2	41.5	40.2	39.3	38.4	FD 2							
1511	NOT PREGNANT																			
1513	34.5	39.2	40.0	37.4	39.6	36.0	37.9	38.6	41.7	34.8	38.1	36.1	37.3	MS						
1514	34.9	35.4	34.3	37.8	27.5	32.6	30.6	32.0	27.0	29.8	33.5	34.0	34.2	29.2	33.2	23.1	FD12			
1516	43.3	47.3	44.4	44.5	48.3	46.0	43.4	46.8	51.6	43.7	46.8	41.1	43.7							
1517	36.8	36.9	36.3	34.8	36.6	33.0	32.4	33.6	31.7	33.0	31.8	31.1	32.5	30.7	32.4					
1519	36.3	40.8	37.2	33.5	35.4	36.3	33.6	38.4	38.9	30.3	35.0	29.8	30.6	36.8	30.8	FD18				
1521	43.4	42.2	42.7	47.5	42.0	40.2	44.4	38.7	43.1	44.2	40.8	39.9								
1523	48.2	50.4	50.1	47.7	31.4	48.5	51.1	MD 1	47.0	47.0	34.6	48.6								
1524	58.4	50.5																		
1527	32.6	28.0	25.3	33.3	26.1	32.3	29.5	27.8	26.7	23.4	MM 5	24.8	30.5	23.2	21.6	27.2	25.2			
1528	47.6	42.2	47.3	49.0	37.2	41.1	41.2	43.7	41.5	35.6										
1531	41.6	46.2	36.3	41.9	38.1	34.5	46.6	34.5	MS	43.9	40.5	42.6	21.9	38.3	FS					
1533	36.6	42.1	38.2	26.6	36.9	31.0	37.3	38.0	40.7	28.9	37.2	31.2	37.4	39.8	36.1	32.9	36.1	FM 6	FD 1	
1534	39.0	37.7	41.4	40.0	42.0	36.1	37.1	36.8	35.4	43.0	39.9	34.3								
1537	37.4	37.3	39.2	33.0	38.4	36.4	24.4	35.5	31.1	36.2	36.8	35.5	36.1	24.5	FS					
1539	41.5	39.9	39.6	39.5	41.5	41.8	42.4	39.6	39.3	43.6	40.6	41.0	37.2	41.1						

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E40 (PAGE 25): PUP BODY WEIGHTS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
RAT/ LITTER #	MATERNAL DOSAGE GROUP V						30 MG/KG/DAY					POSTPARTUM DAY 22								
1541	34.1	33.2	33.8	31.8	33.4	32.0	34.5	33.0	31.6	31.8	33.3	35.1	34.8	33.3						
1544	47.2	44.8	35.6	49.5	45.9	47.1	44.6	44.8	46.6	40.8	47.2	46.0	FM 2	FS						
1545	34.7	39.2	35.5	28.7	45.0	32.5	35.1	27.2	22.4	34.5	32.9	35.3	37.4	29.7	31.3	28.9	30.1	FD16	FD 3	
1546	34.9	30.6	31.8	31.6	35.8	31.0	32.1	27.8	31.9	34.7	28.5	30.8	32.9	29.6	31.0					
1548	33.7	38.4	37.6	38.4	34.7	39.0	38.3	36.3	34.9	38.9	31.1	38.1	37.3	FS						
1550	40.2	40.1	45.5	38.1	41.1	38.3	37.1	39.6	33.0	39.3	38.0	36.1								
1552	33.9	34.0	40.6	33.6	33.4	30.9	31.3	34.6	32.2	33.6	31.9	36.5	33.5	32.1						
1555	27.9	32.8	32.6	29.7	32.8	34.0	30.0	28.6	30.2	29.3	29.1	29.7	25.8	26.0	FD 6					
1557	34.4	34.5	33.0	33.6	32.1	32.9	34.3	34.5	33.6	33.7	31.0	35.2	35.6							
1558	37.1	39.3	35.8	35.0	33.7	35.9	33.8	31.6	31.1	31.3	37.6	37.0	34.1	39.4	28.3	32.3				
1560	33.3	33.0	36.3	29.8	36.3	31.9	MD 7	32.9	32.0	28.5	33.1	36.2	24.8	26.1	25.6					
1564	38.8	35.1	37.4	41.4	39.6	39.9	37.0	31.3	36.6	34.4	35.5	35.8	36.5							
1565	39.7	37.3	39.1	40.5	36.1	40.5	35.9	39.1	35.3	38.2	40.8	39.3								
1566	35.0	40.5	36.4	33.5	26.7	36.6	32.5	30.9	30.9	36.1	34.6	34.5	35.9	36.3	30.2					
1568	43.9	45.3	44.9	37.6	40.6	46.8	45.2	44.7	44.6	47.9	47.1	45.6	42.8							
1571	33.6	31.6	32.5	29.3	30.5	29.8	32.2	29.7	28.7	27.6	27.3	28.5	30.3							
1573	39.4	35.4	38.1	37.9	38.1	37.4	37.1	35.9	35.9	39.4	37.9	34.2	37.2	35.6	38.0					
1576	32.7	32.8	33.4	30.8	32.7	30.5	MM 8	MD 7	33.3	31.7	33.1	34.3	32.0							
1578	NOT PREGNANT																			
1579	36.5	36.1	36.1	36.2	33.1	34.1	27.2	33.6	33.9	36.3	31.6	34.5	32.5	26.9	33.6					
1583	39.0	42.4	38.1	40.7	MM 3	40.4	46.4	41.3	42.1	40.0	41.5	33.9								
1584	60.9	58.7	55.1	50.7																
1586	34.9	39.5	37.2	41.2	37.2	40.3	34.0	37.7	37.6	31.6	38.3	37.4	36.8							
1587	42.3	41.9	46.2	33.6	33.3	37.2	40.5	37.6	37.7	37.0	35.5									
1588	38.9	39.6	39.5	39.2	40.8	37.7	40.2	41.6	39.3	39.7	39.1	38.5	39.3							
1589	26.5	24.8	26.3	23.4	26.7	25.9	28.3	25.9	25.6	28.6	24.5	24.6	24.9	25.0						
1591	36.0	36.8	37.4	39.4	35.9	37.5	36.8	27.8	35.0	32.7	38.7	32.4	35.8	34.9						
1593	51.2	51.9	50.6	52.4	56.3	56.1														
1598	31.2	27.4	23.4	29.3	29.4	25.0	29.3	23.7	26.7	29.0	23.8	29.0	27.5	27.9	22.1	27.7	24.8			
1600	38.7	40.8	40.6	39.9	42.1	37.5	35.7	34.9	33.2	37.6	MD 1	38.2	38.6	36.9	30.3					

ALL WEIGHTS WERE RECORDED IN GRAMS (G). MEAN LITTER WEIGHTS INCLUDE ONLY WEIGHTS OF LIVE PUPS.
FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED)
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E41 (PAGE 1): PUP VITAL STATUS AND SEX FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT/ LITTER #	MATERNAL DOSAGE GROUP I									0 MG/KG/DAY													
1302	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A					
1304	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A			
1306	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A
1308	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A
1310	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A		
1312	M	A	M	A	F	A	F	A															
1313	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	FD17		
1316	NOT PREGNANT																						
1318	M	A	M	A	M	A	M	A	M	A	M	A	M	A	MM	2	F	A	F	A	F	A	F	A	F	A	
1321	M	A	M	A	M	A	M	A	M	A	M	A	MM	11	F	A	F	A	F	A	F	A	F	A	F	A	FD10
1325	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A									
1328	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A					
1330	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	
1331	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	MM	12	F	A	F	A	F	A
1334	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A											
1335	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A							
1336	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	
1338	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	FD16
1340	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A			
1341	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A							
1342	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A
1344	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	
1345	M	A	M	A	M	A	M	A	MD	4	M	S	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	S
1346	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A									
1348	M	A	M	A	M	A	M	A	M	A	M	S	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	S
1350	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A
1353	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	U			
1355	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A			
1358	NOT PREGNANT; MATING NOT CONFIRMED																						
1359	M	A	M	A	M	A	M	A	M	A	F	A	F	A	F	A	F	A	F	A	F	A	F	S			

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, C-CULLED, M-MISSING (PRESUMED CANNIBALIZED), X-OTHER
NUMBER FOLLOWING "SECOND LETTER" INDICATES THE DAY POSTPARTUM THE EVENT OCCURRED.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E41 (PAGE 2): PUP VITAL STATUS AND SEX FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT/ LITTER #	MATERNAL DOSAGE GROUP II										1 MG/KG/DAY												
1362	M A	M A	M A	M A	F A	F A	F A																
1363	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A	FD 4	F S				
1364	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A							
1367	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A										
1368	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A								
1371	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	FD 9							
1375	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	FD17								
1376	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	M S	M S	F A	F A	F A	F A	F A						
1378	NOT PREGNANT																						
1379	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A											
1381	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A											
1382	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A										
1383	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A												
1384	M A	M A	M A	M A	M A	MM 4	F A	F A	F A	F A	F A	F A	F A										
1387	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F S						
1389	M A	M A	M A	M A	M A	M A	M A	MD 7	F A	F A	F A	F A	F A	F A	F A								
1392	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A						
1393	M A	M A	M A	M A	M A	M S	F A	F A	F A	F A	F A	F A											
1397	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A											
1399	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A													
1401	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A											
1404	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A								
1407	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A								
1409	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A											
1410	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	FM 5					
1413	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A									
1415	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A									
1416	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A								
1418	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	FM14	FD 3	FM 3						

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TABLE E41 (PAGE 3): PUP VITAL STATUS AND SEX FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT/ LITTER #	MATERNAL DOSAGE GROUP III									3 MG/KG/DAY													
1421	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A FD 1	FD 1						
1424	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A					
1426	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A									
1428	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A								
1430	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A					
1431	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A MD 1	F A	F A	F A	F A	F A FM 2								
1433	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A FD 8					
1436	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A											
1437	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A								
1439	M A	M A	M A	M A	M A	M A	F A	F A	F A FD 1	F S	F S												
1442	M A	M A	M A	M A	F A	F A	F A																
1443	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A								
1446	NOT PREGNANT																						
1448	M A	M A	M A	M A	M A	M A	M S	M S	F A	F A	F A	F A	F A	F A	F A	F A							
1450	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A								
1452	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A FM 2									
1455	M A	M A	M A	M A	M A	M A MM 6	MD 5	MM 3	F A	F A	F A	F A	F A	F A FM 6	FD 6								
1456	M A	M A	M A	M A	F A	F A																	
1458	NOT PREGNANT																						
1459	M A	M A	M A	M A	M A	M A	M A	M A MD 2	F A	F A	F A	F A	F A										
1461	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A												
1463	M A	M A	M A	M A	M A	M A	M A	M S	F A	F A	F A	F A	F A	F A	F S								
1465	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A							
1468	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A							
1469	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A										
1472	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A													
1474	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A								
1476	M A	M A	M A	M A	M A	M A	M A MD 1	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A						
1477	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A FD 6						
1480	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A									

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TABLE E41 (PAGE 4): PUP VITAL STATUS AND SEX FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT/ LITTER #	MATERNAL DOSAGE GROUP IV									10 MG/KG/DAY													
1482	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	FD 1	F S						
1483	NOT PREGNANT																						
1486	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A								
1488	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A								
1490	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A													
1491	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A	U U								
1494	M A	M A	M A	M A	M A	M A	M A	M A	MD 1	F A	F A	F A	F A	F A									
1496	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A										
1497	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A												
1500	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F S								
1502	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	FD 2										
1505	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A						
1507	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A						
1508	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	FD 2										
1511	NOT PREGNANT																						
1513	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	M S									
1514	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	FD12						
1516	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A										
1517	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A								
1519	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	FD18							
1521	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A										
1523	M A	M A	M A	M A	M A	M A	M A	MD 1	F A	F A	F A	F A											
1524	M A	M A																					
1527	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	MM 5	F A	F A	F A	F A	F A	F A						
1528	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A													
1531	M A	M A	M A	M A	M A	M A	M A	M A	M S	F A	F A	F A	F A	F A	F S								
1533	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A	FM 6	FD 1			
1534	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A										
1537	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F S								
1539	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A									

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TABLE E41 (PAGE 5): PUP VITAL STATUS AND SEX FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT/ LITTER #	MATERNAL DOSAGE GROUP V									30 MG/KG/DAY													
1541	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A								
1544	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	FM 2	F S								
1545	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	FD16	FD 3				
1546	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A								
1548	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F S									
1550	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A										
1552	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A									
1555	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	FD 6								
1557	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A										
1558	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A							
1560	M A	M A	M A	M A	M A	M A	MD 7	F A	F A	F A	F A	F A	F A	F A	F A								
1564	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A										
1565	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A											
1566	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A								
1568	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A										
1571	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A										
1573	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A									
1576	M A	M A	M A	M A	M A	M A	MM 8	MD 7	F A	F A	F A	F A	F A										
1578	NOT PREGNANT																						
1579	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A								
1583	M A	M A	M A	M A	MM 3	F A	F A	F A	F A	F A	F A	F A	F A										
1584	M A	M A	M A	F A																			
1586	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A									
1587	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A											
1588	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A									
1589	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A								
1591	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A								
1593	M A	M A	F A	F A	F A	F A																	
1598	M A	M A	M A	M A	M A	M A	M A	F A	F A	F A	F A	F A	F A	F A	F A	F A	F A						
1600	M A	M A	M A	M A	M A	M A	M A	M A	M A	M A	MD 1	F A	F A	F A	F A								

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TABLE E42 (PAGE 1): CLINICAL OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY (S) POSTPARTUM	OBSERVATIONS a
I 0	1308	22	16/16 PUPS: DEHYDRATION; UNGROOMED COAT.b
	1313	16	1/13 PUPS: DEHYDRATION.
	1321	10	1/17 PUPS: EMACIATION; NO MILK PRESENT IN STOMACH.
	1348	3	2/14 PUPS: COLD TO TOUCH.
	1350	21	17/17 PUPS: DEHYDRATION.
II 1	1404	1-22	1/15 PUPS: THREAD-LIKE TAIL; NO ANAL OPENING PRESENT.
		2-22	1/15 PUPS: THREAD-LIKE TAIL.
	1418	2	4/16 PUPS: COLD TO TOUCH.
		12	1/14 PUPS: COLD TO TOUCH; DEHYDRATION.
		12	1/14 PUPS: DEHYDRATION.
III 3	1424	4	1/17 PUPS: COLD TO TOUCH.
IV 10	1517	1	1/15 PUPS: COLD TO TOUCH.
	1519	16	1/16 PUPS: EMACIATION.
		17	1/16 PUPS: DEHYDRATION.
	1523	1	1/12 PUPS: TAIL BENT (0.7 CM FROM BASE).b
		2-22	1/11 PUPS: TAIL BENT (DID NOT EXCEED 3.2 CM FROM BASE).b
		20-22	1/11 PUPS: RIGHT EYE: NOT PRESENT.b
		22	1/11 PUPS: DOMED HEAD.b
	1527	22	1/16 PUPS: DEHYDRATION.

a. Tabulation restricted to adverse observations; all other pups appeared normal.
b. Observation confirmed at necropsy.

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TABLE E42 (PAGE 2): CLINICAL OBSERVATIONS FROM BIRTH TO DAY 22 POSTPARTUM - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY (S) POSTPARTUM	OBSERVATIONS a
V 30	1545	15	1/18 PUPS: EMACIATION.
	1548	1	1/14 PUPS: COLD TO TOUCH.
	1550	1-22	1/12 PUPS: NO TAIL PRESENT.
	1557	8-15	1/13 PUPS: MOUTH: MASS (DID NOT EXCEED 0.5 CM X 0.2 CM X 0.2 CM).
	1565	2	1/12 PUPS: BACK: ABRASION (0.5 CM X 0.2 CM); COLD TO TOUCH.
		3	1/12 PUPS: BACK: ABRASION (0.5 CM X 0.2 CM); COLD TO TOUCH.
		4-7	1/12 PUPS: BACK: SCAB (0.5 CM X 0.2 CM).
	1568	1-7	1/13 PUPS: TAIL: ABRASION (0.3 CM FROM BASE).
	1573	5	1/15 PUPS: COLD TO TOUCH.
	1583	5-7	1/11 PUPS: BASE OF TAIL: ABRASION (0.5 CM X 0.3 CM).
		8-10	1/11 PUPS: TAIL: ABRASION (2.5 CM X 0.5 CM).
		11-12	1/11 PUPS: TIP OF TAIL BLACK; TIP OF TAIL MISSING.
		13-21	1/11 PUPS: TIP OF TAIL MISSING; TAIL: SCAB (0.2 CM X 0.2 CM).
		22	1/11 PUPS: TIP OF TAIL MISSING.
	1600	1	1/15 PUPS: PALE IN APPEARANCE.
		2-3	1/14 PUPS: PALE IN APPEARANCE.

a. Tabulation restricted to adverse observations; all other pups appeared normal.

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TABLE E43 (PAGE 1): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY (S) POSTPARTUM	OBSERVATIONS
I 0	1302	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1304	22	1 PUP: KIDNEY: PELVIS, DILATED, SLIGHT. ALL OTHER TISSUES APPEARED NORMAL. ALL OTHER PUPS EXAMINED APPEARED NORMAL.
	1306	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1308	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1310	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1312	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1313	17	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1318	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1321	10	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1325	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1328	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1330	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1331	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1334	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1335	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1336	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1338	16	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1340	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1341	22	ALL PUPS EXAMINED APPEARED NORMAL.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E43 (PAGE 2): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY (S) POSTPARTUM	OBSERVATIONS
I 0 CONT.	1342	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1344	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1345	1	2 PUPS: STILLBORN. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		4	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1346	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1348	1	2 PUPS: STILLBORN. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1350	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1353	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1355	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1359	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E43 (PAGE 3): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY (S) POSTPARTUM	OBSERVATIONS
II 1	1362	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1363	1	1 PUP: STILLBORN. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		4	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1364	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1367	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1368	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1371	9	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1375	17	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1376	1	2 PUPS: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1379	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1381	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1382	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1383	22	1 PUP: KIDNEY: RIGHT, PELVIS, MODERATE DILATION. ALL OTHER TISSUES APPEARED NORMAL. 5 PUPS: APPEARED NORMAL. ALL OTHER PUPS EXAMINED APPEARED NORMAL.
	1384	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1387	1	1 PUP: STILLBORN. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E43 (PAGE 4): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY (S) POSTPARTUM	OBSERVATIONS
II 1 CONT.	1389	7	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1392	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1393	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1397	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1399	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1401	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1404	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1407	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1409	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1410	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1413	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1415	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1416	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1418	3	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E43 (PAGE 5): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY (S) POSTPARTUM	OBSERVATIONS
III			
3	1421	1	2 PUPS: FOUND DEAD. NO MILK PRESENT IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1424	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1426	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1428	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1430	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1431	1	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1433	8	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1436	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1437	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1439	1	2 PUPS: STILLBORN. ALL TISSUES APPEARED NORMAL. 1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1442	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1443	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1448	1	2 PUPS: STILLBORN. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1450	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1452	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1455	5	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		6	1 PUP: FOUND DEAD. CANNIBALIZATION PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E43 (PAGE 6): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY (S) POSTPARTUM	OBSERVATIONS
III 3 CONT.	1456	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1459	2	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	1 PUP: KIDNEYS: BILATERAL, PELVIS, MODERATE DILATION. ALL OTHER TISSUES APPEARED NORMAL. ALL OTHER PUPS EXAMINED APPEARED NORMAL.
	1461	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1463	1	2 PUPS: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1465	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1468	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1469	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1472	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1474	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1476	1	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		22	1 PUP: KIDNEY: RIGHT, PELVIS, SLIGHT DILATION. ALL OTHER TISSUES APPEARED NORMAL. ALL OTHER PUPS EXAMINED APPEARED NORMAL.
	1477	6	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1480	22	ALL PUPS EXAMINED APPEARED NORMAL.

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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E43 (PAGE 7): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY (S) POSTPARTUM	OBSERVATIONS
IV 10	1482	1	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL. 1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1486	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1488	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1490	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1491	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1494	1	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1496	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1497	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1500	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1502	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1505	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1507	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1508	2	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1513	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1514	12	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1516	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1517	22	ALL PUPS EXAMINED APPEARED NORMAL.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E43 (PAGE 8): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY (S) POSTPARTUM	OBSERVATIONS
IV 10 CONT.	1519	18	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1521	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1523	1	1 PUP: FOUND DEAD. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	1 PUP: BRAIN: THIRD AND LATERAL VENTRICLES, MARKED DILATION. ALL OTHER TISSUES APPEARED NORMAL. ALL OTHER PUPS EXAMINED APPEARED NORMAL.
	1524	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1527	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1528	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1531	1	2 PUPS: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1533	1	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1534	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1537	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1539	22	ALL PUPS EXAMINED APPEARED NORMAL.

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TABLE E43 (PAGE 9): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY (S) POSTPARTUM	OBSERVATIONS
V 30	1541	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1544	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1545	3	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		16	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1546	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1548	1	1 PUP: STILLBORN. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1550	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1552	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1555	6	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1557	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1558	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1560	7	1 PUP: FOUND DEAD. AUTOLYSIS PRECLUDED FURTHER EVALUATION.
		22	ALL PUPS EXAMINED APPEARED NORMAL.
	1564	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1565	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1566	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1568	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1571	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1573	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1576	7	1 PUP: FOUND DEAD. ALL TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.

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TABLE E43 (PAGE 10): NECROPSY OBSERVATIONS - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP MATERNAL DOSAGE (MG/KG/DAY)	LITTER NUMBER	DAY (S) POSTPARTUM	OBSERVATIONS
V 30 CONT.	1579	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1583	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1584	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1586	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1587	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1588	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1589	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1591	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1593	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1598	22	ALL PUPS EXAMINED APPEARED NORMAL.
	1600	1	1 PUP: FOUND DEAD. NO MILK PRESENT IN STOMACH. ALL OTHER TISSUES APPEARED NORMAL.
		22	ALL PUPS EXAMINED APPEARED NORMAL.

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TABLE E44 (PAGE 1): PUP ORGAN WEIGHTS - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP I 0 MG/KG/DAY

RAT/ LITTER NUMBER	BRAIN			SPLEEN			THYMUS			TERMINAL BODY WEIGHT		
	M	F	T	M	F	T	M	F	T	M	F	T
1302	1.72	1.61	1.66	0.20	0.21	0.20	0.31	0.30	0.30	48.1	44.0	46.0
1304	1.59	1.55	1.57	0.16	0.15	0.16	0.20	0.17	0.18	45.5	39.8	42.6
1306	1.42	1.32	1.37	0.16	0.11	0.14	0.13	0.08	0.10	42.0	34.3	38.2
1308	1.29	1.35	1.32	0.09	0.15	0.12	0.09	0.09	0.09	28.5	28.4	28.4
1310	1.58	1.48	1.53	0.22	0.30	0.26	0.20	0.19	0.20	45.5	44.9	45.2
1312	1.75	1.67	1.71	0.20	0.17	0.18	0.31	0.26	0.28	54.7	53.2	54.0
1313	1.48	1.39	1.44	0.15	0.17	0.16	0.21	0.26	0.24	39.4	36.5	38.0
1316	NOT PREGNANT											
1318	1.69	1.56	1.62	0.24	0.19	0.22	0.26	0.24	0.25	52.6	46.2	49.4
1321	1.45	1.48	1.46	0.13	0.14	0.14	0.24	0.18	0.21	33.4	a	33.4
1325	1.56	1.45	1.50	0.18	0.11	0.14	0.12	0.14	0.13	35.8	35.5	35.6
1328	1.56	1.54	1.55	0.17	0.16	0.16	0.20	0.23	0.22	43.2	41.8	42.5
1330	1.44	1.41	1.42	0.11	0.08	0.10	0.15	0.10	0.12	26.6	23.4	25.0
1331	1.58	1.46	1.52	0.14	0.09	0.12	0.15	0.08	0.12	33.8	26.8	30.3
1334	1.53	1.50	1.52	0.10	0.12	0.11	0.16	0.18	0.17	39.1	38.7	38.9
1335	1.52	1.46	1.49	0.14	0.14	0.14	0.22	0.23	0.22	44.9	44.2	44.6
1336	1.56	1.54	1.55	0.19	0.23	0.21	0.24	0.22	0.23	45.0	43.4	44.2
1338	1.23	1.30	1.26	0.13	0.14	0.14	0.14	0.16	0.15	29.9	27.2	28.6
1340	1.05	1.80	1.42	0.15	0.16	0.16	0.20	0.17	0.18	41.2	40.2	40.7
1341	1.58	1.55	1.56	0.15	0.20	0.18	0.25	0.24	0.24	46.4	46.3	46.4
1342	1.44	1.36	1.40	0.10	0.09	0.10	0.12	0.12	0.12	38.4	33.5	36.0
1344	1.56	1.47	1.52	0.15	0.15	0.15	0.14	0.16	0.15	44.3	42.8	43.6
1345	1.53	1.47	1.50	0.08	0.15	0.12	0.14	0.21	0.18	39.9	40.9	40.4
1346	1.57	1.52	1.54	0.09	0.14	0.12	0.22	0.22	0.22	43.5	39.8	41.6
1348	1.50	1.41	1.46	0.13	0.15	0.14	0.18	0.19	0.18	34.7	35.8	35.2
1350	1.34	1.26	1.30	0.07	0.08	0.08	0.06	0.09	0.08	22.6	23.8	23.2
1353	1.44	1.52	1.48	0.11	0.15	0.13	0.16	0.21	0.18	41.0	43.0	42.0
1355	1.63	1.51	1.57	0.14	0.14	0.14	0.24	0.23	0.24	38.7	41.7	40.2
1358	NOT PREGNANT; MATING NOT CONFIRMED											
1359	1.53	1.46	1.50	0.20	0.17	0.18	0.22	0.18	0.20	41.5	40.2	40.8

M = MALE F = FEMALE T = TOTAL
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Pup's identification appeared incorrectly recorded; therefore, terminal body weight could not be determined.

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TABLE E44 (PAGE 2): PUP ORGAN WEIGHTS - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP II 1 MG/KG/DAY

RAT/ LITTER NUMBER	BRAIN			SPLEEN			THYMUS			TERMINAL BODY WEIGHT		
	M	F	T	M	F	T	M	F	T	M	F	T
1362	1.54	1.45	1.50	0.13	0.15	0.14	0.17	0.18	0.18	42.5	43.6	43.0
1363	1.43	1.29	1.36	0.09	0.10	0.10	0.11	0.10	0.10	34.1	27.5	30.8
1364	1.42	1.35	1.38	0.11	0.11	0.11	0.13	0.11	0.12	32.7	33.2	33.0
1367	1.60	1.57	1.58	0.10	0.10	0.10	0.12	0.15	0.14	39.5	36.3	37.9
1368	1.42	1.42	1.42	0.15	0.17	0.16	0.20	0.19	0.20	38.3	41.0	39.6
1371	1.30	1.35	1.32	0.09	0.14	0.12	0.13	0.15	0.14	29.5	33.9	31.7
1375	1.39	1.34	1.36	0.07	0.10	0.08	0.05	0.11	0.08	36.3	30.4	33.4
1376	1.48	1.53	1.50	0.09	0.11	0.10	0.12	0.16	0.14	36.3	38.1	37.2
1378	NOT PREGNANT											
1379	1.57	1.41	1.49	0.17	0.15	0.16	0.19	0.21	0.20	39.7	34.5	37.1
1381	1.56	1.62	1.59	0.14	0.18	0.16	0.25	0.22	0.24	49.7	46.7	48.2
1382	1.39	1.31	1.35	0.10	0.12	0.11	0.14	0.16	0.15	36.3	33.3	34.8
1383	1.64	1.59	1.62	0.15	0.19	0.17	0.19	0.19	0.19	47.9	49.5	48.7
1384	1.54	1.44	1.49	0.23	0.19	0.21	0.24	0.20	0.22	41.4	43.2	42.3
1387	1.56	1.39	1.48	0.14	0.20	0.17	0.14	0.16	0.15	38.9	38.4	38.6
1389	1.45	1.38	1.42	0.12	0.11	0.12	0.16	0.19	0.18	32.0	35.0	33.5
1392	1.41	1.42	1.42	0.06	0.12	0.09	0.13	0.11	0.12	28.6	27.6	28.1
1393	1.54	1.49	1.52	0.14	0.17	0.16	0.15	0.16	0.16	43.3	41.5	42.4
1397	1.55	1.55	1.55	0.19	0.23	0.21	0.23	0.18	0.20	48.4	44.9	46.6
1399	1.67	1.61	1.64	0.17	0.18	0.18	0.23	0.24	0.24	50.3	46.4	48.4
1401	1.48	1.40	1.44	0.20	0.21	0.20	0.22	0.22	0.22	45.8	45.0	45.4
1404	1.43	1.48	1.46	0.13	0.17	0.15	0.12	0.15	0.14	37.2	37.9	37.6
1407	1.37	1.34	1.36	0.15	0.12	0.14	0.14	0.14	0.14	34.4	31.8	33.1
1409	1.50	1.46	1.48	0.19	0.15	0.17	0.19	0.23	0.21	48.3	44.6	46.4
1410	1.56	1.40	1.48	0.14	0.08	0.11	0.28	0.13	0.20	45.1	33.5	39.3
1413	1.64	1.48	1.56	0.20	0.20	0.20	0.22	0.19	0.20	48.3	44.4	46.4
1415	1.52	1.39	1.46	0.18	0.15	0.16	0.12	0.17	0.14	38.3	35.4	36.8
1416	1.42	1.46	1.44	0.08	0.12	0.10	0.11	0.12	0.12	31.7	36.8	34.2
1418	1.49	1.38	1.44	0.10	0.17	0.14	0.15	0.16	0.16	37.6	38.1	37.8

M = MALE F = FEMALE T = TOTAL
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E44 (PAGE 3): PUP ORGAN WEIGHTS - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP III — 3 MG/KG/DAY

RAT/ LITTER NUMBER	BRAIN			SPLEEN			THYMUS			TERMINAL BODY WEIGHT		
	M	F	T	M	F	T	M	F	T	M	F	T
1421	1.44	1.37	1.40	0.09	0.10	0.10	0.11	0.08	0.10	34.3	27.9	31.1
1424	1.28	1.32	1.30	0.11	0.10	0.10	0.09	0.06	0.08	27.9	27.1	27.5
1426	1.50	1.39	1.44	0.10	0.08	0.09	0.15	0.14	0.14	36.4	34.9	35.6
1428	1.57	1.44	1.50	0.11	0.13	0.12	0.14	0.17	0.16	37.2	40.9	39.0
1430	1.38	1.32	1.35	0.10	0.12	0.11	0.09	0.16	0.12	34.4	31.4	32.9
1431	1.44	1.47	1.46	0.09	0.12	0.10	0.15	0.23	0.19	37.5	40.3	38.9
1433	1.49	1.49	1.49	0.11	0.13	0.12	0.22	0.19	0.20	40.6	41.9	41.2
1436	1.56	1.45	1.50	0.10	0.11	0.10	0.16	0.15	0.16	39.5	37.0	38.2
1437	1.59	1.47	1.53	0.13	0.13	0.13	0.12	0.15	0.14	41.5	39.1	40.3
1439	1.53	1.50	1.52	0.20	0.20	0.20	0.25	0.23	0.24	54.6	50.7	52.6
1442	1.82	1.83	1.82	0.24	0.23	0.24	0.30	0.32	0.31	52.8	50.8	51.8
1443	1.58	1.43	1.50	0.18	0.17	0.18	0.17	0.17	0.17	39.7	41.4	40.6
1446	NOT PREGNANT											
1448	1.52	1.36	1.44	0.14	0.17	0.16	0.18	0.12	0.15	43.9	40.2	42.0
1450	1.43	1.25	1.34	0.10	0.08	0.09	0.10	0.08	0.09	31.6	27.8	29.7
1452	1.51	1.32	1.42	0.09	0.12	0.10	0.20	0.15	0.18	34.7	31.6	33.2
1455	1.51	1.49	1.50	0.16	0.19	0.18	0.22	0.22	0.22	50.8	46.9	48.8
1456	1.67	1.56	1.62	0.23	0.22	0.22	0.19	0.24	0.22	50.0	51.0	50.5
1458	NOT PREGNANT											
1459	1.56	1.50	1.53	0.17	0.17	0.17	0.17	0.16	0.16	42.0	44.3	43.2
1461	1.57	1.53	1.55	0.17	0.19	0.18	0.24	0.24	0.24	51.1	50.7	50.9
1463	1.57	1.49	1.53	0.12	0.13	0.12	0.16	0.16	0.16	38.8	37.8	38.3
1465	1.45	1.60	1.52	0.21	0.16	0.18	0.15	0.21	0.18	38.5	43.9	41.2
1468	1.30	1.38	1.34	0.10	0.10	0.10	0.12	0.13	0.12	26.2	35.3	30.8
1469	1.38	1.41	1.40	0.08	0.15	0.12	0.12	0.13	0.12	36.3	35.9	36.1
1472	1.55	1.56	1.56	0.16	0.15	0.16	0.22	0.22	0.22	51.1	44.7	47.9
1474	1.51	1.48	1.50	0.17	0.14	0.16	0.11	0.17	0.14	a	a	a
1476	1.55	1.45	1.50	0.15	0.13	0.14	0.14	0.11	0.12	41.3	34.5	37.9
1477	1.22	1.33	1.28	0.06	0.10	0.08	0.03	0.11	0.07	19.5	33.4	26.4
1480	1.58	1.54	1.56	0.19	0.22	0.20	0.20	0.19	0.20	46.5	43.9	45.2

M = MALE F = FEMALE T = TOTAL
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Pup's identification appeared incorrectly recorded; therefore, terminal body weight could not be determined.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E44 (PAGE 4): PUP ORGAN WEIGHTS - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP IV 10 MG/KG/DAY

RAT/ LITTER NUMBER	BRAIN			SPLEEN			THYMUS			TERMINAL BODY WEIGHT		
	M	F	T	M	F	T	M	F	T	M	F	T
1482	1.50	1.41	1.46	0.10	0.13	0.12	0.20	0.19	0.20	38.1	34.0	36.0
1483	NOT PREGNANT											
1486	1.42	1.42	1.42	0.11	0.11	0.11	0.06	0.11	0.08	32.6	36.9	34.8
1488	1.51	1.43	1.47	0.14	0.11	0.12	0.22	0.16	0.19	40.1	34.6	37.4
1490	1.52	1.48	1.50	0.25	0.27	0.26	0.29	0.26	0.28	52.3	52.7	52.5
1491	1.42	1.78	1.60	0.10	0.10	0.10	0.13	0.09	0.11	36.3	29.7	33.0
1494	1.56	1.42	1.49	0.15	0.14	0.14	0.19	0.17	0.18	45.4	44.0	44.7
1496	1.54	1.45	1.50	0.10	0.16	0.13	0.15	0.20	0.18	35.3	34.5	34.9
1497	1.49	1.48	1.48	0.17	0.21	0.19	0.15	0.21	0.18	43.0	49.0	46.0
1500	1.45	1.41	1.43	0.14	0.17	0.16	0.18	0.24	0.21	40.5	42.8	41.6
1502	1.63	1.53	1.58	0.16	0.14	0.15	0.25	0.19	0.22	50.2	45.5	47.8
1505	1.44	1.38	1.41	0.15	0.10	0.12	0.11	0.21	0.16	30.8	34.2	32.5
1507	1.39	1.29	1.34	0.08	0.10	0.09	0.21	0.19	0.20	30.9	29.7	30.3
1508	1.54	1.57	1.56	0.22	0.18	0.20	0.20	0.23	0.22	42.9	38.7	40.8
1511	NOT PREGNANT											
1513	1.63	1.49	1.56	0.17	0.17	0.17	0.14	0.15	0.14	39.2	34.8	37.0
1514	1.39	1.39	1.39	0.16	0.10	0.13	0.14	0.11	0.12	35.4	29.8	32.6
1516	1.48	1.44	1.46	0.21	0.17	0.19	0.18	0.20	0.19	48.3	43.7	46.0
1517	1.57	1.44	1.50	0.11	0.09	0.10	0.14	0.15	0.14	36.8	31.8	34.3
1519	1.52	1.46	1.49	0.12	0.11	0.12	0.10	0.14	0.12	36.3	38.9	37.6
1521	1.60	1.54	1.57	0.16	0.14	0.15	0.18	0.19	0.18	42.2	38.7	40.4
1523	1.53	1.44	1.48	0.13	0.15	0.14	0.23	0.22	0.22	50.4	47.0	48.7
1524	1.65	----	1.65	0.20	----	0.20	0.21	----	0.21	58.4	----	58.4
1527	1.39	1.28	1.34	0.11	0.08	0.10	0.12	0.08	0.10	32.6	24.8	28.7
1528	1.49	1.53	1.51	0.21	0.18	0.20	0.25	0.18	0.22	47.6	41.2	44.4
1531	1.57	1.51	1.54	0.20	0.16	0.18	0.20	0.19	0.20	46.2	40.5	43.4
1533	1.45	1.44	1.44	0.16	0.16	0.16	0.15	0.18	0.16	42.1	40.7	41.4
1534	1.50	1.49	1.50	0.12	0.11	0.12	0.14	0.16	0.15	41.4	37.1	39.2
1537	1.45	1.35	1.40	0.14	0.10	0.12	0.16	0.14	0.15	37.4	36.1	36.8
1539	1.46	1.55	1.50	0.14	0.13	0.14	0.18	0.16	0.17	39.6	41.1	40.4

M = MALE F = FEMALE T = TOTAL
ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E44 (PAGE 5): PUP ORGAN WEIGHTS - INDIVIDUAL DATA - F2 GENERATION PUPS

MATERNAL DOSAGE GROUP V — 30 MG/KG/DAY

RAT/ LITTER NUMBER	BRAIN			SPLEEN			THYMUS			TERMINAL BODY WEIGHT		
	M	F	T	M	F	T	M	F	T	M	F	T
1541	1.39	1.44	1.42	0.13	0.11	0.12	0.16	0.15	0.16	33.2	34.8	34.0
1544	1.56	1.63	1.60	0.17	0.15	0.16	0.22	0.17	0.20	44.8	47.2	46.0
1545	1.58	1.48	1.53	0.13	0.12	0.12	0.19	0.12	0.16	a	a	a
1546	1.38	1.40	1.39	0.12	0.09	0.10	0.10	0.14	0.12	30.6	31.9	31.2
1548	1.48	1.40	1.44	0.21	0.17	0.19	0.21	0.19	0.20	38.4	31.1	34.8
1550	1.54	1.49	1.52	0.16	0.11	0.14	0.18	0.17	0.18	40.2	37.1	38.6
1552	1.44	1.39	1.42	0.12	0.13	0.12	0.17	0.14	0.16	33.9	33.6	33.8
1555	1.39	1.35	1.37	0.09	0.09	0.09	0.09	0.11	0.10	32.8	29.1	31.0
1557	1.49	1.46	1.48	0.09	0.10	0.10	0.10	0.10	0.10	34.4	34.5	34.4
1558	1.48	1.55	1.52	0.16	0.18	0.17	0.14	0.20	0.17	35.8	39.4	37.6
1560	1.40	1.36	1.38	0.13	0.09	0.11	0.16	0.13	0.14	33.0	32.0	32.5
1564	1.42	1.46	1.44	0.12	0.15	0.14	0.15	0.17	0.16	35.1	37.0	36.0
1565	1.44	1.27	1.36	0.12	0.10	0.11	0.17	0.16	0.16	39.1	35.9	37.5
1566	1.46	1.42	1.44	0.12	0.16	0.14	0.17	0.09	0.13	35.0	30.9	33.0
1568	1.45	1.52	1.48	0.17	0.15	0.16	0.24	0.18	0.21	46.8	44.6	45.7
1571	1.46	1.44	1.45	0.07	0.07	0.07	0.11	0.10	0.10	31.6	28.7	30.2
1573	1.40	1.37	1.38	0.08	0.09	0.08	0.13	0.10	0.12	38.1	34.2	36.2
1576	1.31	1.08	1.20	0.11	0.14	0.12	0.12	0.13	0.12	30.8	31.7	31.2
1578	NOT PREGNANT											
1579	1.48	1.41	1.44	0.09	0.14	0.12	0.13	0.16	0.14	36.2	36.3	36.2
1583	1.61	1.51	1.56	0.19	0.15	0.17	0.25	0.22	0.24	39.0	40.4	39.7
1584	1.66	1.48	1.57	0.28	0.26	0.27	0.33	0.23	0.28	60.9	50.7	55.8
1586	1.43	1.43	1.43	0.10	0.12	0.11	0.11	0.18	0.14	34.9	37.6	36.2
1587	1.61	1.53	1.57	0.21	0.16	0.18	0.19	0.20	0.20	46.2	40.5	43.4
1588	1.38	1.37	1.38	0.11	0.15	0.13	0.14	0.11	0.12	39.2	39.3	39.2
1589	1.39	1.36	1.38	0.15	0.13	0.14	0.09	0.16	0.12	26.7	25.0	25.8
1591	1.52	1.50	1.51	0.17	0.10	0.14	0.14	0.16	0.15	36.8	38.7	37.8
1593	1.45	1.41	1.43	0.28	0.28	0.28	0.33	0.32	0.32	51.2	50.6	50.9
1598	1.38	1.37	1.38	0.05	0.07	0.06	0.08	0.08	0.08	27.4	29.0	28.2
1593	1.41	1.43	1.42	0.12	0.14	0.13	0.13	0.14	0.14	40.6	38.6	39.6

M = MALE F = FEMALE T = TOTAL
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Pup's identification appeared incorrectly recorded; therefore, terminal body weight could not be determined.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 1): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT #	MEAN	DOSAGE GROUP I								0 MG/KG/DAY							DAY 1 POSTPARTUM							
1302	/	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA												
	1.8	3.1	2.8	2.6	2.6	2.3	0.9	1.1	1.1	1.0	1.3	1.0												
1304	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA											
	1.8	2.6	2.4	2.6	2.5	2.4	2.4	1.2	1.1	1.1	1.0	1.0	1.3											
1306	/	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA							
	1.8	2.5	2.4	2.4	2.4	2.6	2.3	2.5	2.5	1.0	1.0	1.1	1.1	1.0	1.1	1.1	1.0							
1308	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA							
	1.6	2.5	2.5	2.5	2.5	2.5	2.7	1.0	1.0	1.1	1.0	0.9	1.1	1.1	1.0	1.0	1.0							
1310	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA									
	1.9	2.5	2.6	2.7	2.3	2.5	2.5	2.2	2.3	2.5	1.1	1.0	1.0	1.0	1.0									
1312	/	MA	MA	FA	FA																			
	2.2	3.0	3.2	1.1	1.3																			
1313	/	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA										
	1.5	2.2	2.1	2.5	2.6	2.3	1.0	1.0	1.1	1.0	1.1	1.1	1.0	1.1										
1316		NOT PREGNANT																						
1318	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA								
	2.1	3.0	3.0	3.0	2.7	2.8	2.8	2.5	3.0	2.7	1.1	1.1	1.1	1.1	1.0	1.0								
1321	/	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA						
	1.8	2.4	2.5	2.4	2.5	2.4	3.0	2.5	2.5	1.0	1.0	1.1	1.0	1.1	1.2	1.1	1.0	1.1						
1325	/	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA												
	1.7	2.8	2.4	2.6	2.4	2.5	1.0	1.1	1.1	1.1	1.0	1.0												
1328	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA										
	1.9	2.5	3.2	2.5	2.6	2.6	2.5	2.5	1.1	1.0	1.1	1.4	1.0	1.2										
1330	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA							
	1.7	2.5	2.5	2.3	2.7	2.6	2.6	2.7	1.1	1.0	1.0	1.2	1.1	1.1	1.1	1.2	1.0							
1331	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA							
	2.0	2.3	2.7	2.3	2.5	2.2	2.5	2.1	2.5	2.6	2.4	2.1	2.3	1.1	1.0	1.0	1.0							
1334	/	MA	MA	MA	MA	MA	MA	FA	FA	FA														
	2.0	2.7	2.5	2.6	2.5	2.6	2.3	0.7	1.0	1.0														
1335	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA											
	2.0	3.2	2.6	2.9	3.0	2.6	2.7	1.2	1.0	1.0	1.2	1.3	1.0											
1336	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA								
	1.8	2.5	2.4	2.8	2.7	2.5	2.7	2.6	1.1	1.2	1.1	1.1	1.0	1.1	1.1	1.1								
1338	/	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA						
	1.6	2.5	2.5	2.6	2.3	2.4	2.6	2.4	1.2	1.1	1.0	1.0	1.0	1.2	1.1	1.0	1.2	1.1						

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
ALL DISTANCES WERE RECORDED IN MILLIMETERS (MM).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 2): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT #	MEAN	DOSAGE GROUP I							0 MG/KG/DAY							DAY 1 POSTPARTUM								
1340	/	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA									
	2.0	2.6	2.7	2.8	2.5	2.6	2.7	2.7	2.9	1.1	1.0	1.2	1.1	1.2	1.1									
1341	/	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA											
	1.5	2.6	2.4	2.2	2.5	1.3	1.0	1.0	1.0	1.2	1.1	1.0	1.0											
1342	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA							
	1.9	2.7	2.5	2.5	2.3	2.5	2.5	2.7	2.5	2.2	1.2	1.0	1.1	1.0	1.0	1.0	1.2							
1344	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA								
	1.8	2.7	2.7	2.6	2.5	2.4	2.6	2.5	1.1	1.1	1.0	1.0	1.1	1.1	1.0	1.0								
1345	/	MA	MA	MA	MA	MA	MS	FA	FA	FA	FA	FA	FA	FA	FA	FA	FS							
	1.7	2.8	3.0	2.7	3.0	2.8		1.0	1.0	1.1	1.0	1.0	1.2	1.1	1.0	1.2								
1346	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA													
	2.0	2.9	2.9	2.5	2.6	2.6	2.4	0.9	0.9	1.0	1.0													
1348	/	MA	MA	MA	MA	MA	MA	MS	MA	MA	FA	FA	FA	FA	FA	FA	FS							
	2.0	2.7	3.3	2.7	2.8	2.5	2.7		2.5	2.4	1.3	1.2	1.2	1.1	1.1	1.1								
1350	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA						
	2.3	2.6	3.0	2.6	2.5	2.6	2.5	2.5	3.0	2.5	2.4	3.4	2.5	2.5	1.1	1.2	1.2	1.1						
1353	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FU									
	1.8	2.2	2.7	2.8	2.8	2.4	2.4	1.2	1.0	1.1	1.1	1.0	1.0	1.1										
1355	/	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA								
	1.5	2.5	2.7	2.4	2.7	1.1	1.0	1.1	1.1	1.2	1.0	1.1	1.0	1.1	1.1	1.1								
1358		NOT PREGNANT; MATING NOT CONFIRMED																						
1359	/	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FS									
	1.6	2.6	2.4	2.4	2.7	2.8	0.9	0.9	1.1	1.0	1.1	1.0	1.0	1.2										

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
ALL DISTANCES WERE RECORDED IN MILLIMETERS (MM).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 3): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT #	MEAN	DOSAGE GROUP II								1 MG/KG/DAY						DAY 1 POSTPARTUM								
1362	/	MA	MA	MA	MA	FA	FA	FA																
	2.1	3.1	2.9	2.7	2.7	1.1	1.0	1.1																
1363	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FS					
	1.6	2.5	2.2	2.2	2.5	2.6	2.5	2.5	1.1	1.0	1.0	0.9	0.9	1.0	1.0	1.2	1.0	1.0						
1364	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA								
	1.7	2.6	2.5	2.5	2.6	2.5	2.3	2.3	1.0	1.1	1.0	1.0	0.9	0.8	1.0	0.9								
1367	/	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA										
	2.1	2.6	3.0	2.9	2.9	2.7	2.4	2.6	2.5	1.2	1.1	1.1	0.9	1.3										
1368	/	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA								
	1.8	2.7	2.5	2.8	2.6	2.5	2.8	2.5	2.5	0.9	1.0	0.9	1.0	1.0	1.1	1.0								
1371	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA						
	2.0	2.5	2.7	2.3	2.6	2.3	2.7	2.6	2.9	2.6	2.7	2.6	1.0	1.0	1.1	1.1	1.1	1.0						
1375	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA									
	2.3	2.9	2.9	2.9	3.1	2.6	3.0	2.9	3.1	3.1	1.0	1.1	1.1	1.0	1.0									
1376	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MS	MS	FA	FA	FA	FA	FA						
	2.0	2.3	2.4	2.5	2.6	2.4	2.6	2.5	2.6	2.5	2.3			1.0	1.1	1.2	1.1	1.0						
1378		NOT PREGNANT																						
1379	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA											
	1.8	2.5	2.5	2.6	2.7	2.4	2.6	1.1	1.1	1.0	1.0	0.9	1.3											
1381	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA											
	2.0	2.7	2.9	3.0	3.1	2.9	2.8	1.2	1.1	1.2	1.3	1.2	1.2											
1382	/	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA										
	1.7	2.3	2.5	2.8	2.8	2.7	1.1	1.2	1.0	1.0	1.0	1.2	1.1	1.2										
1383	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA												
	1.9	2.5	2.4	2.3	2.5	2.5	3.2	1.0	1.0	1.0	1.0	1.1												
1384	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA										
	1.8	2.5	3.1	2.6	2.4	2.7	2.8	1.1	1.1	1.2	1.0	1.2	1.1	1.0										
1387	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FS						
	1.9	2.5	2.6	2.7	2.5	2.6	2.7	2.8	2.7	2.5	1.1	1.0	1.1	1.0	1.1	1.0	1.0							
1389	/	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA							
	1.7	2.3	2.5	2.6	2.4	2.6	2.4	2.3	2.2	0.9	1.1	1.0	1.0	1.0	0.9	1.0	1.1							
1392	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA						
	1.8	2.5	2.4	2.6	2.6	2.5	2.2	2.4	2.5	2.5	0.9	1.0	1.0	1.1	0.9	1.0	1.0	1.0						
1393	/	MA	MA	MA	MA	MA	MS	FA	FA	FA	FA	FA	FA											
	1.7	2.6	2.5	2.4	2.5	2.7		1.0	1.0	1.0	1.2	1.1	1.2											

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
ALL DISTANCES WERE RECORDED IN MILLIMETERS (MM).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 4): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT #	MEAN	DOSAGE GROUP II							1 MG/KG/DAY												DAY 1 POSTPARTUM			
1397	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA											
	2.0	2.7	2.5	2.6	2.8	2.6	2.7	2.8	1.1	1.0	1.1	1.4	1.4											
1399	/	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA													
	1.9	2.7	3.1	2.9	2.7	1.1	1.2	1.3	1.2	1.2	1.2													
1401	/	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA											
	1.8	2.8	2.8	3.1	2.8	2.8	1.1	1.0	1.0	1.1	1.0	1.1	1.2											
1404	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA								
	2.1	2.2	2.5	2.3	2.5	2.5	2.2	2.2	2.4	2.5	2.6	2.5	1.2	1.3	1.2	1.1								
1407	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA								
	1.7	2.6	2.4	2.3	2.5	2.5	2.3	2.6	1.1	1.0	1.0	1.0	1.1	0.9	1.0	1.2								
1409	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA											
	1.8	2.4	2.2	2.4	2.6	2.5	2.5	2.5	1.0	1.2	1.0	1.0	1.0											
1410	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA						
	2.0	2.5	2.3	2.5	2.3	2.4	2.3	2.5	2.3	2.2	2.3	2.2	2.5	2.5	1.2	1.0	1.0	1.0						
1413	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA										
	1.8	2.2	2.4	2.2	2.4	2.5	2.6	2.3	1.0	1.0	1.1	0.9	1.3	0.9										
1415	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA										
	1.9	2.3	2.4	2.5	2.5	2.5	2.8	2.6	1.2	1.1	1.2	1.0	1.0	1.2										
1416	/	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA									
	1.4	2.4	2.3	2.4	1.2	1.0	1.1	1.2	1.0	1.1	1.1	1.1	1.1	1.3	1.0									
1418	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA							
	1.6	2.8	2.6	2.3	2.2	2.5	2.6	1.0	1.0	1.2	1.0	1.2	1.1	1.0	1.2	1.0	1.1							

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
ALL DISTANCES WERE RECORDED IN MILLIMETERS (MM).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 5): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT #	MEAN	DOSAGE GROUP III								3 MG/KG/DAY							DAY 1 POSTPARTUM							
1421	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FD1	FD1						
	2.0	2.7	2.5	2.3	2.3	2.4	2.6	2.3	2.5	2.3	2.6	1.0	1.2	1.0	1.2	1.0								
1424	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA						
	1.8	2.5	2.5	2.2	2.7	2.4	2.5	2.5	2.8	2.4	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9						
1426	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA										
	1.8	2.3	2.2	2.5	2.6	2.7	2.4	2.5	0.9	0.9	1.2	1.0	1.1	1.2										
1428	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA								
	1.7	2.7	2.5	2.6	2.5	2.8	2.5	1.1	1.0	1.3	1.2	1.2	1.1	1.2	1.0	1.3								
1430	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA						
	1.6	2.6	2.6	2.5	2.7	2.6	2.7	1.2	1.0	1.0	1.2	1.0	1.1	1.1	1.0	1.0	1.2	1.2						
1431	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	MD1	FA	FA	FA	FA	FA	FA							
	2.0	2.4	2.5	2.4	2.9	2.7	2.8	2.5	2.7	2.5		1.2	1.1	1.1	1.0	1.1	1.1							
1433	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA					
	1.8	2.7	2.7	2.7	2.2	2.2	2.3	2.6	2.5	2.8	2.2	1.0	1.0	1.0	1.0	0.9	1.1	1.1	1.0					
1436	/	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA											
	2.1	2.9	2.6	2.6	2.7	2.7	2.5	2.4	2.5	1.1	1.0	1.0	1.1											
1437	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA							
	2.0	2.7	2.7	2.3	2.6	2.5	2.6	2.7	2.9	2.5	1.1	1.1	1.1	1.0	1.1	1.2	1.2							
1439	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FD1	FS	FS											
	2.2	2.7	2.8	2.8	2.5	3.0	2.5	1.2	1.0	1.1														
1442	/	MA	MA	MA	MA	FA	FA	FA																
	2.3	3.5	2.8	3.2	3.2	1.2	1.2	0.9																
1443	/	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA									
	2.1	2.8	2.7	3.2	2.5	2.5	2.7	2.7	2.6	1.1	1.2	1.1	1.6	1.2	1.3									
1446		NOT PREGNANT																						
1448	/	MA	MA	MA	MA	MA	MA	MS	MS	FA	FA	FA	FA	FA	FA	FA	FA							
	1.7	2.2	2.8	2.6	2.5	2.5	2.3			1.2	1.1	1.0	1.3	1.0	1.0	1.0	1.0							
1450	/	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA									
	1.5	2.5	2.3	2.6	2.8	1.2	1.1	1.0	1.1	1.0	0.9	1.0	1.1	0.9	1.0									
1452	/	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA									
	1.8	2.4	2.4	2.5	2.3	2.2	2.2	2.5	2.4	1.0	1.0	1.0	1.0	0.9	1.0									
1455	/	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA								
	1.9	2.7	2.5	2.5	2.7	2.5	2.4	2.6	2.8	1.1	1.2	0.9	1.0	1.2	1.0	1.1								
1456	/	MA	MA	MA	MA	FA	FA																	
	2.1	2.5	2.7	2.5	2.8	1.2	1.0																	

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
ALL DISTANCES WERE RECORDED IN MILLIMETERS (MM).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 6): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT #	MEAN	DOSAGE GROUP III								3 MG/KG/DAY												DAY 1 POSTPARTUM		
1458		NOT PREGNANT																						
1459	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA									
	2.0	2.7	2.2	2.7	2.5	2.5	2.4	2.4	2.2	2.5	1.3	1.4	1.3	1.2	1.4									
1461	/	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA												
	1.6	2.7	2.5	2.4	2.5	1.2	1.1	1.4	1.2	1.1	1.0	1.1												
1463	/	MA	MA	MA	MA	MA	MA	MA	MS	FA	FA	FA	FA	FA	FA	FS								
	1.7	2.5	2.1	2.3	2.5	2.2	2.1	2.2		1.0	1.0	0.9	1.0	1.0	1.0									
1465	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA							
	1.8	3.0	3.0	3.1	3.0	3.1	2.5	1.1	1.2	1.1	1.1	1.1	1.1	1.2	1.0	1.0	1.3							
1468	/	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA							
	1.6	2.8	2.5	2.8	2.5	2.7	1.1	1.1	1.0	1.0	1.2	1.0	1.1	1.0	1.1	1.0	1.0							
1469	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA											
	2.2	2.6	2.5	2.5	2.5	2.4	2.6	2.5	2.7	2.3	1.0	1.1	1.1											
1472	/	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA													
	2.0	3.0	2.9	3.0	2.7	2.7	1.3	1.1	1.1	1.2	1.2													
1474	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA									
	2.1	2.5	2.4	2.4	2.7	2.7	2.5	2.4	2.5	2.5	2.5	1.1	1.0	1.2	1.0									
1476	/	MA	MA	MA	MA	MA	MA	MA	MD1	FA	FA	FA	FA	FA	FA	FA	FA	FA						
	1.6	2.2	2.3	2.5	2.2	2.5	2.6	2.3		1.1	1.0	0.9	1.1	1.2	1.0	1.1	1.0	1.0						
1477	/	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA						
	1.8	2.4	2.6	2.5	2.4	2.9	2.4	2.5	2.6	1.2	1.0	1.1	1.3	0.8	1.0	1.1	1.1	1.1						
1480	/	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA										
	1.6	2.9	2.9	3.2	1.4	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3										

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
ALL DISTANCES WERE RECORDED IN MILLIMETERS (MM).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 7): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT #	MEAN	DOSAGE GROUP IV									10 MG/KG/DAY													
																DAY 1 POSTPARTUM								
1482	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FD1	FS							
	1.7	2.6	2.7	2.8	2.4	2.5	2.7	1.0	1.1	1.0	1.2	1.0	1.0	1.0	1.0									
1483		NOT PREGNANT																						
1486	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA								
	2.1	2.8	2.9	3.0	3.0	2.9	2.9	2.7	2.8	2.5	1.1	1.1	1.3	1.0	1.2	1.0								
1488	/	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA								
	1.9	2.8	2.8	2.5	2.3	2.7	2.5	2.4	2.8	1.0	1.2	1.1	1.2	1.0	1.1	1.0								
1490	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA													
	2.6	3.2	3.0	3.6	3.5	3.0	2.7	3.1	1.2	1.3	1.2													
1491	/	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	UU								
	1.4	2.4	2.4	2.5	2.5	1.2	1.0	1.0	1.1	1.0	1.0	1.1	1.1	1.0	1.0									
1494	/	MA	MA	MA	MA	MA	MA	MA	MA	MD1	FA	FA	FA	FA	FA									
	1.9	2.4	2.4	2.6	2.6	2.5	2.4	2.7	2.6		1.1	1.0	1.1	0.9	0.9									
1496	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA										
	1.9	2.8	2.7	3.0	2.6	2.9	2.6	2.5	0.9	1.0	1.1	1.0	1.0	1.2										
1497	/	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA												
	1.6	2.5	2.6	2.7	2.7	1.0	1.1	1.1	1.2	1.2	1.1	1.0												
1500	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FS								
	1.9	2.7	2.3	2.6	2.4	2.5	2.2	2.2	2.2	2.4	1.1	1.0	1.0	0.9	1.1									
1502	/	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA										
	1.4	2.3	2.2	2.5	2.6	1.0	1.0	1.0	1.0	1.1	1.0	1.1	1.0	1.0										
1505	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA							
	1.7	2.4	2.5	2.5	2.3	2.6	2.5	2.5	1.1	1.2	1.1	1.1	1.1	1.0	1.0	1.1	1.2							
1507	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA							
	1.8	2.5	2.7	2.4	2.4	2.1	2.4	2.3	2.5	2.4	0.9	1.0	1.0	0.9	1.0	0.9	1.1							
1508	/	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA										
	1.5	2.6	2.8	2.4	2.5	1.1	1.0	1.1	0.9	1.0	1.2	0.9	1.1	1.1										
1511		NOT PREGNANT																						
1513	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	MS									
	2.1	3.0	2.5	2.5	2.5	2.6	2.4	2.5	2.5	2.9	1.1	1.1	1.0	1.1										
1514	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA						
	2.1	2.9	2.7	2.8	3.1	3.1	2.8	2.9	2.9	2.7	1.2	1.2	1.2	1.0	1.2	1.4	1.0	1.0						
1516	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA										
	2.2	2.3	2.7	2.7	2.6	2.5	2.5	2.5	2.6	2.6	1.4	1.1	1.4	1.4										

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 8): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT #	MEAN	DOSAGE GROUP IV								10 MG/KG/DAY						DAY 1 POSTPARTUM								
1517	/	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA								
	2.0	4.1	2.6	2.6	2.4	2.4	2.9	2.6	2.8	1.3	0.8	1.1	0.9	1.0	1.0	1.2								
1519	/	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA							
	1.9	2.8	2.7	2.7	2.3	2.9	2.5	2.8	2.9	1.2	1.0	1.2	1.1	1.0	1.0	1.0	1.1							
1521	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA											
	2.0	2.6	2.5	2.3	2.5	2.5	2.7	2.7	1.3	1.2	1.2	1.1	1.1											
1523	/	MA	MA	MA	MA	MA	MA	MA	MD1	FA	FA	FA	FA											
	1.9	2.6	2.4	2.5	2.5	2.4	2.2	2.2		1.0	1.1	1.3	1.0											
1524	/	MA	MA																					
	3.6	3.6	3.7																					
1527	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA						
	1.9	2.5	2.5	2.2	2.8	2.7	2.4	2.7	2.1	2.0	2.4	2.7	1.0	0.9	1.0	1.0	1.1	1.1						
1528	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA													
	1.9	2.6	2.4	2.7	2.4	2.6	2.4	1.0	1.0	1.0	1.1													
1531	/	MA	MA	MA	MA	MA	MA	MA	MA	MS	FA	FA	FA	FA	FA	FS								
	1.9	2.4	2.4	2.5	2.6	2.7	2.2	2.4	2.6		1.0	1.1	1.1	1.0	1.2									
1533	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FD1				
	1.6	2.8	2.5	2.8	2.6	2.9	2.5	1.1	1.1	1.0	1.1	1.1	1.0	0.9	1.0	1.0	1.0	1.0	1.0					
1534	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA											
	2.0	2.7	2.9	2.9	2.8	2.6	2.8	1.0	1.3	1.0	1.0	1.2	1.2											
1537	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FS								
	2.1	2.7	2.5	2.6	2.7	2.5	2.5	2.8	2.5	2.5	2.5	1.0	1.0	1.0	1.0									
1539	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA									
	2.1	2.7	2.5	2.7	2.6	2.5	2.6	2.5	2.6	2.9	1.1	1.1	1.1	1.0	1.1									

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
ALL DISTANCES WERE RECORDED IN MILLIMETERS (MM).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 9): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT #	MEAN	DOSAGE GROUP V								30 MG/KG/DAY									DAY 1 POSTPARTUM					
1541	/	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA									
	1.5	2.5	2.9	2.4	2.5	1.1	1.1	1.1	1.0	1.2	1.2	1.1	1.1	1.0	1.0									
1544	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FS									
	1.7	2.7	2.7	2.3	2.5	2.4	2.5	1.2	1.0	1.1	1.2	1.0	1.1	1.0										
1545	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA				
	1.8	2.5	3.1	2.3	2.7	2.9	2.7	2.4	2.5	2.5	1.1	1.0	1.1	1.0	1.1	1.2	1.1	1.2	1.1	1.2				
1546	/	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA								
	1.9	2.5	2.5	3.1	2.5	2.7	2.5	2.7	2.5	1.2	1.0	1.1	1.1	1.1	1.1	1.0								
1548	/	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FS									
	1.4	2.4	2.4	2.4	2.5	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.0	1.1										
1550	/	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA											
	1.8	2.9	3.1	2.7	2.3	2.4	1.1	1.6	1.1	1.2	1.1	1.2	1.3											
1552	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA									
	1.8	2.2	2.6	2.7	2.8	2.3	2.7	2.7	1.0	1.0	1.1	0.9	1.0	1.0	1.0									
1555	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA								
	1.7	2.4	2.6	2.3	2.1	2.4	2.6	2.7	1.0	0.9	1.1	1.0	1.1	1.1	1.1	1.0								
1557	/	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA										
	1.6	2.7	2.8	2.7	2.5	2.2	1.1	1.1	1.0	1.0	1.1	1.1	1.0	1.1										
1558	/	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA							
	2.1	3.2	2.5	2.6	2.8	2.6	2.7	2.4	2.8	2.5	2.7	1.4	1.2	1.3	1.2	1.1	1.0							
1560	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA								
	1.8	2.5	2.6	2.5	2.7	2.2	2.5	2.6	1.2	1.0	1.1	1.2	1.1	1.2	1.1	1.0								
1564	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA										
	1.8	2.5	2.5	2.6	2.3	2.5	2.9	1.2	1.0	1.0	1.0	1.2	1.1	1.2										
1565	/	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA											
	1.7	2.2	2.2	2.4	2.4	2.5	2.3	1.0	1.1	0.9	1.1	1.2	1.0											
1566	/	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA								
	1.4	2.6	2.9	1.1	1.1	1.1	1.3	1.2	1.2	1.1	1.3	1.0	1.1	1.0	1.2	1.1								
1568	/	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA										
	2.2	3.3	2.5	3.2	3.1	3.2	3.1	2.6	1.3	1.5	1.4	1.4	1.2	1.2										

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
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PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 10): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT # MEAN	DOSAGE GROUP V								30 MG/KG/DAY								DAY 1 POSTPARTUM						
1571 /	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA										
1.8	2.6	2.5	2.3	2.5	2.8	2.6	1.4	1.3	1.2	1.2	1.4	1.1	1.2										
1573 /	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA								
1.9	2.7	2.8	2.6	2.4	3.2	2.8	2.8	1.2	1.3	1.0	1.2	1.1	1.1	1.2	1.1								
1576 /	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA										
2.0	2.5	2.2	2.9	2.6	2.3	2.5	2.7	2.5	1.0	1.0	1.3	1.0	1.0										
1578	NOT PREGNANT																						
1579 /	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA								
2.0	3.0	2.7	2.6	2.8	2.9	2.8	2.8	2.9	1.1	1.0	1.1	1.1	1.1	1.0	1.0								
1583 /	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA											
1.7	2.8	2.7	2.4	2.3	2.7	1.2	1.0	1.2	1.1	1.1	1.2	1.0											
1584 /	MA	MA	MA	FA																			
2.5	2.8	3.0	2.9	1.2																			
1586 /	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA										
1.9	2.5	2.6	2.4	2.6	2.7	2.6	2.5	1.2	1.0	1.2	1.1	1.1	1.1										
1587 /	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA												
1.7	2.8	2.4	2.5	2.6	2.6	1.0	1.0	1.0	1.0	0.9	1.0												
1588 /	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA										
1.5	2.5	2.8	2.8	2.4	1.1	1.0	1.0	1.1	1.1	1.1	1.2	1.1	0.9										
1589 /	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA									
1.7	2.5	2.5	2.5	2.6	2.6	2.4	1.2	1.0	1.1	1.0	1.0	1.2	1.2	1.4									
1591 /	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA									
2.0	2.6	2.8	3.2	2.3	2.4	2.0	2.4	2.2	2.5	2.2	1.1	1.0	1.0	1.1									
1593 /	MA	MA	FA	FA	FA	FA																	
2.0	3.3	3.0	1.5	1.4	1.6	1.5																	
1598 /	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA						
1.8	3.0	2.8	2.7	2.7	2.5	2.7	2.5	1.1	1.2	1.0	1.0	1.1	1.3	1.4	1.2	1.1	1.2						
1600 /	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MD1	FA	FA	FA	FA								
2.2	2.5	2.6	2.6	2.4	2.3	2.7	2.6	2.8	2.6	2.9		1.1	1.1	1.1	1.2								

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
ALL DISTANCES WERE RECORDED IN MILLIMETERS (MM).

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TABLE E45 (PAGE 11): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT # MEAN	DOSAGE GROUP I								0 MG/KG/DAY								DAY 22 POSTPARTUM						
1302	/ MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA												
11.2	13.6	13.5	14.5	15.1	15.2	8.5	7.9	8.7	8.1	9.1	8.8												
1304	/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA											
11.9	15.9	15.2	14.9	14.5	15.2	13.2	8.1	8.3	9.2	10.0	9.0	9.5											
1306	/ MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA							
10.5	14.0	13.5	12.4	13.6	13.0	12.6	13.5	12.8	8.0	7.3	7.5	7.8	8.0	8.6	7.7	7.8							
1308	/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA							
9.0	12.8	12.0	11.9	11.8	12.7	11.6	7.8	6.6	6.4	7.0	7.9	6.2	7.8	6.8	7.6	7.3							
1310	/ MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA									
11.7	14.6	13.3	13.0	13.4	13.4	14.3	12.9	13.3	13.8	8.6	8.0	8.2	8.6	8.7									
1312	/ MA	MA	FA	FA																			
12.5	14.8	15.0	10.3	9.8																			
1313	/ MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FD17										
11.3	13.3	14.0	15.0	15.6	16.0	9.1	9.3	9.9	7.1	8.1	9.1	9.2											
1316	NOT PREGNANT																						
1318	/ MA	MA	MA	MA	MA	MA	MA	MA	MM2	FA	FA	FA	FA	FA	FA								
12.3	16.3	14.6	13.5	14.7	14.9	15.0	15.5	16.3		8.6	9.2	8.2	8.5	8.7	7.9								
1321	/ MA	MA	MA	MA	MA	MA	MA	MM11	FA	FA	FA	FA	FA	FA	FA	FA	FD10						
9.8	13.6	13.9	12.8	13.7	12.0	12.6	11.8		7.0	7.1	6.8	7.2	6.9	7.2	7.6	6.6							
1325	/ MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA												
9.6	11.7	14.1	12.0	11.3	11.2	7.2	7.5	8.4	7.9	7.2	7.6												
1328	/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA										
11.7	14.6	15.1	12.9	14.1	14.4	15.3	14.2	7.8	9.8	8.1	8.6	8.6	8.4										
1330	/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA							
9.0	12.0	12.6	12.2	11.8	11.5	11.6	11.7	6.9	7.0	6.9	7.4	6.3	6.8	6.2	6.9	6.8							
1331	/ MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MM12	FA	FA	FA	FA							
11.4	12.5	13.0	12.0	13.2	12.7	12.7	11.9	11.9	12.4	13.3	13.2		7.1	8.3	7.9	8.2							
1334	/ MA	MA	MA	MA	MA	MA	FA	FA	FA														
12.3	15.2	13.9	13.8	14.9	15.2	13.5	7.8	8.5	7.8														
1335	/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA											
11.5	15.6	14.2	14.6	13.0	14.2	14.0	9.0	8.3	8.8	8.6	8.3	9.1											
1336	/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA								
11.6	15.0	14.0	14.3	14.9	13.8	14.5	15.5	9.2	8.7	9.2	9.4	8.7	8.2	9.4	9.1								
1338	/ MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FD16						
10.3	13.7	12.4	10.7	14.0	14.1	12.4	12.4	12.9	6.4	8.7	7.9	8.4	8.4	7.2	8.4	7.0							

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
ALL DISTANCES WERE RECORDED IN MILLIMETERS (MM).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 12): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT #	MEAN	DOSAGE GROUP I							0 MG/KG/DAY								DAY 22 POSTPARTUM							
1340		/ MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA									
	12.2	13.2	13.1	15.5	14.9	15.4	13.3	15.6	15.2	8.6	9.9	8.9	8.7	9.0	9.0									
1341		/ MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA											
	11.4	16.0	15.9	15.6	16.0	9.0	9.9	9.4	10.2	8.6	9.4	8.1	9.0											
1342		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA							
	11.6	14.4	15.2	15.1	15.0	14.0	15.8	14.5	13.8	12.6	8.5	8.1	9.0	7.5	6.8	7.8	8.4							
1344		/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA								
	10.9	15.2	14.7	14.5	14.6	13.2	13.2	13.5	8.0	7.2	8.4	7.5	9.3	8.0	8.4	8.0								
1345		/ MA	MA	MA	MA	MD4	MS	FA	FA	FA	FA	FA	FA	FA	FA	FA	FS							
	10.8	15.6	15.4	14.6	15.1			8.5	9.4	8.6	9.3	8.2	9.2	9.1	8.8	8.3								
1346		/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA													
	11.6	13.6	13.0	14.4	14.0	14.5	14.1	8.5	7.5	9.2	7.4													
1348		/ MA	MA	MA	MA	MA	MA	MS	MA	MA	FA	FA	FA	FA	FA	FA	FS							
	11.2	13.3	14.1	14.6	13.2	14.3	13.4		14.2	14.7	7.7	7.9	7.2	8.8	7.2	6.9								
1350		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA						
	10.5	12.8	11.6	12.2	12.7	11.5	12.5	11.1	9.8	10.9	12.8	11.4	11.3	12.2	6.3	6.2	6.3	7.7						
1353		/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FU									
	10.6	14.9	13.9	13.0	12.5	13.5	13.3	7.9	8.0	8.6	7.9	7.7	8.7	8.6										
1355		/ MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA								
	10.4	14.6	15.2	14.6	15.1	8.7	8.6	8.6	8.8	8.2	9.0	9.1	8.4	9.3	8.7	8.4								
1358		NOT PREGNANT; MATING NOT CONFIRMED																						
1359		/ MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FS									
	10.8	14.4	14.5	13.3	14.9	13.6	8.5	8.5	9.0	8.6	9.2	7.8	8.8	8.8										

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
ALL DISTANCES WERE RECORDED IN MILLIMETERS (MM).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 13): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT #	MEAN	DOSAGE GROUP II									1 MG/KG/DAY										DAY 22 POSTPARTUM			
1362		/ MA	MA	MA	MA	FA	FA	FA																
	11.9	14.4	14.9	14.7	13.6	8.8	8.5	8.5																
1363		/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FD4	FS					
	10.4	13.1	13.5	12.9	15.6	12.7	13.5	12.6	8.7	8.9	8.3	8.1	7.8	8.3	7.6	8.7	6.9							
1364		/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA								
	10.4	14.1	14.0	13.1	13.3	12.5	13.5	13.0	7.6	8.7	8.1	8.1	7.2	7.7	7.9	7.5								
1367		/ MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA										
	11.6	13.3	13.5	13.7	14.4	14.3	14.4	13.4	13.3	8.8	8.5	7.6	8.2	7.6										
1368		/ MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA								
	11.5	15.4	13.6	13.5	14.9	15.3	13.4	14.0	14.1	8.6	8.1	8.3	8.7	9.2	7.7	8.3								
1371		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FD9						
	11.2	13.3	12.5	13.6	13.0	13.3	12.1	12.2	12.7	11.3	13.6	11.9	7.7	8.1	7.4	8.9	7.8							
1375		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FD17									
	12.2	15.4	14.1	13.0	14.6	14.3	14.6	14.3	13.2	13.8	8.9	7.9	6.4	8.6										
1376		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MS	MS	FA	FA	FA	FA	FA						
	11.5	13.0	12.9	13.9	12.7	13.5	13.0	12.4	12.9	13.6	12.6			7.8	8.3	8.7	8.9	8.5						
1378		NOT PREGNANT																						
1379		/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA											
	10.5	12.6	14.1	12.6	13.4	13.2	13.7	7.8	7.9	6.8	8.3	8.0	7.4											
1381		/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA											
	12.3	16.1	15.4	15.0	15.2	16.0	16.1	8.1	9.2	9.7	9.4	8.6	9.0											
1382		/ MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA										
	10.7	14.5	13.5	14.3	13.8	14.9	9.2	8.4	8.4	8.8	8.0	8.3	8.6	8.8										
1383		/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA												
	11.9	14.7	15.2	15.5	14.1	13.8	14.9	8.5	7.6	8.5	9.4	9.0												
1384		/ MA	MA	MA	MA	MA	MM4	FA	FA	FA	FA	FA	FA	FA										
	10.6	14.2	14.2	15.0	14.6	13.0		8.3	7.7	8.0	7.2	7.4	9.0	8.0										
1387		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FS						
	11.3	13.7	13.6	13.4	12.9	13.0	14.3	13.1	14.7	14.3	8.5	8.5	8.3	8.1	8.1	8.7	8.2							
1389		/ MA	MA	MA	MA	MA	MA	MA	MD7	FA	FA	FA	FA	FA	FA	FA	FA							
	10.0	12.2	13.0	13.9	13.0	15.1	13.4	11.5		7.7	7.0	7.3	7.8	6.8	7.1	8.0	6.8							
1392		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA						
	9.6	10.8	11.6	11.8	11.8	11.8	11.6	11.3	12.5	12.4	7.5	7.4	7.2	7.2	7.8	7.0	7.0	6.5						
1393		/ MA	MA	MA	MA	MA	MS	FA	FA	FA	FA	FA	FA											
	11.3	14.7	15.0	14.8	15.5	15.4		8.0	8.1	7.6	9.0	8.1	8.3											

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
ALL DISTANCES WERE RECORDED IN MILLIMETERS (MM).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 14): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT # MEAN	DOSAGE GROUP II							1 MG/KG/DAY							DAY 22 POSTPARTUM								
1397	/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA											
13.2	16.0	15.0	15.6	15.5	16.3	16.9	15.6	9.9	9.6	9.7	9.1	9.3											
1399	/ MA	MA	MA	MA	FA	FA	FA	FA	FA	FA													
12.1	16.5	16.6	17.1	14.4	9.7	9.8	9.3	9.4	9.0	9.6													
1401	/ MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA											
10.9	14.0	15.0	13.4	15.7	14.6	8.4	8.4	8.0	7.2	8.8	8.5	9.2											
1404	/ MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA								
11.6	13.5	12.1	12.8	13.4	12.1	13.6	13.6	15.0	13.0	13.5	8.7	8.2	9.2	7.2	8.4								
1407	/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA								
10.4	12.0	13.3	12.9	13.1	12.1	13.5	12.2	8.7	7.7	8.8	8.4	8.7	8.1	8.3	8.8								
1409	/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA											
13.3	16.8	15.9	16.6	15.0	15.5	16.3	15.8	8.9	9.8	9.4	9.6	10.0											
1410	/ MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FM5						
12.9	14.8	14.1	13.3	14.8	13.8	14.2	14.0	16.2	13.0	13.9	13.0	13.8	14.4	7.9	8.0	7.9							
1413	/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA										
11.7	14.8	13.8	14.3	12.2	15.3	13.8	14.5	8.8	8.0	8.1	9.4	9.3	9.3										
1415	/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA										
10.2	12.5	12.7	12.6	11.9	12.7	12.2	11.5	8.0	6.8	8.0	8.5	7.3	7.7										
1416	/ MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA									
9.1	14.4	12.8	13.0	8.1	8.1	8.0	7.3	8.1	7.6	8.5	7.9	8.0	8.0	7.8									
1418	/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FM14	FD3	FM3							
10.4	13.6	15.5	13.6	11.5	15.4	13.0	8.8	8.2	7.8	7.3	7.1	6.1	7.6										

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
ALL DISTANCES WERE RECORDED IN MILLIMETERS (MM).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 15): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT # MEAN	DOSAGE GROUP III									3 MG/KG/DAY												DAY 22 POSTPARTUM	
1421	/ MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FD1	FD1						
10.5	11.9	12.8	11.4	12.5	11.9	12.3	11.6	11.8	11.7	12.5	8.1	6.7	8.3	7.0	7.5								
1424	/ MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA						
9.0	10.6	10.6	11.2	12.5	10.8	10.9	12.0	10.1	10.2	6.6	6.5	6.7	6.6	6.8	7.4	7.1	6.7						
1426	/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA										
10.4	11.3	12.6	12.5	14.4	12.6	13.4	12.3	7.6	6.9	8.4	7.1	8.7	7.7										
1428	/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA								
10.6	13.8	14.6	13.3	14.7	15.0	12.6	7.8	8.8	8.2	7.8	8.6	7.7	8.8	8.6	8.6								
1430	/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA						
9.5	13.3	13.2	13.8	12.8	11.9	13.6	6.7	8.6	8.4	7.4	6.9	6.7	8.9	7.7	6.5	7.7	7.3						
1431	/ MA	MA	MA	MA	MA	MA	MA	MA	MA	MD1	FA	FA	FA	FA	FA	FM2							
12.8	16.2	14.8	15.2	15.0	14.9	15.4	16.5	14.9	13.9		7.9	7.8	9.4	9.1	8.7								
1433	/ MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FD8					
11.4	14.6	14.4	13.3	13.8	13.1	13.8	13.5	12.7	14.1	13.1	8.0	8.6	9.0	8.7	8.2	7.5	8.3						
1436	/ MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA											
11.7	12.5	13.4	13.9	12.7	13.6	13.3	12.4	13.5	8.8	8.8	8.4	8.7											
1437	/ MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA								
10.6	13.3	13.5	12.1	13.2	14.3	12.9	13.7	13.0	12.7	6.6	8.0	8.8	6.8	6.4	6.2	8.6							
1439	/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FD1	FS	FS											
13.9	15.4	15.8	16.7	15.8	16.3	14.9	10.6	9.9	9.5														
1442	/ MA	MA	MA	MA	FA	FA	FA																
13.0	17.0	15.4	15.6	14.2	10.7	9.0	9.0																
1443	/ MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA									
11.4	13.8	14.6	14.2	13.9	14.3	13.1	15.1	12.0	7.5	8.6	7.4	8.9	8.7	8.0									
1446	NOT PREGNANT																						
1448	/ MA	MA	MA	MA	MA	MA	MS	MS	FA	FA	FA	FA	FA	FA	FA	FA							
10.2	13.8	13.5	14.5	13.1	13.7	12.8			7.1	8.8	8.1	7.6	8.3	6.8	8.1	7.0							
1450	/ MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA									
9.3	12.8	12.1	12.4	13.6	7.9	8.4	8.1	7.7	7.3	7.7	8.8	8.2	7.4	7.4									
1452	/ MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FM2									
10.6	10.9	11.6	12.4	12.9	11.8	12.5	12.6	11.6	9.4	8.0	8.5	7.9	7.2										
1455	/ MA	MA	MA	MA	MA	MM6	MD5	MM3	FA	FA	FA	FA	FA	FM6	FD6								
10.9	13.5	13.8	13.8	14.6	12.7				8.0	8.6	7.9	7.8	8.3										
1456	/ MA	MA	MA	MA	FA	FA																	
12.2	12.6	12.3	14.2	15.9	9.1	9.4																	

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
ALL DISTANCES WERE RECORDED IN MILLIMETERS (MM).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 16): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT #	MEAN	DOSAGE GROUP III								3 MG/KG/DAY												DAY 22 POSTPARTUM		
1458		NOT PREGNANT																						
1459		/ MA	MA	MA	MA	MA	MA	MA	MA	MD2	FA	FA	FA	FA	FA									
	12.1	13.6	14.7	14.7	15.0	14.1	14.3	15.9	14.0		10.0	9.0	7.7	7.0	7.0									
1461		/ MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA												
	12.1	15.1	15.5	15.8	14.6	10.0	10.4	10.2	10.1	10.1	10.2	10.9												
1463		/ MA	MA	MA	MA	MA	MA	MA	MS	FA	FA	FA	FA	FA	FA	FS								
	10.8	13.4	14.1	12.4	13.2	13.6	13.5	14.0		8.4	8.0	7.3	7.1	8.2	7.3									
1465		/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA							
	11.1	14.1	16.1	14.5	15.4	14.0	15.5	9.3	9.5	9.0	8.0	8.8	8.7	8.7	8.5	8.5	9.3							
1468		/ MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA							
	9.2	12.7	13.3	11.4	12.7	13.4	6.3	8.5	8.3	7.7	8.6	7.7	7.9	7.2	7.5	6.1	7.5							
1469		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA											
	11.8	13.8	13.2	14.2	12.6	12.0	12.4	11.6	12.6	13.0	8.6	8.3	9.0											
1472		/ MA	MA	MA	MA	MA	FA	FA	FA	FA	FA													
	12.4	14.6	16.1	15.0	14.5	15.1	9.8	10.2	9.7	8.3	11.2													
1474a																								
1476		/ MA	MA	MA	MA	MA	MA	MA	MD1	FA	FA	FA	FA	FA	FA	FA	FA	FA						
	9.9	11.9	13.6	12.9	11.3	13.3	12.4	12.0		8.6	8.0	7.7	8.0	7.7	8.7	8.2	7.0	7.1						
1477		/ MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FD6						
	9.6	14.3	12.9	10.3	9.2	11.3	11.8	12.6	10.2	7.2	7.3	7.4	7.7	8.3	8.0	6.5	8.3							
1480		/ MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA										
	10.1	14.1	14.4	16.0	8.8	9.1	8.8	8.7	7.9	7.6	8.4	9.0	9.1	9.0										

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
ALL DISTANCES WERE RECORDED IN MILLIMETERS (MM).
a. Anogenital distances for litter 1474 were not recorded.

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 17): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT #	MEAN	DOSAGE GROUP IV								10 MG/KG/DAY						DAY 22 POSTPARTUM								
1482		/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FD1	FS							
	10.4	13.4	12.6	12.9	13.4	14.4	12.6	8.0	8.9	9.1	7.8	8.5	7.8	8.6	7.3									
1483		NOT PREGNANT																						
1486		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA								
	11.5	13.3	12.2	14.8	13.2	14.9	12.8	14.1	13.6	12.4	8.9	8.2	7.9	8.9	9.1	8.4								
1488		/ MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA								
	12.7	15.2	15.5	15.0	16.8	16.6	15.1	16.9	12.6	9.6	9.4	10.0	8.7	9.4	10.0	10.4								
1490		/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA													
	14.4	16.1	15.4	15.5	17.7	17.6	16.6	17.3	9.5	9.3	8.6													
1491		/ MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	UU								
	9.4	13.9	13.8	12.1	12.2	7.5	8.3	8.4	7.7	8.1	8.5	7.8	8.8	7.7	6.9									
1494		/ MA	MA	MA	MA	MA	MA	MA	MA	MD1	FA	FA	FA	FA	FA									
	11.9	14.6	13.0	14.9	13.7	15.8	14.1	14.1	12.7		8.5	8.3	8.8	7.0	8.8									
1496		/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA										
	11.0	13.8	13.6	12.9	13.6	15.1	13.9	12.8	8.5	7.8	7.1	8.3	8.4	7.2										
1497		/ MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA												
	11.3	12.9	14.7	14.6	16.3	9.2	9.9	10.0	9.5	9.3	8.7	9.0												
1500		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FS								
	11.9	12.5	13.3	14.3	13.8	13.7	15.0	13.1	14.4	14.8	9.0	8.1	8.3	8.1	7.8									
1502		/ MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FD2										
	11.0	14.7	15.7	16.2	16.0	8.9	7.5	9.4	9.3	9.2	7.5	8.1	8.9											
1505		/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA							
	9.1	11.0	12.6	11.5	9.0	11.0	12.0	11.3	7.7	7.8	6.2	8.3	7.6	7.2	7.7	7.7	6.6							
1507		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA							
	10.2	12.9	12.3	11.7	12.4	13.4	11.9	12.5	12.0	11.6	7.5	7.9	8.0	7.3	8.3	7.0	7.2							
1508		/ MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FD2										
	9.9	12.7	14.3	13.0	14.4	8.2	8.5	7.4	8.2	7.9	9.0	7.9	7.7											
1511		NOT PREGNANT																						
1513		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	MS									
	11.9	12.5	13.7	14.3	13.3	13.7	13.6	13.0	13.5	14.0	7.0	8.8	8.7	8.5										
1514		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FD12						
	11.3	14.8	15.0	13.8	14.0	13.1	14.4	13.6	13.3	12.0	7.3	8.6	8.5	9.1	7.4	8.1	7.5							
1516		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA										
	12.3	13.4	14.5	13.0	14.3	13.9	15.2	14.4	13.4	14.6	7.8	8.7	9.0	8.3										

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
ALL DISTANCES WERE RECORDED IN MILLIMETERS (MM).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 18): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT #	MEAN	DOSAGE GROUP IV								10 MG/KG/DAY							DAY 22 POSTPARTUM							
1517		/ MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA								
	9.6	12.4	11.7	11.8	11.6	12.9	11.5	10.9	10.6	7.2	6.9	8.0	7.0	7.2	6.9	6.9								
1519		/ MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FD18							
	10.6	13.7	14.5	13.5	14.1	11.8	14.2	13.6	13.4	8.0	6.3	8.0	7.1	7.0	8.2	6.4								
1521		/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA											
	11.0	12.7	13.0	14.0	13.6	12.0	13.0	12.5	8.8	8.6	8.3	7.7	8.4											
1523		/ MA	MA	MA	MA	MA	MA	MA	MD1	FA	FA	FA	FA											
	12.4	14.8	14.9	15.2	14.3	12.1	15.0	15.5		9.4	8.4	8.0	8.8											
1524		/ MA	MA																					
	17.5	18.4	16.6																					
1527		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MM5	FA	FA	FA	FA	FA	FA						
	9.2	11.1	11.3	10.8	12.4	11.3	11.6	11.6	12.7	10.0	9.2		6.5	6.8	5.5	5.1	6.4	5.7						
1528		/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA													
	11.6	14.4	14.1	15.0	14.0	13.5	13.1	8.2	7.8	8.2	8.0													
1531		/ MA	MA	MA	MA	MA	MA	MA	MA	MS	FA	FA	FA	FA	FA	FS								
	11.8	13.3	14.4	15.0	14.8	13.4	12.9	13.7	13.9		9.3	8.3	9.0	5.9	9.2									
1533		/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FM6	FD1				
	9.9	13.7	14.6	13.8	11.0	12.9	12.0	8.6	8.0	8.0	6.9	9.1	8.1	8.9	7.3	7.5	8.6	9.0						
1534		/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA											
	10.2	12.6	12.7	14.4	12.7	12.7	12.4	8.0	7.1	7.3	7.5	7.9	7.5											
1537		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FS								
	10.6	11.8	12.0	12.1	11.6	12.9	13.4	10.5	12.0	11.6	12.4	7.5	7.3	7.7	6.1									
1539		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA									
	12.0	14.8	14.0	14.9	14.1	13.6	14.3	15.2	13.3	13.1	8.1	8.1	7.9	8.3	8.9									

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
ALL DISTANCES WERE RECORDED IN MILLIMETERS (MM).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 19): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT #	MEAN	DOSAGE GROUP V								30 MG/KG/DAY									DAY 22 POSTPARTUM					
1541		/ MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA									
	9.7	12.4	13.9	13.8	13.6	9.0	8.0	7.8	8.3	8.3	8.1	8.1	7.8	8.2	8.8									
1544		/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FM2	FS									
	11.4	14.6	12.4	13.9	16.0	12.5	15.0	9.1	8.9	8.3	8.7	9.1	8.7											
1545		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FD16	FD3				
	9.8	12.0	11.8	12.7	11.4	14.3	12.8	12.3	10.6	10.0	7.6	7.8	7.0	7.6	6.8	8.2	6.3	7.3						
1546		/ MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA								
	9.6	12.4	11.7	12.3	11.8	12.6	12.2	12.3	10.8	7.3	7.1	7.2	6.8	6.6	6.3	6.9								
1548		/ MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FS									
	9.6	12.3	14.5	13.3	13.9	7.8	8.1	8.1	8.6	7.7	7.9	7.5	7.2	8.3										
1550		/ MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA											
	10.5	13.4	13.1	14.4	14.0	14.0	9.3	8.6	8.6	7.1	8.7	7.4	7.9											
1552		/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA									
	10.2	13.0	13.2	13.4	13.4	12.6	11.6	12.0	7.9	7.7	8.1	7.7	6.8	7.9	6.8									
1555		/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FD6								
	9.5	11.5	12.3	11.8	11.7	11.6	12.2	12.5	7.3	7.1	6.7	7.6	7.2	7.0	6.2									
1557		/ MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA										
	10.3	14.0	13.8	13.1	13.5	12.7	8.6	8.3	8.2	8.0	8.3	8.0	8.7	9.2										
1558		/ MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA							
	11.4	13.1	13.8	14.4	13.4	12.9	14.2	13.4	13.9	12.5	14.2	9.0	8.1	7.2	8.7	7.1	7.0							
1560		/ MA	MA	MA	MA	MA	MA	MD7	FA	FA	FA	FA	FA	FA	FA	FA								
	9.2	12.6	11.7	12.0	11.8	12.5	11.8		7.0	8.0	6.4	7.0	8.8	6.3	6.3	6.0								
1564		/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA										
	10.3	13.1	13.0	13.3	12.4	13.0	13.3	8.1	7.2	8.1	7.9	8.3	8.2	7.5										
1565		/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA											
	11.8	14.9	14.0	14.2	14.5	13.8	14.9	9.6	9.4	8.5	9.1	9.1	9.4											
1566		/ MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA								
	8.3	13.1	12.2	8.1	7.9	7.4	7.5	7.8	7.2	7.4	8.2	8.3	7.1	7.8	8.3	6.9								
1568		/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA										
	11.9	14.3	15.0	14.7	13.0	14.2	15.6	14.2	8.8	8.9	8.5	9.0	9.4	9.7										

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
ALL DISTANCES WERE RECORDED IN MILLIMETERS (MM).

PROTOCOL 418-020: ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS (SPONSOR'S STUDY NUMBER: T-6889.6)

TABLE E45 (PAGE 20): ANOGENITAL DISTANCE - INDIVIDUAL DATA - F2 GENERATION PUPS

PUP #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
RAT # MEAN	DOSAGE GROUP V								30 MG/KG/DAY							DAY 22 POSTPARTUM							
1571	/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA										
9.7	12.2	11.9	13.4	11.6	13.0	12.5	7.2	8.0	7.0	7.9	6.8	6.7	7.7										
1573	/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA								
11.0	15.1	13.3	13.6	14.4	14.3	14.8	13.3	8.5	7.3	8.1	8.7	8.1	8.2	9.2	8.7								
1576	/ MA	MA	MA	MA	MA	MA	MM8	MD7	FA	FA	FA	FA	FA										
10.2	12.0	12.4	13.0	11.7	12.4	12.0			7.0	7.4	8.5	8.2	7.5										
1578	NOT PREGNANT																						
1579	/ MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA								
10.5	14.0	12.7	14.5	13.0	12.8	13.7	11.5	13.6	8.2	7.1	7.4	7.5	8.1	5.9	7.3								
1583	/ MA	MA	MA	MA	MM3	FA	FA	FA	FA	FA	FA	FA											
10.7	14.0	14.1	14.6	14.7		8.4	9.0	8.8	8.8	9.0	8.5	8.0											
1584	/ MA	MA	MA	FA																			
16.3	18.4	17.9	18.9	10.1																			
1586	/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA										
11.4	13.7	15.0	12.4	13.3	12.9	14.9	12.3	8.2	8.4	8.8	9.1	9.4	9.3										
1587	/ MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA												
10.7	14.0	13.9	14.1	12.8	12.2	9.5	8.9	9.0	8.3	7.6	7.8												
1588	/ MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA										
10.1	12.9	13.5	13.9	12.5	9.3	8.6	7.9	9.2	8.4	8.0	8.9	9.0	8.7										
1589	/ MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA									
9.0	11.0	11.2	11.8	11.2	12.4	12.0	8.1	7.0	6.7	7.6	6.9	7.0	6.4	6.3									
1591	/ MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA									
11.6	12.5	13.2	13.2	13.2	14.6	13.0	12.1	12.7	13.4	12.3	8.0	6.9	7.7	9.0									
1593	/ MA	MA	FA	FA	FA	FA																	
11.3	15.2	15.0	9.8	8.6	9.3	9.8																	
1598	/ MA	MA	MA	MA	MA	MA	MA	FA	FA	FA	FA	FA	FA	FA	FA	FA	FA						
8.7	11.8	11.5	10.7	12.0	11.6	11.6	11.8	5.9	7.4	7.6	6.6	6.6	6.8	7.2	5.9	7.0	5.9						
1600	/ MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MD1	FA	FA	FA	FA								
11.2	13.6	13.4	14.0	13.8	12.8	12.7	12.2	12.2	11.3	12.1		8.2	7.1	6.6	6.9								

FIRST LETTER -- M-MALE, F-FEMALE, U-SEX UNDETERMINABLE
SECOND LETTER -- A-ALIVE, S-STILLBORN, U-UNCERTAIN, D-DIED, M-MISSING (PRESUMED CANNIBALIZED), X-MISSING; SACRIFICED WHEN FOUND
ALL DISTANCES WERE RECORDED IN MILLIMETERS (MM).

APPENDIX F

PROTOCOL AND AMENDMENTS

PRIMEDICA

Argus Research Laboratories, Inc.
905 Sheehy Drive, Building A
Horsham, PA 19044
Telephone: (215) 443-8710
Telefax: (215) 443-8587

PROTOCOL 418-020

SPONSOR'S STUDY NUMBER: T-6889.6

STUDY TITLE: Oral (Gavage) Two-Generation (One Litter per Generation) Reproduction Study of Ammonium Perfluorooctanoate (APFO) in Rats

PURPOSE: The purpose of this study is to provide information concerning the effects of Ammonium Perfluorooctanoate (APFO) on the male and female reproductive systems in Crl:CD®(SD)IGS BR VAF/Plus® rats, including gonadal function, estrous cycles, mating behavior, conception, parturition, lactation, weaning and the growth and development of offspring. The study is also designed to provide information about effects on neonatal morbidity, mortality and preliminary data on potential prenatal developmental toxicity, as well as to serve as a guide for use in the design of subsequent tests.

For further information on functional deficiencies and development, additional study segments can be incorporated into the protocol based on the guidelines for developmental toxicity and developmental neurotoxicity.

TESTING FACILITY: Argus Research Laboratories, Inc.
905 Sheehy Drive, Building A
Horsham, Pennsylvania 19044-1297
Telephone: (215) 443-8710
Telefax: (215) 443-8587

STUDY DIRECTOR: Raymond G. York, Ph.D., DABT
Associate Director of Research
raymond.york@primedica.com

SPONSOR: 3M Corporate Toxicology
3M Center, Building 220-2E-02
St. Paul, Minnesota 55144-1000

STUDY MONITOR: John Butenhoff, Ph.D., DABT, CIH
3M Corporate Toxicology
3M Medical Department
Telephone: (651) 733-1962
Telefax: (651) 733-1773

REGULATORY CITATIONS:

U.S. Environmental Protection Agency (1998). Health Effects Test Guidelines; Reproduction and Fertility Effects. Office of Prevention, Pesticides and Toxic Substances (OPPTS) 870.3800, August, 1998.

U.S. Environmental Protection Agency (1997). Toxic Substances Control Act (TSCA) Test Guidelines; Final Rule. Reproduction and Fertility Effects, 799.9380 (cross-referenced to OPPTS 870.3800). *Federal Register*, August 15, 1997.

U.S. Environmental Protection Agency. Federal Insecticide, Fungicide and Rodenticide Act/Toxic Substances Control Act (FIFRA/TSCA); Good Laboratory Practice Standards; Final Rule. 40 CFR Part 160/Part 792.

Organization for Economic Cooperation and Development (1998). The Revised OECD Principles of Good Laboratory Practices [C(97)186/Final].

REGULATORY COMPLIANCE:

This study will be conducted in compliance with the Good Laboratory Practice (GLP) regulations cited above.

All changes or revisions of this protocol shall be documented, signed by the Study Director and the Sponsor, dated and maintained with the protocol.

The Testing Facility's Quality Assurance Unit (QAU) will audit the protocol, the raw data and the report, and will inspect critical phases of those portions of the study conducted at the Testing Facility in accordance with the Standard Operating Procedures of Argus Research Laboratories, Inc.

Should any portion of the study be conducted by a subcontractor or by the Sponsor, the QAU for that facility will conduct critical phase inspections and audit respective results and reports for that study portion according to the SOPs of that facility. Such critical phase inspection reports and report audits will be submitted by that facility to the Study Director. The dates of the inspections and report submissions will be incorporated into a QAU Statement generated by that facility and provided to the Testing Facility for inclusion in the final report.

The final report will include a compliance statement signed by the Study Director that the report accurately reflects the raw data obtained during the performance of the study

and that all applicable GLP regulations were followed in the conduct of the study. Should significant deviations from GLP regulations occur, each will be described in detail, together with how the deviation might affect the quality or integrity of the study.

SCHEMATIC OF STUDY DESIGN AND STUDY SCHEDULE:

See ATTACHMENT 1 to the protocol.

TEST SUBSTANCE AND VEHICLE:

Identification:

Test Substance:

Ammonium Perfluorooctanoate (APFO), Lot 332.

The Sponsor will provide to the Testing Facility documentation or certification of the identity, composition, method of synthesis, strength and purity of the test substance.

Vehicle:

Reverse Osmosis Membrane Processed Deionized Water (R.O. deionized water).

Neither the Sponsor nor the Study Director is aware of any potential contaminants likely to be present in the vehicle that would interfere with the results of this study. Therefore, no analyses other than those mentioned in this protocol will be conducted.

Safety Precautions:

Gloves, dust-mist/HEPA-filtered mask, appropriate eye protection and uniform/lab coat to be worn during formulation preparation and dosage. In addition, Tyvek sleeves and a half-face respirator will be worn and preparation will be conducted in a chemical fume hood when using the bulk test substance. The Material Safety Data Sheet (MSDS) is attached to the protocol (ATTACHMENT 2).

Storage:

Bulk Test Substance:	Room temperature.
Vehicle:	Room temperature.
Prepared Formulations:	Refrigerated, protected from light.

All test substance shipments should be addressed to the attention of Julian Gulbinski, Manager of Formulations, at the previously cited Testing Facility address and telephone number.

Shipments should include information concerning storage conditions and shipping

cartons should be labeled appropriately. The recipient should be notified in advance of shipment.

FORMULATION:

Frequency of Preparation:

Formulations (solutions) are prepared weekly at the Testing Facility.

Detailed preparation procedures are attached to this protocol (ATTACHMENT 3).

Adjustment for Purity:

The test substance will be considered 100% pure for the purpose of dosage calculations.

Testing Facility Reserve Samples:

The Testing Facility will reserve a 1 g sample of each lot of bulk test substance and a 5 mL sample of vehicle used during the course of the study. Samples will be stored under the previously cited conditions.

ANALYSES:

Results of required analyses will be provided to the Testing Facility for inclusion in the study report.

Samples additional to those described below may be taken if deemed necessary during the course of the study.

Bulk Test Substance Sampling:

A sample (1g) of the test substance will be taken on the last day of treatment and sent (ambient conditions) to the Sponsor for analysis.

This sample will be sent to:

Kris J. Hansen, Ph.D.
3M Environmental Technology & Safety Services
935 Bush Avenue
Building 2-3E-09
St. Paul, Minnesota 55133-3331

Telephone: (651) 778-6018
Telefax: (651) 778-6176

The recipient will be notified in advance of sample shipment.

Analyses of Prepared Formulations:

Concentration:

Concentration of the prepared formulations will be verified during the course of this study. Duplicate samples will be taken from each concentration on the first and last days of preparation. One sample of each duplicate set will be shipped for analysis; the remaining samples will be retained as backup samples. Backup samples will be stored under the previously cited conditions and discarded at the Testing Facility upon the request of the Sponsor.

Stability:

Stability of the prepared formulations will be documented during this study. Two sets of duplicate samples (2 mL each) from each concentration will be taken on the first day of preparation. One sample of each duplicate set will be shipped on the day of preparation. These samples will be analyzed at the following time points: as soon after preparation as possible and ten days after the first analysis. The remaining samples will be retained at the Testing Facility as backup samples. Backup samples will be stored under the previously cited conditions and discarded at the Testing Facility upon the request of the Sponsor.

Shipping Instructions:

Samples to be analyzed will be shipped (on cold packs, protected from light) to Kris J. Hansen, Ph.D., at the previously cited address.

The recipient will be notified in advance of sample shipment.

DISPOSITION:

Prepared formulations will be discarded at the Testing Facility. All remaining bulk test substance will be returned to:

Nelda Marecki, Ph.D.
3M SMMG EHS&R
3M Center
Building 236-1B-10
St. Paul, MN 55144-1000

TEST SYSTEM:

Species/Strain and Reason for Selection:

The Crl:CD®(SD)IGS BR VAF/Plus® rat was selected as the Test System because: 1) this strain of rat has been demonstrated to be sensitive to reproductive and developmental toxins and has been widely used throughout industry for reproductive and developmental toxicity evaluations; 2) historical data and experience exist at the Testing Facility[1-3]; and 3) the test article is pharmacologically active in the species and strain.

Number:

P Generation:

Initial population acclimated: 165 virgin male rats and 165 virgin female rats.
Population selected for study: 150 virgin male rats and 150 virgin female rats (30 per sex per group).

F1 Generation:

150 male rats and 150 female rats, 30 rats per sex per group, will be selected for continued evaluation. An attempt will be made to select F1 generation rats to avoid over-representation of any P generation parental pair into the F2 generation.

Body Weight and Age:

P generation rats will be ordered to weigh from 100 g to 125 g each at receipt, at which time they will be expected to be at least 35 days of age. Actual body weights recorded will be recorded the day after receipt and will be documented in the raw data. The weight range will be included in the final report.

Sex:

Both male and female rats will be evaluated.

Source:

P Generation:

Charles River Laboratories, Inc.

The rats will be shipped in filtered cartons by air freight and/or truck from Charles River Laboratories, Inc., to the Testing Facility.

F1 and F2 Generations:

Offspring will be delivered at the Testing Facility by the pregnant P or F1 generation dams in this study.

Identification:

P Generation:

Rats are permanently identified using Monel® self-piercing ear tags (Gey Band and Tag Co., Inc., No. MSPT 20101). Male and female rats will be assigned temporary numbers at receipt and given unique permanent identification numbers when assigned to the study before administration of the first dosage of the test substance.

F1 and F2 Generations:

Pups will not be individually identified during the postpartum period; all parameters will be evaluated in terms of the litter. At weaning, each F1 generation rat selected for continued observation will be identified with a Monel® self-piercing ear tag.

ANIMAL HUSBANDRY:

All cage sizes and housing conditions are in compliance with the *Guide for the Care and Use of Laboratory Animals*[4].

Housing:

P Generation Rats/F1 Generation Litters:

P generation rats will be individually housed in stainless steel, wire-bottomed cages except during the cohabitation and postpartum periods. During cohabitation, each pair of rats will be housed in the male rat's cage. Beginning no later than day 20 of presumed gestation, female rats will be individually housed in nesting boxes. Each dam and delivered litter will be housed in a common nesting box during the postpartum period.

F1 Generation Rats/F2 Generation Litters:

After weaning, the F1 generation rats will be individually housed before cohabitation, housed in pairs (one male rat per female rat) during cohabitation, and individually housed after cohabitation. The same type of caging will be used as described for the P generation rats. Beginning no later than day 20 of presumed gestation, female rats will be individually housed in nesting boxes. Each dam and delivered litter will be housed in a common nesting box during the postpartum period.

Nesting Material:

Nesting material (bed-o'cobs®) will be provided.

Bedding will be changed as often as necessary to keep the animals dry and clean. Analyses for possible contamination are conducted semi-annually and documented in the raw data.

Room Air, Temperature and Humidity:

The animal room is independently supplied with at least ten changes per hour of 100% fresh air that has been passed through 99.97% HEPA filters. Room temperature will be maintained at 64°F to 79°F (18°C to 26°C) and monitored constantly. Room humidity will also be monitored constantly and maintained at 30% to 70%.

Light:

An automatically controlled 12-hour light:12-hour dark fluorescent light cycle will be maintained. Each dark period will begin at 1900 hours EST.

Diet:

Rats will be given Certified Rodent Diet® #5002 (PMI Nutrition International), available *ad libitum* from individual feeders.

Water:

Water will be available *ad libitum* from individual bottles attached to the cages or from an automatic watering access system. All water will be from a local source and passed through a reverse osmosis membrane before use. Chlorine will be added to the processed water as a bacteriostat; processed water is expected to contain no more than 1.2 ppm chlorine at the time of analysis. Water is analyzed monthly for possible bacterial contamination and twice annually for possible chemical contamination.

Contaminants:

Neither the Sponsor nor the Study Director is aware of any potential contaminants likely to be present in the certified diet, the drinking water or the nesting material at levels that would interfere with the results of this study. Therefore, no analyses other than those routinely performed by the feed supplier or those mentioned in this protocol will be conducted.

DAY NUMBERING SYSTEM:

Gestation day 0 is defined as the day spermatozoa are observed in a smear of the vaginal contents and/or a copulatory plug observed *in situ*.

The day of birth is designated lactation day 0 (postpartum day 0) in the Health Effects Test Guidelines - Reproduction and Fertility Effects (Office of Prevention, Pesticides and Toxic Substances 870.3800, August, 1998). This same day is designated day 1 postpartum (day 1 of lactation) in the Standard Operating Procedures of the Testing Facility. Throughout this protocol, the day of birth will be designated day 1 postpartum (day 1 of lactation) and all subsequent ages of the F1 generation rats and days of the lactation period will be determined and cited accordingly.

RANDOMIZATION AND COHABITATION:

Upon arrival, P generation rats will be assigned to individual housing on the basis of computer-generated random units. After acclimation, rats will be selected for study on the basis of physical appearance and body weight. The rats will be assigned to dosage groups based on computer-generated (weight-ordered) randomization procedures.

Within each dosage group, consecutive order will be used to assign P generation rats to cohabitation, one male rat per female rat. A computer-generated randomization procedure or a table of random units will be used to assign F1 generation rats to cohabitation, one male rat per female rat. If random assignment to cohabitation results in the pairing of F1 generation siblings, an alternate assignment will be made.

The cohabitation period (P and F1 generation rats) will consist of a maximum of 14 days. Female rats with spermatozoa observed in a smear of the vaginal contents and/or a copulatory plug observed *in situ* will be considered to be at day 0 of presumed

gestation and assigned to individual housing. If a female rat has not been mated after two weeks, the pair of rats will be separated without further opportunity for mating.

Day 1 of lactation (postpartum) is defined as the day of birth and is also the first day on which all pups in a litter are individually weighed (pup body weights will be recorded after all pups in a litter are delivered and groomed by the dam).

Litters will not be culled during the lactation period, because random selection of pups for culling could result in potential biases in pup viabilities and body weight gains during this period.

All F1 generation rats will be weaned at the same age, based on observed growth and viability of these pups, on either day 22 postpartum, or if required, day 29 postpartum. Should it be necessary to extend the lactation period to day 29 postpartum, all affected observational intervals will be adjusted accordingly.

At weaning, a table of random units or a computer-generated randomization procedure will be used to select 30 male and 30 female F1 generation pups per group, resulting in a total of 300 rats (150 rats per sex) chosen for continued evaluation. At least one male pup and one female pup per litter, when possible, will be selected. If results warrant that the study be extended to include a third generation, the procedures previously described for the F1 generation will be used for selection of F2 generation pups continued on study.

If study results should warrant (e.g., poor reproduction performance in the control group or treatment-related alterations in litter size), parental pairs may be remated to produce F1b or F2b litters. If production of a second litter is deemed necessary, the second cohabitation period will be scheduled approximately one to two weeks following weaning of the F1a or F2a litters.

ADMINISTRATION:

Route and Reason for Choice:

The oral (gavage) route was selected for use because: 1) in comparison with the dietary route, the exact dosage can be accurately administered; and 2) it is one possible route of human exposure.

Method and Frequency:

P Generation:

Male and female rats will be given the test substance once daily, beginning at approximately six weeks of age (at least 70 days before cohabitation) and continuing until the day before sacrifice. Dosages will be adjusted based on the most recently recorded body weight and given at approximately the same time each day.

F1 Generation:

F1 generation pups may be exposed to the test substance during maternal gestation (*in utero* exposure) or via maternal milk during the postpartum period. F1 generation rats will be given the same dosage level of the test substance as their respective P generation sires and dams. Dosages will be given once daily, beginning at weaning (approximately 70 days before cohabitation) and continuing until the day before sacrifice. Dosages will be adjusted at least weekly for body weight changes and given at approximately the same time each day.

F2 Generation:

Pups may be exposed *in utero* during gestation or via maternal milk during the lactation period.

Rationale for Dosage Selection:

Dosages were selected on the basis of prior dietary and gavage studies in rats performed by the Sponsor.

Concentrations may be adjusted if toxicity observed in the P or F1 generation rats indicates that it is required.

The highest dosage is expected to produce some toxicity. The intermediate dosage level is expected to produce minimal observable toxic effects, while the lowest dosage level is expected to produce no evidence of either systemic or reproductive toxicity [no-observable-adverse-effect level (NOAEL)].

Dosage Levels, Concentrations and Volumes:

Dosage Group	Number of Rats per Sex	Dosage (mg/kg/day)	Concentration (mg/mL)	Dosage Volume (mL/kg)	Argus Batch Number
I	30	0	0	5	B-418-020-A(Day.Month.Year)
II	30	1	0.2	5	B-418-020-B(Day.Month.Year)
III	30	3	0.6	5	B-418-020-C(Day.Month.Year)
IV	30	10	2	5	B-418-020-D(Day.Month.Year)
V	30	30	6	5	B-418-020-E(Day.Month.Year)

The test substance will be considered 100% pure of the purpose of dosage calculations.

TESTS, ANALYSES AND MEASUREMENTS - P GENERATION:

Viability - Male and Female Rats:

All Periods:	At least twice daily.

Clinical Observations and/or General Appearance - Male and Female Rats:

Acclimation Period:	Weekly.
Dosage/Exposure Period:	Daily before dosage. Postdosage observations will be recorded approximately 60 ±10 minutes after administration.
Maternal Behavior:	Days 1, 5, 8, 15 and 22 postpartum. Observed abnormal behavior recorded daily.

Clinical observations may be recorded more frequently than cited above if deemed appropriate by the Study Director and/or Study Monitor.

Body Weights - Male Rats:

Acclimation Period:	Weekly.
Dosage/Exposure Period:	Weekly.
Day of Sacrifice:	Prior to sacrifice.

Body Weights - Female Rats:

Acclimation Period:	Weekly.
Precohabitation Period:	Weekly.
Cohabitation Period:	Weekly.
Gestation Period:	Days 0, 7, 10, 14, 18, 21 and 25 (if required).
Postpartum Period:	Days 1, 5, 8, 11, 15 and 22 (terminal body weight recorded).

Feed Consumption Values - Male Rats (recorded and tabulated):

Dosage/Exposure Period:	Weekly.

Feed Consumption Values - Female Rats (recorded and tabulated):

Precohabitation Period: Weekly.

Gestation Period: Days 0, 7, 10, 14, 18, 21 and 25 (if necessary).

Postpartum Period: Days 1, 5, 8, 11 and 15.

Feed consumption not tabulated after day 15 postpartum, when it is expected that pups will begin to consume maternal feed.

Feed Consumption Values - Male and Female Rats:

Feed consumption values may be recorded more frequently than cited above if it is necessary to replenish the feed. During cohabitation, when two rats occupy the same cage with one feed jar, replenishment of the feed jars will be documented. Individual values will not be recorded or tabulated.

Estrous Cycling and Mating:

Estrous cycling will be evaluated daily by examination of vaginal cytology beginning 21 days before the scheduled cohabitation period and continuing until spermatozoa are observed in a smear of the vaginal contents and/or a copulatory plug is observed *in situ* during the cohabitation period.

On the day of scheduled sacrifice, an examination of vaginal cytology will be performed to determine the stage of estrous cycle.

Duration of Gestation:

The duration of gestation is calculated from day 0 of presumed gestation to the day the first pup is observed.

Litter Observations:

Litters will be examined after delivery to identify the number and sex of pups, stillbirths, live births and gross alterations.

Fertility Parameters:

Fertility Index (percentage of matings that result in pregnancies). Reported for each sex.

Gestation Index (percentage of pregnancies that result in birth of live litters).

Number and sex of offspring per litter (live and dead pups).

Number of implantation sites.

General condition of dam and litter during the postpartum period.

Litter Data:

Litter size and viability [tabulated at birth (day 1) and on days 5, 8, 15 and 22 postpartum].

Viability Indices (percentages of pups born that survive to days 1 and 5 postpartum.

Lactation Index (percentage of pups that survive from day 8 to day 22 postpartum).

Percent Survival and Sex Ratio [tabulated at birth (day 1) and on days 5, 8, 15 and 22 postpartum].

TESTS, ANALYSES AND MEASUREMENTS - F1 GENERATION:

Viability:

Preweaning Period:	Litters will be observed for dead pups at least twice daily. The pups in each litter will be counted once daily.
Postweaning Period:	Twice daily.

Clinical Observations and/or General Appearance - Male and Female Rats:

Preweaning Period:	Daily.
Postweaning Period:	Daily before dosage. Postdosage observations will be recorded approximately 60 ±10 minutes after administration.
Maternal Behavior:	Days 1, 5, 8, 15 and 22 postpartum. Observed abnormal behavior recorded daily.

Clinical observations may be recorded more frequently than cited above if deemed appropriate by the Study Director and/or Study Monitor.

Body Weights - Male and Female Rats:

Preweaning Period:	Days 1 (liveborn pups), 5, 8, 15 and 22 postpartum.
Postweaning Period:	Weekly.

Presumed Gestation Period (Female Rats):	Days 0, 7, 10, 14, 18, 21 and 25 (if required).
Lactation Period (Female Rats):	Days 1, 5, 8, 11, 15 and 22.
Day of Sacrifice:	Prior to sacrifice.

Feed Consumption Values - Male and Female Rats:

Postweaning to Cohabitation:	Weekly.
Postcohabitation Period (Male Rats):	Weekly until sacrifice.
Gestation Period (Female Rats):	Days 0, 7, 10, 14, 18, 21 and 25 (if required).
Lactation Period (Female Rats):	Days 1, 5, 8, 11 and 15. Feed consumption values not tabulated after day 15 postpartum, when it is expected that pups will begin to consume maternal feed.

Feed consumption values may be recorded more frequently than cited above if it is necessary to replenish the feed. During cohabitation, when two rats occupy the same cage with one feed jar, replenishment of the feed will be documented. Individual values will not be recorded or tabulated.

Postweaning Developmental Observations:

Sexual Maturation:

Female rats will be evaluated for the age of vaginal patency, beginning on day 28 postpartum. Male rats will be evaluated for the age of preputial separation, beginning on day 39 postpartum.

Estrous Cycling and Mating:

Estrous cycling will be evaluated daily by examination of vaginal cytology beginning 21 days before the scheduled cohabitation period and continuing until spermatozoa are observed in a smear of the vaginal contents and/or a copulatory plug is observed *in situ* during the cohabitation period.

On the day of scheduled sacrifice, an examination of vaginal cytology will be performed

to determine the stage of estrous cycle.

Duration of Gestation:

As cited above for P generation rats.

Litter Observations:

As cited above for P generation rats.

Fertility Parameters:

As cited above for P generation rats.

Litter Data:

As cited above for P generation rats.

TESTS, ANALYSES AND MEASUREMENTS - F2 GENERATION:

Viability:

Preweaning Period:	Litters will be observed for dead pups at least twice daily. The pups in each litter will be counted once daily.

Clinical Observations and/or General Appearance:

Preweaning Period:	Daily.

Body Weights:

Preweaning Period:	Days 1, 5, 8, 15 and 22.

Preweaning Developmental Observations:

If treatment-related effects are observed in sex ratio and/or sexual maturation of the F1 generation, anogenital distance will be measured for all live F2 generation pups on days 1 and 22 postpartum.

METHOD OF SACRIFICE:

Rats and pups will be sacrificed by carbon dioxide asphyxiation.

GROSS NECROPSY AND HISTOPATHOLOGY:

Adult P and F1 generation rats will be necropsied and examined for gross lesions. Gross lesions will be retained in neutral buffered 10% formalin and examined histologically. Tissue trimming and histopathology will be performed under the supervision of or by a Board Certified Veterinary Pathologist.

At scheduled sacrifice after completion of the cohabitation period (male rats) and on day 22 postpartum (female rats) blood samples (approximately 4 mL per rat) will be collected from the inferior vena cava into serum separator tubes and centrifuged. The resulting serum will be immediately frozen on dry ice and maintained frozen (≤-70°C) until shipment to the Sponsor for analysis. The liver will be excised, weighed, and a sample section (lateral lobe) frozen and retained at ≤-70°C until shipment to the Sponsor for analysis.

After completion of sample collection, serum and liver section samples will be shipped (frozen on dry ice) to Kris J. Hansen, Ph.D., at the previously cited address. Both the recipient and the Study Monitor will be notified in advance of sample shipment.

Gross necropsy will include an initial physical examination of external surfaces and all orifices, as well as an internal examination of tissues and organs *in situ*. The following will be examined: external and internal portions of all hollow organs; the external surfaces of the brain and spinal column, the nasal cavity and neck with associated organs and tissues; the thoracic, abdominal and pelvic cavities with associated organs and tissues; and the musculo/skeletal carcass. The lungs will be perfused with neutral buffered 10% formalin.

For all postweaning rats, the urinary bladder and lungs will be inflated with neutral buffered 10% formalin.

See ATTACHMENT 4 for additional tissues to be weighed and retained, and histological evaluations to be conducted; all other tissues will be discarded.

Adult Rats Found Dead or Moribund - P and F1 Generation Rats:

Rats that die or are sacrificed because of moribund condition, abortion or premature delivery will be examined for the cause of death or moribund condition on the day the observation is made. The rats will be examined for gross lesions. Pregnancy status and uterine contents of female rats will be recorded (when appropriate). Aborted fetuses, delivered pups and/or concepti *in uteri* will be examined to the extent possible. Uteri of apparently nonpregnant rats will be examined while being pressed between glass plates to confirm the absence of implantation sites.

See ATTACHMENT 4 for tissues to be weighed and retained, and histological evaluations to be conducted; all other tissues will be discarded.

Should postmortem autolysis preclude these evaluations, it will be noted in the necropsy data.

Scheduled Sacrifice and Sperm Evaluations - P and F1 Generation Male Rats:

After completion of the cohabitation period, adult male rats will be sacrificed, and a gross necropsy of the thoracic, abdominal and pelvic viscera will be performed. To assess the potential toxicity of the test substance on the male reproductive system, the following endpoints will be evaluated:

Sperm Evaluations:

A portion of the left cauda epididymis will be used for evaluation of cauda epididymal sperm concentration and motility using computer-assisted sperm analysis (CASA). Motility will be evaluated by the Hamilton Thorne IVOS by collection of a sample from the left cauda epididymis. The remaining left cauda epididymis will be used to manually evaluate sperm morphology and to prepare a homogenate to be evaluated by the Hamilton Thorne IVOS for a determination of sperm concentration (sperm per gram of tissue weight). Sperm morphology evaluations will include the following: 1) determination of the percentage of normal sperm in a sample of at least 200; and 2) qualitative evaluation of abnormal sperm, including such categories as abnormal head, abnormal tail, and abnormal head and tail.

Organ Weights:

The following organs will be individually weighed: right testis, left testis, left epididymis (whole and cauda), right epididymis, seminal vesicles (with and without fluid) and prostate.

Histopathology:

The remaining portion of the left epididymis, the right epididymis, prostate and seminal vesicles will be fixed in neutral buffered 10% formalin for possible histopathological evaluation. The testes will be fixed in Bouin's solution for 48 to 96 hours and then retained in neutral buffered 10% formalin for possible histopathological evaluation (see ATTACHMENT 4).

Should a second litter be deemed necessary, male rats will not be sacrificed until after the cohabitation period for the second litter, extending the study by approximately 14 weeks.

Scheduled Sacrifice - P and F1 Generation Female Rats:

Female rats will be sacrificed after completion of the 22-day postpartum period (should a second litter not be required). The number and distribution of implantation sites will be recorded. Rats that do not deliver a litter will be sacrificed on day 25 of presumed

gestation and examined for pregnancy status. Uteri of apparently nonpregnant rats will be examined while being pressed between glass plates to confirm the absence of implantation sites. A gross necropsy of the thoracic, abdominal and pelvic viscera will be performed. Female rats without a confirmed mating date that do not deliver a litter will be sacrificed on an estimated day 25 of presumed gestation.

Dams with No Surviving Pups - P and F1 Generation Female Rats:

Dams with no surviving pups will be sacrificed after the last pup is found dead, missing or presumed cannibalized. A gross necropsy of the thoracic, abdominal and pelvic viscera will be performed.

F1/F2 Generation Pups Found Dead on Day 1 Postpartum:

Pups that die before examination of the litter for pup viability will be evaluated for vital status at birth. The lungs will be removed and immersed in water. Pups with lungs that sink will be identified as stillborn; pups with lungs that float will be identified as liveborn, and to have died shortly after birth. Pups with gross lesions will be preserved in Bouin's solution for possible future evaluation. Should postmortem autolysis preclude these evaluations, it will be noted in the necropsy data.

F1/F2 Generation Pups Found Dead or Moribund on Days 2 to 22 Postpartum:

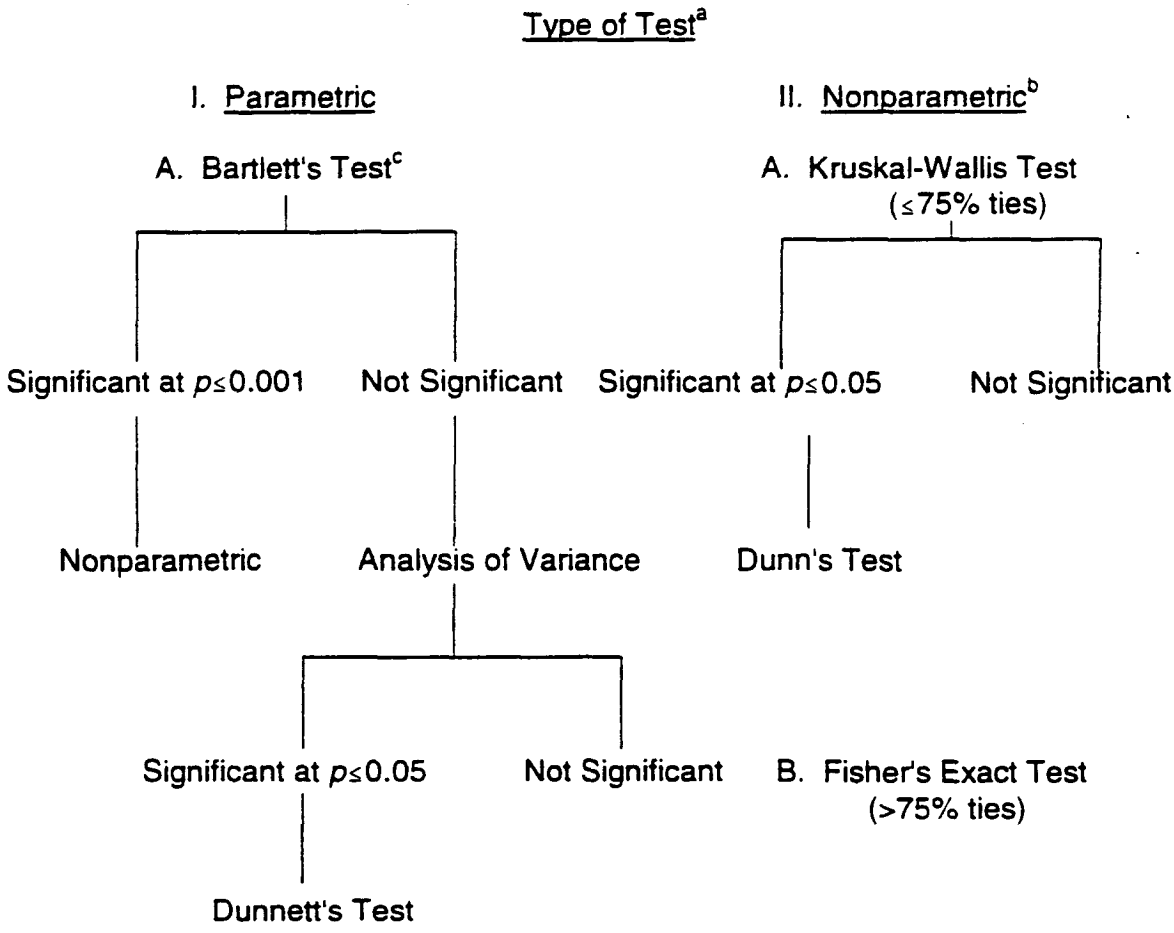
Pups found dead or sacrificed due to moribund condition will be examined for gross lesions and for the cause of the moribund condition or death. Pups with gross lesions found on days 2 to 5 postpartum will be preserved in Bouin's solution for possible future evaluation; gross lesions of pups found on days 6 to 22 postpartum will be preserved in neutral buffered 10% formalin. Should postmortem autolysis preclude these evaluations it will be noted in the necropsy data.

F1/F2 Generation Pups Not Selected for Continued Observation:

All pups culled on day 22 postpartum will be sacrificed, and three pups per sex per litter will be randomly selected and examined for gross lesions; gross lesions will be preserved in neutral buffered 10% formalin. Necropsy will include a single cross-section of the head at the level of the frontal-parietal suture and examination of the cross-sectioned brain for apparent hydrocephaly. Tissues (see ATTACHMENT 4) from the three selected pups per sex per litter will be weighed and retained in neutral buffered 10% formalin for possible histological evaluation. All remaining pups will be discarded without further examination.

PROPOSED STATISTICAL METHODS[5-11]:

Averages and percentages will be calculated. Litter values will be used where appropriate. Additional procedures and/or analyses may be performed, if appropriate.



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a. Statistically significant probabilities are reported as either $p \leq 0.05$ or $p \leq 0.01$.
b. Proportion data are not included in this category.
c. Test for homogeneity of variance.

DATA ACQUISITION, VERIFICATION AND STORAGE:

Data generated during the course of this study will be recorded either by hand or using the *Primedica Argus Automated Data Collection and Management System*, the *Vivarium Temperature and Relative Humidity Monitoring System* and the *Hamilton Thorne IVOS*. All data will be tabulated, summarized and/or statistically analyzed using the *Primedica Argus Automated Data Collection and Management System*, the *Vivarium Temperature and Relative Humidity Monitoring System*, *Microsoft Excel* [part of Microsoft Office 97 (version SR-2)] and/or *The SAS System* (version 6.12).

Records will be reviewed by the Study Director and/or appropriate management personnel within 21 days after generation. All original records will be stored in the archives of the Testing Facility. All original data will be bound and indexed. A copy of all raw data will be supplied to the Sponsor upon request. Preserved tissues will be stored at the Testing Facility at no charge for one year after mailing of the draft final report, after which time the Sponsor will be contacted to determine the disposition of these materials.

RECORDS TO BE MAINTAINED:

Protocol and Amendments.
Test Substance, Vehicle and/or Reagent Receipt, Preparation and Use.
Animal Acquisition.
Randomization Schedules.
Mating History.
Treatment (if prescribed by Staff Veterinarian).
General Comments.
Clinical Observations and/or General Appearance.
Blood Sample Collection, Processing and Shipment.
Body Weights.
Feed Consumption Values.
Gestation Length.
Litter Observations.
Gross Necropsy Observations.
Sperm Evaluation (motility, concentration and morphology).
Organ Weights.
Histological Observations.
Study Maintenance (room and environmental records).
Feed and Water Analyses.
Packing and/or Shipment Lists.

KEY PERSONNEL:

Executive Director of Research: Mildred S. Christian, Ph.D., Fellow, ATS
Director of Research: Alan M. Hoberman, Ph.D., DABT
Associate Director of Research and Study Director: Raymond G. York, Ph.D., DABT
Director of Operations and Compliance: Barbara J. Patterson, B.A.
Director of Laboratory Operations: John F. Barnett, B.S.
Director of Study Management: Valerie A. Sharper, M.S.
Manager of Animal Operations and Chairperson, Institutional Animal Care and Use Committee: Dena C. Lebo, V.M.D.
Consultant, Veterinary Pathology: W. Ray Brown, D.V.M., Ph.D., ACVP

REPORTS:

The Study Director will provide periodic updates of study progress to the Sponsor. Draft summary tables of unaudited computer-recorded data may accompany these updates. Statistical analyses will not be performed on these interim data.

A comprehensive draft final report will be prepared on completion of the study and will be finalized following consultation with the Sponsor. The report will include the following:

Summary and Conclusion.
Experimental Design and Method.
Evaluation of Test Results.
Appendices: Figures, Summary and Individual Tables Summarizing the Above Data, Protocol and Associated Amendments and Deviations, Study Director's GLP Compliance Statement, Reports of Supporting Data (if appropriate) and QAU Statement.

An interim summary report covering the period from initiation of test diet exposure through weaning of the F1 generation will also be issued. This report will be identical in format to the final report with the exception of inclusion of histopathological findings.

The Sponsor will receive one copy of the draft report and two copies of the final report.

INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE STATEMENT:

The procedures described in this protocol have been reviewed by the Testing Facility's Institutional Animal Care and Use Committee. All procedures described in this protocol that involve study animals will be conducted in a manner to avoid or minimize discomfort, distress or pain to the animals.

The Sponsor's signature below documents the fact that information concerning the necessity for conducting this study and the fact that this is not an unnecessarily duplicative study may be obtained from the Sponsor. No alternative (*in vitro*) procedures were available for meeting the stated purposes of the study.

REFERENCES:

1. Christian, M.S. and Voytek, P.E. (1982). *In Vivo Reproductive and Mutagenicity Tests*. Environmental Protection Agency, Washington, D.C. National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

2. Christian, M.S. (1984). Reproductive toxicity and teratology evaluations of naltrexone (Proceedings of Naltrexone Symposium, New York Academy of Sciences, November 7, 1983), J. Clin. Psychiat. 45(9):7-10.

3. Lang, P.L. (1988). *Embryo and Fetal Developmental Toxicity (Teratology) Control Data in the Charles River Crl:CD®BR Rat*. Charles River Laboratories, Inc., Wilmington, MA 01887-0630. (Data base provided by Argus Research Laboratories, Inc.)

4. Institute of Laboratory Animal Resources (1996). *Guide for the Care and Use of Laboratory Animals*. National Academy Press, Washington, D.C.

5. Snedecor, G.W. and Cochran, W.G. (1967). Variance test for homogeneity of the binomial distribution. *Statistical Methods*, 6th Edition, Iowa State University Press, Ames, pp. 240-241.

6. Sokal, R.R. and Rohlf, F.J. (1969). Bartlett's test of homogeneity of variances. *Biometry*, W.H. Freeman and Co., San Francisco, pp. 370-371.

7. Snedecor, G.W. and Cochran, W.G. (1967). Analysis of Variance. *Statistical Methods*, 6th Edition, Iowa State University Press, Ames, pp. 258-275.

8. Dunnett, C.W. (1955). A multiple comparison procedure for comparing several treatments with a control. J. Amer. Stat. Assoc. 50:1096-1121.

9. Sokal, R.R. and Rohlf, F.J. (1969). Kruskal-Wallis Test. *Biometry*, W.H. Freeman and Co., San Francisco, pp. 388-389.

10. Dunn, O.J. (1964). Multiple comparisons using rank sums. Technometrics 6(3):241-252.

11. Siegel, S. (1956). *Nonparametric Statistics for the Behavioral Sciences*, McGraw-Hill, New York, pp. 96-104.

PROTOCOL APPROVAL:

FOR THE TESTING FACILITY

Alan M. Hoberman, Ph.D., DABT
Director of Research

07-NOV-00
Date

Raymond G. York, Ph.D., DABT
Associate Director of Research
Study Director

07-NOV-00
Date

Dena C. Lebo, V.M.D.
Chairperson, Institutional Animal Care and Use Committee

07-NOV-00
Date

FOR THE SPONSOR

John Butenhoff, Ph.D., DABT, CIH
Study Monitor
Sponsor's Representative

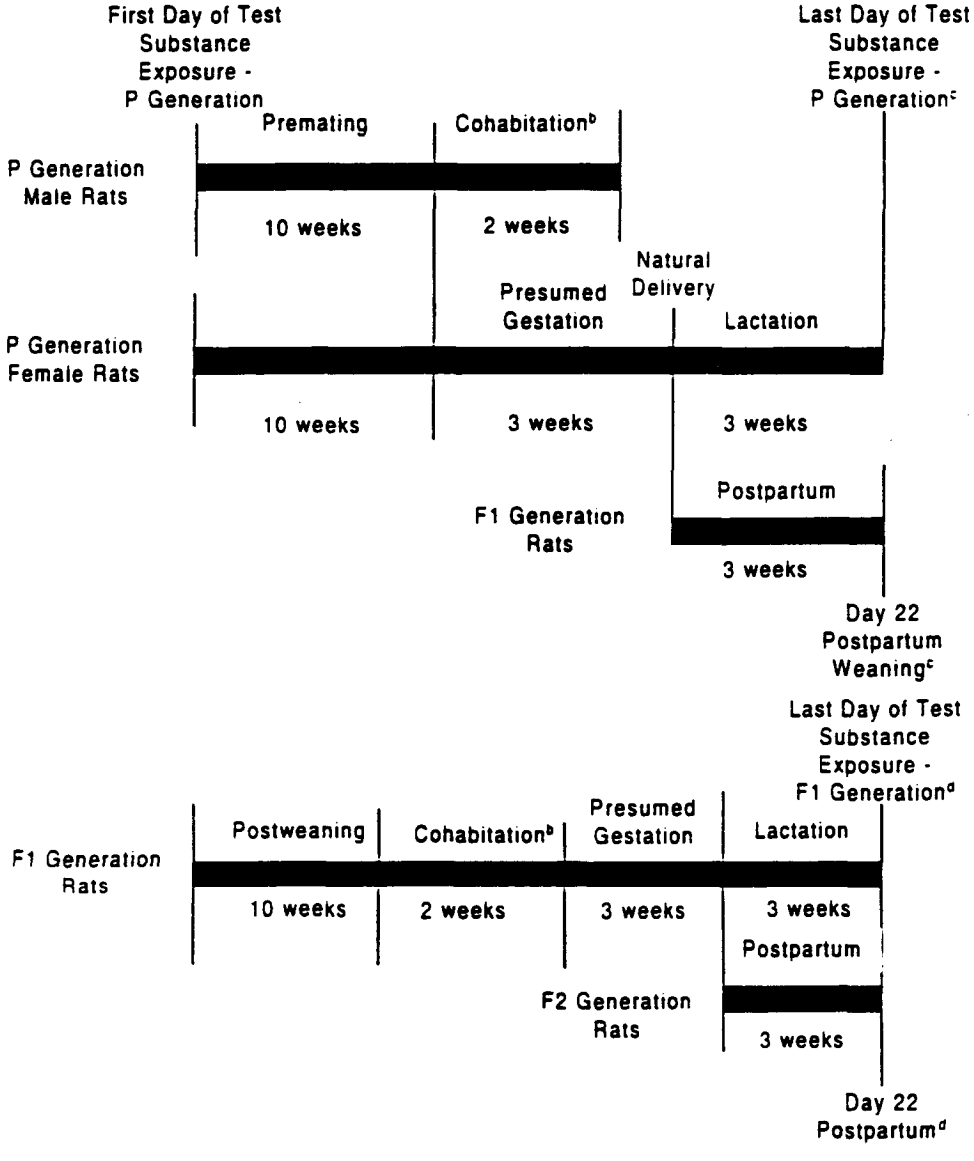
08-NOV-00
Date

ATTACHMENT 1

SCHEMATIC OF STUDY DESIGN AND STUDY SCHEDULE

ATTACHMENT 1

TWO-GENERATION REPRODUCTION STUDY[a]



Dosage Period

a. For additional details see "Tests, Analyses and Measurements" section of the protocol.

b. Male rats sacrificed after determination of sufficient number of pregnancies; sperm evaluation.

c. P generation female rats and F1 generation rats not selected for continuation on study sacrificed.

d. F1 generation dams and F2 generation litters sacrificed.

SCHEDULE[a,b,c]

07 NOV 00	P Generation Animal Receipt - Acclimation Begins
13 NOV 00	Start of Test Substance Exposure - P Generation Rats
21 JAN 01 PM - 04 FEB 01 AM	P Generation Cohabitation Period (After at least 70 days of test substance exposure).
22 JAN 01	First Possible Day 0 of Presumed Gestation.
04 FEB 01	Last Possible Day 0 of Presumed Gestation.
12 FEB 01	First Possible Delivery - F1 Generation Litters (Day 21 of presumed gestation).
01 MAR 01	Last Possible Delivery - F1 Generation Litters (Day 25 of presumed gestation).
16 FEB 01	First Possible Day 25 of Presumed Gestation Female Rat Sacrifice.
01 MAR 01	Last Possible Day 25 of Presumed Gestation Female Rat Sacrifice.
12 FEB 01	Scheduled Sacrifice - P Generation Male Rats (Earliest possible date).
05 MAR 01	First Possible Day-22 Postpartum Weaning (Sacrifice of P generation dams and F1 generation pups not selected for continued observation).
22 MAR 01	Last Possible Day-22 Postpartum Weaning.
06 MAR 01	F1 Generation Postweaning Observations Begin (Details of tests cited in protocol).

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a. The study initiation date is the day the Study Director signs the protocol.

b. The day of birth is designated postnatal day 0 (day 0 of lactation) in Addendum 10 to the Pesticide Assessment Guidelines of the U.S. Environmental Protection Agency (EPA). This same day is designated day 1 postpartum (day 1 of lactation) in the Standard Operating Procedures of the Test Facility. Throughout this protocol, the day of birth will be designated day 1 postpartum (day 1 of lactation) and all subsequent ages of the F1 generation rats and days of the lactation period will be determined and cited accordingly.

c. The in-life portion of the study will require approximately 42 weeks. If results warrant, this study may be extended to include a third generation; such a study extension would be conducted according to the procedures described previously for the F1 and F2 generations.

31 JUL 01	Interim Status Report - Draft Mail Date.

Estimated Dates[a]

06 MAR 01	Start of Test Substance Exposure - F1 Generation Rats
28 MAY 01 PM - 18 JUN 01 AM	F1 Generation Cohabitation Period (After at least 70 days of test substance exposure).
29 MAY 01	First Possible Day 0 of Presumed Gestation.
18 JUN 01	Last Possible Day 0 of Presumed Gestation.
19 JUN 01	First Possible Delivery - F2 Generation Litters (Day 21 of presumed gestation).
13 JUL 01	Last Possible Delivery - F2 Generation Litters (Day 25 of presumed gestation).
23 JUN 01	First Possible Day 25 of Presumed Gestation Female Rat Sacrifice.
13 JUL 01	Last Possible Day 25 of Presumed Gestation Female Rat Sacrifice.
26 JUN 01	F1 Generation Male Rats Sacrificed after Day 21 of Cohabitation Period - Earliest Approximate Date.
10 JUL 01	First Possible Day 22 Postpartum (F1 generation dams and F2 generation litters sacrificed).
03 AUG 01	Last Possible Day 22 Postpartum.
12 DEC 01	Draft Final Report (Including histopathology).

---

a. All of these dates are not possible to accurately schedule because they are dependent upon the timing of mating of the P generation and the times litters are delivered and weaned.

ATTACHMENT 2

MATERIAL SAFETY DATA SHEET

MATERIAL SAFETY DATA SHEET

3M
3M Center
St. Paul, Minnesota
55144-1000
1-800-364-3577 or (651) 737-6501 (24 hours)

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1) the information is copied in full with no changes unless prior agreement is obtained from 3M, and
2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

DIVISION: 3M SPECIALTY MATERIALS
TRADE NAME:
FC-143 FLUORAD Brand Fluorochemical Surfactant
ID NUMBER/U.P.C.:

98-0211-0008-0	00-51135-09138-8	98-0211-0891-9	00-51135-09365-8
98-0211-5489-7	00-51135-02941-1	98-0211-6581-0	00-51135-10405-7
98-0211-7394-7	00-51135-10762-1	ZF-0002-0378-4	- - -

ISSUED: August 25, 2000
SUPERSEDES: July 28, 2000
DOCUMENT: 10-3808-2

1. INGREDIENT

INGREDIENT	C.A.S. NO.	PERCENT
AMMONIUM PERFLUOROOCTANOATE	3825-26-1	96.5 - 100
AMMONIUM PERFLUOROHEXANOATE	21615-47-4	0 - 1.5
AMMONIUM PERFLUOROHEPTANOATE	6130-43-4	0 - 1
HEPTADECAFLUORONONANOIC ACID, AMMONIUM SALT	4149-60-4	0 - 1

The components of this product are in compliance with the chemical notification requirements of TSCA. All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS.

2. PHYSICAL DATA

BOILING POINT:	N/A
VAPOR PRESSURE:	N/A
VAPOR DENSITY:	N/A
EVAPORATION RATE:	N/A
SOLUBILITY IN WATER:	apprec.
SPECIFIC GRAVITY:	0.4 - 0.5 Water=1 (Bulk)
PERCENT VOLATILE:	N/A
pH:	4 - 7 (2% aqueous solution)
VISCOSITY:	N/A

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

---

2. PHYSICAL DATA (continued)

MELTING POINT:..... N/A

APPEARANCE AND ODOR:
Solid, Light colored powder; slight odor.

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3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... Non-flammable
FLAMMABLE LIMITS - LEL:..... N/A
FLAMMABLE LIMITS - UEL:..... N/A
AUTOIGNITION TEMPERATURE:..... N/A

EXTINGUISHING MEDIA:
Water, Carbon dioxide, Dry chemical, Foam

SPECIAL FIRE FIGHTING PROCEDURES:
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
See Hazardous Decomposition section for products of combustion.

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4. REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:
Not Applicable

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:
Carbon Monoxide and Carbon Dioxide, Oxides of Nitrogen, Hydrogen Fluoride, Ammonia.

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5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:
Observe precautions from other sections. Collect spilled material. Use wet sweeping compound or water to avoid dusting. Clean up residue. Place in a closed container.

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

5. ENVIRONMENTAL INFORMATION (continued)

RECOMMENDED DISPOSAL:
Incinerate in an industrial or commercial facility in the presence of a combustible material. Combustion products will include HF. Do not dispose of in a sanitary landfill. Disposal alternative: Dispose of waste product in a facility permitted to accept chemical waste.

ENVIRONMENTAL DATA:
SUPPORTING DATA:

BIODEGRADATION:
Theoretical Oxygen Demand (ThOD): 0.320 g/g
Chemical Oxygen Demand (COD): 0.0007 g/g
20-Day Biochemical Oxygen Demand (BOD20): Nil

AQUATIC TOXICITY:
Fathead minnow (Pimephales promelas) 96-hr LC50: 766 mg/L
Water flea (Daphnia magna) 48-hr EC50: 632 mg/L
Bluegill sunfish (Lepomis macrochirus) 96-hr EC50: 569 mg/L
Green Algae (Selenastrum capricornutum) 14-Day EC50:
>1000 mg/L
Microtox (Photobacterium phosphoreum) 30-min EC50: 730 mg/L

BIONCONCENTRATION:
BCF = 1.8

REGULATORY INFORMATION:
Volatile Organic Compounds: N/A.
VOC Less H2O & Exempt Solvents: N/A.

Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste Number = None (Not U.S. EPA Hazardous).

The components of this product are in compliance with the chemical registration requirements of TSCA, EINECS, CDSL, AICS, MITI, KECI and PICCS.

OTHER ENVIRONMENTAL INFORMATION:
This substance has minimal toxicity to aquatic organisms (100 mg/L < Lowest LC50, EC50, or IC50 < or = 1000 mg/L).

No data are available on the toxicity effects of this substance on wastewater treatment system organisms.

This product can potentially generate Perfluorooctanoate anion, either through dissociation or metabolism, which has the potential to resist degradation and persist in the environment.

EPCRA HAZARD CLASS:

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

---

5. ENVIRONMENTAL INFORMATION (continued)

FIRE HAZARD: No PRESSURE: No REACTIVITY: No ACUTE: Yes CHRONIC: Yes

---

6. SUGGESTED FIRST AID

EYE CONTACT:
Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

SKIN CONTACT:
Flush skin with large amounts of water. If irritation persists, get medical attention.

INHALATION:
If signs/symptoms occur, remove person to fresh air. If signs/symptoms continue, call a physician.

IF SWALLOWED:
Do not induce vomiting. Drink two glasses of water. Call a physician.

---

7. PRECAUTIONARY INFORMATION

EYE PROTECTION:
Avoid eye contact. Wear vented goggles.

SKIN PROTECTION:
Avoid skin contact. Wear appropriate gloves when handling this material. A pair of gloves made from the following material(s) are recommended: butyl rubber. Use one or more of the following personal protection items as necessary to prevent skin contact: head covering, coveralls. Protective garments (other than gloves) should be made of either of the following materials: polyethylene/polyvinylidene chloride (Saranex)

Use disposable shoe/boot covering or rubber boots. Disposable fabric is preferable for all protective garments.

RECOMMENDED VENTILATION:
Use with appropriate local exhaust ventilation. Provide sufficient ventilation to maintain emissions below recommended exposure limits. If exhaust ventilation is not adequate, use appropriate respiratory protection.

RESPIRATORY PROTECTION:
Avoid breathing of airborne material. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: full-face high-

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Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

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7. PRECAUTIONARY INFORMATION (continued)

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efficiency filter respirator, full-face supplied air respirator.

PREVENTION OF ACCIDENTAL INGESTION:
Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Wash hands after handling and before eating.

RECOMMENDED STORAGE:
Store away from areas where product may come into contact with food or pharmaceuticals. Store at room temperature. Keep container closed when not in use.

PREVENT MOISTURE CONTAMINATION TO KEEP POWDER FREE FLOWING.

FIRE AND EXPLOSION AVOIDANCE:
Nonflammable.

OTHER PRECAUTIONARY INFORMATION:
No smoking: Smoking while using this product can result in contamination of the tobacco and/or smoke and lead to the formation of the hazardous decomposition products mentioned in the Reactivity Data section of this MSDS. Store work clothes separately from other clothing, food and tobacco products. Wash contaminated clothing thoroughly before re-use. Discard contaminated leather clothing. Decontaminate work surfaces frequently to avoid exposure by contact.

HMIS HAZARD RATINGS: HEALTH: 3 FLAMMABILITY: 0 REACTIVITY: 0
PERSONAL PROTECTION: X (See precautions, section 7.)

EXPOSURE LIMITS

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
AMMONIUM PERFLUOROOCTANOATE.....	0.01	MG/M3	TWA	ACGIH	Y
AMMONIUM PERFLUOROHEXANOATE.....	0.1	MG/M3	TWA	3M	Y
AMMONIUM PERFLUOROHEPTANOATE.....	0.1	MG/M3	TWA	3M	Y
HEPTADECAFLUORONONANOIC ACID, AMMONIUM SALT.....	NONE	NONE	NONE	NONE	

* SKIN NOTATION: Listed substances indicated with 'Y' under SKIN refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

SOURCE OF EXPOSURE LIMIT DATA:
- 3M: 3M Recommended Exposure Guidelines
- ACGIH: American Conference of Governmental Industrial Hygienists

- NONE: None Established

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

8. HEALTH HAZARD DATA

EYE CONTACT:
Moderate Eye Irritation: signs/symptoms can include redness, swelling, pain, tearing, and hazy vision.

SKIN CONTACT:
Mild Skin Irritation (after prolonged or repeated contact): signs/symptoms can include redness, swelling, and itching.

May be absorbed through the skin and produce effects similiar to those caused by inhalation and/or ingestion.

INHALATION:
Illness requiring medical attention may result from a single exposure by inhalation to moderate quantities of this material.

May be absorbed by inhalation and persist in the body for an extended time.

Single overexposure, above recommended guidelines, may cause:

Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing.

Prolonged or repeated overexposure, above recommended guidelines, may cause:

Liver Effects: signs/symptoms can include yellow skin(jaundice) and tenderness of upper abdomen.

IF SWALLOWED:
This product can potentially generate Perfluorooctanoate anion, either through dissociation or metabolism. Animal studies conducted on Perfluorooctanoate anion indicate effects including liver disturbances, weight loss, loss of appetite, adrenal and hematologic effects, and benign tumors of the liver, pancreas and testes of male rats. There are no known human health effects from anticipated exposure to this Perfluorooctanoate anion when used as intended and instructed.

Illness may result from a single swallowing of a moderate quantity of this material.

CANCER:
A mixture of ammonium perfluorooctanoate, ammonium perfluoroheptanoate, ammonium perfluoropentanoate and ammonium perfluorohexanoate, that was 93 to 97% AMMONIUM PERFLUOROOCTANOATE (3825-26-1) was fed to albino rats for 2 years, no compound induced carcinogenicity was found in the study. There were statistically significant compound related benign testicular tumors. In a second two-year study there were statistically significant compound related

8. HEALTH HAZARD DATA (continued)

benign tumors in the liver, pancreas, and testis when compared to ad libitum and pair-fed controls. Based on the current knowledge, these findings have no human health implications. (3825-26-1) (1983 and 1993 studies conducted jointly by 3M and DuPont).

MUTAGENICITY:
Not mutagenic in invitro mutagenicity assays. Did not cause cell transformation in a mammalian cell transformation assay.

REPRODUCTIVE/DEVELOPMENTAL TOXINS:
Not teratogenic in rabbits by oral administration. Not teratogenic to rats by gavage or inhalation exposures.

OTHER HEALTH HAZARD INFORMATION:
A Product Toxicity Summary Sheet is available.

The presence of organic fluorochemicals in the blood of the general population and subpopulations, such as workers, has been published dating back to the 1970's. 3M's epidemiological study of its own workers indicates no adverse effects.

This product can potentially generate Perfluorooctanoate anion, either through dissociation or metabolism. Perfluorooctanoate anion has the potential to be absorbed and remain in the body for long periods of time and may accumulate with repeated exposures. There are no known human health effects from anticipated exposure to this Perfluorooctanoate anion when used as intended and instructed.

SECTION CHANGE DATES

INGREDIENTS	SECTION CHANGED SINCE July 28, 2000	ISSUE

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

MSDS: FC-143 FLUORAD Brand Fluorochemical Surfactant
August 25, 2000 PAGE 8

The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

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MATERIAL SAFETY DATA SHEET

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1) the information is copied in full with no changes unless prior agreement is obtained from 3M, and
2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

DIVISION: 3M SPECIALTY MATERIALS
TRADE NAME:
FC-143 FLUORAD Brand Fluorochemical Surfactant
ID NUMBER/U.P.C.:

98-0211-0008-0	00-51135-09138-8	98-0211-0891-9	00-51135-09365-8
98-0211-5489-7	00-51135-02941-1	98-0211-6581-0	00-51135-10405-7
98-0211-7394-7	00-51135-10762-1	ZF-0002-0378-4	- - -

ISSUED: August 25, 2000
SUPERSEDES: July 28, 2000
DOCUMENT: 10-3808-2

1. INGREDIENT

INGREDIENT	C.A.S. NO.	PERCENT
AMMONIUM PERFLUOROOCTANOATE	3825-26-1	96.5 - 100
AMMONIUM PERFLUOROHEXANOATE	21615-47-4	0 - 1.5
AMMONIUM PERFLUOROHEPTANOATE	6130-43-4	0 - 1
HEPTADECAFLUORONONANOIC ACID, AMMONIUM SALT	4149-60-4	0 - 1

The components of this product are in compliance with the chemical notification requirements of TSCA. All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS.

2. PHYSICAL DATA

BOILING POINT:	N/A
VAPOR PRESSURE:	N/A
VAPOR DENSITY:	N/A
EVAPORATION RATE:	N/A
SOLUBILITY IN WATER:	apprec.
SPECIFIC GRAVITY:	0.4 - 0.5 Water=1 (Bulk)
PERCENT VOLATILE:	N/A
pH:	4 - 7 (2% aqueous solution)
VISCOSITY:	N/A

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

---

2. PHYSICAL DATA (continued)

MELTING POINT:..... N/A

APPEARANCE AND ODOR:
Solid, Light colored powder; slight odor.

---

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... Non-flammable
FLAMMABLE LIMITS - LEL:..... N/A
FLAMMABLE LIMITS - UEL:..... N/A
AUTOIGNITION TEMPERATURE:..... N/A

EXTINGUISHING MEDIA:
Water, Carbon dioxide, Dry chemical, Foam

SPECIAL FIRE FIGHTING PROCEDURES:
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
See Hazardous Decomposition section for products of combustion.

---

4. REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:
Not Applicable

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:
Carbon Monoxide and Carbon Dioxide, Oxides of Nitrogen, Hydrogen Fluoride, Ammonia.

---

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:
Observe precautions from other sections. Collect spilled material. Use wet sweeping compound or water to avoid dusting. Clean up residue. Place in a closed container.

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

5. ENVIRONMENTAL INFORMATION (continued)

RECOMMENDED DISPOSAL:
Incinerate in an industrial or commercial facility in the presence of a combustible material. Combustion products will include HF. Do not dispose of in a sanitary landfill. Disposal alternative: Dispose of waste product in a facility permitted to accept chemical waste.

ENVIRONMENTAL DATA:
SUPPORTING DATA:

BIODEGRADATION:
Theoretical Oxygen Demand (ThOD): 0.320 g/g
Chemical Oxygen Demand (COD): 0.0007 g/g
20-Day Biochemical Oxygen Demand (BOD20): Nil

AQUATIC TOXICITY:
Fathead minnow (Pimephales promelas) 96-hr LC50: 766 mg/L
Water flea (Daphnia magna) 48-hr EC50: 632 mg/L
Bluegill sunfish (Lepomis macrochirus) 96-hr EC50: 569 mg/L
Green Algae (Selenastrum capricornutum) 14-Day EC50:
>1000 mg/L
Microtox (Photobacterium phosphoreum) 30-min EC50: 730 mg/L

BIONCONCENTRATION:
BCF = 1.8

REGULATORY INFORMATION:
Volatile Organic Compounds: N/A.
VOC Less H20 & Exempt Solvents: N/A.

Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste Number = None (Not U.S. EPA Hazardous).

The components of this product are in compliance with the chemical registration requirements of TSCA, EINECS, CDSL, AICS, MITI, KECI and PICCS.

OTHER ENVIRONMENTAL INFORMATION:
This substance has minimal toxicity to aquatic organisms (100 mg/L < Lowest LC50, EC50, or IC50 < or = 1000 mg/L).

No data are available on the toxicity effects of this substance on wastewater treatment system organisms.

This product can potentially generate Perfluorooctanoate anion, either through dissociation or metabolism, which has the potential to resist degradation and persist in the environment.

EPCRA HAZARD CLASS:

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

MSDS: FC-143 FLUORAD Brand Fluorochemical Surfactant
August 25, 2000 PAGE 4

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5. ENVIRONMENTAL INFORMATION (continued)

FIRE HAZARD: No PRESSURE: No REACTIVITY: No ACUTE: Yes CHRONIC: Yes

---

6. SUGGESTED FIRST AID

EYE CONTACT:
Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

SKIN CONTACT:
Flush skin with large amounts of water. If irritation persists, get medical attention.

INHALATION:
If signs/symptoms occur, remove person to fresh air. If signs/symptoms continue, call a physician.

IF SWALLOWED:
Do not induce vomiting. Drink two glasses of water. Call a physician.

---

7. PRECAUTIONARY INFORMATION

EYE PROTECTION:
Avoid eye contact. Wear vented goggles.

SKIN PROTECTION:
Avoid skin contact. Wear appropriate gloves when handling this material. A pair of gloves made from the following material(s) are recommended: butyl rubber. Use one or more of the following personal protection items as necessary to prevent skin contact: head covering, coveralls. Protective garments (other than gloves) should be made of either of the following materials:
polyethylene/polyvinylidene chloride (Saranex)

Use disposable shoe/boot covering or rubber boots. Disposable fabric is preferable for all protective garments.

RECOMMENDED VENTILATION:
Use with appropriate local exhaust ventilation. Provide sufficient ventilation to maintain emissions below recommended exposure limits. If exhaust ventilation is not adequate, use appropriate respiratory protection.

RESPIRATORY PROTECTION:
Avoid breathing of airborne material. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: full-face high-

---

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

MSDS: FC-143 FLUORAD Brand Fluorochemical Surfactant
August 25, 2000 PAGE 5

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7. PRECAUTIONARY INFORMATION (continued)

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efficiency filter respirator, full-face supplied air respirator.

PREVENTION OF ACCIDENTAL INGESTION:
Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Wash hands after handling and before eating.

RECOMMENDED STORAGE:
Store away from areas where product may come into contact with food or pharmaceuticals. Store at room temperature. Keep container closed when not in use.

PREVENT MOISTURE CONTAMINATION TO KEEP POWDER FREE FLOWING.

FIRE AND EXPLOSION AVOIDANCE:
Nonflammable.

OTHER PRECAUTIONARY INFORMATION:
No smoking: Smoking while using this product can result in contamination of the tobacco and/or smoke and lead to the formation of the hazardous decomposition products mentioned in the Reactivity Data section of this MSDS. Store work clothes separately from other clothing, food and tobacco products. Wash contaminated clothing thoroughly before re-use. Discard contaminated leather clothing. Decontaminate work surfaces frequently to avoid exposure by contact.

HMIS HAZARD RATINGS: HEALTH: 3 FLAMMABILITY: 0 REACTIVITY: 0
PERSONAL PROTECTION: X (See precautions, section 7.)

EXPOSURE LIMITS

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
AMMONIUM PERFLUOROOCTANOATE.....	0.01	MG/M3	TWA	ACGIH	Y
AMMONIUM PERFLUOROHEXANOATE.....	0.1	MG/M3	TWA	3M	Y
AMMONIUM PERFLUOROHEPTANOATE.....	0.1	MG/M3	TWA	3M	Y
HEPTADECAFLUORONONANOIC ACID, AMMONIUM SALT.....	NONE	NONE	NONE	NONE	

* SKIN NOTATION: Listed substances indicated with 'Y' under SKIN refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

SOURCE OF EXPOSURE LIMIT DATA:
- 3M: 3M Recommended Exposure Guidelines
- ACGIH: American Conference of Governmental Industrial Hygienists

- NONE: None Established

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

MSDS: FC-143 FLUORAD Brand Fluorochemical Surfactant
August 25, 2000 PAGE 6

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8. HEALTH HAZARD DATA

EYE CONTACT:
Moderate Eye Irritation: signs/symptoms can include redness, swelling, pain, tearing, and hazy vision.

SKIN CONTACT:
Mild Skin Irritation (after prolonged or repeated contact): signs/symptoms can include redness, swelling, and itching.

May be absorbed through the skin and produce effects similiar to those caused by inhalation and/or ingestion.

INHALATION:
Illness requiring medical attention may result from a single exposure by inhalation to moderate quantities of this material.

May be absorbed by inhalation and persist in the body for an extended time.

Single overexposure, above recommended guidelines, may cause:

Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing.

Prolonged or repeated overexposure, above recommended guidelines, may cause:

Liver Effects: signs/symptoms can include yellow skin(jaundice) and tenderness of upper abdomen.

IF SWALLOWED:
This product can potentially generate Perfluorooctanoate anion, either through dissociation or metabolism. Animal studies conducted on Perfluorooctanoate anion indicate effects including liver disturbances, weight loss, loss of appetite, adrenal and hematologic effects, and benign tumors of the liver, pancreas and testes of male rats. There are no known human health effects from anticipated exposure to this Perfluorooctanoate anion when used as intended and instructed.

Illness may result from a single swallowing of a moderate quantity of this material.

CANCER:
A mixture of ammonium perfluorooctanoate, ammonium perfluoroheptanoate, ammonium perfluoropentanoate and ammonium perfluorohexanoate, that was 93 to 97% AMMONIUM PERFLUOROOCTANOATE (3825-26-1) was fed to albino rats for 2 years, no compound induced carcinogenicity was found in the study. There were statistically significant compound related benign testicular tumors. In a second two-year study there were statistically significant compound related

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Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

8. HEALTH HAZARD DATA (continued)

benign tumors in the liver, pancreas, and testis when compared to ad libitum and pair-fed controls. Based on the current knowledge, these findings have no human health implications. (3825-26-1) (1983 and 1993 studies conducted jointly by 3M and DuPont).

MUTAGENICITY:
Not mutagenic in invitro mutagenicity assays. Did not cause cell transformation in a mammalian cell transformation assay.

REPRODUCTIVE/DEVELOPMENTAL TOXINS:
Not teratogenic in rabbits by oral administration. Not teratogenic to rats by gavage or inhalation exposures.

OTHER HEALTH HAZARD INFORMATION:
A Product Toxicity Summary Sheet is available.

The presence of organic fluorochemicals in the blood of the general population and subpopulations, such as workers, has been published dating back to the 1970's. 3M's epidemiological study of its own workers indicates no adverse effects.

This product can potentially generate Perfluorooctanoate anion, either through dissociation or metabolism. Perfluorooctanoate anion has the potential to be absorbed and remain in the body for long periods of time and may accumulate with repeated exposures. There are no known human health effects from anticipated exposure to this Perfluorooctanoate anion when used as intended and instructed.

SECTION CHANGE DATES

INGREDIENTS	SECTION CHANGED SINCE July 28, 2000	ISSUE

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

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The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

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ATTACHMENT 3

TEST SUBSTANCE PREPARATION PROCEDURE

TEST SUBSTANCE PREPARATION PROCEDURE

Test Substance: Ammonium Perfluorooctanoate (APFO)
Vehicle : R.O. deionized water

A. Purpose:

The purpose of this procedure is to provide a method for the preparation of dosage solutions of APFO for oral (gavage) administration to rats on Primedica Argus Research Laboratories, Inc., Study number 418-020.

B. General Information:

1. All solution containers will be labeled and color coded. Each label will specify the protocol number, test substance identification, Argus batch number, concentration, dosage level, preparation date, expiration date and storage conditions.

2. Solutions will be prepared:
___ Daily __X__ Weekly __ For _ days of use
___ Once prior to dosing __ By Sponsor

3. Solutions will be administered at a final dosage volume of _5_ mL/kg/day.

4. Safety:
_X_ Gloves, uniform/lab coat, goggles or safety glasses and faceshield
_X_ Dust-Mist Respirator (for solution preparation and dosing)
___ Half-Face Respirator
___ Full-Face Respirator/Positive Pressure Hood
_X_ Tyvek sleeves (when using the bulk material)
_X_ Work in a chemical fume hood and use a half-face respirator when using the bulk TA/S only

5. Dosage solutions adjusted for % Activity/Purity or Correction Factor:
___ Yes ___X___ No (Calculations based on 100%)
___ Activity _____% Purity ___ Correction Factor

6. Sampling requirements: Cited in protocol.

7. Storage: Cited in protocol.

TEST SUBSTANCE PREPARATION PROCEDURE

C. Dosage Solution Preparation:

1. Weigh out the required amount of the test substance in an appropriately sized, labeled container (see PREPARATION CALCULATIONS).

2. Add approximately 80% of the required amount of vehicle to the container and mix with a stir bar and magnetic stir plate (see PREPARATION CALCULATIONS).

3. Once the test substance is completely dissolved, transfer the solution to an appropriately sized graduated cylinder. QS ad with vehicle to the required volume (see PREPARATION CALCULATIONS).

4. Stopper the graduated cylinder or cover with parafilm and mix by inversion several times to ensure proper mixing. Return the solution to the labeled container with the stir bar. Place on a magnetic stir plate and agitate prior to and during aliquotting, dosage administration and/or sampling.

5. Repeat steps (1) through (4) for each concentration.

Written By: Mark A. Cobb

Approved By: [signature] Date: 07-NOV-00

Clarification: ✓ No ___ Yes (See attached clarification form.)

Initials/Date: Christopher K. Rupprecht 8/2/01

ATTACHMENT 4

NECROPSY, ORGAN WEIGHTS AND HISTOPATHOLOGICAL EVALUATION

NECROPSY, ORGAN WEIGHTS AND HISTOPATHOLOGICAL EVALUATION

Organ Weights

The following organs will be individually weighed and organ-to-body weight and organ-to-brain weight ratios will be calculated for all P and F1 parental rats.

- brain
- kidneys
- spleen
- ovaries
- testes
- thymus
- target organs (if identified by amendment)
- liver
- adrenal glands
- pituitary
- uterus with oviducts and cervix
- epididymides
- prostate
- seminal vesicles (with coagulating glands and fluid)

For F1 and F2 generation weanlings, the following organs will be weighed from one randomly selected pup per sex per litter:

- brain
- spleen
- thymus

Tissue Retention

The following tissues will be collected from all P and F1 generation parental male and female rats at necropsy and retained in neutral buffered 10% formalin for possible histological evaluation:

- pituitary
- target organs (if identified by amendment)
- adrenal glands
- gross lesions (including tissue masses)

Female Rats

- vagina
- uterus with oviducts, cervix and ovaries

Male Rats

- testis (right)
- seminal vesicles (with coagulating gland)
- epididymis (right)
- prostate

Note: Testes will be fixed in Bouin's solution for 48 to 96 hours before being retained in neutral buffered 10% formalin.

The following tissues will be collected from all F1 and F2 generation weanling rats and retained in neutral buffered 10% formalin for possible histological evaluation:

target organs (if identified by amendment)	gross lesions (including tissue masses)

Histological Evaluation

Histological examination will be performed on tissues from 10 randomly selected rats per sex from the control and high dosage groups. If lesions attributed to the test substance are observed in the rats from the high dosage groups, the same organs will be examined histologically for the remaining rats in the control and high dosage groups and for the rats in the low and intermediate groups. All gross lesions will be examined histologically[a].

In addition to gross lesions such as atrophy or tumors, testicular histopathological examination should be conducted to identify treatment-related effects such as retained spermatids, missing germ cell layers or types, multinucleated giant cells or sloughing of spermatogenic cells into the lumen . Examination of the intact epididymis should include the caput, corpus and cauda (accomplished by evaluation of a longitudinal section) and conducted in order to identify such lesions as sperm granulomas, leukocytic infiltration (inflammation), aberrant cell types within the lumen, or the absence of clear cells in the cauda epididymal epithelium.

The postlactional ovary should contain primordial and growing follicles as well as the large corpora lutea of lactation. Histopathological examination should detect qualitative depletion of the primordial follicle population. A quantitative evaluation of primordial follicles should be conducted for F1 female rats; the number of rats, ovarian section selection and section sample size should be statistically appropriate for the evaluation procedure used. Examination should include enumeration of the number of primordial follicles, which can be combined with small growing follicles, for comparison of ovaries of rats assigned to treated and control groups.

Additionally, reproductive organs of the low and intermediate dosage group rats suspected of reduced fertility (e.g., those rats that failed to mate, conceive, sire or delivery healthy offspring, or for which estrous cyclicity or sperm number, motility or morphology were affected, should be subjected to histological evaluation[a].

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a. Should results warrant examination of the remaining control and high dosage group rats and the rats in the low and intermediate dosage groups and conduct of the quantitative evaluation, or additional evaluations of low and intermediate dosage groups rats suspected of reduced fertility, scheduled report dates will be adjusted accordingly. Additional costs will be incurred should these evaluations be required.November 7, 2000

PRIMEDICA

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PROTOCOL 418-020

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS

SPONSOR'S STUDY NUMBER: T-6889.6

Amendment 1 - 18 December 2000

1. Body Weight and Age (page 6 of the protocol):

   Actual body weights will be recorded the day after receipt and will be documented in the raw data.

   Reason for Change:

   This change corrects a typographical error.

2. Randomization and Cohabitation (page 9 of the protocol):

   At weaning, a table of random units or a computer-generated randomization procedure will be used to select two F1 generation pups per sex per litter per group (60 male and 60 female pups per group), resulting in a total of 600 rats (300 rats per sex) chosen for continued evaluation, rather than 30 male and 30 female (1 per sex per litter) F1 generation pups per group, resulting in a total of 300 rats (150 rats per sex) chosen for continued evaluation. At least two male pups and two female pups, rather than one male pup and one female pup, per litter when possible, will be selected. The body weights will be recorded when rats reach sexual maturation.

   Following sexual maturation, a table of random units or a computer-generated randomization procedure will be used to select one male and one female F1 generation rat per litter per group for continuation through mating to produce the F2 generation. If results warrant that the study be extended to include a third generation, the procedures previously described for the F1 generation will be used for selection of F2 generation pups continued on study.

ANY REVISIONS TO THIS FINALIZED AMENDMENT MUST BE MADE BY SUBSEQUENT AMENDMENT.

Reason for Change:

The Sponsor requested that sexual maturation be measured for two pups per sex per litter per group.

3. Rationale for Dosage Selection (page 11 of the protocol):

The intermediate dosage levels are expected to produce minimal observable toxic effects. rather than the intermediate dosage level is expected to produce minimal observable toxic effects.

Reason for Change:

This change corrects the protocol because there are two intermediate dosage levels rather than one intermediate dosage level.

4. Postweaning Developmental Observations (page 15 of the protocol):

Nipple Examination:

On day 12 postpartum, all pups will be examined for the presence of nipples. The criterion is met when there is a nipple present.

Reason for Change:

The addition was requested by the Sponsor.

5. Sperm Evaluations (page 18 of the protocol):

The left testis will be used for evaluation of testicular spermatid concentration using computer-assisted sperm analysis (CASA). The left testis will be weighed (both before and after removal of the tunica albuginea) and then homogenized. A sample from the resulting homogenate will be stained with an IDENT Stain Kit from Hamilton Thorne Research and a slide will be prepared for analysis by the Hamilton Thorne IVOS. Ten fields will be analyzed to determine testicular spermatid concentration (spermatids per gram of tissue weight). All images produced during analysis will be retained as raw data.

Reason for Change:

This change was added in order to comply with U.S. Environmental Protection Agency Health Effects Test Guidelines (OPPTS 870.3800), August, 1998.

ANY REVISIONS TO THIS FINALIZED AMENDMENT MUST BE MADE BY SUBSEQUENT AMENDMENT.

6. F1/F2 Generation Pups Not Selected for Continued Observation (page 19 of the protocol):

Tissues from one of the three selected pups per sex per litter, rather than from all three selected pups per sex per litter, will be weighed. Tissues from the three selected pups per sex per litter will be retained in neutral buffered 10% formalin for possible histological evaluation.

Reason for Change:

This change clarifies the protocol.

7. F1/F2 Generation Pups Not Selected for Continued Observation (page 19 of the protocol):

All pups not selected for continued observation following continued observations for sexual maturation will be sacrificed and a limited necropsy will be performed. The thoracic, abdominal and pelvic cavities will be examined for gross lesions; gross lesions will be preserved in neutral buffered 10% formalin. All other tissues and the carcass will be discarded.

Reason for Change:

This addition provides for the sacrifice and necropsy of rats not selected for continued observation following continued observations for sexual maturation.

8. Tissue Retention (pages 1 and 2 of ATTACHMENT 4 to the protocol):

The following tissues will be collected from the three selected F1 and F2 generation weanling rats per sex per litter, rather than from all F1 and F2 generation weanling rats, and retained in neutral buffered 10% formalin for possible histological evaluation:

target organs (if identified by amendment)	gross lesions (including tissue masses)

ANY REVISIONS TO THIS FINALIZED AMENDMENT MUST BE MADE BY SUBSEQUENT AMENDMENT.

Reason for Change:

This change clarifies the protocol.

Alan M. Hoberman, Ph.D., DABT Date
Director of Research

Raymond G. York, Ph.D., DABT Date
Associate Director of Research
Study Director

Dena C. Lebo, V.M.D. Date
Chairperson, Institutional Animal Care
and Use Committee

John Butenhoff, Ph.D., DABT, CIH Date
Study Monitor
Sponsor's Representative

ANY REVISIONS TO THIS FINALIZED AMENDMENT MUST BE MADE BY SUBSEQUENT AMENDMENT.

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PROTOCOL 418-020

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS

SPONSOR'S STUDY NUMBER: T-6889.6

Amendment 2 - 8 February 2001

1. Nipple Examination (page 2 of Amendment 1):

[Effective Date: 1 February 2001] On day 12 postpartum, all male pups will be examined for the presence of nipples. The criterion of passing is met when no nipples are present.

Reason for Change:

This change clarifies the criterion and sex of pups to be examined.

2/8/01
Alan M. Hoberman, Ph.D., DABT Date
Director of Research

08-FEB-01
Raymond G. York, Ph.D., DABT Date
Associate Director of Research and
Study Director

08 FEB 01
Theresa H. Woodard, D.V.M. Date
Chairperson, Institutional Animal Care
and Use Committee

09/FEB/01
John Butenhoff, Ph.D., DABT, CIH Date
Study Monitor and Sponsor's Representative

Any revisions to this finalized amendment must be made by subsequent amendment.

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PROTOCOL 418-020

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS

SPONSOR'S STUDY NUMBER: T-6889.6

Amendment 3 - 20 July 2001

1. Gross Necropsy and Histopathology (page 17 of the protocol):

Tissues will be shipped (ambient conditions) for embedding to:

W. Ray Brown, D.V.M., Ph.D., ACVP
Veterinary Pathologist
Research Pathology Services, Inc.
438 E. Butler Avenue
New Britain, Pennsylvania 18901
Telephone: (215) 345-7070
Fax: (215) 345-4326

The recipient will be notified in advance of sample shipment.

Reason for Change:

This change adds the address for tissue shipment to the protocol.

Alan M. Hoberman, Ph.D., DABT — Date
Director of Research

Valerie A. Sharper, M.S. — Date
Director of Study Management for
Raymond G. York, Ph.D., DABT
Associate Director of Research and
Study Director

Theresa H. Woodard, D.V.M. — Date
Chairperson, Institutional Animal Care
and Use Committee

John Butenhoff, Ph.D., DABT, CIH — Date
Study Monitor

Any revisions to this finalized amendment must be made by subsequent amendment.

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ARGUS RESEARCH
Charles River Laboratories
Discovery and Development Services

PROTOCOL 418-020

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS

SPONSOR'S STUDY NUMBER: T-6889.6

Amendment 4 - 19 November 2001

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1. Litter Data (page 14 of the protocol):

   [Effective Date: 6 August 2001] Lactation Index will be calculated as the percentage of pups that survive from day 5 to day 22 postpartum, rather than day 8 to day 22 postpartum.

   Reason for Change:

   This change was made to account for survival of pups for entire period following the calculation of viability index (percentage of pups born that survive to days 1 and 5 postpartum).

19 NOV 21
Alan M. Hoberman, Ph.D., DABT Date
Director of Research

19 NOV 2001
Raymond G. York, Ph.D., DABT Date
Associate Director of Research and
Study Director

19 NOV 01
Theresa H. Woodard, D.V.M. Date
Chairperson, Institutional Animal Care
and Use Committee

20 NOV 2001
John Butenhoff, Ph.D., DABT, CIH Date
Study Monitor

Any revisions to this finalized amendment must be made by subsequent amendment.

APPENDIX G

DEVIATIONS FROM THE PROTOCOL AND THE STANDARD OPERATING PROCEDURES OF THE TESTING FACILITY

DEVIATIONS FROM THE PROTOCOL AND THE STANDARD OPERATING PROCEDURES OF THE TESTING FACILITY

1. On 22 February 2001, the following P generation female rats were not weighed and potentially received the incorrect dosage volumes based on the previous body weight.

Dosage Group	Dosage (mg/kg/day)	Day of Study[a]	Rat Numbers
I	0	DL 8	13814, 13817, 13818, 13830
		DL 11	13806, 13808
		DG 18	13809
II	1	DL 8	13831, 13849, 13859, 13860
		DL 11	13837, 13850, 13853, 13858
III	3	DL 8	13868, 13874, 13877, 13882
		DL 11	13889
IV	10	DL 8	13892, 13899, 13913, 13914, 13916, 13917, 13919, 13920
		DL 21	13907
V	30	DL 5	13945
		DL 8	13931, 13932, 13950
		DL 11	13923

a. DL is used as an abbreviation for day of lactation. DG is used as an abbreviation for day of gestation.

These deviations did not adversely affect the outcome or interpretation of the study because it was a single event and all rats were administered a dosage very similar to the dosage they should have received.

2. On 1 December 2000, DS 19, the P generation male and female rats in all dosage groups were administered the appropriate vehicle or test article approximately two hours and fifteen minutes late and three hours early, respectively. This deviation did not adversely affect the outcome or interpretation of the study because it was a single event and all rats received the appropriate vehicle or test article.

3. Body weights were not recorded and predosage and postdosage observations were not recorded for the following rats. It is presumed that the rats were not dosed.

Generation	Dosage Group	Dosage (mg/kg/day)	Date	Day of Study	Sex	Rat Number
F1	V	30	08 MAR 01	DS 1	Female	1562
			08 MAR 01	DS 1	Female	1563

These deviations did not adversely affect the outcome or interpretation of the study because it was a single event of a missed dosage and sufficient data were available to evaluate these parameters.

4. On 13 April 2001, day 35 of study (DS 35), F1 generation male rat 1166 in the 3 mg/kg/day dosage group received 0.94 mL of the test substance rather than 0.86 mL. This deviation did not adversely affect the outcome or interpretation of the study because it was a single event and the amount of overage was small (0.08 mL).

5. On 15 April 2001, F1 generation female rats in the 30 mg/kg/day dosage group received the incorrect dosage volume.

		Dosage Volume		
Day of Study	Rat Number	Correct Volume (mL)	Amount Received (mL)	Amount Deviated (mL)
DS 41	1541	0.82	1.3	0.48
DS 40	1544	1.1	1.4	0.3
DS 40	1545	1	1.6	0.6
DS 40	1546	1	1.2	0.2
DS 40	1548	0.87	1.1	0.23
DS 40	1550	0.74	1.1	0.36
DS 40	1552	0.98	1.2	0.22
DS 40	1555	0.91	1.1	0.19
DS 39	1557	1.1	1.4	0.3
DS 39	1558	0.9	1.4	0.5
DS 39	1560	0.93	1.1	0.17
DS 39	1564	0.88	1.2	0.32
DS 39	1565	0.89	1.3	0.41
DS 39	1566	1	1.4	0.4
DS 39	1568	1.1	1.5	0.4
DS 39	1571	0.88	1.2	0.32
DS 39	1573	1.1	1.4	0.3
DS 38	1576	0.82	0.86	0.04
DS 38	1578	0.93	1.3	0.37
DS 38	1579	1	1.3	0.3
DS 37	1583	0.91	1.3	0.39
DS 37	1584	0.86	1.2	0.34
DS 37	1586	0.84	1.1	0.26
DS 37	1587	0.88	1.4	0.32
DS 37	1588	0.97	1.4	0.43
DS 37	1589	1	1.3	0.3
DS 37	1591	0.97	1.4	0.43
DS 37	1593	1.1	1.3	0.2

These deviations did not adversely affect the outcome or interpretation of the study because it was a single event for each of the rats; they received more rather than less of the test substance and the amount and the overage was small.

6. Postdosage observations were performed out of the range of 60 ± 10 minutes on the following dates.

Dosage Group	Dosage (mg/kg/day)	Date	Number of P Generation Rats		Range of Time Deviated (minutes)
			Male Rats	Female Rats	
I	0	18 NOV 00	1	0	+1
		04 DEC 00	0	4	+1 to +3
		28 DEC 00	0	2	+1
		06 JAN 01	1	0	+1
		18 FEB 01	5	0	+1 to +2
		13 MAR 01	0	1	+4
		15 MAR 01	0	1	+14
II	1	15 NOV 00	1	0	+52
		18 NOV 00	14	0	+1 to +10
		01 DEC 00	0	1	+329
		04 DEC 00	14	0	+1 to +6
		06 DEC 00	0	1	+1
		09 DEC 00	2	0	+1
III	3	18 NOV 00	16	0	+1 to +8
		06 DEC 00	0	3	+1 to +2
		18 JAN 01	2	14	+1 to +5
		02 FEB 01	0	3	+1 to +2
		27 FEB 01	0	1	-1
IV	10	18 NOV 00	17	0	+1 to +8
		05 DEC 00	4	0	+1
		01 FEB 01	0	2	-1
		11 FEB 01	0	1	+80
		12 FEB 01	0	1	-1
		13 FEB 01	2	0	+1 to +2
		22 FEB 01	2	0	+1 to +2
		27 FEB 01	0	1	-1
V	30	11 DEC 00	0	2	+1
		25 DEC 00	17	0	+1 to +5
		05 JAN 01	1	0	+229
		02 FEB 01	0	2	-1
		07 FEB 01	0	1	+4
		13 FEB 01	10	0	+1 to +7
		23 FEB 01	0	11	-4 to -1
		26 FEB 01	0	2	-1
		27 FEB 01	0	1	-1

Dosage Group	Dosage (mg/kg/day)	Date	Number of F1 Generation Rats		Range of Time Deviated (minutes)
			Male Rats	Female Rats	
I	0	09 MAR 01	3	0	+1
		15 MAR 01	36	0	+1 to +17
		25 MAR 01	4	0	+1 to +3
		10 APR 01	0	11	+1 to +6
		15 APR 01	2	0	+1
		17 APR 01	1	0	+5
		21 APR 01	12	0	+1 to +3
		23 APR 01	4	0	+1 to +3
		23 JUN 01	0	1	+1
		02 JUL 01	1	0	+1
II	1	12 MAR 01	0	2	-1
		13 MAR 01	0	22	-4 to -1
		15 MAR 01	0	1	-2
		24 MAR 01	0	2	+1
		27 MAR 01	0	3	+1
		02 APR 01	21	0	+1 to +3
		05 APR 01	1	0	-1
		09 APR 01	10	0	-5 to -1
		12 APR 01	42	0	+1 to +10
		29 APR 01	0	1	+1
		06 JUN 01	0	3	+1
		12 JUN 01	0	2	+1
		19 JUN 01	0	3	+1 to +2
		27 JUN 01	0	28	+26 to +40
III	3	23 MAR 01	0	5	+1 to +2
		12 APR 01	57	0	+8 to +16
		18 APR 01	1	0	-1
		20 APR 01	4	0	+1
		04 MAY 01	0	2	+1 to +2
		05 MAY 01	0	2	+1
		31 MAY 01	0	1	+63
		14 JUN 01	0	2	+1
		29 JUN 01	0	1	+1
		07 JUL 01	0	3	+1
IV	10	14 MAR 01	0	2	-1
		25 MAR 01	0	1	+1
		02 APR 01	10	0	+4 to +7
		09 APR 01	0	1	-1
		12 APR 01	42	0	+8 to +15
		19 APR 01	0	1	-1
		06 JUN 01	13	0	+1 to +4
		18 JUN 01	0	9	+1 to +3

Dosage Group	Dosage (mg/kg/day)	Date	Number of F1 Generation Rats		Range of Time Deviated (minutes)
			Male Rats	Female Rats	
V	30	08 MAR 01	2	1	-1 to +5
		15 MAR 01	1	0	+41
		17 MAR 01	6	0	+1 to +2
		19 MAR 01	55	0	+67 to +79
		30 MAR 01	0	1	+29
		02 APR 01	2	0	+1 to +12
		03 APR 01	5	0	-1
		08 APR 01	3	0	+1
		10 APR 01	1	0	-1
		12 APR 01	54	0	+5 to +20
		20 APR 01	0	15	+1 to +5
		16 MAY 01	0	10	-2 to -1
		09 JUN 01	0	3	-2 to -1
		12 JUN 01	0	1	+1
		01 JUL 01	0	6	+1 to +3

These deviations did not adversely affect the outcome or interpretation of the study because, except for fifteen incidents, the extent of the deviation was ten minutes or less.

7. Postdosage observations were not recorded for the following rats.

Generation	Dosage Group	Dosage (mg/kg/day)	Date	Day of Study	Sex	Rat Number
P	II	1	18 JAN 01	DS 67	Male	13656
	IV	10	18 JAN 01	DS 67	Male	13712
	V	30	15 DEC 00	DS 33	Male	13741
F1	I	0	22 MAR 01	DS 14	Male	1034
	III	3	26 MAR 01	DS 19	Male	1154
			21 MAY 01	DS 76	Male	1132
			05 JUL 01	DL 15	Female	1448
	IV	10	31 MAR 01	DS 25	Male	1186
			12 APR 01	DS 34	Male	1224
			12 APR 01	DS 34	Male	1225
			12 APR 01	DS 34	Male	1236
			12 APR 01	DS 34	Male	1237
			12 APR 01	DS 34	Male	1238
	V	30	12 APR 01	DS 34	Male	1246

These deviations did not adversely affect the outcome or interpretation of the study because sufficient data were available to evaluate this parameter.

8. The estrous cycle evaluation was not recorded for the following rat.

Generation	Dosage Group	Dosage (mg/kg/day)	Date	Day of Study	Sex	Rat Number
P	III	3	19 JAN 01	DS 68	Female	13882

This deviation did not adversely affect the outcome or interpretation of the study because sufficient data were available to evaluate this parameter.

9. Observations for maternal behavior were not recorded for the following P generation female rats.

Dosage Group	Dosage (mg/kg/day)	Day of Study	Date	Number of P Generation Female Rats	Behavior Observation Not Recorded[a]	Number of Pups Affected
I	0	DL 1	16 FEB 01	1	1, 2, 3, 4, 5	1 female
		DL 22	05 MAR 01	2	4, 5	all
		DL 22	06 MAR 01	3	4, 5	all
		DL 22	07 MAR 01	3	4, 5	all
		DL 22	08 MAR 01	4	4, 5	all
		DL 22	09 MAR 01	7	4, 5	all
		DL 22	10 MAR 01	1	4, 5	all
		DL 22	13 MAR 01	1	4, 5	all
		DL 22	19 MAR 01	1	4, 5	all
II	1	DL 1	14 FEB 01	1	1, 2, 3, 4, 5	1 female
		DL 22	05 MAR 01	4	4, 5	all
		DL 22	06 MAR 01	9	4, 5	all
		DL 22	07 MAR 01	5	4, 5	all
		DL 22	08 MAR 01	4	4, 5	all
		DL 22	09 MAR 01	4	4, 5	all
III	3	DL 22	05 MAR 01	1	4, 5	all
		DL 22	06 MAR 01	9	4, 5	all
		DL 22	07 MAR 01	7	4, 5	all
		DL 22	08 MAR 01	4	4, 5	all
		DL 22	09 MAR 01	6	4, 5	all
		DL 22	10 MAR 01	1	4, 5	all
		DL 22	13 MAR 01	1	4, 5	all
IV	10	DL 1	14 FEB 01	2	1, 2, 3, 4, 5	1 male
		DL 1	15 FEB 01	1	1, 2, 3, 4	1 female
		DL 22	06 MAR 01	4	4, 5	all
		DL 22	07 MAR 01	7	4, 5	all
		DL 22	08 MAR 01	8	4, 5	all
		DL 22	09 MAR 01	10	4, 5	all
V	30	DL 1	14 FEB 01	1	1, 2, 3, 4, 5	1 female
		DL 1	16 FEB 01	1	1, 2, 3, 4, 5	1 male
		DL 22	05 MAR 01	1	4, 5	all
		DL 22	06 MAR 01	5	4, 5	all
		DL 22	07 MAR 01	10	4, 5	all
		DL 22	08 MAR 01	3	4, 5	all
		DL 22	09 MAR 01	7	4, 5	all
		DL 22	10 MAR 01	1	4, 5	all
		DL 22	11 MAR 01	1	4, 5	all

a. Behavior observation not recorded
1 - postpartum grooming
2 - removal of pup amniotic sac
3 - removal of pup placenta/umbilical cord
4 - normal nesting activity
5 - normal nursing activity

These deviations did not adversely affect the outcome or interpretation of the study because sufficient data were collected to evaluate this parameter.

10. Observations for pups were not recorded for the following litters.

Generation	Dosage Group	Dosage (mg/kg/day)	Date	Day of Study	Litter Number	Number of Pups
F1	III	3	10 MAR 01	DL 22	13864	6
	V	30	10 MAR 01	DL 22	13940	15

These deviations did not adversely affect the outcome or interpretation of the study because sufficient data were available to evaluate this parameter.

11. Predosage observations and dosage volume were not recorded for the following rat.

Generation	Dosage Group	Dosage (mg/kg/day)	Date	Day of Study	Sex	Rat Number
F1	I	0	22 MAR 01	DS 14	Female	1030

This deviation did not adversely affect the outcome or interpretation of the study because sufficient data were available to evaluate this parameter.

12. Predosage observations, dosage volumes and postdosage observations were not recorded for the following rats.

Generation	Dosage Group	Dosage (mg/kg/day)	Date	Day of Study	Sex	Rat Number
F1	III	3	12 APR 01	DS 34	Male	1166
	IV	10	12 APR 01	DS 34	Male	1225
			12 APR 01	DS 34	Male	1227-1235
			12 APR 01	DS 34	Male	1239
			12 APR 01	DS 34	Male	1240

These deviations did not adversely affect the outcome or interpretation of the study because sufficient observations were available to evaluate theses parameters. There was no discrepancy in the chemistry data, therefore it is presumed that the rats were dosed appropriately.

13. Terminal body weights were not recorded for the following rat.

Generation	Dosage Group	Dosage (mg/kg/day)	Date	Day of Study	Sex	Rat Number
F1	V	30	06 APR 01	DS 28	Female	1596

This deviation did not adversely affect the outcome or interpretation of the study because sufficient data were available to evaluate this parameter.

14. On 29 May 2001, DG 0, F1 generation female rat 1486 in the 10 mg/kg/day dosage group was not removed from cohabitation and remained in cohabitation until DG 1. As a result of not being removed from cohabitation until DG 1, the feed consumption value for the interval DG 0 to DG 7 was not recorded. This deviation did not adversely affect the outcome or interpretation of the study because sufficient data were available to evaluate feed consumption.

15. Feed left values were not recorded for the following rats.

Generation	Dosage Group	Dosage (mg/kg/day)	Date	Day of Study	Sex	Rat Number
F1	II	1	09 MAR 01	DS 4	Female	1365
			26 APR 01	DS 51	Female	1373
	IV	10	09 MAR 01	DS 3	Female	1484
			05 APR 01	DS 29	Female	1500
	V	30	09 MAR 01	DS 2	Female	1562
			09 MAR 01	DS 2	Female	1563
			06 APR 01	DS 28	Female	1596

These deviations did not adversely affect the outcome or interpretation of the study because sufficient data were available to evaluate this parameter.

16. Vaginal patency was not evaluated until observed for the following rats.

Generation	Dosage Group	Dosage (mg/kg/day)	Date of Last Evaluation	Day of Study	Sex	Rat Number
F1	II	1	23 MAR 01	DS 15	Female	1409
	III	3	23 MAR 01	DS 14	Female	1468
	IV	10	23 MAR 01	DS 16	Female	1489

These deviations did not adversely affect the outcome or interpretation of the study because sufficient data were available to evaluate this parameter.

17. Preputial separation was not evaluated until observed for the following rats.

Generation	Dosage Group	Dosage (mg/kg/day)	Date of Last Evaluation	Day of Study	Sex	Rat Number
F1	I	0	03 APR 01	DS 25	Male	1040
			03 APR 01	DS 25	Male	1052
			03 APR 01	DS 25	Male	6553

These deviations did not adversely affect the outcome or interpretation of the study because sufficient data were available to evaluate this parameter.

18. Observations for sexual maturation were not recorded for the following rats.

Generation	Dosage Group	Dosage (mg/kg/day)	Date	Day of Study	Sex	Rat Number
F1	I	0	05 APR 01	DS 39	Male	1059
			05 APR 01	DS 39	Male	1060
			08 APR 01	DS 30	Male	6555
	IV	10	07 APR 01	DS 29	Male	1222
			08 APR 01	DS 30	Male	1222

These deviations did not adversely affect the outcome or interpretation of the study because these sufficient data were available to evaluate this parameter.

19. Maternal observations were not recorded for the following rats.

Generation	Dosage Group	Dosage (mg/kg/day)	Date	Day of Study	Rat Number	Number of Pups
F1	I	0	14 JUL 01	DL 22	1328	all
	IV	10	25 JUN 01	DL 5	1490	all
			07 JUL 01	DL 15	1523	1
	V	30	21 JUN 01	DL 1	1548	1
			23 JUN 01	DL 1	1568	1
			25 JUN 01	DL 5	1573	1
			28 JUN 01	DL 8	1557	1

These deviations did not adversely affect the outcome or interpretation of the study because sufficient data were available to evaluate this parameter.

20. Clinical observations were not recorded for the following pups.

Generation	Dosage Group	Dosage (mg/kg/day)	Date	Day of Study	Litter Number	Number of Pups
F1	V	30	25 JUN 01	DL 3	1568	12
			26 JUN 01	DL 4	1568	12

These deviations did not adversely affect the outcome or interpretation of the study because sufficient data were available to evaluate this parameter.

21. Anogenital distance measurements were not recorded for the following rat.

Generation	Dosage Group	Dosage (mg/kg/day)	Date	Day of Study	Sex	Rat Number
F1	II	3	12 JUL 01	DL 22	Female	1474

This deviation did not adversely affect the outcome or interpretation of the study because sufficient data were available to evaluate this parameter.

22. The terminal blood sample was not taken for the following rat.

Generation	Dosage Group	Dosage (mg/kg/day)	Date	Day of Study	Sex	Rat Number
P	I	0	19 MAR 01	DL 22	Female	13809

This deviation did not adversely affect the outcome or interpretation of the study because this was a control group rat and sufficient data were available to evaluate this parameter.

23. Necropsy observations were not recorded for the following rat.

Generation	Dosage Group	Dosage (mg/kg/day)	Date	Day of Study	Sex	Rat Number
F1	II	1	14 JUL 01	DL 22	Female	1362

This deviation did not adversely affect the outcome or interpretation of the study because it was a single event.

24. The pituitary was not retained for the following rat.

Generation	Dosage Group	Dosage (mg/kg/day)	Date	Day of Study	Sex	Rat Number
P	I	0	07 MAR 01	DL 22	Female	13807

This deviation did not adversely affect the outcome or interpretation of the study because this was a control group rat and sufficient data were available to evaluate this parameter.

25. The right adrenal was lost during processing and therefore not saved in neutral buffered 10% formalin for the following rat.

Generation	Dosage Group	Dosage (mg/kg/day)	Date	Day of Study	Sex	Rat Number
F1	V	30	02 JUL 01	DS 118	Male	1252

This deviation did not adversely affect the outcome or interpretation of the study because sufficient data were available to evaluate this parameter.

26. The organ weights for brain, kidneys, spleen, ovaries, thymus, liver, adrenal glands, pituitary and uterus with oviducts and cervix were not weighed and the pituitary and adrenal glands were not retained for the following rats.

Generation	Dosage Group	Dosage (mg/kg/day)	Date	Day of Study	Sex	Rat Number
F1	I	0	08 MAR 01	DS 1	Female	1319
			08 MAR 01	DS 1	Female	1320
	II	1	09 MAR 01	DS 4	Female	1365
			26 APR 01	DS 51	Female	1373
	III	3	13 MAR 01	DS 7	Female	1432
	IV	10	09 MAR 01	DS 3	Female	1484
	V	30	09 MAR 01	DS 2	Female	1562
			09 MAR 01	DS 2	Female	1563
			11 MAR 01	DS 3	Female	1574
			11 MAR 01	DS 3	Female	1575
			13 MAR 01	DS 6	Female	1559
			14 MAR 01	DS 14	Female	1549

These deviations did not adversely affect the outcome or interpretation of the study because sufficient data were available to evaluate these parameters.

27. Reproductive organs (uterus, ovaries, oviducts, cervix and vagina) were not retained for the following rats.

Generation	Dosage Group	Dosage (mg/kg/day)	Date	Day of Study	Sex	Rat Number
F1	I	0	23 JUN01	DG 25	Female	1316
			06 JUL 01	DG 25	Female	1358
	II	1	25 JUN 01	DG 25	Female	1378[a]
	III	3	23 JUN 01	DG 25	Female	1458
			26 JUN 01	DG 25	Female	1446[a]
	IV	10	23 JUN 01	DG 25	Female	1483
			29 JUN 01	DG 25	Female	1511
	V	30	25 JUN 01	DG 25	Female	1578

a. Uterus and cervix were retained.

These deviations did not adversely affect the outcome or interpretation of the study because sufficient data were available to evaluate these parameters.

All deviations are documented in the raw data.

26 MAR 2002

Raymond G. York, Ph.D., DABT Date
Associate Director of Research
and Study Director

APPENDIX H

CERTIFICATE OF ANALYSIS

Centre Analytical Laboratories, Inc.
3048 Research Drive State College, PA 16801
Phone: (814) 231-8032 Fax: (814) 231-1253 or (814) 231-1580

INTERIM CERTIFICATE OF ANALYSIS

Centre Analytical Laboratories COA Reference #: 023-033
3M Product: Ammonium Perfluorooctanoate
Test Control Reference #: TCR-99131-37, Lot #: 332
Purity: 95.2%

Test Name	Specifications	Result
Purity[1]		95.2%
Appearance	White, crystalline solid	Conforms
Identification NMR		Positive
Metals (ICP/MS) 1. Calcium 2. Magnesium 3. Sodium 4. Potassium 5. Nickel 6. Iron 7. Manganese		 1. 0.001 wt./wt.% 2. <0.001 wt./wt.% 3. 0.005 wt./wt.% 4. <0.001 wt./wt.% 5. <0.001 wt./wt.% 6. <0.001 wt./wt.% 7. <0.001 wt./wt.%
Total % Impurity (NMR)		0.34 wt./wt.%
Total % Impurity (LC/MS)		4.49 wt./wt.%
Total % Impurity (GC/MS)		None Quantified
Residual Solvents (TGA)		None Detected
Purity by DSC		99.7%
Inorganic Anions (IC) 1. Chloride 2. Fluoride 3. Bromide 4. Nitrate 5. Nitrite 6. Phosphate 7. Sulfate		 1. <0.015 wt./wt.% 2. <0.005 wt./wt.% 3. <0.040 wt./wt.% 4. <0.009 wt./wt.% 5. <0.006 wt./wt.% 6. <0.006 wt./wt.% 7. <0.040 wt./wt.%
Organic Acids[2] (IC) 1. TFA 2. PFPA 3. HFBA 4. NFPA		 1. <0.1 wt./wt.% 2. <0.1 wt./wt.% 3. <0.1 wt./wt.% 4. <0.25 wt./wt.%
Elemental Analysis[3]: 1. Carbon 2. Hydrogen 3. Nitrogen 4. Sulfur 5. Fluorine	 Theoretical Value = 22.3% Theoretical Value = 0.935% Theoretical Value = 3.25% Theoretical Value = 0% Theoretical Value = 66.1%	 1. 18.9 wt./wt.% 2. 1.31 wt./wt.% 3. 3.75 wt./wt.% 4. 4.34 wt./wt.% 5. 63.2 wt./wt.%
Ammonium Analysis[3] Ion Selective Electrode	Theoretical Value = 4.18%	3.49 wt./wt. %

Centre Analytical Laboratories, Inc.
3048 Research Drive State College, PA 16801
Phone: (814) 231-8032 Fax: (814) 231-1253 or (814) 231-1580

INTERIM CERTIFICATE OF ANALYSIS

Centre Analytical Laboratories COA Reference #: 023-033
3M Product: Ammonium Perfluorooctanoate
Test Control Reference #: TCR-99131-37, Lot #: 332

Date of Last Analysis: 12/15/00

Expiration Date: 12/15/01

Storage Conditions: < -10 °C

Re-assessment Date: 12/15/01

[1]Purity = 100% - (Total Metal impurities, 0.006% + Total NMR impurities, 0.34% + Total LC/MS impurities, 4.49%)

Total impurity from all tests = 4.84%
Purity = 100% - 4.84% = 95.2%

[2] TFA Trifluoroacetic acid
HFBA Heptafluorobutyric acid
NFPA Nonafluoropentanoic acid
PFPA Pentafluoropropanoic acid

[3]Theoretical value calculations based on the empirical formula, $C_8F_{15}O_2^{(-)}NH_4^{(+)}$ (MW=431.1)

LC/MS Purity Profile:

Peak #	Retention Time (min)	Mass(s)	Identity	Area	% Area
1	12.140	269	C_6	167596	0.73
2	13.504	331, 319	C_7 homologue/F_{13}	860991	3.76
3	14.099	369	PFOA	21861700	-
Total	-	-	-	22890287	4.49

This work was conducted under EPA Good Laboratory Practice Standards (40 CFR 160).

Prepared By: _____ 01/09/01
David S. Bell Date
Scientist, Centre Analytical Laboratories

Reviewed By: _____ 1/9/01
John Flaherty Date
Laboratory Manager, Centre Analytical Laboratories

APPENDIX I

ANALYTICAL REPORT

3M Medical Department Study: T-6889.6
Analytical Report: FACT TOX-164
LIMS E00-2738

Study Title

Oral (Gavage) Two-Generation (One Litter per Generation) Reproduction Study of Ammonium Perfluorooctanoate (APFO/PFOA) in Rats 418-020

Analytical Laboratory Report Title

Determination of the Presence and Concentration of PFOA Fluorochemical in Rat Sera Samples

Data Requirement

January 7, 2002

Author

3M Environmental Laboratory

Study Completion Date

At signing

Performing Laboratories

Sera Analyses

3M Environmental Laboratory
Building 2-3E-09, 935 Bush Avenue
St. Paul, MN 55106

Sera Extractions

Pace Analytical Services, Inc.—Tier2 Facility
1700 Elm Street SE, Suite 100
Minneapolis, MN 55414

Project Identification

3M Medical Department Study: T-6889.6
Argus In-Life Study: 418-020
Analytical Report: FACT TOX-164
3M LIMS No. E00-2783

Total Number of Pages

110

3M Medical Department Study: T-6889.6
Analytical Report: FACT TOX-164
LIMS E00-2738

This page has been reserved for specific country requirements.

3M Medical Department Study: T-6889.6
Analytical Report: FACT TOX-164
LIMS E00-2738

GLP Compliance Statement

Analytical Laboratory Report Title: Determination of the Presence and Concentration of PFOA Fluorochemical in Rat Sera Samples

Study Identification Numbers: T-6889.6, FACT TOX-164, LIMS E00-2738

This study was conducted in compliance with United States Environmental Protection Agency (EPA) Good Laboratory Practice (GLP) Standards 40 CFR Part 792, with the exceptions in the bulleted list below.

Exceptions to GLP compliance:

- There were two study directors in this study. This study was designed as two separate studies. The in-life phase (Argus #418-020) was considered to end at the generation and shipment of specimens. The analytical study (3M FACT-TCX-164) was considered to start at the receipt of these specimens for analysis. This resulted in having two separate study directors, one for each phase of the same study. However, since the technical performance of each phase was entirely separate, no effect is expected from this exception.
- Dose confirmation and stability samples were not analyzed according to the GLPs.
- The purity and stability of the surrogate THPFOS standard is not included in this report, it is not known at this time.

John Butenhoff, Ph.D., *Study Director* — January 7, 2002 — Date

David Sanders, Ph.D., *Sponsor Representative* — 1/7/02 — Date

Lisa Clemen, *Principal Analytical Investigator* — 01/04/02 — Date

William Reagen, Ph.D., *Laboratory Management* — 01/04/02 — Date

3M Environmental Laboratory Page 3

3M Medical Department Study: T-6889.6
Analytical Report: FACT TOX-164
LIMS E00-2738

GLP Study—Quality Assurance Statement

Analytical Laboratory Report Title: Determination of the Presence and Concentration, of PFOA Fluorochemical in Rat Sera Samples

Study Identification Numbers: T-6889.6, FACT TOX-164, LIMS E00-2738

This study has been inspected by the 3M Environmental Laboratory Quality Assurance Unit (QAU) as indicated in the following table. The findings were reported to the study director and laboratory management.

Inspection Dates	Phase	Date Reported to	
		Management	Study Director
5/30/01	Protocol	05/30/01	05/30/01
6/27/01	Analysis	06/27/01	06/27/01
6/26/01	Sample Dilutions	06/26/01	06/26/01
09/25/01-09/28/01 and 10/01/01-10/02/01	Data	10/03/01	10/03/01
11/07/01-11/08/01	Draft report	11/09/01	11/09/01

Tanya K Rude 1/7/02

QAU Representative Date

3M Medical Department Study: T-6889.6
Analytical Report: FACT TOX-164
LIMS E00-2738

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3M Medical Department Study: T-6889.6
Analytical Report: FACT TOX-164
LIMS E00-2738

Study Personnel and Contributors

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Sally A. Linda*
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*Contract lab professional service employees

Location of Archives

All original raw data, protocol, and analytical report have been archived at the 3M Environmental Laboratory. The test substance and analytical reference standard reserve samples, as well as the specimens pertaining to the analytical phase of this study are archived at the 3M Environmental Laboratory.

3M Medical Department Study: T-6889.6
Analytical Report: FACT TOX-164
LIMS E00-2738

Introduction and Purpose

The purpose of the study is to determine the presence and concentration of PFOA fluorochemical in rat sera samples taken from the 3M study "Oral (Gavage) Two-Generation (One Litter per Generation) Reproduction Study of Ammonium Perfluorooctanoate (APFO/PFOA) in Rats." The sera samples are the product of the in-life study completed by Argus Research Laboratories under study number 418-020 (T-6889.6). Analyses of sera samples were completed by the 3M Environmental Laboratory under study number FACT-TOX-164 (E00-2738), and the results of these analyses are presented in this report. The analytical portion of this study was initiated on 07 June, 2001.

Specimen Receipt and Maintenance

The 3M Environmental Laboratory received dosage solution/suspension specimens collected at the end of the *in-life* study #418-020 on 14 November, 2000, and sera specimens collected on 18 April 2001 from Argus Research Laboratories. All dosage solution/suspension specimens were received cold in good condition on ice packs while all sera/liver specimens were received frozen in good condition on dry ice. All specimens were immediately transferred to storage at -20°C ± 10°C. Specimens that were extracted at Pace Tier2 were shipped frozen on dry ice.

Table 1. Specimens received from Argus Research Laboratory Study (418-020) on 14 November, 2000

Specimens	Timepoint	Total #
Dosage Solution/Suspension	Day 0 Stability	5
	Day 10 Stability	5
	Concentration	5

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Table 2. Specimens received from Argus Research Laboratory Study (418-020) on 18 April, 2001

Specimens	Gender	Group	Total #
Serum and Liver	Female	I	26
		II	26
		III	29
		IV	29
		V	28
	Male	I	30
		II	30
		III	30
		IV	30
		V	29

Table 3. Specimens received from Argus Research Laboratory Study (418-020) on 13 July, 2001

Specimens	Timepoint	Total #
Dosage Solution/Suspension	Concentration	5

Table 4. Specimens received from Argus Research Laboratory Study (418-020) on 09 August, 2001

Specimens	Gender	Group	Total #
Serum and Liver	Female	I	28
		II	28
		III	27/28
		IV	28
		V	29
	Male	I	30
		II	29
		III	30
		IV	30
		V	29

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Control matrices used in sera analyses performed during FACT-TOX-164 were obtained from commercial sources and are presented in Appendix A. Samples analyzed at the 3M Environmental Laboratory will be stored and maintained at the laboratory according to GLP requirements.

Chemical Characterization of the Reference Substance

Ammonium perfluorooctanoate
CAS Number: 3825-26-1

Chemical Formula: $C_7F_{15}COO^-NH_4^+$ Molecular Weight: 430.9

Chemical characterization information on the reference substance ammonium perfluorooctanoate used in this study is presented in tabular form below.

Table 5. Characterization of the Analytical Reference Substance in Study FACT TOX-164

Location	3M Lab	
Substance	PFOA TCR-99030-030	THPFOS (Surrogate Standard) TCR-00017-055
Source	NA	SynQuest Laboratory
Expiration Date	10/31/2006	NA
Storage Conditions	-20°C ± 10°C	-20°C ± 10°C
Chemical Lot Number	332	Q75-91
Physical Description	White powder	White powder
Purity	95.0%*	NA

NA—Not available
*See Certificate of Analysis from Centre Analytical Laboratories in Appendix G.

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Sample Preparation and Analysis

Dose Confirmation and Stability Analyses

Dose confirmation and stability analyses were performed on test substance dose samples (concentration, Day 0 Stability, and Day 10 Stability) collected on 10 November 2000 during the in-life phase of the study: the results are presented in Appendix D. Dose confirmation and stability samples were not analyzed according to the GLPs (analyses occurred prior to study initiation).

Dose confirmation and stability extractions were performed on 17 November, 2000, 27 November, 2000, and one re-extraction performed on 17 January, 2001 by diluting these samples with Milli-Q water, then extracting the samples using the ion pair procedure, ETS-8-4.1. For one dose solution concentration sample, a matrix spike was prepared (approximately 100 ng/mL) by diluting the concentraion sample then spiking the diluted solution. In all cases, samples were analyzed versus an unextracted curve using HPLC-ES/MS/MS. The instrumental parameters and analytical conditions described in ETS-8-5.1 were used for dose solution analyses. Detailed descriptions of the methods used are located in Appendix C.

Sera Analyses

As per the study protocol, only serum samples from the P Generation Group I, Group IV, and Group V were analyzed in this phase study (See Table 6 for more information). An equal number of male and female rat sera samples were randomly selected for analysis.

Sera samples were extracted beginning on 14 June, 2001 using an ion pairing reagent and methyl-*tert*-butyl ether (MtBE). Sample extracts were analyzed using high-performance liquid chromatography-electrospray/tandem mass spectrometry (HPLC-ESMSMS) in the multiple reaction mode versus an extracted sera curve. PFOA levels were quantitated by external calibration.

Table 6. P Generation Rat Samples Analyzed in Study FACT-TOX-164

Dosage Group	Gender	Total #
Group I	Male	3
	Female	3
Group IV	Male	10
	Female	10
Group V	Male	10
	Female	10

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Method Summaries

Following is a brief description of the methods used during this analytical study by the 3M Environmental Laboratory. Detailed descriptions of the methods used in this study are located in Appendix C.

3M Environmental Laboratory

PREPARATORY METHOD

- **ETS-8-4.1,** "Extraction of Potassium Perfluorooctanesulfonate or Other Fluorochemical Compounds from Serum for Analysis using HPLC-Electrospray/Mass Spectrometry"
- **ETS-8-4.2,** "Extraction of Fluorochemical Compounds from Serum for Analysis using HPLC-Electrospray/Mass Spectrometry"

  Analytical samples were extracted using an ion-pairing extraction procedure. An ion-pairing reagent was added to a laboratory sample and the analyte ion pair was partitioned into methyl-*tert*-butyl-ether (MtBE). The MtBE phase was removed and put into a nitrogen evaporator until dry. Each extracted laboratory sample was reconstituted in 1.0 mL of methanol and filtered using a 3 mL plastic syringe attached to a 0.2 µm nylon filter into glass autovials.

ANALYTICAL METHOD

- **ETS-8-5.1,** "Analysis of Potassium Perfluorooctanesulfonate or Other Fluorochemicals in Serum Extracts Using HPLC-Electrospray/Mass Spectrometry"
- **ETS-8-5.2,** "Analysis of Potassium Perfluorooctanesulfonate or Other Fluorochemicals in Serum Extracts Using HPLC-Electrospray/Mass Spectrometry"

  Analyses were performed by monitoring one or more product ions selected from a single primary ion characteristic of a particular fluorochemical using HPLC/ES/MS/MS. For example, molecular ion 413, selected as the primary ion for PFOA ($C_7F_{15}COO^-$) analysis, was fragmented further to produce ion 169 ($C_3F_7^-$). The characteristic ion 169 was monitored for quantitative analysis.

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ANALYTICAL EQUIPMENT

The following is representative of the settings used during the analytical phase of this study.

Liquid Chromatograph: Hewlett-Packard® Series 1100 Liquid Chromatograph system
Analytical column: Keystone® Betasil™ C_{18} 2x50 mm (5 µm)
Column temperature: 30°C
Mobile phase components:
Component A: 2mM ammonium acetate
Component B: methanol
Flow rate: 300 µL/min
Injection volume: 10 µL
Solvent Gradient: 8.0 minutes

Time (minutes)	*%B*
0.0	10%
1.0	10%
5.5	95%
7.5	95%
8.0	10%

Mass Spectrometer: Micromass® API/Mass Spectrometer Quattro II™ Triple Quadrupole system
Software: Mass Lynx™ 3.4
Cone Voltage: 15–60 V
Collision Gas Energy: 20–50 eV
Mode: Electrospray Negative
Source Block Temperature: 150°C ±10°C
Electrode: Z-spray
Analysis Type: Multiple Reaction Monitoring (MRM)

Table 7. Target Ions Monitored in 3M Laboratory Analyses

Target Analyte	Primary Ion (AMU)	Product Ion (AMU)
PFOA	413.0	169.0
THPFOS	427.0	80.0

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Deviations/Amendments

There were three deviations and one amendment from the original protocol.

Deviations and amendments from the original protocol and methods are included in the Appendix B.

Data Quality Objectives and Data Integrity

The following data quality objectives (DQOs) were indicated in the protocol for this study:

- **Linearity:** The coefficient of determination (r^2) equal to or greater than 0.990 using 1/x weighting.
- **Limits of Quantitation (LOQ):** The LOQ is equal to the lowest acceptable standard in the calibration curve, defined as the lowest standard that is both 2 times the matrix blank and is calculated within ±30% of the expected concentration.
- **Acceptable Accuracy:** Quality control samples are required to meet ±25% accuracy, provided they are quantitated within the selected calibration range.
- **Confirmatory Methods:** If a confirmatory method is used, an amendment to the protocol will be written.
- **Demonstration of Specificity:** PFOA identification will be substantiated by chromatographic retention time (approximately 7 minutes), by the characteristic primary ion (413) and the characteristic product ion (169).

Data Summary, Analyses, and Results

Data quality objectives for the analytical phase of this study outlined above and in the 3M Environmental Laboratory protocol for FACT TOX-164 (see Appendix B) were met with the exceptions noted in this report.

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Summary of Quality Control Analyses Results

- **Linearity:** The coefficient of determination (r^2) of the standard curve was ≥0.990.
- **Calibration Standards:** Quantitation of the target analytes was based on linear regression analysis, 1/x weighted of one extracted matrix curve. High or low points on the curve may have been deactivated to provide a better linear fit over the curve range most appropriate to the data. Low curve points with peak areas less than two times that of the extraction blanks were deactivated to disqualify a data range that may have been significantly affected by background levels of the analyte. Occasionally, a single mid-range curve point that was an obvious outlier may have been deactivated. Quantitation of each analyte was based on the response of one specific product ion using the multiple response-monitoring mode of the instrument (see Appendix C, Analytical Methods).
- **Limits of Quantitation (LOQ):** The LOQ is equal to the lowest acceptable standard in the calibration curve (defined as a standard within ±30% of the theoretical value), and is at least two times the analyte peak area detected in the extraction blanks. (see Table # 8 below).

Table 8. Determinations of the LOQ in the Analyses of Rat Sera Extracts

Matrix	Analyte	Method LOQ
Sera	PFOA	5.28 ng/mL
Dose Solution	PFOA	10.0 ng/mL

- **Blanks:** All blanks were below the lower limit of quantitation for the compounds of interest.
- **Accuracy:** Accuracy was determined by analysis of CCVs and was reproducible to within 25%.
- **Matrix Spikes:** Although matrix spikes were not a quality control component of this study, because the extracted matrix curves were prepared in the same matrix as the samples (rat serum); two matrix spike tests were performed. The first test was performed prior to the start of sample extraction/analysis to determine extraction efficiency while the second test was performed after sample extraction/analysis was complete to determine extraction efficiency and recovery.

  The first and second tests showed that the extraction efficiency versus unextracted curves was within ±35%.

  The second test showed that matrix spike recoveries were within ±25% of the theoretical concentration versus extracted matrix curves. (see Table # 9 below).

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Table 9. Matrix Spike Recoveries in the Analyses of Rat Sera Extracts

	Concentration	Recovery versus an Unextracted Curve	Recovery versus an Extracted Matrix Curve
Prior to Sample Analyses	25 ng/mL	64%	NA
	500 ng/mL	67%	NA
After Sample Analyses	50 ng/mL	96%	108%
	1500 ng/mL	87%	86%
	50000 ng/mL	75%	89%

- **Spike Recoveries:** Spike recoveries of ±25% of expected values were achieved for all continuing calibration verifications spiked in the control matrix.
- **Surrogates:** The surrogate (THPFOS) was added to all samples and standards. THPFOS was not used for quantitation, but was used to monitor for gross instrument failure. The surrogate response of each analytical run was verified to determine that it did not vary more than ±50% from the mean within each analytical run. Extracts which were diluted 1:50 or 1:1000 showed surrogate deviations lower than 50%. Since these were consistently low, these outliers will not affect the outcome of this study.

Statement of Data Quality

It is not possible to verify true recovery of endogenous analyte from tissues without radio-labeled reference material. The only measurements of accuracy available at this time, calibration curve verification recoveries and matrix spike recoveries, indicate that these data are quantitative to 25% or greater.

Summary of Sample Results

PFOA results (those obtained using lot # 332) have been corrected for purity of the analytical reference material.

- **Dose Confirmation and Stability Analyses:** PFOA in the Day 0, Day 10, and concentration samples were considered to be stable for at least 2 months. Initial analysis on 11/27/00 and the last analysis on 01/23/01 showed a 12% drop in recovery, which is not considered to be significant.
- **Samples from Control Animals:** Low levels of PFOA were detected in the male sera of the control animals.
- **Samples from Dosed Animals:** In general, PFOA levels found in female sera of the test animals increased from dose group 4 to group 5. PFOA levels found in male sera remained the same between dose group 4 and 5. Significant differences between male and female PFOA levels were observed in these data. Detailed sample data tables are presented in Appendices D and E.

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Statistical Methods and Calculations

Statistical methods were limited to the calculation of means and standard deviations. See Appendix F for example calculations used to generate the serum sample data in FACT TOX-164.

Statement of Conclusion

Under the conditions of the present studies, the fluorochemical PFOA was observed in the sera of all rats dosed with the test substance during the in-life phase of the study.

References

None

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Appendix A: Chemical Characterization, and Control Matrices

Table 10. Characterization of the Control Matrices Used for Sera Analyses in Study FACT-TOX-164

Control Matrix	Rat Serum TN-A-4516
Source	Sigma-Aldrich
Expiration Date	02/14/06
Storage Conditions	Frozen -20°C
Chemical Lot #	019H89291
Physical Description	Rat Serum

Table 11. Characterization of Test Substance in Study FACT-TOX-164

	Test Substance
Chemical Name	Ammonium Perfluorooctanoate APFO/PFOA TCR-99030-030
Source	NA
Expiration Date	10/31/2006
Storage Conditions	-20°C ± 10°C
Chemical Lot #	332
Physical Description	White powder
Purity	95.0%*

NA—Not available
*See the Certificate of Analysis from Centre Analytical Laboratories in Appendix G.

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Appendix B: Protocol, Amendments, and Deviation(s)

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Phase Title

Oral (Gavage) Two-Generation (One Litter per Generation) Reproduction Study of Ammonium Perfluorooctanoate (APFO/PFOA) in Rats

PHASE PROTOCOL

Performing Laboratories

3M Environmental Technology & Safety Services
3M Environmental Laboratory
935 Bush Avenue
St. Paul, MN 55106

Pace Analytical Services, Inc.
1700 Elm Street SE, Suite 100
Minneapolis, MN 55414

Laboratory Project Identification

FACT-TOX Number TOX-164
3M Toxicology Study Number T-6889.6
Argus In-life Study Number 418-020
LIMS E00-2738

Study Identification

Oral (Gavage) Two-Generation (One Litter per Generation) Reproduction Study of Ammonium Perfluorooctanoate (APFO/PFOA) in Rats

Sponsor	3M Corporate Toxicology 3M Medical Department Building 220-2E-02 St. Paul, MN 55144
Sponsor Representative	David Sanders, Ph.D. 3M Corporate Toxicology 3M Medical Department Building 220-2E-02 St. Paul, MN 55144 Telephone: (651) 733-5226
Study Director	John Butenhoff, Ph.D. 3M Corporate Toxicology 3M Medical Department Building 220-2E-02 St. Paul, MN 55144 Telephone: (651) 737-1962
Phase Locations	
Principal Analytical Investigator (PAI)	Lisa Clemen
Analytical Testing Laboratories	3M Environmental Laboratory Building 2-3E-09 935 Bush Avenue St. Paul, MN 55106 Telephone: (651) 778-6176
	Pace Analytical Services, Inc. 1700 Elm Street SE, Suite 100 Minneapolis, MN 55414
Proposed Phase Timetable	
Analyses Start Date	May 28, 2001
Analyses Termination Date	November 30, 2001

1. STUDY

Oral (Gavage) Two-Generation (One Litter per Generation) Reproduction Study of Ammonium Perfluorooctanoate (APFO/PFOA) in Rats

2. PURPOSE

The analytical phase of this study is designed to evaluate levels of PFOA in sera specimens of F0 generation male and female rats exposed and F1 generation rat pups potentially exposed to APFO in Argus In-life Study 418-020. Sera samples will be extracted at Pace Analytical Services Inc. Tier II facility. Sera samples will be analyzed at the 3M Environmental Laboratory. Data quality objectives for this study are indicated in section 11.

3. REGULATORY COMPLIANCE

This study will be conducted in accordance the United States Environmental Protection Agency Good Laboratory Practice Standards: Final Rule, 40 CFR Part 160/Part 792.

4. QUALITY ASSURANCE

The 3M Environmental Laboratory Quality Assurance Unit will audit the study conduct, raw data, and final report to determine compliance with Good Laboratory Practice regulations, this protocol, and 3M Environmental Laboratory Standard Operating Procedures.

5. REFERENCE SUBSTANCE FOR FACT-TOX-164

Ammonium Perfluorooctanoate (APFO/PFOA), $C_7F_{15}COO^-NH_4^+$, CAS 3825-26-1

The target analyte is perfluorooctanoate (PFOA), $C_7F_{15}COO^-$.

6. TEST SUBSTANCE

Ammonium Perfluorooctanoate (APFO/PFOA), $C_7F_{15}COO^-NH_4^+$, CAS 3825-26-1

7. TEST SYSTEM

Five dose groups (30/sex/group for a total of 300) of male and female rats (P Generation) were given the test substance by oral (gavage) route. After cohabitation of the P Generation, five groups of male and female rats (30/sex/group for a total of 300) will be selected from F1 Generation pups for continued evaluation. F1 Generation rats will be given the same dosage level of the test substance as their respective P Generation sires and dams. At scheduled sacrifice (after completion of the cohabitation period for males and day 22 postpartum for females), blood and liver samples were collected and shipped to 3M Environmental Laboratory.

Number of Specimens per Dosage group and Dosage Levels

Dosage Group	Number of Rats per Sex	Dosage (mg/kg/day)	Concentration (mg/mL)
I	30	0	0
II	30	1	0.2
III	30	3	0.6
IV	30	10	2
V	30	30	6

For this phase study, 40—100 sera samples from Group IV (10 mg/kg/day) and Group V (30 mg/kg/day) from the P Generation only will be analyzed. An equal number of male and female samples will be randomly selected from the two dose groups. Modifications to the number of samples analyzed may be implemented at the discretion of the PAI and the Study Director.

8. *Specimen Receipt*

Sera specimens were received from Argus Research Laboratories, Inc. at the end of the in-life phase on April 18, 2001. Sera specimens were shipped by overnight courier and were received frozen on dry ice. Specimens were identified with sample numbers (lab request numbers or numbers assigned by Argus Research Laboratories, Inc.) upon receipt, registered with the 3M Environmental Laboratory and transferred to a freezer for storage. All specimens sent to the 3M Environmental Laboratory were received and tracked according to the Sample Tracking System Standard Operating Procedure. Details of specimen inspection for damage, receipt, storage, identification, chain of custody, protocols and data will be presented in the phase report.

9. *Preparatory Methods*

ETS-8-4, "Extraction of Fluorochemical Compounds from Serum for Analysis using HPLC-Electrospray/Mass Spectrometry"

Analytical samples are extracted using an ion-pairing extraction procedure. An ion-pairing reagent is added to a laboratory sample and the analyte ion pair is partitioned into methyl-*tert*-butyl-ether (MtBE). The MtBE extract is then removed and put onto a nitrogen evaporator until dry. Each extracted laboratory sample is reconstituted in 1.0 mL of methanol and filtered through a 3 cm^3 plastic syringe attached to a 0.2 µm nylon filter into glass autovials.

10. *Analytical Methods*

ETS-8-5, "Analysis of Potassium Perfluorooctanesulfonate or other Fluorochemicals in Serum Extracts using HPLC-Electrospray/Mass Spectrometry"

Analysis is performed by monitoring one or more product ions selected from a single primary ion characteristic of a particular fluorochemical using HPLC-ESMSMS. For example, molecular ion 413, selected as the primary ion for PFOA ($C_7F_{15}COO^-$) analysis, is fragmented further to produce ion 169 ($C_3F_7^-$). The characteristic ion 169 is monitored for quantitative analysis.

Minor modifications to the preparatory and analytical methods may be implemented at the discretion of the PAI.

11. DATA QUALITY OBJECTIVES

11.1 Linearity

The coefficient of determination (r^2) of the standard curve must be equal to or greater than 0.990 using 1/x weighting.

11.2 Limits of Quantitation (LOQ)

The LOQ will be equal to the lowest acceptable standard in the calibration curve, defined as the lowest standard that is both 2 times the matrix blank and is calculated within ± 30% of the expected concentration.

11.3 Acceptable Accuracy

Quality control samples are required to meet ± 25% accuracy, provided they are quantitated within the selected calibration range.

11.4 Use of Confirmatory Methods

If a confirmatory method is used, an amendment to this protocol will be written.

11.5 Demonstration of Specificity, etc.

PFOA identification will be substantiated by chromatographic retention time (approximately 7 minutes), by the characteristic primary ion (413) and the characteristic product ion (169).

Minor modifications to the Data Quality Objectives may be implemented at the discretion of the PAI.

12. SUB-CONTRACTED ANALYSIS

Pace Analytical Services, Inc. (Tier II Facility) will be performing the extraction of serum specimens for analyses. All extracted samples will be shipped to the 3M Environmental Laboratory for analysis. Pace Analytical Services, Inc. will follow all applicable 3M Environmental Laboratory Standard Operating Procedures and the following Pace Analytical Inc. Standard Operating Procedures.

PSS-Admin-01 Quality System
PSS-Admin-04 Laboratory Facilities
PSS-Admin-06 Training Record Files Maintained by QAU
PSS-ARC-02 Disposition of Archive Materials

PSS-ARC-04	Archiving Data, Specimen and Logbooks
PSS-DC-05	Lab Notebooks, Logbooks, and Phone Logs
PSS-DM-03	Statistical Evaluation of Data
PSS-OPS-01	Use and Maintenance of Ultra-Turrax T25 Homogenizer
PSS-OPS-02	Raw Data
PSS-OPS-03	Hazardous Waste Disposal
PSS-OPS-04	Use and Maintenance of N-Evap Analytical Evaporator
PSS-OPS-05	Use of Compressed Gases in the Laboratory
PSS-OPS-06	Use and Maintenance of NANOpure II Water Purification System
PSS-OPS-07	Cleaning Non-disposable Volumetric Pipettes
PSS-OPS-08	Laboratory Calculations
PSS-OPS-09	Deviations from Established Procedures
PSS-OPS-10	Analytical Definitions
PSS-OPS-11	Use and Calibration of a Bottle-Top Dispenser
PSS-OPS-13	Use and Maintenance of Lab Refrigerators, Freezers, and Ovens
PSS-OPS-14	Use and Calibration of Syringes with a Hamilton Chaney Adapter
PSS-OPS-15	Glassware Cleaning
PSS-OPS-16	Use and Maintenance of the Fisher Scientific Isotemp Freezer
PSS-OPS-17	Use and Maintenance of Ultrasonic Water Baths (Sonicators)
PSS-OPS-18	Use and Maintenance of Vortex Shakers
PSS-OPS-24	Use and Maintenance of a Desiccator
PSS-OPS-31	Use and Maintenance of Shakers
PSS-OPS-32	Operation, Maintenance and Calibration of Laboratory
PSS-OPS-37	Operation, Maintenance, and Calibration of pH Meters and pH Electrodes
PSS-MC-01	Purchasing of Laboratory Supplies
PSS-MC-02	Receipt of Laboratory Supplies
PSS-MTR-01	Calibration of Certified Weight Set
PSS-MTR-02	Calibration of Certified Thermometers/Thermocouples
PSS-MTR-05	Calibration of Eppendorf Pipettes
PSS-MTR-06	Verification of Calibration of the Eppendorf Pipettor
PSS-MTR-07	New Equipment Qualification (IQ, PQ, OQ)
PSS-MTR-08	Verification of Calibration and Use of Analytical Balances
PSS-MTR-09	Use and Maintenance of Fisher Scientific Electronic Temperature Monitoring Devices
PSS-Safety-01	General Laboratory Safety
PSS-Safety-02	Use and Maintenance of Biological Safety Cabinets
PSS-Safety-04	Emergency Evacuation Procedures
PSS-Safety-05	Use and Maintenance of Laboratory Fume Hoods
PSS-TS-01	Training Procedures

13. *Statistical Analysis*

Statistical methods will be limited to the calculation of means and standard deviations. Examples of the calculations used in the analyses will be included in the phase report.

14. REPORT

A report of the analyte results will be prepared by 3M Environmental Laboratory. The report will include, but not be limited to, the following, when applicable:

14.1 Name and address of the facility performing the phase.

14.2 Dates upon which the phase was initiated and completed.

14.3 A statement of compliance by the PAI addressing any exceptions to Good Laboratory Practice Standards.

14.4 Objectives and procedures as stated in the approved phase protocol, including any amendments to the original phase protocol.

14.5 Identity, purity, stability and the solubility of the reference standard under the conditions of use.

14.6 A description of the methods used to conduct the test(s).

14.7 A description of the specimens.

14.8 A description of any circumstances that may have affected the quality or the integrity of the data.

14.9 The name of the PAI and the names of other scientists, professionals, and supervisory personnel involved in the phase.

14.10 A description of the transformations, calculations, or operations performed on the data, a summary and analysis of the analytical chemistry data, and a statement of the conclusions drawn from the analyses.

14.11 Statistical methods used to evaluate the data, if applicable.

14.12 The signed and dated reports of each of the individual scientists or other professionals involved in the phase, if applicable.

14.13 The location where raw data and the phase report are to be stored.

14.14 A statement prepared by the Quality Assurance Unit listing the dates that study inspections and audits were made and the dates of any findings reported to the Study Director and Management.

14.15 If it is necessary to make corrections or additions to a final report after it has been accepted, the changes will be made in the form of an amendment issued by the Study Director. The amendment will clearly identify the part of the final report that is being amended, the reasons for the amendment, and will be signed by the Study Director.

15. *Location of Raw Data, Records, and Final Report*

Original data or copies thereof, will be available at 3M Environmental Laboratory to facilitate audits of the study during its progress and before acceptance of the phase report. When the phase report is completed, all original paper data, including those items listed below will be retained in the archives of 3M Environmental Laboratory. All corresponding training records, calibration records, instrument maintenance logs, standard operating procedures, equipment procedures, and methods will be retained in the archives of the 3M Environmental Laboratory.

15.1 The following raw data and records will be retained in the study folder in the archives according to 3M Environmental Laboratory Standard Operating Procedures.

15.1.1 Approved protocol and amendments

15.1.2 Study correspondence

15.1.3 Shipping records

15.1.4 Raw data

15.1.5 Approved final report (original signed copy)

15.1.6 Electronic copies of data

15.2 The following supporting records will be retained separately from the study folder in the archives according to 3M Environmental Laboratory Standard Operating Procedures:

15.2.1 Training records

15.2.2 Calibration records

15.2.3 Instrument maintenance logs

15.2.4 Standard Operating Procedures, Equipment Procedures, and Methods

16. *Data / Sample Retention*

All sera specimens remaining after the analytical phase is completed will be sent to and maintained by:

Lisa Clemen
3M Environmental Laboratory
Building 2-3E-09
935 Bush Avenue
St. Paul, MN55106
Telephone: (651) 778-~~6176~~ 5562

LAC 01/07/02

17. PROTOCOL AMENDMENTS AND DEVIATIONS

Planned changes to the protocol will be in the form of written amendments signed by the Study Director and the Sponsor's Representative. Amendments will be considered as part of the protocol and will be attached to the final protocol. All changes to the protocol will be indicated in the phase report. Any other changes will be in the form of written deviations, signed by the Study Director and filed with the raw data.

18. ATTACHMENTS

18.1 Attachment A:

Material Safety Data Sheets (MSDS) for Reference Standard

19. SIGNATURES

David Sanders 6/11/01

David Sanders, Ph.D., Sponsor Representative — Date

John T. Butenhoff 6/07/01

John Butenhoff, Ph.D., Study Director — Date

Lisa A. Clemen 06/04/01

Lisa Clemen., Principal Analytical Investigator — Date

3M

Study Title

Oral (Gavage) Two-Generation (One Litter per Generation) Reproduction Study of Ammonium Perfluorooctanoate (APFO/PFOA) in Rats

PROTOCOL AMENDMENT NO. 1

Amendment Date:

November 17, 2000

Performing Laboratory

3M Environmental Technology & Safety Services
3M Environmental Laboratory
935 Bush Avenue
St. Paul, MN 55106

Laboratory Project Identification

3M Medical Department Study: T-6889.6
Argus In-Life Study: 418-020
Analytical Report: FACT TOX-164
3M LIMS No. E00-2738

This amendment modifies the following portion(s) of the protocol:

1. PROTOCOL READS:

Dose confirmation was not discussed in the Environmental Laboratory analytical phase protocol.

AMEND TO READ:

2. The dose confirmation and stability samples were prepared and analyzed prior to the start of the analytical phase of this study. These samples were not prepared or analyzed according to the GLPs. Methods ETS-8-4.1 and ETS-8-5.1 were loosely followed. The results will be reported in the final analytical report.

REASON:

From the protocol for the Primedica study:

Analyses of Prepared Formulations:

Concentration:

Concentration of the prepared formulations will be verified during the course of this study. Duplicate samples will be taken from each concentration on the first and last days of preparation. One sample of each duplicate set will be shipped for analysis; the remaining samples will be retained as backup samples. Backup samples will be stored under the previously cited conditions and discarded at the Testing Facility upon the request of the Sponsor.

Stability:

Stability of the prepared formulations will be documented during this study. Two sets of duplicate samples (2 mL each) from each concentration will be taken on the first day of preparation. One sample of each duplicate set will be shipped on the day of preparation. These samples will be analyzed at the following time points: as soon after preparation as possible and ten days after the first analysis. The remaining samples will be retained at the Testing Facility as backup samples. Backup samples will be stored under the previously cited conditions and discarded at the Testing Facility upon the request of the Sponsor.

Stability measurements demonstrate that the prepared test article will be stable for ten days. It is best to perform this prior to the analytical phase study initiation to ensure that prepared dosing mixtures will remain stable and thus avoid the cost and potential error of preparing doses each day. Also. no approved/validated methods were in place for dose confirmation analysis.

Amendment Approval

11/2/01

David Sanders, Sponsor Representative — Date

2 NOV, 2001

John L. Butenhoff, Ph.D., Study Director — Date

Record of Deviation

I. Identification

Study / Project No. FACT-TOX-164 Argus 418-020 LIMS E00-2738

Deviation Type (Check one) ☐ SOP X Method ☐ Equipment Procedure ☐ Protocol ☐ Other:

Document Number(s): ETS-8-4.2, ETS-8-5.2 Date(s) of occurrence: 06/14/01, 06/15/01

II. Description:

Required Procedure/process:
Method ETS-8-4.2 does not list matrix spikes as a QC parameter if the curve is prepared in the same matrix as the samples (i.e. rat serum calibration curves and rat serum samples). Method ETS-8-5.2 states five points, at a minimum, are to be used to generate the calibration curve and the curve r^2 must be > 0.990.

Actual Procedure/process:
Matrix spikes were prepared (06/14/01) prior to the start of the sample extraction in order to determine extraction efficiency and to determine the endogenous level of target analyte present in the commercially available serum. For this commercially available serum, endogenous levels were below 1.00 ppb for the target analyte. This serum was then used to prepare the extracted matrix calibration curve and continuing calibration verifications for this study.

These sample extracts were analyzed on 06/15/01. For this analysis, not all stated QC criteria were followed. Only four points were used for the calibration curve instead of five points and the r^2 value was 0.9831 instead of 0.9900. Since these data are screening quality only and additional matrix spikes will be extracted at the end of the study these data are OK as entered. These sample extracts were not reanalyzed.

III. Actions Taken:

(such as amendment issued. SOP revision, etc.)
This deviation was written.

Recorded By
Lisa A. Clemen Lisa A Clemen

Date
08/10/01
08/10/01

IV. Impact on Study / Project

No adverse impact on the outcome of this study.

Authorized By *(Study Director / Project Lead)* Date
John Butenhoff 27 August 2001
D A Sanders 5 Sept 2001

Study Director: John Butenhoff
Sponsor Representative: David Sanders
3M Environmental Laboratory
Form ETS-4-8.0

Deviation No. 1
(assigned by Study Director or Project Lead at the end of study or project)

Record of Deviation

I. Identification

Study / Project No. FACT-TOX-164 Argus 418-020 LIMS E00-2738

Deviation Type (Check one): ☐ SOP ☐ Method ☐ Equipment Procedure X Protocol ☐ Other:

Document Number(s): FACT-TOX-164

Date(s) of occurrence: 06/19/01

II. Description:

Required Procedure/process:
Section 7 states: An equal number of male and female samples will be randomly selected from the two P generation dose groups (group IV – 10 mg/kg/day and group V – 30 mg/kg/day)

Actual Procedure/process:
An equal number of male and female samples were randomly selected from the two P generation dose groups (group IV - 10 mg/kg/day and group V - 30 mg/kg/day.)
In addition, 3 male and 3 female samples were randomly selected from the P generation control group (group 1 - 0 mg/kg/day)

III. Actions Taken:

(such as amendment issued, SOP revision, etc.)
This deviation was written.

Recorded By: Lisa A. Clemen Lisa A Clemen Date: 08/10/01 08/10/01

IV. Impact on Study / Project

These samples' results will add useful information concerning endogenous levels present in the control group. No adverse impact on this study.

Authorized By *(Study Director / Project Lead)* Date

John Butenhoff 27 August 2001
5 Sept 2001

Study Director: John Butenhoff
Sponsor Representative: David Sanders

3M Environmental Laboratory
Form ETS-4-8.0

Deviation No. 2
(assigned by Study Director or Project Lead at the end of study or project)

Record of Deviation

I. Identification

Study / Project No. FACT-TOX-164 Argus 418-020 LIMS E00-2738

Deviation Type (Check one): SOP / Protocol / X Method / Equipment Procedure / Other:

Document Number(s): ETS-4-1, ETS-8-5.1

Date(s) of occurrence: 01/17/01, 01/23/01

II. Description:

Required Procedure/process:
Methods state: A matrix spike and matrix spike duplicate will be extracted and analyzed per forty samples, with a minimum of 2 per batch.

Actual Procedure/process:
On the dose confirmation extraction performed 01/17/01 no matrix spike or matrix spike duplicate were prepared and subsequently were not analyzed on 01/23/01.

III. Actions Taken:

(such as amendment issued, SOP revision, etc.)
This deviation was written.

Recorded By: Lisa A. Clemen — Lisa A Clemen — Date: 10/05/01 10/05/01

IV. Impact on Study / Project

This omission will not have an adverse impact on this study, other quality control aspects of the analysis were included (blanks, continuing calibration verifications) which met method criteria.

Authorized By *(Study Director / Project Lead)* — Date
John Z. Butenhoff 10/9/2001
10/12/2001

Study Director: John Butenhoff
Sponsor Representative: David Sanders

3M Environmental Laboratory
Form ETS-4-8.0

Deviation No. 3
(assigned by Study Director or Project Lead at the end of study or project)

3M Medical Department Study: T-6889.6
Analytical Report: FACT TOX-164
LIMS E00-2738

Appendix C: Extraction and Analytical Methods

This appendix includes the following methods:

ETS-8-4.1, Extraction of Potassium Perfluorooctanesulfonate or Other Fluorochemical Compounds from Serum for Analysis using HPLC-Electrospray/Mass Spectrometry, (14 pages)

ETS-8-4.2, Extraction of Fluorochemical Compounds from Serum for Analysis Using HPLC-Electrospray/Mass Spectrometry, (15 pages)

ETS-8-5.1, Analysis of Potassium Perfluorooctanesulfonate or Other Fluorochemicals in Serum Extracts Using HPLC-Electrospray/Mass Spectrometry, (9 pages)

ETS-8-5.2, Analysis of Potassium Perfluorooctanesulfonate or Other Fluorochemicals in Serum Extracts Using HPLC-Electrospray/Mass Spectrometry, (11 pages)

3M ENVIRONMENTAL LABORATORY

METHOD

EXTRACTION OF POTASSIUM PERFLUOROOCTANESULFONATE OR OTHER FLUOROCHEMICAL COMPOUNDS FROM SERUM FOR ANALYSIS USING HPLC-ELECTROSPRAY/MASS SPECTROMETRY

Method Number: ETS-8-4.1 **Adoption Date:** 03/01/99

Revision Date: 4/27/99

Author: Lisa Clemen, Glenn Langenburg

Approved By:

[signature]	4/27/99
Laboratory Manager	Date
[signature]	4/26/99
Group Leader	Date
Lisa A Clemen	04/26/99
Technical Reviewer	Date

Exact Copy of Original
RAW 4/26/01
Initial Date

1.0 SCOPE AND APPLICATION

1.1 **Scope:** This method is for the extraction of potassium perfluorooctanesulfonate (PFOS) or other fluorochemical compounds from serum.

1.2 **Applicable compounds:** Fluorochemical surfactants or other fluorinated compounds.

1.3 **Matrices:** Rabbit, rat, bovine, monkey, and human serum or other fluids as designated in the validation report.

2.0 Summary of Method

2.1 This method describes the procedure for extracting potassium perfluorooctanesulfonate (PFOS) or other fluorochemical surfactants from serum, or other fluids, using an ion pairing reagent and methyl-*tert*-butyl ether (MtBE). In this method, seven fluorochemicals were extracted: PFOS, PFOSA, PFOSAA, EtFOSE-OH, PFOSEA, M556, and surrogate standard (see ***3.0 Definitions***). An ion pairing reagent is added to the sample and the analyte ion pair is partitioned into MtBE. The MtBE extract is removed and put onto a nitrogen evaporator until dry. Each extract is reconstituted in 1.0 mL of methanol, then filtered through a 3 cc plastic syringe attached to a 0.2 µm nylon filter into glass autovials.

2.2 These sample extracts are analyzed following method ETS-8-5.1 or other appropriate methods.

3.0 Definitions

3.1 PFOS: perfluorooctanesulfonate (anion of potassium salt) $C_8F_{17}SO_3^-$

3.2 PFOSA: perfluorooctane sulfonylamide $C_8F_{17}SO_2NH_2$

3.3 PFOSAA: perfluorooctane sulfonylamido (ethyl)acetate $C_8F_{17}SO_2N(CH_2CH_3)CH_2CO_2^-$

3.4 EtFOSE-OH: 2(N-ethylperfluorooctane sulfonamido)-ethyl alcohol $C_8F_{17}SO_2N(CH_2CH_3)CH_2CH_2OH$

3.5 PFOSEA: perfluorooctane sulfonyl ethylamide $C_8F_{17}SO_2N(CH_2CH_3)H$

3.6 M556: $C_8F_{17}SO_2N(H)(CH_2COOH)$

3.7 Surrogate standard: 1H-1H-2H-2H perfluorooctane sulfonic acid

4.0 Warnings and Cautions

4.1 Health and safety warnings

4.1.1 Use universal precautions, especially laboratory coats, goggles, and gloves when handling animal tissue, which may contain pathogens.

5.0 Interferences

5.1 There are no interferences known at this time.

6.0 Equipment

6.1 The following equipment is used while performing this method. Equivalent equipment is acceptable.

6.1.1 Vortex mixer, VWR, Vortex Genie 2

6.1.2 Centrifuge, Mistral 1000 or IEC

6.1.3 Shaker, Eberbach or VWR

6.1.4 Nitrogen evaporator, Organomation

6.1.5 Balance (± 0.100 g)

7.0 Supplies and Materials

7.1 Gloves

7.2 Eppendorf or disposable pipettes

7.3 Nalgene bottles, capable of holding 250 mL and 1 L

7.4 Volumetric flasks, glass, type A

7.5 I-CHEM vials, glass, 40 mL glass

7.6 Centrifuge tubes, polypropylene, 15 mL

7.7 Labels

7.8 Oxford Dispenser – 3.0 to 10.0 mL

7.9 Syringes, capable of measuring 5 µL to 50 µL

7.10 Graduated pipettes

7.11 Syringes, disposable plastic, 3 cc

7.12 Syringe filters, nylon, 0.2 µm, 25 mm

7.13 Timer

7.14 Crimp cap autovials and caps

7.15 Crimpers

Note: Prior to using glassware and bottles, rinse 3 times with methanol and 3 times with Milli-Q™ water. Rinse syringes a minimum of 9 times with methanol, 3 rinses from 3 separate vials.

8.0 Reagents and Standards

8.1 Type I reagent grade water, Milli-Q™ or equivalent; all water used in this method should be Milli-Q™ water and may be provided by a Milli-Q TOC Plus™ system

8.2 Sodium hydroxide (NaOH), J.T Baker or equivalent

8.3 Tetrabutylammonium hydrogen sulfate(TBA), Kodak or equivalent

8.4 Sodium carbonate (Na_2CO_3), J.T. Baker or equivalent

8.5 Sodium bicarbonate ($NaHCO_3$), J.T. Baker or equivalent

8.6 Methyl-T-Butyl Ether, Omnisolv, glass distilled or HPLC grade

8.7 Methanol, Omnisolv, glass distilled or HPLC grade

8.8 Serum or blood, frozen from supplier

8.9 **Fluorochemical standards**

8.9.1 PFOS (3M Specialty Chemical Division), molecular weight = 538

8.9.2 PFOSA (3M Specialty Chemical Division), molecular weight = 499

8.9.3 PFOSAA (3M Specialty Chemical Division), molecular weight = 585

8.9.4 EtFOSE-OH (3M Specialty Chemical Division), molecular weight = 570

8.9.5 PFOSEA (3M Specialty Chemical Division), molecular weight = 527

8.9.6 M556 (3M Specialty Chemical Division), molecular weight = 557

8.9.7 Surrogate standard: 4-H, perfluorooctane sulfonic acid (1-H,1-H, 2-H, 2-H $C_8F_{13}SO_3H$) molecular weight = 428

8.9.8 Other fluorochemicals, as appropriate

8.10 Reagent preparation

NOTE: When preparing larger volumes than listed in reagent, standard, or surrogate preparation, adjust accordingly.

8.10.1 10 N sodium hydroxide (NaOH): Weigh approximately 200 g NaOH. Pour into a 1000 mL beaker containing 500 mL Milli-Q™ water, mix until all solids are dissolved. Store in a 1 L Nalgene bottle.

8.10.2 1 N sodium hydroxide (NaOH): Dilute 10 N NaOH 1:10. Measure 10 mL of 10 N NaOH solution into a 100 mL volumetric flask and dilute to volume using Milli-Q™ water. Store in a 125 mL Nalgene bottle.

8.10.3 0.5 M tetrabutylammonium hydrogen sulfate (TBA): Weigh approximately 169 g of TBA into a 1 L volumetric containing 500 mL Milli-Q™ water. Adjust to pH 10 using approximately 44 to 54 mL of 10 N NaOH (While adding the last mL of NaOH, add slowly because the pH changes abruptly). Dilute to volume with Milli-Q™ water. Store in a 1 L Nalgene bottle.

8.10.3.1 TBA requires a check prior to each use to ensure pH = 10. Adjust as needed using 1 N NaOH solution.

8.10.4 0.25 M sodium carbonate/sodium bicarbonate buffer (Na_2CO_3/$NaHCO_3$): Weigh approximately 26.5 g of sodium carbonate (Na_2CO_3) and 21.0 g of sodium bicarbonate ($NaHCO_3$) into a 1 L volumetric flask and bring to volume with Milli-Q™ water. Store in a 1 L Nalgene bottle.

8.11 Standards preparation

8.11.1 Prepare PFOS standards for the standard curve.

8.11.2 Prepare other fluorochemical standards, as appropriate. Multicomponent fluorochemical standards are acceptable (for example, one working standard solution containing 1.00 ppm PFOS, 1.02 ppm PFOSA, 0.987 ppm PFOSAA, and 1.10 ppm EtFOSE-OH.)

8.11.3 Weigh approximately 100 mg of PFOS into a 100 mL volumetric flask and record the actual weight.

8.11.4 Bring to volume with methanol for a stock standard of approximately 1000 ppm (µg/mL).

8.11.5 Dilute the stock solution with methanol for a working standard 1 solution of approximately 50 ppm.

8.11.6 Dilute working standard 1 with methanol for a working standard 2 solution of approx. 5.0 ppm.

8.11.7 Dilute working standard 1 with methanol for a working standard 3 solution of approx. 0.50 ppm.

8.12 Surrogate stock standard preparation

8.12.1 Weigh approximately 50-60 mg of surrogate standard 1-H,1-H, 2-H, 2-H, $C_8F_{13}SO_3H$ into a 50 mL volumetric flask and record the actual weight.

8.12.2 Bring to volume with methanol for a surrogate stock of approximately 1000-1200 ppm.

8.12.3 Prepare a surrogate working standard. Transfer approximately 1 mL of surrogate stock to a 10 mL volumetric flask and bring to volume with methanol for a working standard of 100 ppm. Record the actual volume transferred.

9.0 SAMPLE HANDLING

9.1 All samples are received frozen and must be kept frozen until the extraction is performed.

9.2 Allow samples to thaw to room temperature prior to extraction.

10.0 QUALITY CONTROL

10.1 Solvent Blanks, Method blanks and matrix blanks

10.1.1 An aliquot of 1.0 mL methanol is used as a solvent blank.

10.1.2 Extract two 1.0 mL aliquots of Milli-Q™ water following this procedure and use as method blanks.

10.1.3 Extract two 1.0 mL aliquots of the serum following this procedure and use as matrix blanks. See 11.1.4.

10.2 Matrix spikes

10.2.1 Prepare and analyze matrix spike and matrix spike duplicate samples to determine the accuracy of the extraction.

10.2.2 Prepare each spike using a sample chosen by the analyst, usually the control matrix received with each sample set.

10.2.3 Expected concentrations will fall in the mid-range of the initial calibration curve. Additional spikes may be included and may fall in the low-range of the initial calibration curve.

10.2.4 Prepare one matrix spike and matrix spike duplicate per 40 samples, with a minimum of 2 matrix spikes per batch.

10.3 Continuing calibration checks

10.3.1 Prepare continuing calibration check samples to ensure the accuracy of the initial calibration curve.

10.3.2 Prepare, at a minimum, one continuing check per group of 10 samples. For example, if a sample set = 34, four checks are prepared and extracted.

10.3.3 Prepare each continuing calibration check from the same matrix used to prepare the initial curve.

10.3.4 The expected concentrations will fall within the mid-range of the initial calibration curve. Additional spikes may be included that fall in the low-range of the initial calibration curve. This is necessary if the analyst must quantitate using only the low end of the calibration curve (for example, 5 ppb – 100 ppb, rather than
5 ppb – 1000 ppb).

11.0 CALIBRATION AND STANDARDIZATION

11.1 Prepare matrix calibration standards

11.1.1 Transfer 1 mL of serum to a 15 mL centrifuge tube.

11.1.2 If most sample volumes are less than 1.0 mL, extract standards with matrix volumes equal to the sample volumes. Do not extract less than 0.50 mL of matrix. Record each sample volume on the extraction sheet.

11.1.3 While preparing a total of twenty aliquots in 15 mL centrifuge tubes, mix or shake between aliquots.

11.1.4 Two 1 mL aliquots, or other appropriate volume, serve as matrix blanks. Typically use the standard concentrations and spiking amounts listed in Table 1, at the end of this section, to spike, in duplicate, two standard curves, for a total of eighteen standards, two matrix blanks, and two method blanks.

11.1.5 Refer to validation report **ETS-8-4.0 & ETS-8-5.0-V-1**, which lists the working ranges and the Linear Calibration Range (LCR) for calibration curves.

11.1.6 Use Attachment D as an aid in calculating the concentrations of the working standards. See Section **13.0** to calculate actual concentrations of PFOS in calibration standards.

11.2 To each standard, blank, or continuing check, add appropriate amount of surrogate working standard for the concentration to fall within the calibration curve range 5 ppb - 1000 ppb.

11.3 Extract spiked matrix standards following **12.6-12.16** of this method. Use these standards to establish each initial curve on the mass spectrometer.

Table 1 Approximate spiking amounts for standards and spikes Using 1.0 mL of matrix		
Working standard (approx. conc.)	µL	Approx. final conc. of analyte in matrix
-	-	Blank
0.500 ppm	10	0.005 ppm
0.500 ppm	20	0.010 ppm
5.00 ppm	5	0.025 ppm
5.00 ppm	10	0.050 ppm
5.00 ppm	20	0.100 ppm
50.0 ppm	5	0.250 ppm
50.0 ppm	10	0.500 ppm
50.0 ppm	15	0.750 ppm
50.0 ppm	20	1.00 ppm

12.0 PROCEDURE

12.1 Obtain frozen samples and allow to thaw at room temperature or in a lukewarm waterbath.

12.2 Vortex mix for 15 seconds, then transfer 1.0 mL or other appropriate volume to a 15 mL polypropylene centrifuge tube.

12.3 Return unused samples to freezer after extraction amounts have been removed.

12.4 Record the initial volume on the extraction worksheet.

12.5 Label the tube with the study number, sample ID, date and analyst initials. See attached worksheet for documenting the remaining steps.

12.6 Spike all samples, including blanks and standards, ready for extraction with surrogate standard as described in **11.2**.

12.7 Spike each matrix with the appropriate amount of standard as described in **11.1**, or **Table 1** in that section, for the calibration curve standards. Also prepare matrix spikes and continuing calibration standards.

12.8 Vortex mix the standard curve samples, matrix spike samples, and continuing calibration samples for 15 seconds.

12.9 Check to ensure the 0.5 M TBA reagent is at pH 10. If not, adjust accordingly.

12.10 To each sample, add 1 mL 0.5 M TBA and 2 mL of 0.25M sodium carbonate/sodium bicarbonate buffer.

12.11 Using an Oxford Dispenser, add 5 mL methyl-*tert*-butyl ether.

12.12 Cap each sample and put on the shaker at a setting of 300 rpm, for 20 minutes.

12.13 Centrifuge for 20 to 25 minutes at a setting of 3500 rpm, or until layers are well separated.

12.14 Label a fresh 15 mL centrifuge tube with the same information as in 12.5.

12.15 Remove 4.0 mL of the organic layer to this clean 15 mL centrifuge tube.

12.16 Put each sample on the analytical nitrogen evaporator until dry, approximately 1 to 2 hours.

12.17 Add 1.0 mL of methanol to each centrifuge tube using a graduated pipette.

12.18 Vortex mix for 30 seconds.

12.19 Attach a 0.2 µm nylon mesh filter to a 3 cc syringe and transfer the sample to this syringe. Filter into a 1.5 mL glass autovial or low-volume autovial when necessary.

12.20 Label the autovial with the study number, animal number and gender, sample timepoint, matrix, final solvent, extraction date, and analyst(s) performing the extraction.

12.21 Cap and store extracts at room temperature or at approximately 4 °C until analysis.

12.22 Complete the extraction worksheet, attached to this document, and tape in the study notebook or include in study binder, as appropriate.

13.0 Data Analysis and Calculations

13.1 Calculations

13.1.1 Calculate actual concentrations of PFOS, or other applicable fluorochemical, in calibration standards using the following equation:

$$\frac{\text{mL of standard} \times \text{concentration of standard (µg /mL)}}{\text{mL of standard} + \text{mL of surrogate standard} + \text{initial matrix volume (mL)}} =$$

Final Concentration (µg/mL) of PFOS in matrix

14.0 Method Performance

14.1 The method detection limit (MDL) is analyte and matrix specific. Refer to MDL report for specific MDL and limit of quantitation (LOQ) values (see **Attachments B and C**).

14.2 The following quality control samples are extracted with each batch of samples to evaluate the quality of the extraction and analysis.

14.2.1 Method blanks and matrix blanks.

14.2.2 Matrix spike and matrix spike duplicate samples to determine accuracy and precision of the extraction.

14.2.3 Continuing calibration check samples to determine the continued accuracy of the initial calibration curve.

14.3 Refer to section 14 of ETS-8-5.1 for method performance criteria.

15.0 Pollution Prevention and Waste Management

15.1 Sample waste is disposed in biohazard containers, flammable solvent waste is disposed in high BTU containers, and used glass pipette waste is disposed in broken glass containers located in the laboratory.

16.0 RECORDS

16.1 Complete the extraction worksheet attached to this method, and tape in the study notebook or include in the 3-ring study binder, as appropriate.

17.0 ATTACHMENTS

17.1 Attachment A, Extraction worksheet

17.2 Attachment B, MDL/LOQ values and summary

17.3 Attachment C, Calibration standard concentration worksheet

18.0 REFERENCES

18.1 The validation report associated with this method is ETS-8-4.0 & 5.0-V-1.

18.2 FACT-M-3.1, "Analysis of Serum or Other Fluid Extracts for Fluorochemicals using HPLC-Electrospray Mass Spectrometry"

19.0 AFFECTED DOCUMENTS

19.1 ETS-8-5.1, "Analysis of Serum or Other Fluid Extracts for Fluorochemicals using HPLC-Electrospray Mass Spectrometry"

20.0 REVISIONS

Revision Number	Reason For Revision	Revision Date
1	Section 12.21 Changed to include sample storage at room temperature. Section 12.13 Added the shaker speed. Section 12.17 Final volume is 1.0 mL; not adjusted for initial volumes less than 1.0 mL.	04/02/99

Extraction Worksheet ETS-8-4.1

Study # Matrix Box # Wk/Day DateSpiked/Analyst	Surrogate Std approx. ppm actual ppm #	FC-Mix approx. 0.5 pm actual ppm #	FC-Mix approx. 5 ppm actual ppm #	FC-Mix approx. 50 ppm actual ppm #	Comments
CCV					
MS					
MSD					
		-	-	-	
		-	-	-	
		-	-	-	
		-	-	-	
		-	-	-	
		-	-	-	
		-	-	-	
		-	-	-	
		-	-	-	
		-	-	-	
		-	-	-	
		-	-	-	
		-	-	-	
		-	-	-	
		-	-	-	

Blank	Std #	amount =	mL
Serum Extraction Method			Date & Initials
Vortex 15 sec.			
Pipette Matrix	Volume	mL	
Pipette 1 mL of 0.5 M TBA, pH 10. pH =		Std. #	
Pipette 2 mL of 0.25 Na_2CO_3/0.25M $NaHCO_3$ buffer		Std. #	
Dispense 5 mL of methyl-t-butyl ether		TN-A-	
Shake 20 min.		Shaker speed:	
Centrifuge 20-25 min.		Centrifuge speed:	
Remove a 4 mL aliquot of organic layer			
Put on Nitrogen Evaporator to dryness		Temperature:	
Add methanol	Volume mL	TN-A-	
Vortex 30 sec.			
Filter using a 3cc B-D syringe with a 0.2µm filter into a 1.5 mL autosample vial			

Cont. Cal. Verifications used same matrix as for std curve.

MDL/LOQ values for rabbit serum

Compound	MDL (ppb)	LOQ (ppb)	Linear Calibration Range (LCR) Approximate concentrations to be used for preparing the Standard Calibration Curve
PFOS	1.74	5.55	5 ppb - 1000 ppb
PFOSA	1.51	4.79	5 ppb - 1000 ppb
PFOSAA	3.46	20.5	5 ppb - 1000 ppb
EtFOSE-OH	11.4	36.2	5 ppb - 1000 ppb
M556	6.03	19.2	5 ppb - 1000 ppb
PFOSEA	5.71	18.2	5 ppb - 1000 ppb

MDL/LOQ values in rat, bovine, monkey, and human serum, and monkey plasma were not statistically determined. Two curves in each of these matrices were extracted and analyzed with the rabbit serum curves to determine equivalence. Responses in the rat, bovine, monkey, and human were equivalent to the rabbit responses, therefore, their MDL and LOQ will be the same values as determined in rabbit serum.

Please see LOQ Summary and MDL study in ETS-8-4.0 & 5.0-V-1 for further information.

Compound: PFOS

Rabbit Serum	Prepared range of standards (ppb) (ng/mL)	LCR from curve (ppb) (ng/mL)	% Recovery Range	RSD Range
Full Range	0.995 - 978	24.8 - 978	83-108	4.67-11.0
Low Curve	4.94 - 248	4.94 - 248	85-104	5.34-12.0
High curve	97.8 - 978	97.8 – 978	85-106	4.84-9.80
1/X	0.995 - 978	4.94 - 978	94-111	4.60-10.5

Compound: PFOSA

Rabbit Serum	Prepared range of standards (ppb) (ng/mL)	LCR from curve (ppb) (ng/mL)	% Recovery Range	RSD Range
Full Range	0.993 - 976	4.93 - 976	88-103	5.10-14.7
Low Curve	4.93 - 97.6	4.93 - 97.6	87-105	9.85-14.7
High curve	24.8 - 976	24.8 - 978	93-102	5.08-13.9
1/X	0.993 - 976	4.93 - 976	94-103	5.10-14.5

Compound: PFOSAA

Rabbit Serum	Prepared range of standards (ppb) (ng/mL)	LCR from curve (ppb) (ng/mL)	% Recovery Range	RSD Range
Full Range	0.991 - 974	24.7 - 974	81-111	4.18-10.6
Low Curve	4.92 - 247	9.74 - 247	97-107	6.38-21.8
High curve	49.2 - 974	97.4 - 974	85-108	4.33-12.5
1/X	0.991 - 974	9.74 - 974	95-115	4.11-23.2

Compound: EtFOSE-OH

Rabbit Serum	Prepared range of standards (ppb) (ng/mL)	LCR from curve (ppb) (ng/mL)	% Recovery Range	RSD Range
Full Range	0.993 - 976	49.3 - 976	77-110	11.2-25.5
Low Curve	4.93 – 97.6	9.76 – 97.6	97-107	14.1-21.3
High curve	49.3 - 976	97.6 - 976	90-109	11.5-19.6
1/X	0.993 - 493	9.76 - 976	86-111	11.1-21.2

Compound: PFOSEA

Rabbit Serum	Prepared range of standards (ppb) (ng/mL)	LCR from curve (ppb) (ng/mL)	% Recovery Range	RSD Range
Full Range	0.993 - 976	24.8 - 976	96-106	10.1-16.2
Low Curve	4.93 - 248	9.76 - 248	91-110	11.8-19.5
High curve	49.3 - 976	49.3 - 976	86-106	10.2-18.2
1/X	0.993 - 976	9.76 - 976	95-117	10.1-19.1

Compound: M556

Rabbit Serum	Prepared range of standards (ppb) (ng/mL)	LCR from curve (ppb) (ng/mL)	% Recovery Range	RSD Range
Full Range	0.993 - 976	24.8 - 976	88-106	4.82-17.9
Low Curve	4.93 - 97.6	9.76 – 97.6	100-105	5.95-18.2
High curve	97.6 - 976	97.6 - 976	81-111	5.11-9.74
1/X	0.993 - 976	9.76 - 976	97-110	4.77-19.5

Ion Pair Standard Curves – Fluids

Prep date(s):
Analyte(s):
Sample matrix:

Standard number:
Equipment number:
Final solvent and TN:
Blank fluid/identifier:

Method/revision:
Target analyte(s):
FC mix std approx. 0.500 ppm:
FC mix std approx. 5.00 ppm:
FC mix std approx. 50.0 ppm:
Surrogate std approx. 100 ppm:

Actual concentrations of standards in the FC mix

PFOS Std conc ug/mL	PFOSA Std conc ug/mL	PFOSAA Std conc ug/mL	EtFOSE Std conc ug/mL	PFOSEA Std conc ug/mL	M556 Std conc ug/mL	All Am't spiked mL	All Final vol mL
0.500	0.507	0.532	0.501	0.521	0.501	0.010	1.015
0.500	0.507	0.532	0.501	0.521	0.501	0.020	1.025
5.00	5.07	5.32	5.01	5.21	5.01	0.005	1.010
5.00	5.07	5.32	5.01	5.21	5.01	0.010	1.015
5.00	5.07	5.32	5.01	5.21	5.01	0.020	1.025
50.0	50.1	53.2	50.1	52.1	50.1	0.005	1.010
50.0	50.1	53.2	50.1	52.1	50.1	0.010	1.015
50.0	50.1	53.2	50.1	52.1	50.1	0.015	1.020
50.0	50.1	53.2	50.1	52.1	50.1	0.020	1.025

Calculated concentrations of standards in the sample matrix

PFOS Final conc ng/mL	PFOSA Final conc ng/mL	PFOSAA Final conc ng/mL	EtFOSE Final conc ng/mL	PFOSEA Final conc ng/mL	M556 Final conc ng/mL	Surrogate Std conc ng/mL	All Am't spiked mL
4.93	5.00	5.24	4.94	5.01	5.13	100	0.005
9.76	9.89	10.4	9.78	9.93	10.2		
24.8	25.1	26.3	24.8	25.2	25.8	**Surrogate**	
49.3	50.0	52.4	49.4	50.1	51.3	**Final conc**	
97.6	98.9	104	97.8	99.3	102	**ng/mL**	
248	251	263	248	252	258	500	
493	500	524	494	501	513		
735	746	782	737	749	766		
976	989	1038	978	993	1017		

Validated ranges – approximate concentrations

Serum	PFOS	PFOSA	PFOSAA	EtFOSE-OH	PFOSEA	M556
Rabbit	5.00-1000	5.00-1000	5.00-1000	5.00-1000	5.00-1000	5.00-1000
Bovine	Estimates only. Use values for rabbit.					
Rat	Estimates only. Use values for rabbit.					
Monkey & Plasma	Estimates only. Use values for rabbit.					
Human	Estimates only. Use values for rabbit.					

3M ENVIRONMENTAL LABORATORY

METHOD

EXTRACTION OF FLUOROCHEMICAL COMPOUNDS FROM SERUM FOR ANALYSIS USING HPLC-ELECTROSPRAY/MASS SPECTROMETRY

Method Number: ETS-8-4.2 **Adoption Date:** 03/01/99

Effective Date: 2/2/01

Approved By:

02/02/01
Laboratory Manager Date

02/02/01
Group Leader Date

1.0 SCOPE AND APPLICATION

1.1 **Scope:** This method is for the extraction of fluorochemical compounds from serum.

1.2 **Applicable compounds:** Fluorochemical surfactants or other fluorinated compounds.

1.3 **Matrices:** Rabbit, rat, bovine, monkey, and human serum or other fluids as designated in the validation report.

Best Copy or Original
RUW 8/28/01
Initial Date

2.0 SUMMARY OF METHOD

2.1 This performance-based method describes the procedure for extracting perfluorooctane-sulfonate (PFOS) or other fluorochemical surfactants from serum, or other fluids, using an ion pairing reagent and methyl-*tert*-butyl ether (MtBE). An ion pairing reagent is added to the sample and the analyte-ion pair is partitioned into MtBE. The MtBE extract is removed and put onto a nitrogen evaporator until dry. Each extract is reconstituted in 1.0 mL of methanol, then filtered through a 0.2 µm nylon filter using a 3-mL plastic

syringe into glass autovials. (Application of this method to seven fluorochemicals was demonstrated: PFOS, PFOSA, PFOSAA, EtFOSE-OH, PFOSEA, M556, and a surrogate standard {see *3.0 Definitions*}).

2.2 These sample extracts are analyzed following method ETS-8-5.2 or other appropriate method.

3.0 Definitions

3.1 PFOS: perfluorooctanesulfonate (anion of potassium salt) $C_8F_{17}SO_3^-$

3.2 PFOSA: perfluorooctane sulfonylamide $C_8F_{17}SO_2NH_2$

3.3 PFOSAA: perfluorooctane sulfonylamido (ethyl)acetate $C_8F_{17}SO_2N(CH_2CH_3)CH_2CO_2^-$

3.4 EtFOSE-OH: 2(N-ethylperfluorooctane sulfonamido)-ethyl alcohol $C_8F_{17}SO_2N(CH_2CH_3)CH_2CH_2OH$

3.5 PFOSEA: perfluorooctane sulfonyl ethylamide $C_8F_{17}SO_2N(CH_2CH_3)H$

3.6 M556: $C_8F_{17}SO_2N(H)(CH_2COOH)$

3.7 Surrogate standard THPFOS: 1H-1H-2H-2H perfluorooctane sulfonic acid

4.0 Warnings and Cautions

4.1 Health and safety warnings

4.1.1 Use universal precautions, especially laboratory coats, goggles, and gloves when handling animal tissue, which may contain pathogens.

5.0 Interferences

5.1 There are no interferences known at this time.

6.0 Equipment

6.1 The following equipment is used while performing this method. Equivalent equipment is acceptable.

6.1.1 Vortex mixer, VWR, Vortex Genie 2

6.1.2 Centrifuge, Mistral 1000 or IEC

6.1.3 Shaker, Eberbach or VWR

6.1.4 Nitrogen evaporator, Organomation

6.1.5 Balance (± 0.100 g)

7.0 Su and Materials

7.1 Gloves

7.2 Eppendorf or disposable pipettes, plastic or glass (or equivalent)

7.3 Polypropylene bottles, capable of holding 250 mL and 1 L (Nalgene or equivalent)

7.4 Volumetric flasks, glass, type A

7.5 40 mL glass vials (I-CHEM or equivalent)

7.6 Centrifuge tubes, polypropylene, 15 mL

7.7 Labels

7.8 Bottle-top Dispenser – 3.0 to 10.0 mL or a 5–10 mL graduated pipette, glass

7.9 Syringes, capable of measuring 5 µL to 50 µL

7.10 Graduated pipettes

7.11 Syringes, disposable plastic, 3 mL (B&D or equivalent)

7.12 Syringe filters, nylon, 0.2 µm, 25 mm

7.13 Timer

7.14 Crimp cap glass autovials and caps

7.15 Crimpers

Note: Prior to using glassware and bottles, rinse 3 times with methanol and 3 times with water. Rinse syringes a minimum of 9 times with methanol, 3 rinses from 3 separate vials.

8.0 Reagents and Standards

8.1 Reagent grade water, Milli-Q™, Nanopure II or equivalent

8.2 Sodium hydroxide (NaOH), J.T Baker or equivalent

8.3 Tetrabutylammonium hydrogen sulfate(TBA), Kodak or equivalent

8.4 Sodium carbonate (Na_2CO_3), J.T. Baker or equivalent

8.5 Sodium bicarbonate ($NaHCO_3$), J.T. Baker or equivalent

8.6 Methyl-T-Butyl Ether, Omnisolv, glass distilled or HPLC grade

8.7 Methanol, Omnisolv, glass distilled or HPLC grade

8.8 Serum or blood, frozen from supplier

8.9 **Fluorochemical standards**

8.9.1 KPFOS (PFOS) (3M Specialty Chemical Division), molecular weight = 538

8.9.2 PFOSA (3M Specialty Chemical Division), molecular weight = 499

8.9.3 PFOSAA+H (PFOSAA) (3M Specialty Chemical Division), molecular weight = 585

8.9.4 EtFOSE-OH (3M Specialty Chemical Division), molecular weight = 570

8.9.5 PFOSEA (3M Specialty Chemical Division), molecular weight = 527

8.9.6 M556 (3M Specialty Chemical Division), molecular weight = 557

8.9.7 Surrogate standard: 4-H, perfluorooctane sulfonic acid (1-H,1-H, 2-H, 2-H $C_8F_{13}SO_3H$, [THPFOS]), molecular weight = 428

8.9.8 Other fluorochemicals, as appropriate

8.10 Reagent preparation

NOTE: When preparing different volumes than listed in reagent, standard, or surrogate preparation, adjust accordingly.

8.10.1 10 N sodium hydroxide (NaOH): Weigh approximately 200 g NaOH. Pour into a 1000 mL beaker containing 500 mL water, mix until all solids are dissolved. Store in a 1 L polypropylene (or equivalent) bottle.

8.10.2 1 N sodium hydroxide (NaOH): Dilute 10 N NaOH 1:10. Measure 10 mL of 10 N NaOH solution into a 100 mL volumetric flask and bring to volume using water. Store in a 125 mL polypropylene (or equivalent) bottle.

8.10.3 0.5 M tetrabutylammonium hydrogen sulfate (TBA): Weigh approximately 169 g of TBA into a 1 L volumetric containing 500 mL water. Adjust to pH 10 using approximately 44 to 54 mL of 10 N NaOH. (Add the last 1.0 mL of NaOH slowly, as the pH changes abruptly.) Dilute to volume with water. Store in a 1 L polypropylene (or equivalent) bottle.

8.10.3.1 TBA requires a check prior to each use to ensure pH = 10. Adjust as needed using 1 N NaOH solution.

8.10.4 0.25 M sodium carbonate/sodium bicarbonate buffer ($Na_2CO_3/NaHCO_3$): Weigh approximately 26.5 g of sodium carbonate (Na_2CO_3) and 21.0 g of sodium bicarbonate ($NaHCO_3$) into a 1 L volumetric flask and bring to volume with water. Store in a 1 L polypropylene (or equivalent) bottle.

8.11 Standards preparation

8.11.1 Prepare PFOS standards for the standard curve.

8.11.2 Prepare other fluorochemical standards, as appropriate. Multicomponent fluorochemical standards are acceptable (for example, one working standard solution containing approximately 1.00 µg/mL of PFOS, PFOSA, PFOSAA, PFOSEA, M556 and EtFOSE-OH).

8.11.3 Weigh approximately 100 mg of PFOS into a 100 mL volumetric flask and record the actual weight. For standards with K^+ or other salts, multiply by a correction factor. For example, the molecular weight of KPFOS = 538, and the molecular weight of PFOS = 499. Calculate the correction factor by using the following equation:

$$\frac{\textit{molecular wt. PFOS (499)}}{\textit{molecular wt. KPFOS (538)}} = 0.9275 \quad \textit{(Correction factor)}$$

8.11.4 Bring to volume with methanol for a stock standard of approximately 1000 µg/mL.

8.11.5 Dilute the stock solution with methanol for a working standard 1 solution of approximately 50 µg/mL.

$$\left(\frac{1000\ \mu g/mL \times 5\ mL}{100\ mL}\right) = 50\ \mu g/mL$$

8.11.6 Dilute working standard 1 with methanol for a working standard 2 solution of approx. 5.0 µg/mL.

$$\left(\frac{50\ \mu g/mL \times 10\ mL}{100\ mL}\right) = 5.0\ \mu g/mL$$

8.11.7 Dilute working standard 1 with methanol for a working standard 3 solution of approx. 0.50 µg/mL.

$$\left(\frac{50\ \mu g/mL \times 1.0\ mL}{100\ mL}\right) = 0.500\ \mu g/mL$$

8.12 Surrogate THPFOS stock standard preparation

8.12.1 Weigh approximately 50-60 mg of surrogate standard 1-H,1-H, 2-H, 2-H, $C_8F_{13}SO_3H$ (THPFOS) into a 50 mL volumetric flask and record the actual weight.

8.12.2 Bring to volume with methanol for a surrogate stock of approximately 1000-1200 µg/mL.

8.12.3 Prepare a surrogate working standard. Transfer approximately 1 mL of surrogate stock to a 10 mL volumetric flask and bring to volume with methanol for a working standard of 100 µg/mL. Record the actual volume transferred.

9.0 Sample Handling

9.1 All samples are received frozen and must be kept frozen until the extraction is performed.

9.2 Allow samples to thaw at room temperature or in lukewarm water prior to extraction.

10.0 Quality Control

10.1 Solvent Blanks, Method Blanks and Matrix Blanks

10.1.1 Solvent Blanks: An aliquot of 1.0 mL methanol is used as a solvent blank.

10.1.2 Method Blanks: Following this procedure, extract two 1.0 mL aliquots of water and use as method blanks.

10.1.3 Matrix Blanks: Matrix blanks are prepared from one of three sources: 1) a study control matrix from a study control animal received with each sample set; 2) a commercially obtained sample of the same species as the study animals; or 3) a surrogate matrix, also obtained commercially, but of a different species than the study animal (e.g. if rabbit is used to generate standard curves and CCVs for a monkey or rat sera study). The matrix to use depends on what matrix is used for the curve.

10.1.3.1 Study control matrix curve—If the study control matrix is used for the curve, prepare two (2) matrix blanks using the study control matrix.

10.1.3.2 Commercially obtained (same species) matrix curve—If the curve is prepared using commercially obtained matrix in the same species as the study animal, prepare two matrix blanks using this same commercially available matrix.

10.1.3.3 Surrogate matrix curve—If a surrogate matrix is used for the curve and continuing calibration verification samples:

a) prepare two (2) matrix blanks using the surrogate matrix.

b) Also, prepare a matrix blank with each set of matrix spikes (a set is a matrix spike/matrix spike duplicate at one level) using a commercially available matrix of the same species as the study animals.

10.2 Matrix spikes

10.2.1 Study Control Matrix Curve

No matrix spikes are prepared.

10.2.2 Commercially obtained matrix curve (same species)

No matrix spikes are prepared.

10.2.3 Surrogate matrix curve

Matrix spikes are necessary if matrix is not available in the same species as the study animal and a surrogate matrix is used for the curve and CCV samples (e.g., rabbit sera may be used to generate standard curves for a monkey sera study, due to measurable levels of endogenous analyte in the monkey sera). Prepare and analyze matrix spike and matrix spike duplicate samples to verify the accuracy of the extraction for target analytes.

10.2.4 Prepare each MS and MSD at two (2) levels (usually a low and mid-range concentration) using a sample chosen by the analyst, typically sera from a control group animal received with each sample set.

10.2.4.1 If there is not sufficient sera available from the control group, prepare matrix spikes using commercially available matrix from the same species as the study animal.

10.2.5 Prepare one matrix spike and matrix spike duplicate at each level listed in **10.2.4** per 20 samples, with a minimum of 2 matrix spikes per level per batch. If a batch includes more than 20 samples, additional spikes may be prepared at the same, low, or high range levels.

10.2.6 If more than 25% of the samples are ≤LOQ, two matrix spikes should be prepared at approximately 2–5 times the expected LOQ.

10.2.7 If the majority of the samples are at or above the high range of the curve, additional matrix spikes should be prepared to approximate sample concentrations.

10.3 Continuing calibration verifications (CCVs)

10.3.1 Prepare continuing calibration verification samples for instrument stability verification during analysis. Prepare and analyze CCVs for every assay run, regardless of the matrix type used to prepare the standard curve.

10.3.2 Prepare each continuing calibration verification from the same matrix used to prepare the initial curve (i.e., either the study control matrix, commercial matrix of same species, or surrogate matrix).

10.3.3 The expected concentrations of the CCVs will fall within the range of the initial calibration curve; typically, the low to mid-range of the curve.

10.3.4 Prepare, at a minimum, two continuing calibration verifications, each at a different concentration, per group of 10 samples. For example, if a sample set = 34, eight (8) checks are prepared; four (4) at a low range and four (4) at a mid-range concentration.

10.3.5 Additional continuing calibration verifications may be included at the same, low, mid or high-range concentration.

11.0 CALIBRATION AND STANDARDIZATION

11.1 Prepare matrix calibration standards

11.1.1 Transfer 1 mL of appropriate serum to a 15 mL centrifuge tube. If commercially available sera is used, prepare two matrix blanks, using the volume of sera available for most study animals.

11.1.1.1 Depending upon study goals or if analyte-free commercial sera is not available, a surrogate matrix may be used for generation of the calibration standard. For example, rabbit sera may be used as a surrogate matrix for rat studies if quantitation of extremely low levels of the analyte is required.

11.1.2 If most sample volumes are less than 1.0 mL, extract standards with matrix volumes equal to the sample volumes. Do not extract less than 0.50 mL of matrix. Record each sample volume on the extraction sheet.

11.1.3 While preparing a total of thirteen aliquots in 15-mL centrifuge tubes, mix or shake sera between aliquots.

11.1.4 Two 1-mL aliquots, or other appropriate volume, serve as curve matrix blanks. Typically use the standard concentrations and spiking amounts listed in Table 1 at the end of this section to spike one standard curve, for a total of nine standards, two matrix blanks, and two method blanks.

11.1.5 Refer to validation report **ETS-8-4.0 & ETS-8-5.0-V-1,** which lists the working ranges and the Linear Calibration Range (LCR) for calibration curves.

11.1.6 See Section **13.0** to calculate actual concentrations of PFOS in calibration standards.

11.2 To each standard, blank, continuing check, and sample add an appropriate amount of surrogate working standard to achieve a constant concentration that falls within the calibration curve range of 2.5 ng/mL–1000 ng/mL. Usually, samples are spiked for a constant concentration in all samples at approximately 500 ng/mL or other concentration as determined by the analyst.

11.3 Extract spiked matrix standards following **12.6-12.16** of this method. Use these standards to establish each initial curve on the mass spectrometer.

Table 1 Approximate spiking amounts for standards and spikes Using 1.0 mL of matrix		
Working standard (approx. conc.)	µL	Approx. final conc. of analyte in matrix
-	-	Blank
0.500 ppm	10	0.005 ppm
0.500 ppm	20	0.010 ppm
5.00 ppm	5	0.025 ppm
5.00 ppm	10	0.050 ppm
5.00 ppm	20	0.100 ppm
50.0 ppm	5	0.250 ppm
50.0 ppm	10	0.500 ppm
50.0 ppm	15	0.750 ppm
50.0 ppm	20	1.00 ppm

*ppm=µg/mL

12.0 PROCEDURE

12.1 Obtain frozen samples and allow to thaw at room temperature or in lukewarm water.

12.2 Label a 15 mL polypropylene centrifuge tube with the study number, sample ID, date and analyst initials. See attached worksheet (Attachment A or similar worksheet) for documenting the remaining steps.

12.3 Vortex mix for 15 seconds, then transfer 1.0 mL or other appropriate volume to the 15 mL polypropylene centrifuge tube.

12.4 Return unused samples to freezer after extraction amounts have been removed.

12.5 Record the initial volume on the extraction worksheet (Attachment A or similar worksheet).

12.6 Spike all samples, blanks and standards, that are ready for extraction with surrogate standard as described in **11.2.**

12.7 Spike each calibration standard matrix with the appropriate amount of standard as described in **11.1**, or **Table 1** in that section, for the calibration curve standards. Also prepare matrix spikes if necessary and continuing calibration standards.

12.8 Vortex mix the standard curve samples, matrix spike samples, and continuing calibration samples for 15 seconds.

12.9 Check to ensure the 0.5 M TBA reagent is at pH 10. If not, adjust accordingly.

12.10 To each sample, add 1 mL 0.5 M TBA and 2 mL of 0.25M sodium carbonate/sodium bicarbonate buffer.

12.11 Using an bottle top dispenser or 5–10 mL graduated glass pipette, add 5 mL methyl-*tert*-butyl ether.

12.12 Cap each sample and put on the shaker at a setting of 300 rpm for 20 minutes.

12.13 Centrifuge for 20 to 25 minutes at a setting of 3500 rpm or until layers are well separated.

12.14 Label a fresh 15 mL centrifuge tube with the same information as in **12.5**.

12.15 Remove 4.0 mL of the organic (top) layer to this clean 15 mL centrifuge tube.

12.16 Put each sample on the analytical nitrogen evaporator until dry, approximately 1 to 2 hours.

12.17 Add 1.0 mL of methanol to each centrifuge tube using a graduated pipette.

12.18 Vortex mix for 30 seconds, or longer if needed.

12.19 Label a 1.5 mL glass autovial (or low-volume autovial when necessary) with the study number, animal number and gender, sample timepoint, matrix, final solvent, extraction date, and analyst(s) performing the extraction.

12.20 Attach a 25 mm, 0.2 µm nylon mesh filter to a 3 mL syringe and transfer the sample from step 12.18 to this syringe. Filter into the labeled autovial.

12.21 Cap and store extracts at room temperature or at approximately 4 °C until analysis.

12.22 Complete the extraction worksheet (Attachment A or similar worksheet) and include in the study binder.

13.0 Data Analysis and Calculations

13.1 Calculations

13.1.1 Calculate actual concentrations of PFOS, or other applicable fluorochemical, in calibration standards using the following equation:

$$\frac{mL\ of\ std \times concentration\ of\ std\ (\mu g / mL)}{mL\ of\ std + mL\ of\ surrogate\ std + initial\ matrix\ volume\ (mL)} = Final\ concentration\ (\mu g / mL)\ of\ PFOS\ in\ matrix$$

14.0 Method Performance

14.1 The method detection limit (MDL) is analyte and matrix specific. Refer to MDL report for specific MDL and limit of quantitation (LOQ) values (see **Attachments B and C**). At the discretion of the PAI, MDL may not be defined for some studies.

14.2 The following quality control samples are extracted with each batch of samples to evaluate the quality of the extraction and analysis.

14.2.1 Method blanks and matrix blanks.

14.2.2 If surrogate matrix is used for curve and QC, matrix spike and matrix spike duplicate samples to verify extraction efficiency.

14.2.3 Continuing calibration check samples to determine the continued accuracy of the initial calibration curve.

14.3 Refer to section 14 of ETS-8-5.2 for method performance criteria.

15.0 Pollution Prevention and Waste Management

15.1 Dispose of sample waste, flammable solvent waste and used glass pipette waste using proper methods and by placing each in their designated waste container.

16.0 Records

16.1 Complete the extraction worksheet attached to this method (or a similar worksheet), and include in the study binder.

17.0 Attachments

17.1 Attachment A, Extraction worksheet (a similar worksheet may be substituted for Attachment A)

17.2 Attachment B, MDL/LOQ values and summary

17.3 Attachment C, Ion Pair Standard Curves worksheet (a similar worksheet may be substituted for Attachment C)

18.0 References

18.1 The validation report associated with this method is **ETS-8-4.0 & 5.0-V-1.**

18.2 FACT-M-3.1, "Analysis of Serum or Other Fluid Extracts for Fluorochemicals using HPLC-Electrospray Mass Spectrometry"

18.3 ETS-8-5.2, "Analysis of Potassium Perfluorooctanesulfonate or Other Fluorochemicals in Serum Extracts Using HPLC-Electrospray/Mass Spectrometry"

19.0 Affected Documents

19.1 ETS-8-5.2, "Analysis of Potassium Perfluorooctanesulfonate or Other Fluorochemicals in Serum Extracts Using HPLC-Electrospray/Mass Spectrometry"

20.0 Revisions

Revision Number	Reason For Revision	Revision Date
1	Section 12.21 Changed to include sample storage at room temperature. Section 12.13 Added the shaker speed. Section 12.17 Final volume is 1.0 mL; not adjusted for initial volumes less than 1.0 mL.	04/02/99
2	Section 1.1, 2.1 Eliminate 'potassium' from perfluorooctanesulfonate 8.9.1 Add K to PFOS 8.9.3 Add H to PFOSAA 10.2-10.2.4, 14.2.2 Add information about using surrogate matrix, clarify control matrix and spiking the curve, change spikes to every 20 samples 10.3 Clarify purpose of continuing calibration checks 11.1 Added wording about control animal sera, using and not using commercially available tissue In general, make less specific for equipment/supplies. Substitute water for Milli-Q, Nalgene or equivalent bottle may be used.	

Extraction Worksheet ETS-8-4.2

Study #_____ Matrix_____ Box #_____ Wk/Day_____ Date Spiked/ Analyst:	Surrogate Std actual µg/mL #_____	FC-Mix approx. 0.5 µg/mL #_____	FC-Mix approx. 5 µg/mL #_____	FC-Mix approx. 50 µg/mL #_____	Comments	Verified by:
MS						
MSD						
		-	-	-		
		-	-	-		
		-	-	-		
		-	-	-		
		-	-	-		
		-	-	-		
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		-	-	-		
		-	-	-		
		-	-	-		
		-	-	-		
		-	-	-		
		-	-	-		

Blank ID # amount = mL	
Serum Extraction Method Date & Initials	
Vortex 15 sec.	
Pipette Matrix, spike with appropriate surrogate or FCMix Volume mL	
Pipette 1 mL of 0.5 M TBA, pH 10. pH = Std. #	
Pipette 2 mL of 0.25 Na_2CO_3/0.25M $NaHCO_3$ buffer Std. #	
Dispense/pipette 5 mL of methyl-t-butyl ether TN-A-	
Dispenser ID #:	
Shake 20 min. Shaker ID #: Shaker speed:_____	
Centrifuge 20-25 min. Centrifuge ID#: Centrifuge speed:	
Remove a 4 mL aliquot of organic layer	
Put on Nitrogen Evaporator to dryness	
Add methanol Volume mL TN-A-	
Vortex 30 sec.	
Filter using a 3mL B-D syringe with a 0.2um filter into a 1.5 mL autosample vial	

Cont. Cal. Verifications used same matrix as for std curve.

MDL/LOQ values for rabbit serum

Compound	MDL (ng/mL)	LOQ (ng/mL)	Linear Calibration Range (LCR) Approximate concentrations to be used for preparing the Standard Calibration Curve
PFOS	1.74	5.55	5 ng/mL–1000 ng/mL
PFOSA	1.51	4.79	5 ng/mL–1000 ng/mL
PFOSAA	3.46	20.5	5 ng/mL–1000 ng/mL
EtFOSE-OH	11.4	36.2	5 ng/mL–1000 ng/mL
M556	6.03	19.2	5 ng/mL–1000 ng/mL
PFOSEA	5.71	18.2	5 ng/mL–1000 ng/mL

MDL/LOQ values in rat, bovine, monkey, and human serum, and monkey plasma were not statistically determined. Two curves in each of these matrices were extracted and analyzed with the rabbit serum curves to determine equivalence. Responses in the rat, bovine, monkey, and human were equivalent to the rabbit responses, therefore, their MDL and LOQ will be the same values as determined in rabbit serum.

Please see LOQ Summary and MDL study in ETS-8-4.0 & 5.0-V-1 for further information.

Compound: PFOS

Rabbit Serum	Prepared range of standards (ng/mL)	LCR from curve (ng/mL)	% Recovery Range	RSD Range
Full Range	0.995 - 978	24.8 - 978	83-108	4.67-11.0
Low Curve	4.94 - 248	4.94 - 248	85-104	5.34-12.0
High curve	97.8 - 978	97.8 – 978	85-106	4.84-9.80
1/X	0.995 - 978	4.94 - 978	94-111	4.60-10.5

Compound: PFOSA

Rabbit Serum	Prepared range of standards (ng/mL)	LCR from curve (ng/mL)	% Recovery Range	RSD Range
Full Range	0.993 - 976	4.93 - 976	88-103	5.10-14.7
Low Curve	4.93 - 97.6	4.93 - 97.6	87-105	9.85-14.7
High curve	24.8 - 976	24.8 - 978	93-102	5.08-13.9
1/X	0.993 - 976	4.93 - 976	94-103	5.10-14.5

Compound: PFOSAA

Rabbit Serum	Prepared range of standards (ng/mL)	LCR from curve (ng/mL)	% Recovery Range	RSD Range
Full Range	0.991 - 974	24.7 - 974	81-111	4.18-10.6
Low Curve	4.92 - 247	9.74 - 247	97-107	6.38-21.8
High curve	49.2 - 974	97.4 - 974	85-108	4.33-12.5
1/X	0.991 - 974	9.74 - 974	95-115	4.11-23.2

Compound: EtFOSE-OH

Rabbit Serum	Prepared range of standards (ng/mL)	LCR from curve (ng/mL)	% Recovery Range	RSD Range
Full Range	0.993 - 976	49.3 - 976	77-110	11.2-25.5
Low Curve	4.93 – 97.6	9.76 – 97.6	97-107	14.1-21.3
High curve	49.3 - 976	97.6 - 976	90-109	11.5-19.6
1/X	0.993 - 493	9.76 - 976	86-111	11.1-21.2

Compound: PFOSEA

Rabbit Serum	Prepared range of standards (ng/mL)	LCR from curve (ng/mL)	% Recovery Range	RSD Range
Full Range	0.993 - 976	24.8 - 976	96-106	10.1-16.2
Low Curve	4.93 - 248	9.76 - 248	91-110	11.8-19.5
High curve	49.3 - 976	49.3 - 976	86-106	10.2-18.2
1/X	0.993 - 976	9.76 - 976	95-117	10.1-19.1

Compound: M556

Rabbit Serum	Prepared range of standards (ng/mL)	LCR from curve (ng/mL)	% Recovery Range	RSD Range
Full Range	0.993 - 976	24.8 - 976	88-106	4.82-17.9
Low Curve	4.93 - 97.6	9.76 – 97.6	100-105	5.95-18.2
High curve	97.6 - 976	97.6 - 976	81-111	5.11-9.74
1/X	0.993 - 976	9.76 - 976	97-110	4.77-19.5

EXAMPLE

Ion Pair Standard Curves – Fluids

Analyst(s)
Prep date(s):
Analyte(s):
Study number:
Final solvent and TN:
Blank fluid/identifier: {Record matrix used to prepare curves, (e.g., 'Rabbit' ID #XXX)}

Study Animal Matrix :
Method/revision:
Target analyte(s):
FC mix std approx. 0.500 ppm:
FC mix std approx. 5.00 ppm:
FC mix std approx. 50.0 ppm:
Surrogate std approx. 100 ppm:

{Record the standards used to prepare the extracted curves.}

Actual concentrations of standards in the FC mix in methanol

PFOS Std conc µg/mL	PFOSA Std conc µg/mL	PFOSAA Std conc µg/mL	EtFOSE Std conc µg/mL	PFOSEA Std conc µg/mL	M556 Std conc µg/mL	All Am't spiked mL	All Final vol mL
0.500	0.507	0.532	0.501	0.521	0.501	0.010	1.015
0.500	0.507	0.532	0.501	0.521	0.501	0.020	1.025
5.00	5.07	5.32	5.01	5.21	5.01	0.005	1.010
5.00	5.07	5.32	5.01	5.21	5.01	0.010	1.015
5.00	5.07	5.32	5.01	5.21	5.01	0.020	1.025
50.0	50.1	53.2	50.1	52.1	50.1	0.005	1.010
50.0	50.1	53.2	50.1	52.1	50.1	0.010	1.015
50.0	50.1	53.2	50.1	52.1	50.1	0.015	1.020
50.0	50.1	53.2	50.1	52.1	50.1	0.020	1.025

Example

Calculated concentrations of standards in the sera matrix: Rabbit

PFOS Final conc ng/mL	PFOSA Final conc ng/mL	PFOSAA Final conc ng/mL	EtFOSE Final conc ng/mL	PFOSEA Final conc ng/mL	M556 Final conc ng/mL	Surrogate Std conc ng/mL	All Am't spiked mL
4.93	5.00	5.24	4.94	5.01	5.13	100	0.005
9.76	9.89	10.4	9.78	9.93	10.2		
24.8	25.1	26.3	24.8	25.2	25.8	Surrogate	
49.3	50.0	52.4	49.4	50.1	51.3	Final conc	
97.6	98.9	104	97.8	99.2	102	ng/mL	
248	251	263	248	252	258	500	
493	500	524	494	501	513		
735	746	782	737	749	766		
976	989	1038	978	993	1017		

Example

Validated ranges – approximate concentrations

Serum	PFOS	PFOSA	PFOSAA	EtFOSE-OH	PFOSEA	M556
Rabbit	5.00-1000 ng/mL	5.00-1000 ng/mL	5.00-1000 ng/mL	5.00-1000 ng/mL	5.00-1000 ng/mL	5.00-1000 ng/mL
Bovine	Estimates only. Use values for rabbit.					
Rat	Estimates only. Use values for rabbit.					
Monkey & Plasma	Estimates only. Use values for rabbit.					
Human	Estimates only. Use values for rabbit.					

3M ENVIRONMENTAL LABORATORY

METHOD

ANALYSIS OF POTASSIUM PERFLUOROOCTANESULFONATE OR OTHER FLUOROCHEMICALS IN SERUM EXTRACTS USING HPLC-ELECTROSPRAY/MASS SPECTROMETRY

Method Number: ETS-8-5.1 **Adoption Date:** 03/01/99

Revision Date: 4/26/99

Author: Lisa Clemen, Robert Wynne

Approved By:

[signature]	4/26/99
Laboratory Manager	Date
[signature]	4/26/99
Group Leader	Date
Lisa A Clemen	04/26/99
Technical Reviewer	Date

Exact Copy of Original
RWW 8/28/01
Initial Date

1.0 SCOPE AND APPLICATION

1.1 Scope: This method describes the analysis of serum extracts for fluorochemical surfactants using HPLC-electrospray/mass spectrometry.

1.2 Applicable Compounds: Fluorochemical surfactants or other fluorinated compounds, or other ionizable compounds.

1.3 Matrices: Rabbit, rat, bovine, monkey, and human serum, or other fluids as designated in the validation report.

2.0 SUMMARY OF METHOD

2.1 This method describes the analysis of fluorochemical surfactants extracted from serum or other fluids, using HPLC-electrospray/mass spectrometry, or similar system as appropriate. The analysis is performed by monitoring a single ion characteristic of a particular fluorochemical, such as the perfluorooctanesulfonate (PFOS) anion, m/z= 499. Additionally, samples may be analyzed using a tandem mass spectrometer to further verify the identity of a compound by detecting daughter ions of the parent ion.

3.0 DEFINITIONS

3.1 **Atmospheric Pressure Ionization (API):** The Micromass Quattro II triple quadrupole systems allow for various methods of ionization by utilizing various sources, probes, and interfaces. These include but are not limited to: Electrospray Ionization (ESI), Atmospheric Pressure chemical Ionization (APcI), Thermospray, etc. The ionization process in these techniques occurs at atmospheric pressure (i.e., not under a vacuum).

3.2 **Electrospray Ionization (ES, ESI):** a method of ionization performed at atmospheric pressure, whereby ions in solution are transferred to the gas phase via tiny charged droplets. These charged droplets are produced by the application of a strong electrical field.

3.3 **Mass Spectrometry, Mass Spectrometer (MS), Tandem Mass Spectrometer (MS/MS):** The API Quattro II triple quadrupole systems are equipped with quadrupole mass selective detectors. Ions are selectively discriminated by mass to charge ratio (m/z) and subsequently detected. A single MS may be employed for ion detection or a series (MS/MS) for more specific fragmentation information.

3.4 **Conventional vs. Z-spray probe interface:** The latest models of Micromass Quattro II triple quadrupole systems (post 1998) utilize a "Z-spray" conformation. The spray emitted from a probe is orthogonal to the cone aperture. In the conventional conformation it is aimed directly at the cone aperture, after passing through a tortuous pathway in the counter electrode. Though the configuration is different, the methods of operation, cleaning, and maintenance are the same. However, Z-spray components and conventional components are not compatible with one another, but only with similar systems (i.e., Z-spray components are compatible with some other Z-spray systems, etc.)

3.5 **Mass Lynx Software:** System software designed for the specific operation of these Quattro II triple quadrupole systems. Currently MassLynx has Windows 95 and WindowsNT 4.0 versions. All versions are similar. For more details see the manual specific to the instrument (Micromass Quattro II triple quadrupole MassLynx or MassLynx NT User's Guide).

4.0 WARNINGS AND CAUTIONS

4.1 **Health and Safety Warnings:**

4.1.1 Use caution with the voltage cables for the probe. When engaged, the probe employs a voltage of approximately 5000 Volts.

4.1.2 When handling samples or solvents wear appropriate protective gloves, eyewear, and clothing.

4.2 **Cautions:**

4.2.1 Do not operate solvent pumps above capacity of 400 bar (5800 psi) back pressure. If the back pressure exceeds 400 bar, the HP1100 will initiate automatic shutdown.

4.2.2 Do not run solvent pumps to dryness.

5.0 INTERFERENCES

5.1 To minimize interferences when analyzing samples, teflon should not be used for sample storage or any part of instrumentation that comes in contact with the sample or extract.

6.0 EQUIPMENT

6.1 Equipment listed below may be modified in order to optimize the system. Document any modifications in the raw data as method deviations.

6.1.1 Micromass Quattro II triple quadrupole Mass Spectrometer equipped with an electrospray ionization source

6.1.2 HP1100 low pulse solvent pumping system, solvent degasser, column compartment, and autosampler

7.0 SUPPLIES AND MATERIALS

7.1 **Supplies**

7.1.1 High purity grade nitrogen gas regulated to approximately 100 psi (House air system)

7.1.2 HPLC analytical column, specifics to be determined by the analyst and documented in the raw data.

7.1.3 Capped autovials or capped 15 mL centrifuge tubes

8.0 REAGENTS AND STANDARDS

8.1 **Reagents**

8.1.1 Methanol, HPLC grade or equivalent

8.1.2 Milli-Q™ water, all water used in this method should be Milli-Q™ water or equivalent, and may be provided by a Milli-Q TOC Plus system or other vendor

8.1.3 Ammonium acetate, reagent grade or equivalent

8.2 **Standards**

8.2.1 Typically two method blanks, two matrix blanks, and eighteen matrix standards are prepared during the extraction procedure. See ETS-8-4.1.

9.0 SAMPLE HANDLING

9.1 Fresh matrix standards are prepared with each analysis. Extracted standards and samples are stored in capped autovials or capped 15 mL centrifuge tubes until analysis.

9.2 If analysis will be delayed, extracted standards and samples can be refrigerated at approximately 4° C, or at room temperature, until analysis can be performed.

10.0 Quality Control

10.1 Solvent Blanks, Method Blanks and Matrix Blanks

10.1.1 Solvent blanks, method blanks and matrix blanks are prepared and analyzed with each batch to determine contamination or carryover.

10.1.2 Analyze a method blank and a matrix blank prior to each calibration curve.

10.2 Matrix Spikes

10.2.1 Matrix spikes are prepared and analyzed to determine the matrix effect on the recovery efficiency.

10.2.2 Matrix spike duplicates are prepared and analyzed to measure the precision and the recovery for each analyte.

10.2.3 Analyze a matrix spike and matrix spike duplicate per forty samples, with a minimum of 2 spikes per batch.

10.2.4 Matrix spike and matrix spike duplicate concentrations will fall in the mid-range of the initial calibration curve. Additional spike concentrations may fall in the low-range of the initial calibration curve.

10.3 Continuing Calibration Verifications

10.3.1 Continuing calibration verifications are analyzed to verify the continued accuracy of the calibration curve.

10.3.2 Analyze a mid-range calibration standard after every tenth sample, with a minimum of one per batch.

11.0 Calibration and Standardization

11.1 Analyze the extracted matrix standards prior to and following each set of extracts. The average of two standard curves will be plotted by linear regression ($y = my + b$), weighted 1/x, not forced through zero, using MassLynx or other suitable software.

11.2 If the curve does not meet requirements, perform routine maintenance or reextract the standard curve (if necessary) and reanalyze.

11.3 For purposes of accuracy when quantitating low levels of analyte, it may be necessary to use the low end of the calibration curve rather than the full range of the standard curve. Example: when attempting to quantitate approximately 10 ppb of analyte, generate a calibration curve consisting of the standards from 5 ppb to 100 ppb rather than the full range of the curve (5 ppb to 1000 ppb). This will reduce inaccuracy attributed to linear regression weighting of high concentration standards.

12.0 PROCEDURES

12.1 Acquisition Set up

12.1.1 Click on start button in the Acquisition Control Panel. Set up a sample list. Assign a filename using MO-DAY-last digit of year-sample number, assign a method (MS) for acquiring, and type in sample descriptions.

12.1.2 To create a method click on scan button in the Acquisition control panel and select SIR (Single Ion Recording) or MRM. Set Ionization Mode as appropriate and mass to 499 or other appropriate masses. A full scan is usually collected along with the SIRs. Save acquisition method. If MS/MS instruments are employed, additional product ion fragmentation information may be collected. See Micromass MassLynx GUIDE TO DATA ACQUISITION for additional information and MRM (Multiple Reaction Monitoring).

12.1.3 Typically the analytical batch run sequence begins with a set of extracted matrix standards and ends with a set of extracted matrix standards.

12.1.4 Samples are analyzed with a continuing calibration check injected after every tenth sample. Solvent blanks should be analyzed periodically to monitor possible analyte carryover and are not considered samples but may be included as such.

12.2 Using the Autosampler

12.2.1 Set up sample tray according to the sample list prepared in Section 12.1.1.

12.2.2 Set-up the HP1100/autosampler at the following conditions or at conditions the analyst considers appropriate for optimal response. Record actual conditions in the instrument logbook:

12.2.2.1 Sample size = 10 µL injection

12.2.2.2 Inject/sample = 1

12.2.2.3 Cycle time = 13.5 minutes

12.2.2.4 Solvent ramp =

Time	MeOH	2.0 mM Ammonium acetate
0.00 min.	40%	60%
8.50 min.	90%	10%
11.0 min.	90%	10%
12.0 min.	40%	60%

12.2.2.5 Press the "Start" button.

12.3 Instrument Set-up

12.3.1 Refer to ETS-9-24.0 for more details.

12.3.2 Check the solvent level in reservoirs and refill if necessary.

12.3.3 Check the stainless steel capillary at the end of the probe. Use an eyepiece to check the tip. The tip should be flat with no jagged edges. If the tip is found to be unsatisfactory, disassemble the probe and replace the stainless steel capillary.

12.3.4 Set HPLC pump to "On". Set the flow to 10 - 500 uL/min or as appropriate. Observe droplets coming out of the tip of the probe. Allow to equilibrate for approximately 10 minutes.

12.3.5 Turn on the nitrogen. A fine mist should be expelled with no nitrogen leaking around the tip of the probe. Readjust the tip of the probe if no mist is observed.

12.3.6 The instrument uses these parameters at the following settings. These settings may change in order to optimize the response:

12.3.6.1 Drying gas 250-400 liters/hour

12.3.6.2 ESI nebulizing gas 10-15 liters/hour

12.3.6.3 HPLC constant flow mode, flow rate 10 – 500 µL/min

12.3.6.4 Pressure <400 bar (This parameter is not set, it is a guide to ensure the HPLC is operating correctly.)

12.3.7 Carefully guide the probe into the opening. Insert probe until it will not go any further. Connect the voltage cables to the probe.

12.3.8 Print the tune page, with its parameters, and store it in the study binder with a copy taped into the instrument log.

12.3.9 Using the cross-flow counter electrode in the ES/MS source is recommended for the analysis of biological matrices.

12.3.10 Click on start button in the Acquisition Control Panel (this may vary among MassLynx versions, see appropriate MassLynx USER'S GUIDE). Press the start button. Ensure start and end sample number includes all samples to be analyzed.

13.0 Data Analysis and Calculations

13.1 Calculations:

13.1.4 Calculate matrix spike percent recoveries using the following equation:

$$\% \text{ Recovery} = \frac{\text{Observed Result - Background Result}}{\text{Expected Result}} \times 100$$

13.1.5 Calculate percent difference using the following equation:

$$\% \text{ Difference} = \frac{\text{Expected Conc. - Calculated Conc.}}{\text{Expected Conc.}} \times 100$$

13.1.6 Calculate actual concentration of PFOS, or other fluorochemical, in matrix (µg/mL):

$$\frac{(\text{ng of PFOS calc. from std. Curve x Dilution Factor}) \times \frac{1\ \mu g}{1000\ ng}}{\text{Final Volume (mL)}}$$

$$(\text{Initial Volume of matrix (mL)} + \text{mL of Surrogate Standard})$$

14.0 METHOD PERFORMANCE

14.1 Method Detection Limit (MDL) and Limit of Quantitation (LOQ) are method, analyte, and matrix specific. Please see **ETS-8-4.1, Attachment B**, for a listing of current validated MDL and LOQ values.

14.2 Solvent Blanks, Method Blanks, and Matrix Blanks

14.2.1 Solvent blanks, method blanks, and matrix blanks values are must be below the lowest standard in the calibration curve

14.3 Calibration Curves

14.3.1 The r^2 value for the calibration curve must be 0.980 or better.

14.4 Matrix Spikes

14.4.1 Matrix spike percent recoveries are must be within ± 30% of the spiked concentration.

14.5 Continuing Calibration Verifications

14.5.1 Continuing calibration verification percent recoveries must be ± 30% of the spiked concentration.

14.6 If criteria listed in this method performance section isn't met, maintenance may be performed on the system and samples reanalyzed or other actions as determined by the analyst. Document all actions in the appropriate logbook.

14.7 If data are to be reported when performance criteria have not been met, the data must be footnoted on tables and discussed in the text of the report.

15.0 POLLUTION PREVENTION AND WASTE MANAGEMENT

15.1 Sample extract waste and flammable solvent is disposed in high BTU containers, and glass pipette waste is disposed in broken glass containers located in the laboratory.

16.0 RECORDS

16.1 Each page generated for a study must have the following information included either in the header or hand written on the page: study or project number, acquisition method, integration method, sample name, extraction date, dilution factor (if applicable), and analyst.

16.2 Print the tune page, sample list, and acquisition method from MassLynx to include in the appropriate study folder. Copy these pages and tape into the instrument runlog.

16.3 Plot the calibration curve by linear regression, weighted 1/x, then print these graphs and store in the study folder.

16.4 Print data integration summary, integration method, and chromatograms, from MassLynx, and store in the study folder.

16.5 Summarize data using suitable software (Excel 5.0) and store in the study folder, see **Attachment A** for an example of a summary spreadsheet.

16.6 Back up electronic data to appropriate medium. Record in study notebook the file name and location of backup electronic data.

17.0 Tables, Diagrams, Flowcharts, and Validation Data

17.1 Attachment A: ETS-8-5.1 Data summary spreadsheet.

18.0 References

18.1 FACT-M-4.1, "Extraction of Potassium Perfluorooctanesulfonate or Other Fluorochemical compounds from Serum for Analysis Using HPLC-Electrospray/Mass Spectrometry

18.2 ETS-9-24.0, "Operation and Maintenance of the Micromass Atmospheric Pressure Ionization/Mass Spectrometer Quattro II triple quadrupole Systems"

18.3 The validation report associated with this method is **ETS-8-4.0 & 5.0-V-1.**

19.0 Affected Documents

19.1 ETS-8-4.1, "Extraction of Potassium Perfluorooctanesulfonate or Other Fluorochemical Compounds from Serum for Analysis Using HPLC-Electrospray/Mass Spectrometry"

20.0 Revisions

Revision Number.	Reason For Revision	Revision Date
1	Section 6.1.2 Clarification of HP1100 system components. Section 11.1 Average of two curves, not standard values, are used for plotting linear regression and added the 1/x weighting of the curve. Section 12.2.2.4 Clarification of solvent ramp. Section 17.1 Changed from attachment B to A.	04/02/99

Laboratory Study

Study:
Test Material:
Matrix/Final Solvent:
Method/Revision:
Analytical Equipment System Number:
Instrument Software/Version:
Filename:
R-Squared Value:
Slope:
Y Intercept:
Date of Extraction/Analyst:
Date of Analysis/Analyst:

Group Dose	Sample#	Concentration ug/mL	Initial Vol. mL	Dilution Factor	Final Conc. ug/mL

Slope: Taken from linear regression equation.
Group/Dose: Taken from the study folder.
Sample#: Taken from the study folder.
Concentration (ug/mL): Taken from the MassLynx integration summary.
Initial Volume (mL): Taken from the study folder.
Dilution Factor: Taken from the study folder.
Final Conc. (ug/mL): Calculated by dividing the initial volume from the concentration

Method Modification

Methods: ETS-8-7.0, ETS-8-5.1, ETS-8-97.0
Section modified: add section 14.3.2

Method reads:

NA

Modify method to read:

14.3.2 The second (bracketing) calibration curve may be deactivated if instrumental drift affects the data. The first curve and acceptable calibration checks shall bracket usable data.

Effective date of modification ETS-8-7.0: 7/22/99
Effective date of modification ETS-8-5.1: 4/26/99
Effective date of modification ETS-8-97.0: 7/28/99

11/04/00
Signature of PAI and date

Exact Copy of Original
KJK 11/9/00

3M ENVIRONMENTAL LABORATORY

METHOD

ANALYSIS OF POTASSIUM PERFLUOROOCTANESULFONATE OR OTHER FLUOROCHEMICALS IN SERUM EXTRACTS USING HPLC-ELECTROSPRAY/MASS SPECTROMETRY

Method Number: ETS-8-5.2 **Adoption Date:** 03/01/99

Revision Date: 2/1/01

Author: Lisa Clemen, Kris Hansen

Approved By:

Laboratory Manager	02/01/01 Date
Group Leader	02/01/01 Date
Technical Reviewer	02-01-01 Date

Exact Copy of Original
Initial 8/28/01 Date

1.0 SCOPE AND APPLICATION

1.1 Scope: This method describes the analysis of serum extracts for fluorochemical surfactants using HPLC-electrospray/mass spectrometry.

1.2 Applicable Compounds: Fluorochemical surfactants or other fluorinated compounds, or other ionizable compounds.

1.3 Matrices: Rabbit, rat, bovine, monkey, and human serum, or other fluids as designated in the validation report.

2.0 Summary of Method

2.1 Although supported by a validation for most commonly used matrices, this is a performance-based method. Careful attention should be paid to method QC as there is great variability in sera. This method describes the analysis of fluorochemical surfactants extracted from serum or other fluids, using HPLC-electrospray/mass spectrometry, or similar system as appropriate. The analysis is performed by monitoring a single ion characteristic of a particular fluorochemical, such as the perfluorooctanesulfonate (PFOS) anion, m/z= 499. Additionally, samples may be analyzed using a tandem mass spectrometer to further verify the identity of a compound by detecting daughter ions of the parent ion.

3.0 Definitions

3.1 **Atmospheric Pressure Ionization (API):** The Micromass Quattro II and Ultima triple quadrupole systems allow for various methods of ionization by utilizing various sources, probes, and interfaces. These include but are not limited to: Electrospray Ionization (ESI), Atmospheric Pressure chemical Ionization (APcI), Thermospray, etc. The ionization process in these techniques occurs at atmospheric pressure (i.e., not under a vacuum).

3.2 **Electrospray Ionization (ES, ESI):** a method of ionization performed at atmospheric pressure, whereby ions in solution are transferred to the gas phase via tiny charged droplets. These charged droplets are produced by the application of a strong electrical field.

3.3 **Mass Spectrometry, Mass Spectrometer (MS), Tandem Mass Spectrometer (MS/MS):** The API Quattro II and Ultima triple quadrupole systems are equipped with quadrupole mass selective detectors. Ions are selectively discriminated by mass to charge ratio (m/z) and subsequently detected. A single MS may be employed for ion detection or a series (MS/MS) for more specific fragmentation information.

3.4 **Conventional vs. Z-spray probe interface:** The latest models of Micromass triple quadrupole systems (post 1998) utilize a "Z-spray" conformation. The spray emitted from a probe is orthogonal to the cone aperture. In the conventional conformation it is aimed directly at the cone aperture, after passing through a tortuous pathway in the counter electrode. Though the configuration is different, the methods of operation, cleaning, and maintenance are the same. However, Z-spray components and conventional components are not compatible with one another, but only with similar systems (i.e., Z-spray components are compatible with some other Z-spray systems, etc.)

3.5 **Mass Lynx Software:** System software designed for the specific operation of these Quattro II triple quadrupole systems. Currently MassLynx has Windows 95 and WindowsNT 4.0 versions. All versions are similar. For more details see the manual specific to the instrument (Micromass Quattro II or Ultima triple quadrupole MassLynx or MassLynx NT User's Guide).

4.0 Warnings and Cautions

4.1 Health and Safety Warnings:

4.1.1 Use caution with the voltage cables for the probe. When engaged, the probe employs a voltage of approximately 5000 Volts.

4.1.2 When handling samples or solvents wear appropriate protective gloves, eyewear, and clothing.

4.2 Cautions:

4.2.1 Do not operate solvent pumps above capacity of 400 bar (5800 psi) back pressure. If the back pressure exceeds 400 bar, the HPLC will initiate automatic shutdown.

4.2.2 Do not run solvent pumps to dryness.

5.0 INTERFERENCES

5.1 To minimize interferences when analyzing samples, Teflon should not be used for sample storage or any part of instrumentation that comes in contact with the sample or extract.

6.0 EQUIPMENT

6.1 Equipment listed below may be modified in order to optimize the system. Document any modifications in the raw data as method deviations.

6.1.1 Micromass Quattro II or Ultima triple quadrupole Mass Spectrometer equipped with an electrospray ionization source

6.1.2 HP1100 or Agilent low pulse solvent pumping system, solvent degasser, column compartment, and autosampler

7.0 SUPPLIES AND MATERIALS

7.1 Supplies

7.1.1 High purity grade nitrogen gas regulated to approximately 100 psi (House air or nitrogen system)

7.1.2 HPLC analytical column, specifics to be determined by the analyst and documented in the raw data.

7.1.3 Capped autovials and capped 15 mL centrifuge tubes

8.0 REAGENTS AND STANDARDS

8.1 Reagents

8.1.1 Methanol, HPLC grade or equivalent

8.1.2 Milli-Q™ water, all water used in this method should be Milli-Q™ water or equivalent, and may be provided by a Milli-Q TOC Plus system or other vendor

8.1.3 Ammonium acetate, reagent grade or equivalent

8.2 Standards

8.2.1 Typically two method blanks, two matrix blanks, and eighteen matrix standards are prepared during the extraction procedure. See ETS-8-4.2.

9.0 Sample Handling

9.1 Fresh matrix standards are prepared with each analysis. Extracted standards and samples are stored in capped autovials or capped 15 mL centrifuge tubes until analysis.

9.2 If analysis will be delayed, extracted standards and samples can be refrigerated at approximately 4° C, or at room temperature, until analysis can be performed.

10.0 Quality Control

10.1 Solvent Blanks, Method Blanks and Matrix Blanks

10.1.1 Solvent blanks, method blanks and matrix blanks are prepared and analyzed at least once during the course of the study to determine if contamination occurred during sample prep.

10.1.2 Analyze at least one solvent blank prior to each calibration curve.

10.1.3 Matrix blanks should be analyzed with each sample list that includes undiluted extracts.

10.2 Matrix Spikes

10.2.1 If curves and method QC are prepared in a surrogate matrix (e.g. curves in rabbit sera, samples are monkey sera), matrix spikes and matrix spike duplicates are prepared in blank sample matrix (e.g., monkey sera) and analyzed to verify extraction efficiency.

10.2.2 If curves and method QC are prepared in the same matrix as samples, no additional matrix spikes are required.

10.3 Continuing Calibration Verifications (CCVs)

10.3.1 Continuing calibration verifications are analyzed to verify the continued accuracy of the calibration curve.

10.3.2 Analyze two calibration standards (one at each of 2 levels) after every one to ten samples, with a minimum of two per batch and always finishing an injection sequence with at least two calibration standards.

11.0 Calibration and Standardization

11.1 Analyze the extracted matrix calibration standards prior to each set of extracts. The curve will be plotted by linear regression, weighted 1/x, not forced through zero, using MassLynx or other suitable software.

11.2 If the curve does not meet requirements, perform routine maintenance, reextract samples, or reanalyze the standard curve.

11.3 For purposes of accuracy when quantitating levels of analyte at the limits of the curve range, it may be necessary to use either the low end or the high end of the calibration curve rather than the full range of the standard curve. Example: when attempting to quantitate approximately 10 ppb of analyte, it may be beneficial to generate a calibration curve consisting of the standards from 5 ppb to 100 ppb rather than the full range of the curve (5 ppb to 1000 ppb). This will reduce inaccuracy attributed to linear regression weighting of

high concentration standards. It is also acceptable to break the linear range into a low curve and a high curve. If this is done, no more than one point should be used in common between the curves. For example, the low curve may include the following points: 1, 5, 25, 100, 250 ppb and the high curve may include the points: 250, 500, 750, 1000, 1250 ppb.

12.0 PROCEDURES

12.1 Acquisition Set up

12.1.1 On the MassLynx main page, set up a sample list name. Save the list as instrument designator letter, last 2 digits of test year-mo-day, and a letter that will increase through the alphabet with each additional list for that day.

Example Sample List: IYYMMDDa or D010712a

I=instrument name (D for "Davey")
YY=year of test (01)
MM=month of test (07)
DD=day of test (12)
a=first sample list (run) of the day (the next sample list will end with 'b,' the next 'c' and so on.)

12.1.2 Assign a filename using the instrument designator letter, the last 2 digits of year-mo-day, and a 3-digit sequential file number that starts with 1 and increases by one for each filename.

Example File Name: IYYMMDD### or D010712001

I=instrument name (D for "Davey")
YY=year of test (01)
MM=month of test (07)
DD=day of test (12)
###=3-digit sequential file number starting with 1 through 999 (001)

Also, as part of the sample list, assign a method (MS) for acquiring, an inlet file, a bottle number, an injection volume and sample descriptions.

12.1.3 To create a method, click on Method Editor button in the MS Status Pane and select SIR (Single Ion Recording) or MRM (Multiple Reaction Monitoring). Set Ionization Mode as appropriate and mass to 499 or other appropriate masses. Also set the acquisition start and stop times. Save acquisition method. If MS/MS instruments are employed, additional product ion fragmentation information may be collected. See Micromass MassLynx GUIDE TO DATA ACQUISITION for additional information and MRM.

12.1.4 Typically the analytical batch run sequence begins with solvent blanks and a set of extracted matrix standards.

12.1.5 Sample extracts are analyzed with two CCVs injected every one to ten samples. Solvent blanks should be analyzed periodically to monitor possible analyte carryover and are not considered sample extracts but may be included as such.

12.2 Using the HPLC

12.2.1 Set up sample tray according to the sample list prepared in Section 12.1.1.

12.2.2 Set-up the HPLC to the following conditions or at conditions the analyst considers appropriate for optimal response. Record actual conditions in the instrument logbook:

12.2.2.1 Sample size = 10 µL injection

12.2.2.2 Inject/sample = 1

12.2.2.3 Cycle time = 10.0 minutes

12.2.2.4 Flow rate = 300 µL/min

12.2.2.5 Mobile Phase (program)

Time	MeOH	2.0 mM Ammonium acetate (in H_2O)
0.00 min.	10%	90%
1.00 min.	10%	90%
5.50 min.	95%	5%
7.50 min.	95%	5%
8.00 min.	10%	90%

12.3 Instrument Set-up

12.3.1 Refer to ETS-9-24 for more details.

12.3.2 Check the solvent level in reservoirs and refill if necessary.

12.3.3 Check the stainless steel capillary at the end of the probe. Use an eyepiece to check the tip. The tip should be flat with no jagged edges. If the tip is found to be unsatisfactory, disassemble the probe and replace the stainless steel capillary. The probe should be checked weekly.

12.3.4 Set HPLC pump to "On". Set the flow to 10 - 500 µL/min or as appropriate. Observe droplets coming out of the tip of the probe.

12.3.5 Turn on the nitrogen. A fine mist should be expelled with no nitrogen leaking around the tip of the probe. Readjust the tip of the probe if no mist is observed.

12.3.6 The instrument uses these parameters at the following settings. These settings may change in order to optimize the response:

12.3.6.1 Drying gas 250-400 liters/hour

12.3.6.2 ESI nebulizing gas 10-15 liters/hour

12.3.6.3 HPLC constant flow mode, flow rate 10 – 500 µL/min

12.3.6.4 Pressure <400 bar (This parameter is not set, it is a guide to ensure the HPLC is operating correctly.)

12.3.7 Carefully guide the probe into the opening. Insert probe until it will not go any further. Connect the voltage cables to the probe.

12.3.8 Print the tune page, MS file, HPLC parameters, sample list and the Microsoft Word summary page and store in the study binder with a copy taped into the instrument log.

12.3.9 Click on start button in the MassLynx main page (this may vary among MassLynx versions, see appropriate MassLynx USER'S GUIDE). Ensure start and end sample number includes all samples to be analyzed.

13.0 Data Analysis and Calculations

13.1 Calculations:

13.1.1 Calculate matrix spike percent recoveries using the following equation:

$$\%\ Recovery = \frac{Observed\ Result - Matrix\ Blank\ Result}{Spiking\ Level} \times 100$$

13.1.2 Calculate percent difference using the following equation:

$$\%\ Difference = \frac{Expected\ Conc. - Calculated\ Conc.}{Expected\ Conc.} \times 100$$

13.1.4 Calculate actual concentration of PFOS, or other fluorochemical, in matrix (µg/mL):

$$\frac{(Conc.\ of\ PFOS\ Calc.\ from\ Std.\ Curve\ (ng/mL) \times Dilution\ Factor)}{\left\{\frac{(Initial\ Volume\ of\ Matrix\ (mL) + mL\ of\ Surrogate\ Standard)}{Final\ Volume\ (mL)}\right\}} \times \frac{1\ \mu g}{1000\ ng}$$

14.0 Method Performance

14.1 Method Detection Limit (MDL) and Limit of Quantitation (LOQ) are method, analyte, and matrix specific. Please see **ETS-8-4.2, Attachment B,** for a listing of current validated MDL and LOQ values.

14.2 Solvent Blanks, Method Blanks, and Matrix Blanks

14.2.1 Solvent blanks, method blanks, and matrix blanks values must be below the lowest active standard in the calibration curve.

14.3 Calibration Curves

14.3.1 The coefficient of determination value for the calibration curve must be 0.990 or better.

14.3.2 All active calibration curve points must be within 25% of the theoretical value with the exception of the LOQ point, which may deviate up to 30%.

14.3.3 Calibration standards with peak areas less than two times the curve matrix blank must be deactivated to disqualify a data range that may be affected by background levels of the analyte.

14.3.4 Low or high curve points may be deactivated to optimize a linear range appropriate to the data.

14.3.5 Not including low or high points dropped to optimize the linear range, curve points may be deactivated if they deviate more than 25% from the theoretical value when the curve is evaluated over a linear range appropriate to the data.

14.3.6 One point below the LOQ may remain active even if it deviates more than ±30% or has a peak area less than two times the matrix blank; however, the LOQ will be defined at the lowest point with acceptable deviation.

14.3.7 A valid calibration curve must contain at least 5 active points above and including the LOQ.

14.4 Matrix Spikes

14.4.1 The average matrix spike percent recoveries should be within ± 30% of the spiked concentration. Recoveries outside of this range should be discussed in the report.

14.5 Continuing Calibration Verifications (CCVs)

14.5.1 Continuing calibration samples within the linear range of the run must show a percent recovery within ±25% of the spiked concentration. If a CCV is outside of this recovery, subsequent data should not be accepted. Acceptable data must be bracketed by the curve and passing CCVs.

14.6 If criteria listed in this method performance section isn't met, maintenance may be performed on the system and samples reanalyzed or other actions as determined by the analyst. Document all actions in the appropriate logbook.

14.7 If data are to be reported when performance criteria have not been met, the data must be footnoted on tables and discussed in the text of the report.

15.0 Pollution Prevention and Waste Management

15.1 Sample extract waste and flammable solvent is disposed in high BTU containers, and glass pipette waste is disposed in broken glass containers located in the laboratory.

16.0 Records

16.1 The first page of each data packet generated for a study must have the following information included either in the header, in the footer or hand written on the page: study or project number, instrument, sample matrix and time point, date, and analyst.

16.2 A data packet includes the following: data review summary form, MassLynx quantify compound summary report for each target analyte, quantify calibration report for each target analyte (curve), method report, Word document listing set-up parameters, tune

method report, MassLynx scanning method report, HPLC method report, sample list, and quantity sample report (chromatogram).

16.3 For each analysis, after printing the tune method report, Word document listing, set-up parameters, MassLynx scanning method report, and sample list, copy and tape into the instrument runlog. The original is maintained in the data packet.

16.4 On each page of the quantify compound report, quantify calibration report (curve), and quantify sample report (chromatogram), the following information must be included either in the header, the footer, or hand written on the page: study or project number, instrument, method, calibration (the method and calibration are usually assigned the same name), analyst, and date.

16.5 The analyst must date and initial the first page in a packet as long as their initials and date are electronically included on each page. If initials and date are not electronically included, they must date and initial each page.

16.6 Summarize data using suitable software (e.g., Excel) for inclusion in the final report. See **Attachment A** for an example of a summary spreadsheet.

16.7 Back up electronic data to appropriate medium. Record the file name and location of backup electronic data in instrument log book.

17.0 Tables, Diagrams, Flowcharts, and Validation Data

17.1 Attachment A: Data summary spreadsheet.

18.0 References

18.1 FACT-M-4.1, "Extraction of Potassium Perfluorooctanesulfonate or Other Fluorochemical compounds from Serum for Analysis Using HPLC-Electrospray/Mass Spectrometry

18.2 ETS-9-24.0, "Operation and Maintenance of the Micromass Atmospheric Pressure Ionization/Mass Spectrometer Quattro II triple quadrupole Systems"

18.3 The validation report associated with this method is **ETS-8-4.0 & 5.0-V-1.**

19.0 Affected Documents

19.1 ETS-8-4.2, "Extraction of Potassium Perfluorooctanesulfonate or Other Fluorochemical Compounds from Serum for Analysis Using HPLC-Electrospray/Mass Spectrometry"

20.0 REVISIONS

Revision Number.	Reason For Revision	Revision Date
1	Section 6.1.2 Clarification of HP1100 system components. Section 11.1 Average of two curves, not standard values, are used for plotting linear regression and added the 1/x weighting of the curve. Section 12.2.2.4 Clarification of solvent ramp. Section 17.1 Changed from attachment B to A.	04/02/99
2	10.1 Clarified when blanks are run. 10.2 Added instructions for when surrogate matrix is used. 10.3 Specify requirements for CCVs. 11.1 Requires only a calibration curve before the samples. 11.2 Clarify what to do if curve does not meet requirements. 11.3 Allow to truncate the curve. 12.1.1 Clarify sample list ID. 12.1.3 Clarify typical run. 12.2 Changes to mobile phase gradient and specify flow rate. 14.3 Change acceptable limits. Add specifics for acceptance of calibration curve. 14.3.3 When to deactivate calibration standards based on blank response. 14.3.5 When to deactivate calibration standards within the linear range. 14.4 Modifies evaluation and use of matrix spikes. 14.5 Describes evaluation and use of CCVs. 14.5.1 Evaluation of CCVs. 16.0 Add requirements for records and documentation.	

Laboratory Study

Study:
Test Material:
Matrix/Final Solvent:
Method/Revision:
Analytical Equipment System Number:
Instrument Software/Version:
Filename:
R-Squared Value:
Slope:
Y Intercept:
Date of Extraction/Analyst:
Date of Analysis/Analyst:

Group Dose	Sample#	Concentration ug/mL	Initial Vol. mL	Dilution Factor	Final Conc. ug/mL

Slope: Taken from linear regression equation.
Group/Dose: Taken from the study folder.
Sample#: Taken from the study folder.
Concentration (ug/mL): Taken from the MassLynx integration summary.
Initial Volume (mL): Taken from the study folder.
Dilution Factor: Taken from the study folder.
Final Conc. (ug/mL): Calculated by dividing the initial volume from the concentration

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Appendix D: Dose Confirmation Analyses and Data Summary Tables

Table 12. Dose Confirmation Analyses – Extracted 11/17/00, Analyzed 11/27/00

Group Dose	Sample #	Concentration of PFOA ug/mL or % Rec	Expected Conc of PFOA ug/mL*	% Recovery	PFOA Mean	PFOA RPD
Method Blk	111700-WBlk-1	<LOQ (10 ng/mL)	NA	NA	NA	NA
	111700-WBlk-2	<LOQ (10 ng/mL)	NA			
	111700-WBlk-3	<LOQ (10 ng/mL)	NA			
QC	B-418-020-A-C-100ppb-MS	0.0822	0.0979	84%	86%	4%
	B-418-020-A-C-100ppb-MSD	0.0855	0.0979	87%		
Stability Day 0 11/10/00	B-418-020-A-C-0.5 mL	<LOQ (10 ng/mL)	NA	NA	NA	NA
	B-418-020-A-A-0.5 mL	<LOQ (10 ng/mL)	NA			
	B-418-020-A-D10-0.5 mL	<LOQ (10 ng/mL)	NA			
Stability Day 0 11/10/00	B-418-020-A-A-1	<LOQ (10 ng/mL)	NA	NA	NA	NA
	B-418-020-A-A-2	<LOQ (10 ng/mL)	NA			
	B-418-020-B-A-1	191	200	95%	95%	1%
	B-418-020-B-A-2	189	200	95%		
	B-418-020-C-A-1	485	600	81%	77%	10%
	B-418-020-C-A-2	438	600	73%		
	B-418-020-D-A-1	1809	2000	90%	93%	5%
	B-418-020-D-A-2	1893	2000	95%		
	B-418-020-E-A-1	5579	6000	93%	99%	13%
	B-418-020-E-A-2	6350	6000	106%		
Stability Day 10 11/10/00	B-418-020-A-D10-1	<LOQ (10 ng/mL)	NA	NA	NA	NA
	B-418-020-A-D10-2	<LOQ (10 ng/mL)	NA			
	B-418-020-B-D10-1	177	200	88%	88%	1%
	B-418-020-B-D10-2	175	200	88%		
	B-418-020-C-D10-1	461	600	77%	76%	2%
	B-418-020-C-D10-2	451	600	75%		
	B-418-020-D-D10-1	1732	2000	87%	86%	2%
	B-418-020-D-D10-2	1695	2000	85%		
	B-418-020-E-D10-1	5825	6000	97%	95%	4%
	B-418-020-E-D10-2	5614	6000	94%		
Concentration 11/10/00	B-418-020-A-C-1	<LOQ (10 ng/mL)	NA		NA	NA
	B-418-020-A-C-2	<LOQ (10 ng/mL)	NA	NA		
	B-418-020-B-C-1	179	200	90%	87%	5%
	B-418-020-B-C-2	170	200	85%		
	B-418-020-C-C-1	494	600	82%	81%	3%
	B-418-020-C-C-2	478	600	80%		
	B-418-020-D-C-1	1820	2000	91%	90%	1%
	B-418-020-D-C-2	1800	2000	90%		
	B-418-020-E-C-1	6140	6000	102%	101%	2%
	B-418-020-E-C-2	6026	6000	100%		

* Information was obtained from chain of custody forms accompanying samples.

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Table 13. Dose Confirmation Analyses – Extracted 11/27/00, Analyzed 11/28/00

Group Dose	Sample #	Concentration of PFOA ug/mL or % Rec	Expected Conc of PFOA ug/mL*	% Recovery	PFOA Mean	PFOA RPD
Method Blk	112700-WBlk-1	<LOQ (10 ng/mL)	NA	NA	NA	NA
	112700-WBlk-2	<LOQ (10 ng/mL)	NA			
	112700-WBlk-3	<LOQ (10 ng/mL)	NA			
QC	B-418-020-A-C-100ppb-MS	0.0864	0.0979	88%	88%	1%
	B-418-020-A-C-100ppb-MSD	0.0856	0.0979	87%		
Stability Day 0 11/10/00	B-418-020-A-C-0.5 mL	<LOQ (10 ng/mL)	NA	NA	NA	NA
	B-418-020-A-A-0.5 mL	<LOQ (10 ng/mL)	NA			
	B-418-020-A-D10-0.5 mL	<LOQ (10 ng/mL)	NA			
Stability Day 0 11/10/00	B-418-020-A-A-1	<LOQ (10 ng/mL)	NA	NA	NA	NA
	B-418-020-A-A-2	<LOQ (10 ng/mL)	NA			
	B-418-020-B-A-1	155	200	78%	76%	6%
	B-418-020-B-A-2	147	200	73%		
	B-418-020-C-A-1	489	600	82%	80%	4%
	B-418-020-C-A-2	468	600	78%		
	B-418-020-D-A-1	1788	2000	89%	90%	0%
	B-418-020-D-A-2	1793	2000	90%		
	B-418-020-E-A-1[A]	11183	6000	186%[A]	187%[A]	1%
	B-418-020-E-A-2[A]	11256	6000	188%[A]		
Stability Day 10 11/10/00	B-418-020-A-D10-1	<LOQ (10 ng/mL)	NA	NA	NA	NA
	B-418-020-A-D10-2	<LOQ (10 ng/mL)	NA			
	B-418-020-B-D10-1	138	200	69%	74%	13%
	B-418-020-B-D10-2	157	200	78%		
	B-418-020-C-D10-1	464	600	77%	80%	7%
	B-418-020-C-D10-2	496	600	83%		
	B-418-020-D-D10-1	1560	2000	78%	83%	12%
	B-418-020-D-D10-2	1758	2000	88%		
	B-418-020-E-D10-1	5553	6000	93%	96%	7%
	B-418-020-E-D10-2	5957	6000	99%		
Concentration 11/10/00	B-418-020-A-C-1	<LOQ (10 ng/mL)	NA	NA	NA	NA
	B-418-020-A-C-2	<LOQ (10 ng/mL)	NA			
	B-418-020-B-C-1	158	200	79%	81%	4%
	B-418-020-B-C-2	165	200	82%		
	B-418-020-C-C-1	452	600	75%	75%	2%
	B-418-020-C-C-2	443	600	74%		
	B-418-020-D-C-1	1741	2000	87%	91%	8%
	B-418-020-D-C-2	1883	2000	94%		
	B-418-020-E-C-1	5376	6000	90%	90%	1%
	B-418-020-E-C-2	5441	6000	91%		

[A] = Sample re-extracted on 01/23/01 to confirm recovery. Recovery was not confirmed, considered an outlier.
* Information was obtained from chain of custody forms accompanying samples.

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Table 14. Dose Confirmation Analyses – Extracted 01/17/01, Analyzed 01/23/01

Group Dose	Sample #	Concentration of PFOA ug/mL or % Rec	Expected Conc of PFOA ug/mL*	% Recovery	PFOA Mean	PFOA RPD
Method Blk	011701-WBlk-1-1	<LOQ (10 ng/mL)	NA	NA	NA	NA
	011701-WBlk-1-2	<LOQ (10 ng/mL)	NA			
Stability Day 0 11/10/00	B-418-020-E-A-1	5466	6000	91%	87%	9%
	B-418-020-E-A-2	5014	6000	84%		

* Information was obtained from chain of custody forms accompanying samples.

Table 15. TOX 164 Data Summary of PFOA Concentration—Rat Serum (µg/mL)

	Gender/ Timepoint	PFOA Conc. Average ± SD
Group 1 0.0 mg/kg/day	Female Lactation Day 22	<LOQ (0.00528 ug/mL) n=3
	Male End of cohabitation	0.0344 ± 0.0148 n=3
Group 4 10 mg/kg/day	Female Lactation Day 22	0.370 ± 0.0805 n=10
	Male End of cohabitation	51.1 ± 9.30 n=10
Group 5 30 mg/kg/day	Female Lactation Day 22	1.02 ± 0.425 n=10
	Male End of cohabitation	45.3 ± 12.6 n=10

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Appendix E: Data Spreadsheets

Study:	FACT-TOX-164, Argus 418-020, Oral (Gavage) Two-Generation Reproduction Study of APFO in Rats
Product Number(Test Substance):	PFOA
Matrix:	Concentrate Samples
Method/Revision:	ETS-8-4.1 & ETS-8-5.1
Analytical Equipment System Number:	Davey 070799
Instrument Software/Version:	Masslynx 3.4
Filename:	See Below
R-Squared Value:	See Attachment
Slope:	See Attachment
Y-Intercept:	See Attachment
Date of Extraction/Analyst:	11/17/00 RWW
Date of Analysis/Analyst:	11/27/00 MMH
Date of Data Reduction/Analyst:	11/28/00 MMH

Sample Data

DOSE VERIFICATION SAMPLES

Group Dose	Sample #	Extraction Vol. mL	Surrogate Verified	Extraction Dilution Factor	PFOA Dilution Factor	PFOA Conc. ug/mL	Filename	Concentration of PFOA ug/mL or % Rec	Target Conc. of PFOA ug/mL	% Recovery or % Target Conc.	PFOA Mean	PFOA RPD
Method Blk	111700-WBlk-1	1	NA	1.25	1	0.00	D001127015	<LOQ (10 ng/mL)	NA			
	111700-WBlk-2	1	NA	1.25	1	0.00	D001127016	<LOQ (10 ng/mL)	NA			
	111700-WBlk-3	1	NA	1.25	1	0.00	D001127017	<LOQ (10 ng/mL)	NA	NA	NA	NA
QC	B-418-020-A-C-100ppb-MS	1	NA	1.25	1	65.79	D001127065	0.0822	0.0979	84%		
	B-418-020-A-C-100ppb-MSD	1	NA	1.25	1	68.40	D001127066	0.0855	0.0979	87%	86%	4%
Stability Day 0 11/10/2000	B-418-020-A-C-0.5 mL	1	NA	1.25	2	0.00	D001127018	<LOQ (10 ng/mL)	NA			
	B-418-020-A-A-0.5 mL	1	NA	1.25	2	0.00	D001127019	<LOQ (10 ng/mL)	NA			
	B-418-020-A-D10-0.5 mL	1	NA	1.25	2	0.00	D001127022	<LOQ (10 ng/mL)	NA	NA	NA	NA
Stability Day 0 11/10/2000	B-418-020-A-A-1	1	NA	1.25	2001	0.00	D001127025	<LOQ (10 ng/mL)	NA			
	B-418-020-A-A-2	1	NA	1.25	2001	0.00	D001127026	<LOQ (10 ng/mL)	NA	NA	NA	NA
	B-418-020-B-A-1	1	NA	1.25	2001	76.24	D001127033	191	200	95%		
	B-418-020-B-A-2	1	NA	1.25	2001	75.72	D001127036	189	200	95%	95%	1%
	B-418-020-C-A-1	1	NA	1.25	5001	77.54	D001127043	485	600	81%		
	B-418-020-C-A-2	1	NA	1.25	5001	70.01	D001127044	438	600	73%	77%	10%
	B-418-020-D-A-1	1	NA	1.25	20001	72.35	D001127051	1809	2000	90%		
	B-418-020-D-A-2	1	NA	1.25	20001	75.73	D001127052	1893	2000	95%	93%	5%
	B-418-020-E-A-1	1	NA	1.25	50001	89.27	D001127059	5579	6000	93%		
	B-418-020-E-A-2	1	NA	1.25	50001	101.60	D001127060	6350	6000	106%	99%	13%
Stability Day 10 11/10/2000	B-418-020-A-D10-1	1	NA	1.25	2001	0.00	D001127029	<LOQ (10 ng/mL)	NA			
	B-418-020-A-D10-2	1	NA	1.25	2001	0.00	D001127030	<LOQ (10 ng/mL)	NA	NA	NA	NA
	B-418-020-B-D10-1	1	NA	1.25	2001	70.76	D001127037	177	200	88%		
	B-418-020-B-D10-2	1	NA	1.25	2001	69.98	D001127038	175	200	88%	88%	1%
	B-418-020-C-D10-1	1	NA	1.25	5001	73.80	D001127045	461	600	77%		
	B-418-020-C-D10-2	1	NA	1.25	5001	72.13	D001127046	451	600	75%	76%	2%
	B-418-020-D-D10-1	1	NA	1.25	20001	69.27	D001127053	1732	2000	87%		
	B-418-020-D-D10-2	1	NA	1.25	20001	67.79	D001127054	1695	2000	85%	86%	2%
	B-418-020-E-D10-1	1	NA	1.25	50001	93.20	D001127061	5825	6000	97%		
	B-418-020-E-D10-2	1	NA	1.25	50001	99.83	D001127066	5614	6000	94%	95%	4%
Concentrates 11/10/2000	B-418-020-A-C-1	1	NA	1.25	2001	0.00	D001127023	<LOQ (10 ng/mL)	NA			
	B-418-020-A-C-2	1	NA	1.25	2001	0.00	D001127024	<LOQ (10 ng/mL)	NA	NA	NA	NA
	B-418-020-B-C-1	1	NA	1.25	2001	71.72	D001127031	179	200	90%		
	B-418-020-B-C-2	1	NA	1.25	2001	67.94	D001127032	170	200	85%	87%	5%
	B-418-020-C-C-1	1	NA	1.25	5001	79.10	D001127039	494	600	82%		
	B-418-020-C-C-2	1	NA	1.25	5001	76.61	D001127040	478	600	80%	81%	3%
	B-418-020-D-C-1	1	NA	1.25	20001	72.80	D001127047	1820	2000	91%		
	B-418-020-D-C-2	1	NA	1.25	20001	71.98	D001127050	1800	2000	90%	90%	1%
	B-418-020-E-C-1	1	NA	1.25	50001	98.24	D001127057	6140	6000	102%		
	B-418-020-E-C-2	1	NA	1.25	50001	96.42	D001127058	6026	6000	100%	101%	2%

PFOA/POAA = Perfluorooctanoate

Dose Ensured By: 01/15/01 LAC
Dose Verified By: 01/16/01 kjh

Center Letter
A = 0 mg/mL
B = 0.2 mg/mL
C = 0.6 mg/mL
D = 2 mg/mL
E = 6 mg/mL

FACT-TOX-164
Argus# 418-020

Study:	FACT-TOX-164, Argus 418-020, Oral (Gavage) Two-Generation Reproduction Study of APFO in Rats
Product Number(Test Substance):	PFOA
Matrix:	Concentrate Samples
Method/Revision:	ETS-8-4.1 & ETS-8-5.1
Analytical Equipment System Number:	Davey 070799
Instrument Software/Version:	Masslynx 3.4
Potassium:	See Attachment
R-Squared Value:	See Attachment
Slope:	See Attachment
Y-Intercept:	See Attachment
Date of Extraction/Analyst:	11/17/00 RWW
Date of Analysis/Analyst:	11/27/00 MMH
Date of Data Reduction/Analyst:	11/28/00 MMH

Sample Data

DOSE VERIFICATION SAMPLES

Group Dose	Sample #	PFOA Conc. ug/mL	Concentration of PFOA ug/mL or % Rec	Target Conc. of PFOA ug/mL	% Recovery or % Target Conc.	PFOA Mean	PFOA RPD
Method Blk	111700-WBlk-1	0.00	<LOQ (10 ng/mL)	NA			
	111700-WBlk-2	0.00	<LOQ (10 ng/mL)	NA			
	111700-WBlk-3	0.00	<LOQ (10 ng/mL)	NA	NA	NA	NA
QC	B-418-020-A-C-100ppb-MS	65.8	0.0822	0.0979	84%		
	B-418-020-A-C-100ppb-MSD	68.4	0.0855	0.0979	87%	86%	4%
Stability Day 0 11/10/00	B-418-020-A-C-0.5 mL	0.00	<LOQ (10 ng/mL)	NA			
	B-418-020-A-A-0.5 mL	0.00	<LOQ (10 ng/mL)	NA			
	B-418-020-A-D10-0.5 mL	0.00	<LOQ (10 ng/mL)	NA	NA	NA	NA
Stability Day 0 11/10/00	B-418-020-A-A-1	0.00	<LOQ (10 ng/mL)	NA			
	B-418-020-A-A-2	0.00	<LOQ (10 ng/mL)	NA	NA	NA	NA
	B-418-020-B-A-1	76.2	190.6953	200	95%		
	B-418-020-B-A-2	75.7	189.3947	200	95%	95%	1%
	B-418-020-C-A-1	77.5	484.7219	600	81%		
	B-418-020-C-A-2	70.0	437.6560	600	73%	77%	10%
	B-418-020-D-A-1	72.4	1808.8404	2000	90%		
	B-418-020-D-A-2	75.7	1893.3447	2000	95%	93%	5%
	B-418-020-E-A-1	89.3	5579.487	6000	93%		
	B-418-020-E-A-2	102	6350.127	6000	106%	99%	13%
Stability Day 10 11/10/00	B-418-020-A-D10-1	0.00	<LOQ (10 ng/mL)	NA			
	B-418-020-A-D10-2	0.00	<LOQ (10 ng/mL)	NA	NA	NA	NA
	B-418-020-B-D10-1	70.8	176.9885	200	88%		
	B-418-020-B-D10-2	70.0	175.0375	200	88%	88%	1%
	B-418-020-C-D10-1	73.8	461.3423	600	77%		
	B-418-020-C-D10-2	72.1	450.9027	600	75%	76%	2%
	B-418-020-D-D10-1	69.3	1731.8366	2000	87%		
	B-418-020-D-D10-2	67.8	1694.8347	2000	85%	86%	2%
	B-418-020-E-D10-1	93.2	5825.1165	6000	97%		
	B-418-020-E-D10-2	89.8	5614.4875	6000	94%	95%	4%
Concentrates 11/10/00	B-418-020-A-C-1	0.00	<LOQ (10 ng/mL)	NA			
	B-418-020-A-C-2	0.00	<LOQ (10 ng/mL)	NA	NA	NA	NA
	B-418-020-B-C-1	71.7	179.3897	200	90%		
	B-418-020-B-C-2	67.9	169.9349	200	85%	87%	5%
	B-418-020-C-C-1	79.1	494.4739	600	82%		
	B-418-020-C-C-2	76.4	477.6580	600	80%	81%	3%
	B-418-020-D-C-1	72.8	1820.0910	2000	91%		
	B-418-020-D-C-2	72.0	1799.5900	2000	90%	90%	1%
	B-418-020-E-C-1	98.2	6140.1228	6000	102%		
	B-418-020-E-C-2	96.4	6026.3705	6000	100%	101%	2%

PFOA/PFOAA = Perfluorooctanoate

Cancer Letter
A = 0 ng/mL
B = 0.2 ng/mL
C = 0.6 ng/mL
D = 2 ng/mL
E = 6 ng/mL

Data Entered/By: 01/15/01 LAC
Data Verified/ By: 01/16/01 LJh

3M Medical Department Study: T-6889.6

FACT-TOX-164
Argus# 418-020

Analytical Report: FACT TOX-164
LIMS E00-2738

Study:	FACT-TOX-164, Argus 418-020, Oral (Gavage) Two-Generation Reproduction Study of APFO in Rats
Product Number(Test Substance):	PFOA
Matrix:	Concentrate Samples
Method/Revision:	ETS-8-4.1 & ETS-8-5.1
Analytical Equipment System Number:	Davey 070799
Instrument Software/Version:	Masslynx 3.4
Filename:	See Below
R-Squared Value:	See Attachment
Slope:	See Attachment
Y-Intercept:	See Attachment
Date of Extraction/Analyst:	11/27/00 RWW
Date of Analysis/Analyst:	11/28/00 MMH
Date of Data Reduction/Analyst:	11/29/00 MMH

Sample Data

DOSE VERIFICATION SAMPLES

Group Dose	Sample #	Extraction Vol. mL	Surrogate Verified	Extraction Dilution Factor	PFOA Dilution Factor	PFOA Conc. ng/mL	Filename	Concentration of PFOA ng/mL or % Rec	Target Conc. of PFOA ug/mL	% Recovery or % Target Conc	PFOA Mean	PFOA RPD
Method Blk.	112700-WBlk-1	1	NA	1.25	1	0.00	D001128015	<LOQ (10 ng/mL)	NA			
	112700-WBlk-2	1	NA	1.25	1	0.00	D001128016	<LOQ (10 ng/mL)	NA			
	112700-WBlk-3	1	NA	1.25	1	0.00	D001128017	<LOQ (10 ng/mL)	NA	NA	NA	NA
QC	B-418-020-A-C-100ppb-MS	1	NA	1.25	1	69.13	D001128065	0.0864	0.0879	88%		
	B-418-020-A-C-100ppb-MSD	1	NA	1.25	1	68.64	D001128066	0.0856	0.0879	87%	88%	1%
Stability Day 0 11/10/2000	B-418-020-A-C-0.5 mL	1	NA	1.25	2	0.00	D001128018	<LOQ (10 ng/mL)	NA			
	B-418-020-A-A-0.5 mL	1	NA	1.25	2	0.00	D001128019	<LOQ (10 ng/mL)	NA			
	B-418-020-A-D10-0.5 mL	1	NA	1.25	2	0.00	D001128022	<LOQ (10 ng/mL)	NA	NA	NA	NA
Stability Day 0 11/10/2000	B-418-020-A-A-1	1	NA	1.25	2001	0.00	D001128025	<LOQ (10 ng/mL)	NA			
	B-418-020-A-A-2	1	NA	1.25	2001	0.00	D001128026	<LOQ (10 ng/mL)	NA	NA	NA	NA
	B-418-020-B-A-1	1	NA	1.25	2001	62.10	D001128033	155	200	78%		
	B-418-020-B-A-2	1	NA	1.25	2001	58.73	D001128036	147	200	73%	76%	6%
	B-418-020-C-A-1	1	NA	1.25	5001	78.28	D001128043	489	600	82%		
	B-418-020-C-A-2	1	NA	1.25	5001	74.90	D001128044	468	600	78%	80%	4%
	B-418-020-D-A-1	1	NA	1.25	20001	71.52	D001128051	1788	2000	89%		
	B-418-020-D-A-2	1	NA	1.25	20001	71.73	D001128052	1793	2000	90%	90%	0%
	B-418-020-E-A-1	1	NA	1.25	50001	178.92	D001128059	11183	6000	186% A		
	B-418-020-E-A-2	1	NA	1.25	50001	180.10	D001128060	11256	6000	188% A	187%	1%
Stability Day 10 11/10/2000	B-418-020-A-D10-1	1	NA	1.25	2001	0.00	D001128029	<LOQ (10 ng/mL)	NA			
	B-418-020-A-D10-2	1	NA	1.25	2001	0.00	D001128030	<LOQ (10 ng/mL)	NA	NA	NA	NA
	B-418-020-B-D10-1	1	NA	1.25	2001	55.05	D001128037	138	200	69%		
	B-418-020-B-D10-2	1	NA	1.25	2001	62.61	D001128038	157	200	78%	74%	13%
	B-418-020-C-D10-1	1	NA	1.25	5001	74.25	D001128045	464	600	77%		
	B-418-020-C-D10-2	1	NA	1.25	5001	79.37	D001128046	496	600	83%	80%	7%
	B-418-020-D-D10-1	1	NA	1.25	20001	62.41	D001128053	1560	2000	78%		
	B-418-020-D-D10-2	1	NA	1.25	20001	70.32	D001128054	1758	2000	88%	83%	12%
	B-418-020-E-D10-1	1	NA	1.25	50001	88.85	D001128061	5553	6000	93%		
	B-418-020-E-D10-2	1	NA	1.25	50001	95.31	D001128064	5957	6000	99%	96%	7%
Concentrates 11/10/2000	B-418-020-A-C-1	1	NA	1.25	2001	0.00	D001128023	<LOQ (10 ng/mL)	NA			
	B-418-020-A-C-2	1	NA	1.25	2001	0.00	D001128024	<LOQ (10 ng/mL)	NA	NA	NA	NA
	B-418-020-B-C-1	1	NA	1.25	2001	63.23	D001128031	158	200	79%		
	B-418-020-B-C-2	1	NA	1.25	2001	65.86	D001128032	165	200	82%	81%	4%
	B-418-020-C-C-1	1	NA	1.25	5001	72.23	D001128039	452	600	75%		
	B-418-020-C-C-2	1	NA	1.25	5001	70.86	D001128040	443	600	74%	75%	2%
	B-418-020-D-C-1	1	NA	1.25	20001	69.62	D001128047	1741	2000	87%		
	B-418-020-D-C-2	1	NA	1.25	20001	75.31	D001128050	1883	2000	94%	91%	8%
	B-418-020-E-C-1	1	NA	1.25	50001	86.01	D001128057	5376	6000	90%		
	B-418-020-E-C-2	1	NA	1.25	50001	87.05	D001128058	5441	6000	91%	90%	1%

PFOA/PFOAA = Perfluorooctanoate

A = Sample re-extracted on 01/17/01 to confirm high recovery. Recovery was not confirmed, considered an outlier.

Dose Letter
A = 0 mg/mL
B = 0.2 mg/mL
C = 0.6 mg/mL
D = 2 mg/mL
E = 6 mg/mL

Date Entered/By: 01/15/01 LAC
Date Verified/ By: 01/16/01 kjh

Study:	FACT-TOX-164, Argus 418-020, Oral (Gavage) Two-Generation Reproductive Study of APFO in Rats
Product Number(Test Substance):	PFOA
Matrix:	Concentration Samples
Method/Revision:	ETS-8-4.1 & ETS-8-5.1
Analytical Equipment System Number:	Davey 070799
Instrument Software/Version:	Masslynx 3.4
Filename:	See Attachment
R-Squared Value:	See Attachment
Slope:	See Attachment
Y-Intercept:	See Attachment
Date of Extraction/Analyst:	11/27/00 RWW
Date of Analysis/Analyst:	11/28/00 MMH
Date of Data Reduction/Analyst:	11/29/00 MMH

Sample Data

DOSE VERIFICATION SAMPLES

Group Dose	Sample #	PFOA Conc. ug/mL	Concentration of PFOA ug/mL or % Rec	Target Conc. of PFOA ug/mL	% Recovery or % Target Conc		PFOA Mean	PFOA RPD
Method Blk	112700-WBlk-1	0.00	<LOQ (10 ng/mL)	NA				
	112700-WBlk-2	0.00	<LOQ (10 ng/mL)	NA				
	112700-WBlk-3	0.00	<LOQ (10 ng/mL)	NA	NA		NA	NA
QC	B-418-020-A-C-100ppb-MS	69.1	0.0864	0.0979	88%			
	B-418-020-A-C-100ppb-MSD	68.4	0.0856	0.0979	87%		88%	1%
Stability Day 0 11/10/00	B-418-020-A-C-0.5 mL	0.00	<LOQ (10 ng/mL)	NA				
	B-418-020-A-A-0.5 mL	0.00	<LOQ (10 ng/mL)	NA				
	B-418-020-A-D10-0.5 mL	0.00	<LOQ (10 ng/mL)	NA	NA		NA	NA
Stability Day 0 11/10/00	B-418-020-A-A-1	0.00	<LOQ (10 ng/mL)	NA				
	B-418-020-A-A-2	0.00	<LOQ (10 ng/mL)	NA	NA		NA	NA
	B-418-020-B-A-1	62.1	155	200	78%			
	B-418-020-B-A-2	58.7	147	200	73%		76%	6%
	B-418-020-C-A-1	78.3	489	600	82%			
	B-418-020-C-A-2	74.9	448	600	75%		80%	4%
	B-418-020-D-A-1	71.5	1788	2000	89%			
	B-418-020-D-A-2	71.7	1793	2000	90%		90%	0%
	B-418-020-E-A-1	179	11183	6000	186%	A		
	B-418-020-E-A-2	180	11256	6000	188%	A	187%	1%
Stability Day 10 11/10/00	B-418-020-A-D10-1	0.00	<LOQ (10 ng/mL)	NA				
	B-418-020-A-D10-2	0.00	<LOQ (10 ng/mL)	NA	NA		NA	NA
	B-418-020-B-D10-1	55.1	138	200	69%			
	B-418-020-B-D10-2	62.6	157	200	78%		74%	13%
	B-418-020-C-D10-1	74.3	464	600	77%			
	B-418-020-C-D10-2	79.4	496	600	83%		80%	7%
	B-418-020-D-D10-1	62.4	1560	2000	78%			
	B-418-020-D-D10-2	70.3	1758	2000	88%		83%	12%
	B-418-020-E-D10-1	88.9	5553	6000	93%			
	B-418-020-E-D10-2	95.3	5957	6000	99%		96%	7%
Concentration 11/10/00	B-418-020-A-C-1	0.00	<LOQ (10 ng/mL)	NA				
	B-418-020-A-C-2	0.00	<LOQ (10 ng/mL)	NA	NA		NA	NA
	B-418-020-B-C-1	63.2	158	200	79%			
	B-418-020-B-C-2	65.9	165	200	82%		81%	4%
	B-418-020-C-C-1	72.2	452	600	75%			
	B-418-020-C-C-2	70.9	443	600	74%		75%	2%
	B-418-020-D-C-1	69.6	1741	2000	87%			
	B-418-020-D-C-2	75.3	1883	2000	94%		91%	8%
	B-418-020-E-C-1	86.0	5376	6000	90%			
	B-418-020-E-C-2	87.1	5441	6000	91%		90%	1%

PFOA/PFOAA = Perfluorooctanoate

A = Sample re-extracted on 01/17/01 to confirm high recovery. Recovery was not confirmed, considered an outlier.

Center Letter
A = 0 mg/mL
B = 0.2 mg/mL
C = 0.6 mg/mL
D = 2 mg/mL
E = 6 mg/mL

Date Entered/By: 01/15/01 LAC
Date Verified/ By 01/16/01 kjh

3M Medical Department Study: T-6889.6

FACT-TOX-164
Argus# 418-020

Analytical Report: FACT TOX-164
LIMS E00-2738

Study:	FACT-TOX-164, Argus 418-020, Oral (Gavage) Two-Generation Reproduction Study of APFO in Rats
Product Number(Test Substance):	PFOA
Matrix:	Concentrate Samples
Method/Revision:	ETS-8-4.1 & ETS-8-5.1
Analytical Equipment System Number:	Davey 070799
Instrument Software/Version:	Masslynx 3.4
Filename:	See Below
R-Squared Value:	See Attachments
Slope:	See Attachments
Y-Intercept:	See Attachments
Date of Extraction/Analyst:	01/13/01 RWW
Date of Analysis/Analyst:	01/23/01 MMH
Date of Data Reduction/Analyst:	01/24/01 MMH

Sample Data

DOSE VERIFICATION SAMPLES

Group Dose	Sample #	Extraction Vol. mL	Surrogate Verified	Extraction Dilution Factor	PFOA Dilution Factor	PFOA Conc. ug/mL	Filename	Concentration of PFOA ug/mL or % Rec	Target Conc. of PFOA ug/mL	% Recovery or % Target Conc.	PFOA Mean	PFOA RPD
Method Blk	POAA011701-WBlk-1-1	1	NA	1.25	1	0.00	S010123015	<LOQ (10 ng/mL)	NA			
	POAA011701-WBlk-1-2	1	NA	1.25	1	0.00	S010123016	<LOQ (10 ng/mL)	NA	NA	NA	NA
	B-418-020-E-A-1	1	NA	1.25	50001	87.45	S010123017	5466	6000	91%		
	B-418-020-E-A-2	1	NA	1.25	50001	80.22	S010123018	5014	6000	84%	87%	9%

PFOA/POAA = Perfluorooctanoate

Dose Entered/By: 10/05/01 LAC
Dose Verified/ By:

Cassette Letter
A = 0 mg/mL
B = 0.2 mg/mL
C = 0.6 mg/mL
D = 2 mg/mL
E = 6 mg/mL

Study:	FACT-TOX-164, Argus 418-020, Oral (Gavage) Two-Generation Reproduction Study of APFO in Rats
Product Number(Test Substance):	PFOA
Matrix:	Concentrate Samples
Method/Revision:	ETS-8-4.1 & ETS-8-5.1
Analytical Equipment System Number:	Dewy 070799
Instrument Software/Version:	Masslynx 3.4
Filename:	See Attachment
R-Squared Value:	See Attachment
Slope:	See Attachment
Y-Intercept:	See Attachment
Date of Extraction/Analyst:	01/17/01 RWW
Date of Analysis/Analyst:	01/23/01 MMH
Date of Data Reduction/Analyst:	01/24/01 MMH

Sample Data

DOSE VERIFICATION SAMPLES

Group Dose	Sample #	PFOA Conc. ug/mL	Concentration of PFOA ug/mL or % Rec	Target Conc. of PFOA ug/mL	% Recovery or % Target Conc.	PFOA Mean	PFOA RPD
Method Blk	POAA011701-WBlk-1-1	0.00	<LOQ (10 ng/mL)	NA			
	POAA011701-WBlk-1-2	0.00	<LOQ (10 ng/mL)	NA	NA	NA	NA
	B-418-020-E-A-1	87	5466	6000	91%		
	B-418-020-E-A-2	80	5014	6000	84%	87%	9%

PFOA/POAA = Perfluorooctanoate

Dose Entered/By: 10/05/01 LAC
Dose Verified/ By: 0

Dosage Letter
A = 0 mg/mL
B = 0.2 mg/mL
C = 0.6 mg/mL
D = 2 mg/mL
E = 6 mg/mL

3M Medical Department Study: T-6889.6

FACT-TOX-164
Argus# 418-010

Analytical Report: FACT TOX-164
LIMS E00-2738

Study: FACT-TOX-164, Argus 418-020, Oral (Gavage) Two-Generation Reproduction Study of APFO in Rats
Product Number(Test Substance): PFOA
Matrix: Comparison of Concentration Samples
Method/Revision: ETS-8-4.1 & ETS-8-5.1
Analytical Equipment System Number: Davey 070799
Instrument Software/Version: Masslynx 3.4

Sample Data

DOSE VERIFICATION SAMPLES

Group Dose	Sample #	Extracted 11/17/00, Analyzed 11/27/00: % Recovery or % Target Conc.	PFOA Mean	PFOA RPD	Extracted 11/27/00, Analyzed 11/28/00: % Recovery or % Target Conc.	PFOA Mean	PFOA RPD	Extracted 01/17/01, Analyzed 01/23/01: % Recovery or % Target Conc.	PFOA Mean	PFOA RPD
Method Blk	WBlk-1									
	WBlk-2									
	WBlk-3	NA	NA	NA	NA	NA	NA	NA	NA	NA
QC	B-418-020-A-C-100ppb-MS	84%			88%					
	B-418-020-A-C-100ppb-MSD	87%	86%	4%	87%	88%	1%	NA	NA	NA
Stability Day 0 11/10/00	B-418-020-A-C-0.5 mL									
	B-418-020-A-A-0.5 mL									
	B-418-020-A-D10-0.5 mL	NA	NA	NA	NA	NA	NA	NA	NA	NA
Stability Day 0 11/10/00	B-418-020-A-A-1									
	B-418-020-A-A-2	NA	NA	NA	NA	NA	NA	NA	NA	NA
	B-418-020-B-A-1	95%			78%					
	B-418-020-B-A-2	95%	95%	1%	73%	76%	6%	NA	NA	NA
	B-418-020-C-A-1	81%			82%					
	B-418-020-C-A-2	73%	77%	10%	78%	80%	4%	NA	NA	NA
	B-418-020-D-A-1	90%			89%					
	B-418-020-D-A-2	95%	93%	5%	90%	90%	0%	NA	NA	NA
	B-418-020-E-A-1	93%			186%^			91%		
	B-418-020-E-A-2	106%	99%	13%	188%^	187%^	1%	84%	87%	9%
Stability Day 10 11/10/00	B-418-020-A-D10-1									
	B-418-020-A-D10-2	NA	NA	NA	NA	NA	NA	NA	NA	NA
	B-418-020-B-D10-1	88%			69%					
	B-418-020-B-D10-2	88%	88%	1%	78%	74%	13%	NA	NA	NA
	B-418-020-C-D10-1	77%			77%					
	B-418-020-C-D10-2	75%	76%	2%	83%	80%	7%	NA	NA	NA
	B-418-020-D-D10-1	87%			78%					
	B-418-020-D-D10-2	85%	86%	2%	88%	83%	12%	NA	NA	NA
	B-418-020-E-D10-1	97%			93%					
	B-418-020-E-D10-2	94%	95%	4%	99%	96%	7%	NA	NA	NA
Concentration 11/10/00	B-418-020-A-C-1									
	B-418-020-A-C-2	NA	NA	NA	NA	NA	NA	NA	NA	NA
	B-418-020-B-C-1	90%			79%					
	B-418-020-B-C-2	85%	87%	5%	82%	81%	4%	NA	NA	NA
	B-418-020-C-C-1	82%			75%					
	B-418-020-C-C-2	80%	81%	3%	74%	75%	2%	NA	NA	NA
	B-418-020-D-C-1	91%			87%					
	B-418-020-D-C-2	90%	90%	1%	94%	91%	8%	NA	NA	NA
	B-418-020-E-C-1	102%			90%					
	B-418-020-E-C-2	100%	101%	2%	91%	90%	1%	NA	NA	NA

^ = Sample re-extracted on 01/17/01 to confirm high recovery. Recovery was not confirmed, considered an outlier.

3M Medical Department Study: T-6889.6

FACT-TOX-164
Argus# 418-020

Analytical Report: FACT TOX-164
LIMS E00-2738

Study: FACT-TOX-164, E00-2738	Oral (Gavage) Two-Generation (One Litter per Generation) Reproduction Study of PFOA in Rats
Product Number(Test Substance)	T-6889.6
Matrix:	Rat Serum
Method/Revision:	ETS-8-4.2 & ETS-8-5.2 versus an extracted rat serum curve
Analytical Equipment System Number:	Ameles062498
Instrument Software/Version:	Masslynx 3.4
Filename:	See Below
R-Squared Value:	See Attachment
Slope:	See Attachment
Y-Intercept:	See Attachment
Dates of Extraction/Analyst:	06/19/01 RWW
Dates of Analysis/Analyst:	06/21/01, 06/27/01, 07/17/01 MMH
Date of Data Reduction/Analyst:	06/22/01, 06/28/01, 07/18/01 MMH
Sample Data	Box: 01-029

RAT SERUM

Group Dose	Sample #	Initial Vol. mL	Surrogate Verified	PFOA Dilution Factor	PFOA Conc. ug/mL	Filename	Concentration of PFOA ug/mL or % Rec	Mean PFOA ug/mL	RSD Std. Dev MS/MSD RPD
Method Blk	RTS062101-H2O Blk-1	1	2nd Analysis OK	1	1.63	A010627016	<LOQ (0.00528 ug/mL)		
	RTS062101-H2O Blk-2	1	2nd Analysis OK	1	1.29	A010627017	<LOQ (0.00528 ug/mL)	<LOQ	NA
Matrix Blk	RTS062101-Sera Blk-1	1	NA	1	1.77	A010627018	<LOQ (0.00528 ug/mL)		
	RTS062101-Sera Blk-2	1	2nd Analysis OK	1	1.48	A010627019	<LOQ (0.00528 ug/mL)	<LOQ	NA
Group 1	P13801F.Grp1.0MKD.LD22	1	NA	1	2.66	A010627020	<LOQ (0.00528 ug/mL)		
0.0 mg/kg/day	P13802F.Grp1.0MKD.LD22	1	NA	1	1.81	A010627021	<LOQ (0.00528 ug/mL)		NA
	P13806F.Grp1.0MKD.LD22	1	NA	1	3.24	A010627022	<LOQ (0.00528 ug/mL)	<LOQ	NA
	P13601M.Grp1.0MKD, PD106	1	NA	1	50.14	A010627023	0.0501		
	P13607M.Grp1.0MKD, PD107	1	NA	1	20.81	A010627024	0.0208		43.0
	P13613M.Grp1.0MKD, PD108	1	NA	1	32.17	A010627025	0.0322	0.0344	0.0148
Group 4	P13891F.Grp4.10MKD.LD22	1	NA	5	65.14	A010627029	0.326		
10 mg/kg/day	P13892F.Grp4.10MKD.LD22	1	NA	5	79.13	A010627030	0.396		
	P13893F.Grp4.10MKD.LD22	1	NA	5	48.13	A010627031	0.241		
	P13894F.Grp4.10MKD.LD22	1	NA	5	85.45	A010627032	0.427		
	P13895F.Grp4.10MKD.LD22	1	NA	5	90.13	A010627033	0.451		
	P13896F.Grp4.10MKD.LD22	1	NA	25	16.73	M010717023	0.418		
	P13897F.Grp4.10MKD.LD22	1	NA	5	50.11	A010627035	0.251		
	P13898F.Grp4.10MKD.LD22	1	NA	5	77.67	A010627036	0.388		
	P13899F.Grp4.10MKD.LD22	1	NA	25	18.94	M010717024	0.474		21.7
	P13901F.Grp4.10MKD.LD22	1	NA	5	66.15	A010627038	0.331	0.370	0.0805
	P13691M.Grp4.10MKD, PD106	1	NA	1000	36.82	M010717031	36.8		
	P13692M.Grp4.10MKD, PD106	1	Confirmed Low	1000	56.73	M010717032	56.7		
	P13697M.Grp4.10MKD, PD107	1	Confirmed Low	1000	68.41	M010717036	68.4		
	P13698M.Grp4.10MKD, PD107	1	NA	1000	50.18	M010717037	50.2		
	P13703M.Grp4.10MKD, PD108	1	Confirmed Low	1000	54.44	M010717038	54.4		
	P13704M.Grp4.10MKD, PD108	1	Confirmed Low	1000	39.46	M010717039	39.5		
	P13709M.Grp4.10MKD, PD109	1	Confirmed Low	1000	59.00	M010717040	59.0		
	P13710M.Grp4.10MKD, PD109	1	NA	1000	51.78	M010717041	51.8		
	P13715M.Grp4.10MKD, PD110	1	Confirmed Low	1000	48.04	M010717042	48.0		18.2
	P13716M.Grp4.10MKD, PD110	1	NA	1000	46.29	M010717043	46.3	51.1	9.30
Group 5	P13921F.Grp5.30MKD.LD22	1	NA	50	22.08	M010717025	1.10		
30 mg/kg/day	P13922F.Grp5.30MKD.LD22	1	NA	50	16.96	M010717026	0.848		
	P13923F.Grp5.30MKD.LD22	1	Confirmed Low	50	27.60	M010717027	1.38		
	P13924F.Grp5.30MKD.LD22	1	NA	50	37.63	M010717028	1.88		
	P13925F.Grp5.30MKD.LD22	1	NA	50	18.21	M010717029	0.910		
	P13926F.Grp5.30MKD.LD22	1	NA	10	57.45	A010627060	0.574		
	P13927F.Grp5.30MKD.LD22	1	NA	10	90.11	A010627061	0.901		
	P13928F.Grp5.30MKD.LD22	1	NA	10	92.70	A010627062	0.927		
	P13930F.Grp5.30MKD.LD22	1	NA	10	39.07	A010627063	0.391		41.5
	P13931F.Grp5.30MKD.LD22	1	Confirmed low	50	26.43	M010717030	1.32	1.02	0.425
	P13721M.Grp5.30MKD, PD106	1	Confirmed Low	1000	50.92	M010717044	50.9		
	P13722M.Grp5.30MKD, PD106	1	Confirmed Low	1000	29.94	M010717045	29.9		
	P13727M.Grp5.30MKD, PD107	1	NA	1000	39.57	M010717049	39.6		
	P13728M.Grp5.30MKD, PD107	1	Confirmed Low	1000	61.12	M010717050	61.1		
	P13733M.Grp5.30MKD, PD108	1	Confirmed Low	1000	33.44	M010717051	33.4		
	P13734M.Grp5.30MKD, PD108	1	NA	1000	42.17	M010717052	42.2		
	P13739M.Grp5.30MKD, PD109	1	Confirmed Low	1000	56.43	M010717053	56.4		
	P13740M.Grp5.30MKD, PD109	1	Confirmed Low	1000	27.42	M010717054	27.4		
	P13746M.Grp5.30MKD, PD110	1	NA	1000	50.07	M010717055	50.1		27.9
	P13747M.Grp5.30MKD, PD110	1	Confirmed Low	1000	61.55	M010717056	61.6	45.3	12.6

PFOA = Perfluorooctanoate

Date Entered/By: 07/10/01, 08/06/01 LAC
Date Verified/ By: 08/13/01 mmh

Study: FACT-TOX-164, E00-2738	Oral (Gavage) Two-Generation (One Litter per Generation) Reproduction Study of PFOA in Rats
Product Number(Test Substance):	T-6889.6
Matrix:	Rat Serum
Method/Revision:	ETS-8-4.2 & ETS-8-5.2 versus an extracted rat serum curve
Analytical Equipment System Number:	Analyst062498
Instrument Software/Version:	Masslynx 3.4
Filename:	See Attachment
R-Squared Value:	See Attachment
Slope:	See Attachment
Y-Intercept:	See Attachment
Dates of Extraction/Analyst:	06/19/01 RWW
Dates of Analysis/Analyst:	06/21/01, 06/27/01, 07/17/01 MMH
Date of Data Reduction/Analyst:	06/22/01, 06/28/01, 07/18/01 MMH

Sample Data

RAT SERUM

Group Dose	Sample #	PFOA Conc. ug/mL	Concentration of PFOA ug/mL or % Rec	Mean PFOA ug/mL	RSD Std. Dev. MS/MSD RPD
Method Blk	RTS062101-H2O Blk-1	1.63	<LOQ (0.00528 ug/mL)		
	RTS062101-H2O Blk-2	1.29	<LOQ (0.00528 ug/mL)	NA	NA
Matrix Blk	RTS062101-Sera Blk-1	1.77	<LOQ (0.00528 ug/mL)		
	RTS062101-Sera Blk-2	1.48	<LOQ (0.00528 ug/mL)	NA	NA
Group 1 0.0 mg/kg/day	P13801F,Grp1,0MKD,LD22	2.66	<LOQ (0.00528 ug/mL)		
	P13802F,Grp1,0MKD,LD22	1.81	<LOQ (0.00528 ug/mL)		NA
	P13806F,Grp1,0MKD,LD22	3.24	<LOQ (0.00528 ug/mL)	<LOQ	NA
	P13601M,Grp1,0MKD, PD106	50.1	0.0501		
	P13607M,Grp1,0MKD, PD107	20.8	0.0208		43.0
	P13613M,Grp1,0MKD, PD108	32.2	0.0322	0.0344	0.0148
Group 4 10 mg/kg/day	P13891F,Grp4,10MKD,LD22	65.1	0.326		
	P13892F,Grp4,10MKD,LD22	79.1	0.396		
	P13893F,Grp4,10MKD,LD22	48.1	0.241		
	P13894F,Grp4,10MKD,LD22	85.4	0.427		
	P13895F,Grp4,10MKD,LD22	90.1	0.451		
	P13896F,Grp4,10MKD,LD22	16.7	0.418		
	P13897F,Grp4,10MKD,LD22	50.1	0.251		
	P13898F,Grp4,10MKD,LD22	77.7	0.388		
	P13899F,Grp4,10MKD,LD22	18.9	0.474		21.7
	P13901F,Grp4,10MKD,LD22	66.2	0.331	0.370	0.0805
	P13691M,Grp4,10MKD, PD106	36.8	36.8		
	P13692M,Grp4,10MKD, PD106	56.7	56.7		
	P13697M,Grp4,10MKD, PD107	68.4	68.4		
	P13698M,Grp4,10MKD, PD107	50.2	50.2		
	P13703M,Grp4,10MKD, PD108	54.4	54.4		
	P13704M,Grp4,10MKD, PD108	39.5	39.5		
	P13709M,Grp4,10MKD, PD109	59.0	59.0		
	P13710M,Grp4,10MKD, PD109	51.8	51.8		
	P13715M,Grp4,10MKD, PD110	48.0	48.0		18.2
	P13716M,Grp4,10MKD, PD110	46.3	46.3	51.1	9.30
Group 5 30 mg/kg/day	P13921F,Grp5,30MKD,LD22	22.1	1.10		
	P13922F,Grp5,30MKD,LD22	17.0	0.848		
	P13923F,Grp5,30MKD,LD22	27.6	1.38		
	P13924F,Grp5,30MKD,LD22	37.6	1.88		
	P13925F,Grp5,30MKD,LD22	18.2	0.910		
	P13926F,Grp5,30MKD,LD22	57.4	0.574		
	P13927F,Grp5,30MKD,LD22	90.1	0.901		
	P13928F,Grp5,30MKD,LD22	92.7	0.927		
	P13930F,Grp5,30MKD,LD22	39.1	0.391		41.5
	P13931F,Grp5,30MKD,LD22	26.4	1.32	1.02	0.425
	P13721M,Grp5,30MKD, PD106	50.9	50.9		
	P13722M,Grp5,30MKD, PD106	29.9	29.9		
	P13727M,Grp5,30MKD, PD107	39.6	39.6		
	P13728M,Grp5,30MKD, PD107	61.1	61.1		
	P13733M,Grp5,30MKD, PD108	33.4	33.4		
	P13734M,Grp5,30MKD, PD108	42.2	42.2		
	P13739M,Grp5,30MKD, PD109	56.4	56.4		
	P13740M,Grp5,30MKD, PD109	27.4	27.4		
	P13746M,Grp5,30MKD, PD110	50.1	50.1		27.9
	P13747M,Grp5,30MKD, PD110	61.6	61.6	45.3	12.6

PFOA = Perfluorooctanoate

Date Entered/By: 07/10/01, 08/06/01 LAC
Date Verified/ By: 08/13/01 mmh

3M Medical Department Study: T-6889.6

FACT-TOX-164
Argus 418-020

Analytical Report: FACT TOX-164
LIMS E00-2738

Study: FACT-TOX-164, E00-2738	Oral (Gavage) Two-Generation (One Litter per Generation) Reproduction Study of PFOA in Rats
Product Number(Test Substance)	T-6889.6
Matrix:	Rat Serum
Method/Revision:	ETS-8-4.2 & ETS-8-5.2 versus an unextracted curve
Analytical Equipment System Number:	Sonp020199
Instrument Software/Version:	Masslynx 3.4
Filename:	See Below
R-Squared Value:	See Attachments
Slope:	See Attachments
Y-Intercept:	See Attachments
Dates of Extraction/Analyst:	06/14/01 RWW
Dates of Analysis/Analyst	06/15/01 MMH
Date of Data Reduction/Analyst:	06/18/01 MMH
Sample Data	Box: 01-028

RAT SERUM

Group Dose	Sample #	Initial Vol. mL	Extraction Dilution Factor	Surrogate Verified	PFOA Dilution Factor	PFOA Conc. ng/mL	Filename	Concentration of PFOA ug/mL or % Rec	Mean PFOA ug/mL	RSD Std. Dev. MS/MSD RPD
Method Blank	RTS061401-H2O Blk-1	1	1.25	Out High	1	0.00	S010615018	<LOQ (0.00107 ug/mL)		
	RTS061401-H2O Blk-2	1	1.25	Out High	1	0.00	S010615019	<LOQ (0.00107 ug/mL)	<LOQ	NA
Matrix Blank	RTS061401-Sera Blk-1	1	1.25	Out High	1	0.00	S010615020	<LOQ (0.00107 ug/mL)		
	RTS061401-Sera Blk-2	1	1.25	Out High	1	0.00	S010615021	<LOQ (0.00107 ug/mL)	<LOQ	NA
QC	RTS061401-MS-25 ppb	1	1.25	Out High	1	12.67	S010615022	60%		
	RTS061401-MSD-25 ppb	1	1.25	Out High	1	14.36	S010615023	68%	64%	13%
	RTS061401-MS-500 ppb	1	1.25	NA	1	287.30	S010615024	68%		
	RTS061401-MSD-500 ppb	1	1.25	NA	1	276.16	S010615025	65%	67%	4%

PFOA = Perfluorooctanoate

Date Entered/By: 06/22/01 LAC
Date Verified/ By: 08/13/01 mmh

3M Medical Department Study: T-6889.6

FACT-TOX-164
Argus 418-020

Analytical Report: FACT TOX-164
LIMS E00-2738

Study: FACT-TOX-164, E00-2738	Oral (Gavage) Two-Generation (One Litter per Generation) Reproduction Study of PFOA in Rats
Product Number(Test Substance):	T-6889.6
Matrix:	Rat Serum
Method/Revision:	ETS-8-4.2 & ETS-8-5.2 versus an unextracted curve
Analytical Equipment System Number:	Soup020199
Instrument Software/Version:	Masslynx 3.4
Filename:	See Attachments
R-Squared Value:	See Attachments
Slope:	See Attachments
Y-Intercept:	See Attachments
Dates of Extraction/Analyst:	06/14/01 RWW
Dates of Analysis/Analyst:	06/15/01 MMH
Date of Data Reduction/Analyst:	06/18/01 MMH

Sample Data

RAT SERUM

Group Dose	Sample #	PFOA Conc. ug/mL	Concentration of PFOA ug/mL or % Rec	Mean PFOA ug/mL	RSD Std. Dev. MS/MSD RPD
Method Blank	RTS061401-H2O Blk-1	0.00	<LOQ (0.00107 ug/mL)		
	RTS061401-H2O Blk-2	0.00	<LOQ (0.00107 ug/mL)	<LOQ	NA
Matrix Blank	RTS061401-Sera Blk-1	0.00	<LOQ (0.00107 ug/mL)		
	RTS061401-Sera Blk-2	0.00	<LOQ (0.00107 ug/mL)	<LOQ	NA
QC	RTS061401-MS-25 ppb	12.7	60%		
	RTS061401-MSD-25 ppb	14.4	68%	64%	13%
	RTS061401-MS-500 ppb	287	68%		
	RTS061401-MSD-500 ppb	276	65%	67%	4%

PFOA = Perfluorooctanoate

Date Entered/By: 06/22/01 LAC
Date Verified/ By: 08/13/01 mmh

3M Medical Department Study: T-6889.6

FACT-TOX-164
Argus 418-020

Analytical Report: FACT TOX-164
LIMS E00-2738

Study: FACT-TOX-164, E00-2738	Oral (Gavage) Two-Generation (One Litter per Generation) Reproduction Study of PFOA in Rats
Product Number(Test Substance):	T-6889.6
Matrix:	Rat Serum
Method/Revision:	ETS-8-4.2 & ETS-8-5.2 versus an extracted rat serum curve
Analytical Equipment System Number:	Soup020199
Instrument Software/Version:	Masslynx 3.4
Filename:	See Below
R-Squared Value:	See Attachments
Slope:	See Attachments
Y-Intercept:	See Attachments
Dates of Extraction/Analyst:	08/13/01 RWW
Dates of Analysis/Analyst:	08/15/01 MMH
Date of Data Reduction/Analyst:	08/20/01 MMH
Sample Data	Box #: 01-031

RAT SERUM

Group Dose	Sample #	Initial Vol. mL	Surrogate Verified	PFOA Dilution Factor	PFOA Conc. ug/mL	Filename	Concentration of PFOA ug/mL or % Rec	Mean PFOA ug/mL	RSD Std. Dev MS/MSD RPD
Method Blank	RTS081301-H2O Blk-1	1	NA	1	0.00	M010815030	<LOQ (0.00536 ug/mL)		
	RTS081301-H2O Blk-2	1	NA	1	0.00	M010815031	<LOQ (0.00536 ug/mL)	<LOQ	NA
Matrix Blank	RTS081301-Sera Blk-1	1	NA	1	0.00	M010815032	<LOQ (0.00536 ug/mL) A		
	RTS081301-Sera Blk-2	1	Confirmed High	1	0.00	M010815033	<LOQ (0.00536 ug/mL)	<LOQ	NA
QC	RTS081301-MS-50 ppb	1	NA	1	55.81	M010815034	106%		
	RTS081301-MSD-50 ppb	1	NA	1	58.24	M010815035	110%	108%	4%
	RTS081301-MS-1500 ppb	1	NA	50	28.44	M010815036	92%		
	RTS081301-MSD-1500 ppb	1	NA	50	24.88	M010815037	80%	86%	13%
	RTS081301-MS-50000 ppb	1	NA	1000	46.89	M010815038	92%		
	RTS081301-MSD-50000 ppb	1	NA	1000	43.40	M010815039	86%	89%	8%

PFOA = Perfluorooctanoate
A = Peak was not integrated, not above the threshhold limit.

Date Entered/By: 08/29/01 LAC
Date Verified/ By: 9/4/01 mmh

Study: FACT-TOX-164, E00-2738	Oral (Gavage) Two-Generation (One Litter per Generation) Reproduction Study of PFOA in Rats
Product Number/Test Substance:	T-6889.6
Matrix:	Rat Serum
Method/Revision:	ETS-8-4.2 & ETS-8-5.2 versus an extracted rat serum curve
Analytical Equipment System Number:	Soup020199
Instrument Software/Version:	Masslynx 3.4
Filename:	See Attachments
R-Squared Value	See Attachments
Slope	See Attachments
Y-Intercept	See Attachments
Dates of Extraction/Analyst:	08/13/01 RWW
Dates of Analysis/Analyst:	08/15/01 MMH
Date of Data Reduction/Analyst:	08/20/01 MMH

Sample Data

RAT SERUM

Group Dose	Sample #	PFOA Conc. ug/mL	Concentration of PFOA ug/mL or % Rec	Mean PFOA ug/mL	RSD Std. Dev. MS/MSD RPD
Method Blank	RTS081301-H2O Blk-1	0.00	<LOQ (0.00536 ug/mL)		
	RTS081301-H2O Blk-2	0.00	<LOQ (0.00536 ug/mL)	<LOQ	NA
Matrix Blank	RTS081301-Sera Blk-1	0.00	<LOQ (0.00536 ug/mL) A		
	RTS081301-Sera Blk-2	0.00	<LOQ (0.00536 ug/mL)	<LOQ	NA
QC	RTS081301-MS-50 ppb	55.8	106%		
	RTS081301-MSD-50 ppb	58.2	110%	108%	4%
	RTS081301-MS-1500 ppb	28.4	92%		
	RTS081301-MSD-1500 ppb	24.9	80%	86%	13%
	RTS081301-MS-50000 ppb	46.9	92%		
	RTS081301-MSD-50000 ppb	43.4	86%	89%	8%

PFOA = Perfluorooctanoate

A = Peak was not integrated, not above the threshhold limit.

Date Entered/By: 08/29/01 LAC
Date Verified/ By: 9/4/01 mmh

3M Medical Department Study: T-6889.6

FACT-TOX-164
Argus 418-020

Analytical Report: FACT TOX-164
LIMS E00-2738

Study: FACT-TOX-164, E00-2738	Oral (Gavage) Two-Generation (One Litter per Generation) Reproduction Study of PFOA in Rats
Product Number(Test Substance):	T-6889.6
Matrix:	Rat Serum
Method/Revision:	ETS-8-4.2 & ETS-8-5.2 versus an unextracted curve
Analytical Equipment System Number:	Madeline041098
Instrument Software/Version:	Masslynx 3.4
Filename:	See Below
R-Squared Value:	See Attachments
Slope:	See Attachments
Y-Intercept:	See Attachments
Dates of Extraction/Analyst:	08/13/01 RWW
Dates of Analysis/Analyst:	08/27/01 MMH
Date of Data Reduction/Analyst:	08/29/01 MMH
Sample Data	Box #: 01-031

RAT SERUM

Group Dose	Sample #	Initial Vol. mL	Extraction Dilution Factor	Surrogate Verified	PFOA Dilution Factor	PFOA Conc. ng/mL	Filename	Concentration of PFOA ug/mL or % Rec	Mean PFOA ug/mL	RSD Std. Dev MS/MSD RPD
Method Blank	RTS081301-H2O Blk-1	1	1.25	Confirmed High	1	0.00	M010827017	<LOQ (0.00268 ug/mL)		
	RTS081301-H2O Blk-2	1	1.25	Confirmed High	1	0.00	M010827018	<LOQ (0.00268 ug/mL)	<LOQ	NA
Matrix Blank	RTS081301-Sera Blk-1	1	1.25	Confirmed High	1	0.00	M010827019	<LOQ (0.00268 ug/mL)		
	RTS081301-Sera Blk-2	1	1.25	Confirmed High	1	0.00	M010827020	<LOQ (0.00268 ug/mL)	<LOQ	NA
QC	RTS081301-MS-50 ppb	1	1.25	Confirmed High	1	41.31	M010827021	98%		
	RTS081301-MSD-50 ppb	1	1.25	Confirmed High	1	39.47	M010827022	93%	96%	5%
	RTS081301-MS-1500 ppb	1	1.25	NA	50	20.83	M010827023	84%		
	RTS081301-MSD-1500 ppb	1	1.25	NA	50	22.47	M010827024	90%	87%	8%
	RTS081301-MS-50000 ppb	1	1.25	NA	1000	32.71	M010827025	81%		
	RTS081301-MSD-50000 ppb	1	1.25	NA	1000	28.46	M010827026	70%	75%	14%

PFOA = Perfluorooctanoate

Date Entered/By: 09/04/01 LAC
Date Verified/ By: 9/4/01 mmh

Study: FACT-TOX-164, E00-2738	Oral (Gavage) Two-Generation (One Litter per Generation) Reproduction Study of PFOA in Rats
Product Number(Test Substance)	T-6889.6
Matrix	Rat Serum
Method/Revision:	ETS-8-4.2 & ETS-8-5.2 versus an unextracted curve
Analytical Equipment System Number:	Madeline041098
Instrument Software/Version:	Masslynx 3.4
Filename:	See Attachments
R-Squared Value:	See Attachments
Slope:	See Attachments
Y-Intercept:	See Attachments
Dates of Extraction/Analyst:	08/13/01 RWW
Dates of Analysis/Analyst:	08/27/01 MMH
Date of Data Reduction/Analyst:	08/29/01 MMH

Sample Data

RAT SERUM

Group Dose	Sample #	PFOA Conc. ng/mL	Concentration of PFOA ug/mL or % Rec	Mean PFOA ug/mL	RSD Std. Dev. MS/MSD RPD
Method Blank	RTS081301-H2O Blk-1	0.00	<LOQ (0.00268 ug/mL)		
	RTS081301-H2O Blk-2	0.00	<LOQ (0.00268 ug/mL)	<LOQ	NA
Matrix Blank	RTS081301-Sera Blk-1	0.00	<LOQ (0.00268 ug/mL)		
	RTS081301-Sera Blk-2	0.00	<LOQ (0.00268 ug/mL)	<LOQ	NA
QC	RTS081301-MS-50 ppb	41.3	98%		
	RTS081301-MSD-50 ppb	39.5	93%	96%	5%
	RTS081301-MS-1500 ppb	20.8	84%		
	RTS081301-MSD-1500 ppb	22.5	90%	87%	8%
	RTS081301-MS-50000 ppb	32.7	81%		
	RTS081301-MSD-50000 ppb	28.5	70%	75%	14%

PFOA = Perfluorooctanoate

Date Entered/By: 09/04/01 LAC
Date Verified/ By: 9/4/01 mmh

3M Medical Department Study: T-6889.6

Analytical Report: FACT TOX-164
LIMS E00-2738

Appendix F: Example Calculations

Formula Used for Sera Analyses in Study FACT TOX-164

$$\text{AR (ng/mL)} \times \text{DF} \times \frac{\text{FV (mL)}}{\text{EV (mL)}} \times \frac{1.0\,\mu\text{g}}{1000\,\text{ng}} = \textbf{Reported Concentration (µg/mL)}$$

Calculation Used for Group 4, LD22, Animal ID P13891F

$$65.14\ \text{ng/mL} \times 5 \times \frac{1\ \text{mL}}{1\ \text{mL}} \times \frac{1.0\,\mu\text{g}}{1000\,\text{ng}} = \textbf{0.326 µg/mL}$$

AR— Analytical result from MassLynx summary
DF— Dilution factor
FV—Final extract volume (1.0 mL unless otherwise noted)
EV—Volume of sera extracted

3M Medical Department Study: T-6889.6

Analytical Report: FACT TOX-164
LIMS E00-2738

Appendix G: Interim Certificate(s) of Analysis

Centre Analytical Laboratories, Inc.
3048 Research Drive State College, PA 16801 www.centrelab.com
Phone: (814) 231-8032 Fax: (814) 231-1253 or (814) 231-1580

INTERIM CERTIFICATE OF ANALYSIS

Revision 2 (10/17/01)

Centre Analytical Laboratories COA Reference #: 023-034

3M Product: PFOA, Primary Standard

Test Control Reference #: TCR-99030-30

Purity: 95.0%

Test Name	Specifications	Result
Purity[1]		**95.0%**
Appearance	White, crystalline solid	Conforms
Identification NMR		Positive
Metals (ICP/MS) 1. Calcium 2. Magnesium 3. Sodium 4. Potassium 5. Nickel 6. Iron 7. Manganese		 1. 0.001 wt./wt.% 2. <0.001 wt./wt.% 3. 0.001 wt./wt.% 4. <0.001 wt./wt.% 5. <0.001 wt./wt.% 6. <0.001 wt./wt.% 7. <0.001 wt./wt.%
Total % Impurity (NMR)		0.36 wt./wt.%
Total % Impurity (LC/MS)		4.68wt./wt.%
Total % Impurity (GC/MS)		None Quantified.%
Residual Solvents (TGA)		None Detected
Purity by DSC		99.8%
Inorganic Anions (IC) 1. Chloride 2. Fluoride 3. Bromide 4. Nitrate 5. Nitrite 6. Phosphate 7. Sulfate		 1. <0.015 wt./wt.% 2. <0.005 wt./wt.% 3. <0.040 wt./wt.% 4. <0.009 wt./wt.% 5. <0.006 wt./wt.% 6. <0.006 wt./wt.% 7. <0.040 wt./wt.%
Organic Acids[2] (IC) 1. TFA 2. PFPA 3. HFBA 4. NFPA		 1. <0.1 wt./wt.% 2. <0.1 wt./wt.% 3. <0.1 wt./wt.% 4. <0.25 wt./wt.%
Elemental Analysis[3]: 1. Carbon 2. Hydrogen 3. Nitrogen 4. Sulfur 5. Fluorine	 1. Theoretical Value = 22.3% 2. Theoretical Value = 0.935% 3. Theoretical Value = 3.25% 4. Theoretical Value = 0% 5. Theoretical Value = 66.1%	 1. 18.9 wt./wt.% 2. 1.27 wt./wt.% 3. 3.76 wt./wt.% 4. 4.38 wt./wt.% 5. 62.1 wt./wt.%
Ammonium Analysis[3] Ion Selective Electrode	Theoretical Value = 4.18%	2.94 wt./wt. %

Centre Analytical Laboratories, Inc.
3048 Research Drive State College, PA 16801 www.centrelab.com
Phone: (814) 231-8032 Fax: (814) 231-1253 or (814) 231-1580

INTERIM CERTIFICATE OF ANALYSIS

Revision 2 (10/17/01)

Centre Analytical Laboratories COA Reference #: 023-034
3M Product: PFOA, Primary Standard
Test Control Reference #: TCR-99030-30

Date of Last Analysis: 10/31/00

Expiration Date: 10/31/06

Storage Conditions: < -10 °C

Re-assessment Date: 10/31/06

[1]Purity = 100% - (total metal impurities, 0.002% + Total NMR impurities, 0.36 + Total LC/MS impurities, 4.68 %)

Total impurity from all tests = 5.042%
Purity = 100% - 5.042% = 95.0%

[2] TFA Trifluoroacetic acid
HFBA Heptafluorobutyric acid
NFPA Nonafluoropentanoic acid
PFPA Pentafluoropropanoic acid

[3]Theoretical value calculations based on the empirical formula, $C_8F_{15}O_2^{(-)}NH_4^{(+)}$ (MW=431.1)

This work was conducted under EPA Good Laboratory Practice Standards (40 CFR 160).

LC/MS Purity Profile:

Peak #	Retention Time (min)	Mass(s)	Identity	Area	% Area
1	12.144	269.0	C6	205859	0.87
2	13.533	331, 319	F_{15}/C7	903329	3.81
3	14.238	369	PFOA	22630600	-
Total	-	-	-	23739788	4.68

Prepared By: _____ 10/17/01
Charles Simons Date
Scientist, Centre Analytical Laboratories

Reviewed By: _____ 10/18/01
John Flaherty Date
Laboratory Manager, Centre Analytical Laboratories

3M Medical Department Study: T-6889.6

Analytical Report: FACT TOX-164
LIMS E00-2738

Appendix H: Report Signature Page

John T. Butenhoff January 7, 2002
John Butenhoff, Ph.D., *Study Director* Date

David Sanders 1-7-02
David Sanders, Ph.D., *Sponsor Representative* Date

Lisa A Clemen 01/04/02
Lisa Clemen, *Principal Analytical Investigator* Date

01/04/02
William Reagen, Ph.D., *Laboratory Management* Date

APPENDIX J

ENVIRONMENTAL AND HUSBANDRY REPORTS

ARGUS

Temperature and Relative Humidity Report
Location: Room 05

Protocol Number: 418-020

Range of Dates: 07-Nov-2000 14:11 to 13-Nov-2000 08:59

	Temperature		Relative Humidity	
Target Range:	64°F to 79°F		30% to 70%	
Species: Rat				
Total Number of Days:	7		7	
Total Number of Hours:	138.5		138.5	
Total Number of Data Points:	139		139	
Mean (± SD):	68.5	(± 1.4)	51.9	(± 4.0)
Maximum:	71.1		63.9	
Median:	68.0		50.8	
Minimum:	66.6		44.1	
Number of Points in Range (%):	139	(100.0)	139	(100.0)
Number of Points High (%):	0	(0.0)	0	(0.0)
Number of Points Low (%):	0	(0.0)	0	(0.0)

Report Generated: 18-Jul-2001 at 11:07

COMMENTS: _____

REVIEWED BY: CC'Brien **DATE:** 7 24 01

ARGUS

Temperature and Relative Humidity Report
Location: Room 17

Protocol Number: 418-020

Range of Dates: 13-Nov-2000 08:00 to 21-Mar-2001 16:59

	Temperature		Relative Humidity	
Target Range:	64°F to 79°F		30% to 70%	
Species: Rat				
Total Number of Days:	129		129	
Total Number of Hours:	3080.75		3080.75	
Total Number of Data Points:	3078		3078	
Mean (± SD):	67.4	(± 0.6)	45.8	(± 6.2)
Maximum:	70.1		62.4	
Median:	67.3		46.7	
Minimum:	65.9		30.8	
Number of Points in Range (%):	3078	(100.0)	3078	(100.0)
Number of Points High (%):	0	(0.0)	0	(0.0)
Number of Points Low (%):	0	(0.0)	0	(0.0)

Report Generated: 18-Jul-2001 at 14:06

COMMENTS: _____

REVIEWED BY: C O Brien **DATE:** 7 24 01

ARGUS

Temperature and Relative Humidity Report
Location: Room 16

Protocol Number: 418-020

Range of Dates: 09-Feb-2001 14:30 to 02-Mar-2001 12:59

	Temperature		Relative Humidity	
Target Range:	64°F to 79°F		30% to 70%	
Species: Rat				
Total Number of Days:	22		22	
Total Number of Hours:	502.25		502.25	
Total Number of Data Points:	501		501	
Mean (± SD):	70.3	(± 0.8)	46.5	(± 5.6)
Maximum:	72.1		63.1	
Median:	70.2		45.8	
Minimum:	68.3		27.7	
Number of Points in Range (%):	501	(100.0)	498	(99.4)
Number of Points High (%):	0	(0.0)	0	(0.0)
Number of Points Low (%):	0	(0.0)	3	(0.6)

Report Generated: 18-Jul-2001 at 14:11

COMMENTS: _____

REVIEWED BY: C O'Brien **DATE:** 7.24.01

ARGUS

Relative Humidity Deviations Report
Location: Room 16

Protocol Number: 418-020

Range of Dates: 09-Feb-2001 14:30 to 02-Mar-2001 12:59

Humidity Target Range: 30% to 70%
Species: Rat

Date	Time	R.H.	Date	Time	R.H.
25-Feb-2001	06:00	29.0 L			
25-Feb-2001	07:00	27.7 L			
25-Feb-2001	08:00	28.5 L			

H = Value out of range - High L = Value out of range - Low
R.H. = Relative Humidity (%)

Report Generated: 18-Jul-2001 at 14:16

✓ These deviations did not adversely affect the outcome or interpretation of the study.

_____ The following deviation(s) impacted on the outcome of the study as described:

Study Director: Raymond Hahn Jr. Date: 06 AUG 01

ARGUS

Temperature and Relative Humidity Report
Location: Room 01

Protocol Number: 418-020

Range of Dates: 05-Mar-2001 11:30 to 21-Mar-2001 16:59

	Temperature		Relative Humidity	
Target Range:	64°F to 79°F		30% to 70%	
Species: Rat				
Total Number of Days:	17		17	
Total Number of Hours:	389.25		389.25	
Total Number of Data Points:	390		390	
Mean (± SD):	70.0	(± 0.5)	55.2	(± 2.0)
Maximum:	70.9		63.2	
Median:	70.1		55.3	
Minimum:	67.1		39.3	
Number of Points in Range (%):	390	(100.0)	390	(100.0)
Number of Points High (%):	0	(0.0)	0	(0.0)
Number of Points Low (%):	0	(0.0)	0	(0.0)

Report Generated: 18-Jul-2001 at 11:13

COMMENTS: _____

REVIEWED BY: C.O. Brown **DATE:** 7 24 01

ARGUS

Temperature and Relative Humidity Report
Location: Room 40

Protocol Number: 418-020

Range of Dates: 21-Mar-2001 16:00 to 24-Mar-2001 08:59

	Temperature		Relative Humidity	
Target Range:	64°F to 79°F		30% to 70%	
Species: Rat				
Total Number of Days:	4		4	
Total Number of Hours:	64.75		64.75	
Total Number of Data Points:	65		65	
Mean (± SD):	70.5	(± 3.3)	51.4	(± 6.7)
Maximum:	74.1		67.9	
Median:	72.2		48.9	
Minimum:	64.6		43.0	
Number of Points in Range (%):	65	(100.0)	65	(100.0)
Number of Points High (%):	0	(0.0)	0	(0.0)
Number of Points Low (%):	0	(0.0)	0	(0.0)

Report Generated: 18-Jul-2001 at 14:01

COMMENTS: _____

REVIEWED BY: C O Brien **DATE:** 7 24-01

ARGUS

Temperature and Relative Humidity Report
Location: Room 41

Protocol Number: 418-020

Range of Dates: 21-Mar-2001 16:00 to 24-Mar-2001 08:59

	Temperature		Relative Humidity	
Target Range:	64°F to 79°F		30% to 70%	
Species: Rat				
Total Number of Days:	4		4	
Total Number of Hours:	64.75		64.75	
Total Number of Data Points:	65		65	
Mean (± SD):	72.0	(± 1.7)	57.8	(± 2.8)
Maximum:	74.2		63.4	
Median:	72.6		57.8	
Minimum:	68.6		50.5	
Number of Points in Range (%):	65	(100.0)	65	(100.0)
Number of Points High (%):	0	(0.0)	0	(0.0)
Number of Points Low (%):	0	(0.0)	0	(0.0)

Report Generated: 18-Jul-2001 at 11:32

COMMENTS: _____

REVIEWED BY: C O Brien **DATE:** 7 24 01

ARGUS

Temperature and Relative Humidity Report
Location: Room 01

Protocol Number: 418-020

Range of Dates: 24-Mar-2001 08:30 to 25-Mar-2001 15:59

	Temperature		Relative Humidity	
Target Range:	64°F to 79°F		30% to 70%	
Species: Rat				
Total Number of Days:	2		2	
Total Number of Hours:	31.25		31.25	
Total Number of Data Points:	32		32	
Mean (± SD):	70.7	(± 0.4)	52.0	(± 1.7)
Maximum:	71.2		55.8	
Median:	70.8		51.7	
Minimum:	69.9		48.8	
Number of Points in Range (%):	32	(100.0)	32	(100.0)
Number of Points High (%):	0	(0.0)	0	(0.0)
Number of Points Low (%):	0	(0.0)	0	(0.0)

Report Generated: 18-Jul-2001 at 14:08

COMMENTS: _____

REVIEWED BY: C O Brien **DATE:** 72401

ARGUS

Temperature and Relative Humidity Report
Location: Room 04

Protocol Number: 418-020

Range of Dates: 24-Mar-2001 08:30 to 25-Mar-2001 15:59

	Temperature		Relative Humidity	
Target Range:	64°F to 79°F		30% to 70%	
Species: Rat				
Total Number of Days:	2		2	
Total Number of Hours:	31.25		31.25	
Total Number of Data Points:	32		32	
Mean (± SD):	69.7	(± 0.5)	42.1	(± 1.6)
Maximum:	70.5		45.3	
Median:	69.6		41.7	
Minimum:	68.8		39.2	
Number of Points in Range (%):	32	(100.0)	32	(100.0)
Number of Points High (%):	0	(0.0)	0	(0.0)
Number of Points Low (%):	0	(0.0)	0	(0.0)

Report Generated: 18-Jul-2001 at 14:09

COMMENTS: _____

REVIEWED BY: C O Bower **DATE:** 7 24 01

ARGUS

Temperature and Relative Humidity Report
Location: Room 40

Protocol Number: 418-020

Range of Dates: 25-Mar-2001 15:35 to 15-Apr-2001 15:59

	Temperature		Relative Humidity	
Target Range:	64°F to 79°F		30% to 70%	
Species: Rat				
Total Number of Days:	22		22	
Total Number of Hours:	504.0		504.0	
Total Number of Data Points:	504		504	
Mean (± SD):	72.6	(± 1.0)	50.5	(± 5.0)
Maximum:	75.4		71.5	
Median:	72.7		50.5	
Minimum:	70.1		33.3	
Number of Points in Range (%):	504	(100.0)	503	(99.8)
Number of Points High (%):	0	(0.0)	1	(0.2)
Number of Points Low (%):	0	(0.0)	0	(0.0)

Report Generated: 15-Aug-2001 at 09:30

COMMENTS: _____

REVIEWED BY: C. C. Brown **DATE:** 8-15-01

ARGUS

Relative Humidity Deviations Report
Location: Room 40

Protocol Number: 418-020

Range of Dates: 25-Mar-2001 15:35 to 15-Apr-2001 15:59

Humidity Target Range: 30% to 70%
Species: Rat

Date	Time	R.H.	Date	Time	R.H.
06-Apr-2001	06:00	71.5 H			

H = Value out of range - High L = Value out of range - Low
R.H. = Relative Humidity (%)

Report Generated: 15-Aug-2001 at 09:34

✓ These deviations did not adversely affect the outcome or interpretation of the study.

_____ The following deviation(s) impacted on the outcome of the study as described:

Study Director: _____ Date: 15-AUG-01

ARGUS

Temperature and Relative Humidity Report
Location: Room 41

Protocol Number: 418-020

Range of Dates: 25-Mar-2001 15:35 to 15-Apr-2001 15:59

	Temperature		Relative Humidity	
Target Range:	64°F to 79°F		30% to 70%	
Species: Rat				
Total Number of Days:	22		22	
Total Number of Hours:	504.01		504.01	
Total Number of Data Points:	504		504	
Mean (± SD):	73.2	(± 0.9)	59.3	(± 4.8)
Maximum:	75.8		76.0	
Median:	73.3		59.1	
Minimum:	70.4		43.0	
Number of Points in Range (%):	504	(100.0)	495	(98.2)
Number of Points High (%):	0	(0.0)	9	(1.8)
Number of Points Low (%):	0	(0.0)	0	(0.0)

Report Generated: 18-Jul-2001 at 11:15

COMMENTS: _____

REVIEWED BY: C. O'Brien **DATE:** 7 24 01

ARGUS

Relative Humidity Deviations Report
Location: Room 41

Protocol Number: 418-020

Range of Dates: 25-Mar-2001 15:35 to 15-Apr-2001 15:59

Humidity Target Range: 30% to 70%
Species: Rat

Date	Time	R.H.	Date	Time	R.H.
07-Apr-2001	06:00	72.8 H			
09-Apr-2001	06:00	72.3 H			
09-Apr-2001	11:00	72.3 H			
12-Apr-2001	07:00	71.6 H			
12-Apr-2001	08:00	72.2 H			
12-Apr-2001	09:00	70.7 H			
12-Apr-2001	10:00	76.0 H			
13-Apr-2001	06:00	71.6 H			
13-Apr-2001	11:00	70.8 H			

H = Value out of range - High L = Value out of range - Low
R.H. = Relative Humidity (%)

Report Generated: 18-Jul-2001 at 11:29

✓ These deviations did not adversely affect the outcome or interpretation of the study.

_____ The following deviation(s) impacted on the outcome of the study as described:

Study Director: _____ Date: 07 AUG 01

PMI NUTRITION
INTERNATIONAL

Sample No.: L0022289-3 **Received:** 08/03/00 **Reported:** 08/16/00

Site: RHI
Locator: 5002
Project: CERT.

CERTIFIED RODENT DIET MEAL
LOT NUMBER AUG 01 00 2C

Assay / Analyte		Result	Units
Protein, Kjeldahl (N x 6.25)	**PRKR**		
Protein		20.9	%
Fat	**FTEE/FTAH**		
Fat		6.01	%
Fiber, crude	**FIBR**		
Fiber, Crude		4.25	%
Arsenic	**ASF**		
Arsenic		<0.200	ppm
Cadmium	**CDF**		
Cadmium		0.056	ppm
Calcium	**CAF**		
Calcium		0.788	%
Lead	**PB**		
Lead		0.187	ppm
Mercury	**HGSP**		
Mercury		<0.025	ppm
Phosphorus	**PF**		
Phosphorus		0.560	%
Selenium	**SE**		
Selenium		0.362	ppm

For additional information, please contact:
(1) For assay methodology - Customer Services, 314-982-1310
(2) For Nutritional Interpretation - Dr. Dorrance Haught, 314-768-4362
(3) All other questions - Richmond, IN Manufacturing Plant, 765-962-9561.

The term "Less Than" is used to signify the lower limit of quantitation of the procedure under the conditions employed. The use of the term "Less Than" does not imply that traces of Analyte were present. Samples submitted to Ralston Analytical Laboratories for routine analysis will be retained for a minimum of thirty (30) days after the report of analysis is issued. Extended storage requirements must be brought to the attention of Ralston Analytical Laboratories prior to or at the time of sample submission.

Ellis Anderson 10/06/00
REVIEWED BY: DATE

1401 S. Hanley Road ◆ St. Louis, MO 63144
Phone: 314-768-4100 ◆ Fax: 314-768-4765

EXACT COPY
AMH 7/18/01

PMI NUTRITION INTERNATIONAL

Locator: 5002
Project: CERT.

CERTIFIED RODENT DIET MEAL
LOT NUMBER AUG 01 00 2C

Assay / Analyte		Result	Units
Organophosphate pesticides	**ORGP**		
Diazinon		<0.0200	ppm
Disulfoton		<0.0200	ppm
Ethion		<0.0200	ppm
Malathion		0.0200	ppm
Methyl Parathion		<0.0200	ppm
Parathion		<0.0200	ppm
Thimet		<0.0200	ppm
Thiodan		<0.0200	ppm
Trithion		<0.0200	ppm
Organochlorine pest.&PCB's	RSPB		
Heptachlor Epoxide		<0.0200	ppm
Heptachlor		<0.0200	ppm
DDE		<0.0200	ppm
Lindane		<0.0200	ppm
Endrin		<0.0200	ppm
Mirex		<0.0200	ppm
Alpha-BHC		<0.0200	ppm
Delta-BHC		<0.0200	ppm
Aldrin		<0.0200	ppm
Dieldrin		<0.0200	ppm
DDT		<0.0200	ppm
Chlordane		<0.0200	ppm
Methoxychlor		<0.0200	ppm
Beta-BHC		<0.0200	ppm
HCB		<0.0200	ppm
PCB		<0.150	ppm
Aflatoxin screen	**AFTC**		
Aflatoxins		<5.00	ppb

For additional information, please contact:
(1) For assay methodology - Customer Services, 314-982-1310
(2) For Nutritional Interpretation - Dr. Dorrance Haught, 314-768-4362
(3) All other questions - Richmond, IN Manufacturing Plant, 765-962-9561.

The term "Less Than" is used to signify the lower limit of quantitation of the procedure under the conditions employed. The use of the term "Less Than" does not imply that traces of Analyte were present. Samples submitted to Ralston Analytical Laboratories for routine analysis will be retained for a minimum of thirty (30) days after the report of analysis is issued. Extended storage requirements musts be brought to the attention of Ralston Analytical Laboratories prior to or at the time of sample submission.

Eric Anderson 10/06/00
REVIEWED BY: DATE

1401 S. Hanley Road ◆ St. Louis, MO 63144
Phone: 314-768-4100 ◆ Fax: 314-768-4765

EXACT COPY
AB# 7/13/01

LabDiet PMI NUTRITION

Return to Certified Analysis Retrieval

Product Code: 5002M
Product Desc: CERTIFIED RODENT DIET MEAL
Lab Number: L0025623-1
Lot Code: OCT 03 00 3A
Entered: 10/5/00

Assay	Analysis	Units
PROTEIN	21.5	%
FAT (ACID HYDRO.)	5.64	%
FIBER (CRUDE)	5	%
ARSENIC	LESS THAN 0.2	PPM
CADMIUM	0.083	PPM
CALCIUM	1.07	%
LEAD	0.147	PPM
MERCURY	LESS THAN 0.025	PPM
PHOSPHORUS	0.748	%
SELENIUM	0.361	PPM

ORGANOPHOSPHATES	PPM	ORGANOPHOSPHATES	PPM
Diazinon	LESS THAN 0.02	Disulfoton	LESS THAN 0.02
Ethion	LESS THAN 0.02	Malathion	LESS THAN 0.02
Methyl Parathion	LESS THAN 0.02	Parathion	LESS THAN 0.02
Thimet	LESS THAN 0.02	Thiodan	LESS THAN 0.02
Trithion	LESS THAN 0.02		

PESTICIDES AND PCB	PPM	PESTICIDES AND PCB	PPM
Aldrin	LESS THAN 0.02	Alpha-BHC	LESS THAN 0.02
Beta-BHC	LESS THAN 0.02	Chlordane	LESS THAN 0.02
DDE	LESS THAN 0.02	DDT	LESS THAN 0.02
Delta-BHC	LESS THAN 0.02	Dieldrin	LESS THAN 0.02
Endrin	LESS THAN 0.02	HCB	LESS THAN 0.02
Heptachlor	LESS THAN 0.02	Heptachlor Epoxide	LESS THAN 0.02
Lindane	LESS THAN 0.02	Methoxychlor	LESS THAN 0.02
Mirex	LESS THAN 0.02	PCB	LESS THAN 0.15

REVIEWED BY: Edie Anderson 12/21/00 DATE

EXACT COPY ADH 7/18/01

Aflatoxin	Aflatoxins	LESS THAN 5 PPB

No notes.

For additional information, please contact:
1) Michael J. Murphy at (314) 982-2383 -- for assay methodology
2) Dr. Dorrance Haught at (314) 768-4362 -- for nutritional interpretation
3) Richmond, IN Manufacturing Plant at (765) 962-9561 -- all other questions

The term "Less Than" is used to signify the lower limit of quantitation of the procedure under the conditions employed. The use of the term "Less Than" does not imply that traces of analyte were present.

Eric Anderson 12/21/00

REVIEWED BY: DATE

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ABH 7/19/01

Sample No.: L0028475-2 Received: 11/30/00 Reported: 12/14/00 Site: RHI Locator: 5002 Project: CERT.

CERTIFIED RODENT DIET MEAL
LOT NUMBER DEC 01 00 1B

Assay / Analyte		Result	Units
Protein, Kjeldahl (N x 6.25)	**PRKR**		
Protein		20.8	%
Fat	**FTEE/FTAH**		
Fat		5.92	%
Fiber, crude	**FIBR**		
Fiber, Crude		3.99	%
Arsenic	**ASF**		
Arsenic		<0.200	ppm
Cadmium	**CDF**		
Cadmium		0.053	ppm
Calcium	**CAF**		
Calcium		0.977	%
Lead	**PB**		
Lead		0.139	ppm
Mercury	**HGSP**		
Mercury		<0.025	ppm
Phosphorus	**PF**		
Phosphorus		0.659	%
Selenium	**SE**		
Selenium		0.159	ppm

For additional information, please contact:
(1) For assay methodology - Customer Services, 314-982-1310
(2) For Nutritional Interpretation - Dr. Dorrance Haught, 314-768-4362
(3) All other questions - Richmond, IN Manufacturing Plant, 765-962-9561.

The term "Less Than" is used to signify the lower limit of quantitation of the procedure under the conditions employed. The use of the term "Less Than" does not imply that traces of Analyte were present. Samples submitted to Ralston Analytical Laboratories for routine analysis will be retained for a minimum of thirty (30) days after the report of analysis is issued. Extended storage requirements must be brought to the attention of Ralston Analytical Laboratories prior to or at the time of sample submission.

Eleanor Anderson 2/5/01
REVIEWED BY: DATE

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ABH 7/18/01

Locator: 5002
Project: CERT.

CERTIFIED RODENT DIET MEAL
LOT NUMBER DEC 01 00 1B

Assay / Analyte		Result	Units
Organophosphate pesticides	**ORGP**		
Diazinon		<0.0200	ppm
Disulfoton		<0.0200	ppm
Ethion		<0.0200	ppm
Malathion		<0.0200	ppm
Methyl Parathion		<0.0200	ppm
Parathion		<0.0200	ppm
Thimet		<0.0200	ppm
Thiodan		<0.0200	ppm
Trithion		<0.0200	ppm
Organochlorine pest.&PCB's	**RSPB**		
Heptachlor Epoxide		<0.0200	ppm
Heptachlor		<0.0200	ppm
DDE		<0.0200	ppm
Lindane		<0.0200	ppm
Endrin		<0.0200	ppm
Mirex		<0.0200	ppm
Alpha-BHC		<0.0200	ppm
Delta-BHC		<0.0200	ppm
Aldrin		<0.0200	ppm
Dieldrin		<0.0200	ppm
DDT		<0.0200	ppm
Chlordane		<0.0200	ppm
Methoxychlor		<0.0200	ppm
Beta-BHC		<0.0200	ppm
HCB		<0.0200	ppm
PCB		<0.150	ppm
Aflatoxin screen	**AFTC**		
Aflatoxins		<5.00	ppb

For additional information, please contact:
(1) For assay methodology - Customer Services, 314-982-1310
(2) For Nutritional Interpretation - Dr. Dorrance Haught, 314-768-4362
(3) All other questions - Richmond, IN Manufacturing Plant, 765-962-9561.

The term "Less Than" is used to signify the lower limit of quantitation of the procedure under the conditions employed. The use of the term "Less Than" does not imply that traces of Analyte were present. Samples submitted to Ralston Analytical Laboratories for routine analysis will be retained for a minimum of thirty (30) days after the report of analysis is issued. Extended storage requirements must be brought to the attention of Ralston Analytical Laboratories prior to or at the time of sample submission.

Lee Anderson 2/5/01
REVIEWED BY: DATE

EXACT C...
ABH 7/18/01

Analysis Report

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3634413

Collected:06/20/2001 10:40 by EA

Account Number: 02423

Submitted: 06/20/2001 16:30
Reported: 06/28/2001 at 14:25
Discard: 07/29/2001
Point #2 Formulation Lab 905 Sheehy Dr Bldg F Grab Water Sample

Primedica Argus
57 Union Street
Worcester MA 01608

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
00224	Chloride	16887-00-6	< 2.0	2.0	mg/l	5
00226	Ortho-Phosphate as P	14265-44-2	< 0.020	0.020	mg/l	1
00228	Sulfate	14808-79-8	< 5.0	5.0	mg/l	5
00368	Nitrate Nitrogen	14797-55-8	< 0.50	0.50	mg/l	5
01504	Fluoride	16984-48-8	< 0.50	0.50	mg/l	5
01506	Nitrite Nitrogen	14797-65-0	< 0.50	0.50	mg/l	5
01505	Bromide	n.a.	< 2.5	2.5	mg/l	5
00178	Pesticides/PCB's in Water					
00453	Gamma BHC - Lindane	58-89-9	< 0.0094	0.0094	ug/l	1
00454	Heptachlor	76-44-8	< 0.0094	0.0094	ug/l	1
00455	Aldrin	309-00-2	< 0.0094	0.0094	ug/l	1
00469	Dieldrin	60-57-1	< 0.0094	0.0094	ug/l	1
00477	Endrin	72-20-8	< 0.0094	0.0094	ug/l	1
00478	DDT	50-29-3	< 0.0094	0.0094	ug/l	1
00638	Endrin Aldehyde	7421-93-4	< 0.094	0.094	ug/l	1
01902	Alpha BHC	319-84-6	< 0.0094	0.0094	ug/l	1
01903	Beta BHC	319-85-7	< 0.0094	0.0094	ug/l	1
01904	Delta BHC	319-86-8	< 0.0094	0.0094	ug/l	1
01905	Heptachlor Epoxide	1024-57-3	< 0.0094	0.0094	ug/l	1
01906	DDE	72-55-9	< 0.0094	0.0094	ug/l	1
01907	DDD	72-54-8	< 0.0094	0.0094	ug/l	1
01908	Chlordane	57-74-9	< 0.28	0.28	ug/l	1
01909	Toxaphene	8001-35-2	< 3.8	3.8	ug/l	1
01910	Endosulfan I	959-98-8	< 0.0094	0.0094	ug/l	1
01911	Endosulfan II	33213-65-9	< 0.0094	0.0094	ug/l	1
01912	Endosulfan Sulfate	1031-07-8	< 0.028	0.028	ug/l	1
01913	PCB-1016	12674-11-2	< 0.94	0.94	ug/l	1
01914	PCB-1221	11104-28-2	< 0.94	0.94	ug/l	1
01915	PCB-1232	11141-16-5	< 0.94	0.94	ug/l	1
01916	PCB-1242	53469-21-9	< 0.94	0.94	ug/l	1
01917	PCB-1248	12672-29-6	< 0.94	0.94	ug/l	1
01918	PCB-1254	11097-69-1	< 0.94	0.94	ug/l	1
01919	PCB-1260	11096-82-5	< 0.94	0.94	ug/l	1
01956	Herbicides in Water					

7/5/01

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

EXACT C
ABH 7/17/01

Analysis Report

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3634413

Collected:06/20/2001 10:40 by EA

Account Number: 02423

Submitted: 06/20/2001 16:30
Reported: 06/28/2001 at 14:28
Discard: 07/29/2001
Point #2 Formulation Lab 905 Sheehy Dr Bldg F Grab Water Sample

Primedica Argus
57 Union Street
Worcester MA 01608

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
01857	2,4-D	94-75-7	< 0.49	0.49	ug/l	1
01858	2,4,5-TP	93-72-1	< 0.049	0.049	ug/l	1
05286	2,4,5-T	93-76-5	< 0.049	0.049	ug/l	1
05287	Dalapon	75-99-0	< 1.2	1.2	ug/l	1
05288	Dinoseb	88-85-7	< 0.25	0.25	ug/l	1
05289	Dicamba	1918-00-9	< 0.30	0.30	ug/l	1
05290	MCPP	93-65-2	< 200.	200.	ug/l	1
05291	MCPA	94-74-6	< 200.	200.	ug/l	1
05292	2,4-DP (Dichlorprop)	120-36-5	< 0.49	0.49	ug/l	1
05293	2,4-DB	94-82-6	< 0.49	0.49	ug/l	1
08103	Pentachlorophenol	87-86-5	< 0.05	0.05	ug/l	1

Commonwealth of Pennsylvania Lab Certification No. 36-037

Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis Trial#	Analysis Date and Time	Analyst	Dilution Factor
00224	Chloride	EPA 300.0	1	06/21/2001 14:25	Mark A. Buckwalter	5
00226	Ortho-Phosphate as P	EPA 365.3	1	06/21/2001 21:00	Daniel S. Smith	1
00228	Sulfate	EPA 300.0	1	06/21/2001 14:25	Mark A. Buckwalter	5
00368	Nitrate Nitrogen	EPA 300.0	1	06/21/2001 14:25	Mark A. Buckwalter	5
01504	Fluoride	EPA 300.0	1	06/21/2001 14:25	Mark A. Buckwalter	5
01506	Nitrite Nitrogen	EPA 300.0	1	06/21/2001 14:25	Mark A. Buckwalter	5
01505	Bromide	EPA 300.0	1	06/21/2001 14:25	Mark A. Buckwalter	5
00178	Pesticides/PCB's in Water	EPA 608	1	06/21/2001 19:45	Anita M. Dale	1
01856	Herbicides in Water	SW-846 8151A	1	06/25/2001 16:12	Tiffany A. Leyda	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	06/22/2001 09:00	Deborah M. Zimmerman	1
00817	Water Sample Pest. Extraction	EPA 608	1	06/21/2001 09:45	Amanda E. Wade	1

7/5/01

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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2216 Rev. 9/11/00

Analysis Report

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3634414

Collected:06/20/2001 10:30 by EA

Account Number: 02423

Submitted: 06/20/2001 16:30
Reported: 06/26/2001 at 14:26
Discard: 07/29/2001
Point #3 Analytical Lab 905 Sheehy Dr Bldg B Grab
Water Sample

Primedica Argus
57 Union Street
Worcester MA 01608

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
00224	Chloride	16887-00-6	< 2.0	2.0	mg/l	5
00226	Ortho-Phosphate as P	14265-44-2	< 0.020	0.020	mg/l	1
00228	Sulfate	14808-79-8	< 5.0	5.0	mg/l	5
00368	Nitrate Nitrogen	14797-55-8	< 0.50	0.50	mg/l	5
01504	Fluoride	16984-48-8	< 0.50	0.50	mg/l	5
01506	Nitrite Nitrogen	14797-65-0	< 0.50	0.50	mg/l	5
01505	Bromide	n.a.	< 2.5	2.5	mg/l	5
00178	Pesticides/PCB's in Water					
00453	Gamma BHC - Lindane	58-89-9	< 0.0095	0.0095	ug/l	1
00454	Heptachlor	76-44-8	< 0.0095	0.0095	ug/l	1
00455	Aldrin	309-00-2	< 0.0095	0.0095	ug/l	1
00469	Dieldrin	60-57-1	< 0.0095	0.0095	ug/l	1
00477	Endrin	72-20-8	< 0.0095	0.0095	ug/l	1
00478	DDT	50-29-3	< 0.0095	0.0095	ug/l	1
00638	Endrin Aldehyde	7421-93-4	< 0.095	0.095	ug/l	1
01902	Alpha BHC	319-84-6	< 0.0095	0.0095	ug/l	1
01903	Beta BHC	319-85-7	< 0.0095	0.0095	ug/l	1
01904	Delta BHC	319-86-8	< 0.0095	0.0095	ug/l	1
01905	Heptachlor Epoxide	1024-57-3	< 0.0095	0.0095	ug/l	1
01906	DDE	72-55-9	< 0.0095	0.0095	ug/l	1
01907	DDD	72-54-8	< 0.0095	0.0095	ug/l	1
01908	Chlordane	57-74-9	< 0.29	0.29	ug/l	1
01909	Toxaphene	8001-35-2	< 3.8	3.8	ug/l	1
01910	Endosulfan I	959-98-8	< 0.0095	0.0095	ug/l	1
01911	Endosulfan II	33213-65-9	< 0.0095	0.0095	ug/l	1
01912	Endosulfan Sulfate	1031-07-8	< 0.029	0.029	ug/l	1
01913	PCB-1016	12674-11-2	< 1.0	1.0	ug/l	1
01914	PCB-1221	11104-28-2	< 1.0	1.0	ug/l	1
01915	PCB-1232	11141-16-5	< 1.0	1.0	ug/l	1
01916	PCB-1242	53469-21-9	< 1.0	1.0	ug/l	1
01917	PCB-1248	12672-29-6	< 1.0	1.0	ug/l	1
01918	PCB-1254	11097-69-1	< 1.0	1.0	ug/l	1
01919	PCB-1260	11096-82-5	< 1.0	1.0	ug/l	1
01856	Herbicides in Water					

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17505-2425
717-656-2300 Fax: 717-656-2681

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Analysis Report

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3634414

Collected:06/20/2001 10:30 by EA

Account Number: 02423

Submitted: 06/20/2001 16:30
Reported: 06/28/2001 at 14:28
Discard: 07/29/2001
Point #3 Analytical Lab 905 Sheehy Dr Bldg B Grab Water Sample

Primedica Argus
57 Union Street
Worcester MA 01608

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
01857	2,4-D	94-75-7	< 0.48	0.48	ug/l	1
01858	2,4,5-TP	93-72-1	< 0.048	0.048	ug/l	1
05286	2,4,5-T	93-76-5	< 0.048	0.048	ug/l	1
05287	Dalapon	75-99-0	< 1.2	1.2	ug/l	1
05288	Dinoseb	88-85-7	< 0.24	0.24	ug/l	1
05289	Dicamba	1918-00-9	< 0.29	0.29	ug/l	1
05290	MCPP	93-65-2	< 190.	190.	ug/l	1
05291	MCPA	94-74-6	< 190.	190.	ug/l	1
05292	2,4-DP (Dichlorprop)	120-36-5	< 0.48	0.48	ug/l	1
05293	2,4-DB	94-82-6	< 0.48	0.48	ug/l	1
08103	Pentachlorophenol	87-86-5	< 0.05	0.05	ug/l	1

Commonwealth of Pennsylvania Lab Certification No. 36-037

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
00224	Chloride	EPA 300.0	1	06/21/2001 14:39	Mark A. Buckwalter	5
00226	Ortho-Phosphate as P	EPA 365.3	1	06/21/2001 21:00	Daniel S. Smith	1
00229	Sulfate	EPA 300.0	1	06/21/2001 14:39	Mark A. Buckwalter	5
00368	Nitrate Nitrogen	EPA 300.0	1	06/21/2001 14:39	Mark A. Buckwalter	5
01504	Fluoride	EPA 300.0	1	06/21/2001 14:39	Mark A. Buckwalter	5
01506	Nitrite Nitrogen	EPA 300.0	1	06/21/2001 14:39	Mark A. Buckwalter	5
01505	Bromide	EPA 300.0	1	06/21/2001 14:39	Mark A. Buckwalter	5
00178	Pesticides/PCB's in Water	EPA 608	1	06/21/2001 20:05	Anita M. Dale	1
01856	Herbicides in Water	SW-846 8151A	1	06/25/2001 16:49	Tiffany A. Leyda	1
00616	Water Sample Herbicide Extract	SW-846 8151A	1	06/22/2001 09:00	Deborah M. Zimmerman	1
00817	Water Sample Pest. Extraction	EPA 608	1	06/21/2001 09:45	Amanda E. Wade	1

7/5/01

MEMBER ACIL

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax 717-656-2681

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ABH 7/17/01

ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Building A
Horsham, PA 19044
Attn. Dena Lebo
Attn: **215-443-8710**
FAX #: **215-443-858**

Sample number: **8197-00A**
Date sampled : **11/28/00**
Time sampled : **1400**
Date received: **11/28/00**
Sampled by : **RM**

Sample source: **Formalation** Laboratory
(D) 905 F Sheehy Drive
DL
12/27/00

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		< 0.1

D. Lebo
12/27/00

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E. Fedock/ President

EXACT CO...
AVH 7/18/01

ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Building A
Horsham, PA 19044
Attn. Dena Lebo
Attn: **215-443-8710**
FAX #: **215-443-858**

Sample number: **8197-00B**
Date sampled : **11/28/00**
Time sampled : **1400**
Date received: **11/28/00**
Sampled by : **KM**

Sample source: **Rm. 39**
(D) 905 Sheehy Drive
DL
12/27/00

ANALYTICAL RESULTS

Water Safety Classification: No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		0.1

D. Lebo
12/27/00

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E. Fedock
Maryann E. Fedock/ President

EXACT C...
ABH 7/18/01

ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Building A
Horsham, PA 19044
Attn. Dena Lebo
Attn: **215-443-8710**
FAX #: **215-443-858**

Sample number: **8197-00C**
Date sampled : **11/28/00**
Time sampled : **1400**
Date received: **11/28/00**
Sampled by : **KM**

Sample source: **Rm. 15**
(D) DL 12/27/00 905 Sheehy Drive

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		< 0.1

D. Lebo 12/27/00

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E. Fedock/ President

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ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Building A
Horsham, PA 19044
Attn. Dena Lebo
Attn: **215-443-8710**
FAX #: **215-443-858**

Sample number: **8197-00D**
Date sampled : **11/28/00**
Time sampled : **1400**
Date received: **11/28/00**
Sampled by : **EM**

Sample source: **Analytical** Laboratory
(D) 905 B Sheehy Drive
DCL
12/27/00

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		< 0.1

D. Lebo
12/27/00

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E. Fedock/ President

EXACT
Amt 7/18/01

ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Building A
Horsham, PA 19044
Attn. Dena Lebo
Attn: **215-443-8710**
FAX #: **215-443-858**

Sample number: **8331-00A**
Date sampled : **12/18/00**
Time sampled : **1315**
Date received: **12/18/00**
Sampled by : **EM**

Sample source: **Analytical** Laboratory DDL 2/12/01

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		< 0.1

Dena Lebo 2/12/01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E. Fedock
Maryann E. Fedock/ President

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ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Building A
Horsham, PA 19044
Attn. Dena Lebo
Attn: 215-443-8710
FAX #: 215-443-858

Sample number: **8331-00B**
Date sampled : **12/18/00**
Time sampled : **1315**
Date received: **12/18/00**
Sampled by : **EM**

Sample source: **Chem. Lab**

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		< 0.1

Dena Lebo
2/12/01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E. Fedock
Maryann E. Fedock/ President

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ABH 7/18/01

ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Building A
Horsham, PA 19044
Attn. Dena Lebo
Attn: 215-443-8710
FAX #: 215-443-858

Sample number: **8331-00C**
Date sampled : **12/18/00**
Time sampled : **1315**
Date received: **12/18/00**
Sampled by : **EM**

Sample source: **Rm. 38**

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		< 0.1

Dena Lebo
2/12/01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E. Fedock
Maryann E. Fedock/ President

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ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Building A
Horsham, PA 19044
Attn. Dena Lebo
Attn: **215-443-8710**
FAX #: **215-443-858**

Sample number: **8331-00D**
Date sampled : **12/18/00**
Time sampled : **1315**
Date received: **12/18/00**
Sampled by : **EM**

Sample source: **Rm. 20**

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		0.4

Dena Lebo
2/12/01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E. Fedock
Maryann E. Fedock/ President

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Analysis Report

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3542350

Collected:01/26/2001 08:50 by EA

Account Number: 02423

Submitted: 01/26/2001 16:00
Reported: 02/06/01 at 05:22 AM
Discard: 3/9/01
905 Analytical Lab Point #1 Grab Water Sample
Semi-Annual

Primedica Argus
57 Union Street
Worcester MA 01608

905AP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
00224	Chloride	16887-00-6	< 2.0	2.0	mg/l	5
00228	Sulfate	14808-79-8	< 5.0	5.0	mg/l	5
00368	Nitrate Nitrogen	14797-55-8	< 0.50	0.50	mg/l	5
01504	Fluoride	16984-48-8	< 0.50	0.50	mg/l	5
01506	Nitrite Nitrogen	14797-65-0	< 0.50	0.50	mg/l	5
07322	Ortho-phosphate	14265-44-2	< 5.0	5.0	mg/l	5
01505	Bromide	n.a.	< 2.5	2.5	mg/l	5
00178	Pesticides/PCB's in Water					
00453	Gamma BHC - Lindane	58-89-9	< 0.0098	0.0098	ug/l	1
00454	Heptachlor	76-44-8	< 0.0098	0.0098	ug/l	1
00455	Aldrin	309-00-2	< 0.0098	0.0098	ug/l	1
00469	Dieldrin	60-57-1	< 0.0098	0.0098	ug/l	1
00477	Endrin	72-20-8	< 0.0098	0.0098	ug/l	1
00478	DDT	50-29-3	< 0.0098	0.0098	ug/l	1
00638	Endrin Aldehyde	7421-93-4	< 0.098	0.098	ug/l	1
01902	Alpha BHC	319-84-6	< 0.0098	0.0098	ug/l	1
01903	Beta BHC	319-85-7	< 0.0098	0.0098	ug/l	1
01904	Delta BHC	319-86-8	< 0.0098	0.0098	ug/l	1
01905	Heptachlor Epoxide	1024-57-3	< 0.0098	0.0098	ug/l	1
01906	DDE	72-55-9	< 0.0098	0.0098	ug/l	1
01907	DDD	72-54-8	< 0.0098	0.0098	ug/l	1
01908	Chlordane	57-74-9	< 0.29	0.29	ug/l	1
01909	Toxaphene	8001-35-2	< 3.9	3.9	ug/l	1
01910	Endosulfan I	959-98-8	< 0.0098	0.0098	ug/l	1
01911	Endosulfan II	33213-65-9	< 0.0098	0.0098	ug/l	1
01912	Endosulfan Sulfate	1031-07-8	< 0.029	0.029	ug/l	1
01913	PCB-1016	12674-11-2	< 1.0	1.0	ug/l	1
01914	PCB-1221	11104-28-2	< 1.0	1.0	ug/l	1
01915	PCB-1232	11141-16-5	< 1.0	1.0	ug/l	1
01916	PCB-1242	53469-21-9	< 1.0	1.0	ug/l	1
01917	PCB-1248	12672-29-6	< 1.0	1.0	ug/l	1
01918	PCB-1254	11097-69-1	< 1.0	1.0	ug/l	1
01919	PCB-1260	11096-82-5	< 1.0	1.0	ug/l	1

MEMBER ACIL
Lancaster Laboratories, Inc
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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D. Lebo 2/16/01

2216 Rev. 9/11/00

Analysis Report

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3542350

Collected:01/26/2001 08:50 by EA

Account Number: 02423

Submitted: 01/26/2001 16:00
Reported: 02/06/01 at 05:22 AM
Discard: 3/9/01
905 Analytical Lab Point #1 Grab Water Sample
Semi-Annual

Primedica Argus
57 Union Street
Worcester MA 01608

905AP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
01856	Herbicides in Water					
01857	2,4-D	94-75-7	< 0.48	0.48	ug/l	1
01858	2,4,5-TP	93-72-1	< 0.048	0.048	ug/l	1
05286	2,4,5-T	93-76-5	< 0.048	0.048	ug/l	1
05287	Dalapon	75-99-0	< 1.2	1.2	ug/l	1
05288	Dinoseb	88-85-7	< 0.24	0.24	ug/l	1
05289	Dicamba	1918-00-9	< 0.29	0.29	ug/l	1
05290	MCPP	93-65-2	< 190.	190.	ug/l	1
05291	MCPA	94-74-6	< 190.	190.	ug/l	1
05292	2,4-DP (Dichlorprop)	120-36-5	< 0.48	0.48	ug/l	1
05293	2,4-DB	94-82-6	< 0.48	0.48	ug/l	1
08103	Pentachlorophenol	87-86-5	< 0.05	0.05	ug/l	1

Commonwealth of Pennsylvania Lab Certification No. 36-037

D. Libs 2/16/01

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MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3542351

Collected:01/26/2001 08:40 by EA

Account Number: 02423

Submitted: 01/26/2001 16:00
Reported: 02/06/01 at 05:22 AM
Discard: 3/9/01
905 Formulation Lab Point #2 Grab Water Sample
Semi-Annual

Primedica Argus
57 Union Street
Worcester MA 01608

905-2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
00224	Chloride	16887-00-6	< 2.0	2.0	mg/l	5
00228	Sulfate	14808-79-8	< 5.0	5.0	mg/l	5
00368	Nitrate Nitrogen	14797-55-8	< 0.50	0.50	mg/l	5
01504	Fluoride	16984-48-8	< 0.50	0.50	mg/l	5
01506	Nitrite Nitrogen	14797-65-0	< 0.50	0.50	mg/l	5
07322	Ortho-phosphate	14265-44-2	< 5.0	5.0	mg/l	5
01505	Bromide	n.a.	< 2.5	2.5	mg/l	5
00178	Pesticides/PCB's in Water					
00453	Gamma BHC - Lindane	58-89-9	< 0.0096	0.0096	ug/l	1
00454	Heptachlor	76-44-8	< 0.0096	0.0096	ug/l	1
00455	Aldrin	309-00-2	< 0.0096	0.0096	ug/l	1
00469	Dieldrin	60-57-1	< 0.0096	0.0096	ug/l	1
00477	Endrin	72-20-8	< 0.0096	0.0096	ug/l	1
00478	DDT	50-29-3	< 0.0096	0.0096	ug/l	1
00638	Endrin Aldehyde	7421-93-4	< 0.096	0.096	ug/l	1
01902	Alpha BHC	319-84-6	< 0.0096	0.0096	ug/l	1
01903	Beta BHC	319-85-7	< 0.0096	0.0096	ug/l	1
01904	Delta BHC	319-86-8	< 0.0096	0.0096	ug/l	1
01905	Heptachlor Epoxide	1024-57-3	< 0.0096	0.0096	ug/l	1
01906	DDE	72-55-9	< 0.0096	0.0096	ug/l	1
01907	DDD	72-54-8	< 0.0096	0.0096	ug/l	1
01908	Chlordane	57-74-9	< 0.29	0.29	ug/l	1
01909	Toxaphene	8001-35-2	< 3.8	3.8	ug/l	1
01910	Endosulfan I	959-98-8	< 0.0096	0.0096	ug/l	1
01911	Endosulfan II	33213-65-9	< 0.0096	0.0096	ug/l	1
01912	Endosulfan Sulfate	1031-07-8	< 0.029	0.029	ug/l	1
01913	PCB-1016	12674-11-2	< 1.0	1.0	ug/l	1
01914	PCB-1221	11104-28-2	< 1.0	1.0	ug/l	1
01915	PCB-1232	11141-16-5	< 1.0	1.0	ug/l	1
01916	PCB-1242	53469-21-9	< 1.0	1.0	ug/l	1
01917	PCB-1248	12672-29-6	< 1.0	1.0	ug/l	1
01918	PCB-1254	11097-69-1	< 1.0	1.0	ug/l	1
01919	PCB-1260	11096-82-5	< 1.0	1.0	ug/l	1

D. L. 2/16/01

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Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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Analysis Report

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3542351

Collected:01/26/2001 08:40 by EA

Account Number: 02423

Submitted: 01/26/2001 16:00
Reported: 02/06/01 at 05:22 AM
Discard: 3/9/01
905 Formulation Lab Point #2 Grab Water Sample
Semi-Annual

Primedica Argus
57 Union Street
Worcester MA 01608

905-2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
01856	Herbicides in Water					
01857	2,4-D	94-75-7	< 0.48	0.48	ug/l	1
01858	2,4,5-TP	93-72-1	< 0.048	0.048	ug/l	1
05286	2,4,5-T	93-76-5	< 0.048	0.048	ug/l	1
05287	Dalapon	75-99-0	< 1.2	1.2	ug/l	1
05288	Dinoseb	88-85-7	< 0.24	0.24	ug/l	1
05289	Dicamba	1918-00-9	< 0.29	0.29	ug/l	1
05290	MCPP	93-65-2	< 190.	190.	ug/l	1
05291	MCPA	94-74-6	< 190.	190.	ug/l	1
05292	2,4-DP (Dichlorprop)	120-36-5	< 0.48	0.48	ug/l	1
05293	2,4-DB	94-82-6	< 0.48	0.48	ug/l	1
08103	Pentachlorophenol	87-86-5	< 0.05	0.05	ug/l	1

Commonwealth of Pennsylvania Lab Certification No. 36-037

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Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

D. L... 2/16/01

2216 Rev. 9/11/00

ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Bldg. A
Horsham, PA 19044
Attn. Dena Lebo
Attn: **215-443-8710**
FAX #:

Sample number: **2018-01A**
Date sampled : **01/03/01**
Time sampled : **1430**
Date received: **01/03/01**
Sampled by : **EM**

Sample source: **Chem-Lab**
1/8/01 (A) 905 F Sheehy Drive
DL

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		< 0.1

D. Lebo
1/8/01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E. Fedock/ President

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ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Bldg. A
Horsham, PA 19044
Attn. Dena Lebo
Attn: **215-443-8710**
FAX #:

Sample number: **2018-01B**
Date sampled : **01/03/01**
Time sampled : **1430**
Date received: **01/03/01**
Sampled by : **KM**

Sample source: **Rm. 38**
(D)DL 905 Sheehy Drive
1/8/01

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		1.1

D. Lebo
1/8/01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E. Fedock
Maryann E. Fedock/ President

EXACT CO...
ADH 7/18/01

ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Bldg. A
Horsham, PA 19044
Attn. Dena Lebo
Attn: **215-443-8710**
FAX #:

Sample number: **2018-01C**
Date sampled : **01/03/01**
Time sampled : **1430**
Date received: **01/03/01**
Sampled by : **EM**

Sample source: **Analytical Laboratory**
D.L. 1/8/01 905B Sheehy Drive

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		< 0.1

D. Lebo
1/8/01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E. Fedock/ President

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ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Bldg. A
Horsham, PA 19044
Attn. Dena Lebo
Attn: 215-443-8710
FAX #:

Sample number: **2018-01D**
Date sampled : **01/03/01**
Time sampled : **1430**
Date received: **01/03/01**
Sampled by : **EM**

Sample source: **Rm. 14**
(D) Dena 1/8/01 905 Sheehy Drive

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		0.6

D. Lebo
1-8-01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E. Fedock
Maryann E. Fedock/ President

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ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Bldg. A
Horsham, PA 19044
Attn. Dena Lebo
Attn: 215-443-8710
FAX #:

Sample number: **2337-01A**
Date sampled : **02/14/01**
Time sampled : **1515**
Date received: **02/14/01**
Sampled by : **KM**

Sample source: **Chem. Lab** (A) Dn
905 F Sheehy Drive 2/20/01

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		< 0.1

D. Lebo
2/20/01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E Fedock
Maryann E. Fedock/ President

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ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Bldg. A
Horsham, PA 19044
Attn. Dena Lebo
Attn: **215-443-8710**
FAX #:

Sample number: **2337-01B**
Date sampled : **02/14/01**
Time sampled : **1515**
Date received: **02/14/01**
Sampled by : **RM**

Sample source: **Rm. T-2** (49)
905 Sheehy Drive (A) DL 2/20/01

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		0.5

D. Lebo 2/20/01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E. Fedock/ President

EXACT COPY ABH 7/18/01

ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Bldg. A
Horsham, PA 19044
Attn. Dena Lebo
Attn: **215-443-8710**
FAX #:

Sample number: **2337-01C**
Date sampled : **02/14/01**
Time sampled : **1515**
Date received: **02/14/01**
Sampled by : **EM**

Sample source: **Rm. 5** (A) DL 2/20/01
905 Sheehy Drive

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		0.1

D. Lebo
2/20/01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E. Fedock
Maryann E. Fedock/ President

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ABH 2/18/01

ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Bldg. A
Horsham, PA 19044
Attn. Dena Lebo
Attn: **215-443-8710**
FAX #:

Sample number: **2337-01D**
Date sampled : **02/14/01**
Time sampled : **1515**
Date received: **02/14/01**
Sampled by : **EM**

Sample source: **Analytical**
905 Sheehy Drive ⓓ DL 2/20/01

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		< 0.1

D. Lebo 2/20/01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

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Maryann E. Fedock/ President

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ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Bldg. A
Horsham, PA 19044
Attn. Dena Lebo
Attn: **215-443-8710**
FAX #:

Sample number: **4135-01A**
Date sampled : **03/07/01**
Time sampled : **1430**
Date received: **03/08/01**
Sampled by : **FO**

Sample source: **Room #39**

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		0.6

D. Lebo
3/20/01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

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P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Bldg. A
Horsham, PA 19044
Attn. Dena Lebo
Attn: **215-443-8710**
FAX #:

Sample number: **4135-01B**
Date sampled : **03/07/01**
Time sampled : **1430**
Date received: **03/08/01**
Sampled by : **FO**

Sample source: **Chem. Lab**
905 F Sheehy Drive DL (D) 3/20/01

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		< 0.1

D. Lebo
3/20/01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

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ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Bldg. A
Horsham, PA 19044
Attn. Dena Lebo
Attn: **215-443-8710**
FAX #:

Sample number: **4135-01C**
Date sampled : **03/07/01**
Time sampled : **1430**
Date received: **03/08/01**
Sampled by : **FO**

Sample source: **Analytical** Laboratory D Dlu 3/20/01

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		< 0.1

D. Lebo
3/20/01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E Fedock
Maryann E. Fedock/ President

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ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Bldg. A
Horsham, PA 19044
Attn. Dena Lebo
Attn: **215-443-8710**
FAX #:

Sample number: **4135-01D**
Date sampled : **03/07/01**
Time sampled : **1430**
Date received: **03/08/01**
Sampled by : **FO**

Sample source: **Room #5**

ANALYTICAL RESULTS

Water Safety Classification: No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l ①		1.5

① In-house value for room 5 on 3/6/01 was 0.3 PPM. DL 3/20/01

D. Lebo
3/20/01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E. Fedock/ President

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ABH 7/18/01

ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Bldg. A
Horsham, PA 19044
Attn. Dena Lebo
Attn: **215-443-8710**
FAX #:

Sample number: **4266-01A**
Date sampled : **04/02/01**
Time sampled : **1400**
Date received: **04/02/01**
Sampled by : **FO**

Sample source: **Analytical**

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		< 0.1

D. Lebo
4-9-01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E. Fedock/ President

EXACT CO.
ABH 7/17/01

ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Bldg. A
Horsham, PA 19044
Attn. Dena Lebo
Attn: **215-443-8710**
FAX #:

Sample number: **4266-01B**
Date sampled : **04/02/01**
Time sampled : **1400**
Date received: **04/02/01**
Sampled by : **FO**

Sample source: **Rm. 16 Rack 027**

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		0.6

D. Lebo
4-9-01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

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P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Bldg. A
Horsham, PA 19044
Attn. Dena Lebo
Attn: 215-443-8710
FAX #:

Sample number: **4266-01C**
Date sampled : **04/02/01**
Time sampled : **1400**
Date received: **04/02/01**
Sampled by : **FO**

Sample source: **Rm. 39 Rack 121**

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		0.3

D. Lebo
4-9-01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E. Fedock
Maryann E. Fedock/ President

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AB# 7/17/01

ANALYTICAL LABORATORIES, INC.
P.O. Box 319
CHALFONT, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: **Argus Research, Inc.**
905 Sheehy Dr., Bldg. A
Horsham, PA 19044
Attn. Dena Lebo
Attn: 215-443-8710
FAX #:

Sample number: **4266-01D**
Date sampled : **04/02/01**
Time sampled : **1400**
Date received: **04/02/01**
Sampled by : **FO**

Sample source: **Formulations**

ANALYTICAL RESULTS

Water Safety Classification: **No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.**

Parameter	MCL	Result
Coliform Bacteria, counts/100 ml	< 1	< 1
Noncoliform Bacteria, counts/100 ml		< 1
Total Chlorine, mg/l		< 0.1

D. Lebo
4-9-01

All results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked by asterisks (**).

Symbol key:
< - less than
TNTC - too numerous to count (> 200)
mg/l - milligram/liter

PA DEP #09-332

Maryann E. Fedock/ President

EXACT CO.
ABH 7/17/01

Analysis Report

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. G5 3542353

Collected:01/26/2001 09:50 by EA

Account Number: 02423

Submitted: 01/26/2001 16:00
Reported: 02/06/01 at 05:22 AM
Discard: 3/9/01
Bedding: Lot # MJ1600 Sample

Primedica Argus
57 Union Street
Worcester MA 01608

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
00159	Mercury	7439-97-6	< 0.096	0.096	mg/kg	1
01646	Barium	7440-39-3	< 9.9	9.9	mg/kg	1
01649	Cadmium	7440-43-9	< 2.0	2.0	mg/kg	1
01651	Chromium	7440-47-3	< 4.0	4.0	mg/kg	1
01655	Lead	7439-92-1	< 9.9	9.9	mg/kg	1
01666	Silver	7440-22-4	< 2.0	2.0	mg/kg	1
06935	Arsenic TR	7440-38-2	< 0.99	0.99	mg/kg	1
06936	Selenium TR	7782-49-2	1.2 ①	0.99	mg/kg	1
01224	Pesticides/PCBs in Solids					
01218	Gamma BHC - Lindane	58-89-9	< 0.33	0.33	ug/kg	1
01219	Heptachlor	76-44-8	< 0.33	0.33	ug/kg	1
01220	Aldrin	309-00-2	< 0.33	0.33	ug/kg	1
01221	DDT	50-29-3	< 0.67	0.67	ug/kg	1
01222	Dieldrin	60-57-1	< 0.67	0.67	ug/kg	1
01223	Endrin	72-20-8	< 0.67	0.67	ug/kg	1
01859	Methoxychlor	72-43-5	< 3.3	3.3	ug/kg	1
01981	Alpha BHC	319-84-6	< 0.33	0.33	ug/kg	1
01982	Beta BHC	319-85-7	< 0.33	0.33	ug/kg	1
01983	Delta BHC	319-86-8	< 0.33	0.33	ug/kg	1
01984	Heptachlor Epoxide	1024-57-3	< 0.33	0.33	ug/kg	1
01985	DDE	72-55-9	< 0.67	0.67	ug/kg	1
01986	DDD	72-54-8	< 0.67	0.67	ug/kg	1
01987	Chlordane	57-74-9	< 17.	17.	ug/kg	1
01988	Toxaphene	8001-35-2	< 33.	33.	ug/kg	1
01989	Endosulfan I	959-98-8	< 0.33	0.33	ug/kg	1
01990	Endosulfan II	33213-65-9	< 0.67	0.67	ug/kg	1
01991	Endosulfan Sulfate	1031-07-8	< 0.67	0.67	ug/kg	1
01992	Endrin Aldehyde	7421-93-4	< 0.67	0.67	ug/kg	1
01993	PCB-1016	12674-11-2	< 17.	17.	ug/kg	1
01994	PCB-1221	11104-28-2	< 17.	17.	ug/kg	1
01995	PCB-1232	11141-16-5	< 17.	17.	ug/kg	1
01996	PCB-1242	53469-21-9	< 17.	17.	ug/kg	1
01997	PCB-1248	12672-29-6	< 17.	17.	ug/kg	1
01998	PCB-1254	11097-69-1	< 17.	17.	ug/kg	1

① Exceeds Agy's maximum concentration of 1.0 mg/kg by 20%; Selenium is a primary regulated contaminant by the EPA with a maximum contaminant level of 50 ug/L for human drinking water standards DCL 2/16/01

D. Libo 2/16/01

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

2215 Rev. 9/11/00

EXACT COPY
GMP 8/15/01

Analysis Report

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. G5 3542353

Collected:01/26/2001 09:50 by EA

Account Number: 02423

Submitted: 01/26/2001 16:00
Reported: 02/06/01 at 05:22 AM
Discard: 3/9/01
Bedding: Lot # MJ1600 Sample

Primedica Argus
57 Union Street
Worcester MA 01608

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
01999	PCB-1260	11096-82-5	< 17.	17.	ug/kg	1
01863	Appendix IX Herbicides in Soil					
04174	2,4-D	94-75-7	< 17.	17.	ug/kg	1
04176	2,4,5-TP	93-72-1	< 1.7	1.7	ug/kg	1

D. Lebo
2/16/01

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TMP 8/15/01

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	(diet) calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib >5 um/ml**	fibers greater than 5 microns in length per ml

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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APPENDIX K

HISTOPATHOLOGY REPORT

RESEARCH PATHOLOGY SERVICES, INC.

438 East Butler Avenue, New Britain, PA 18901
Phone: 215-345-7070 • Fax: 215-345-4326

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: 7-6889.6
HISTOPATHOLOGY REPORT

SUBMITTED TO:

Raymond G. York, Ph.D., D.A.B.T.
Argus Research
905 Sheehy Drive
Horsham, PA 19044

SUBMITTED BY:

W. Ray Brown mar. 25, 2002

W. Ray Brown, D.V.M., Ph.D.
Veterinary Pathologist

March 25, 2002

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS PROTOCOL 418-020 SPONSOR'S STUDY NUMBER: T-6889.6 HISTOPATHOLOGY REPORT

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ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS PROTOCOL 418-020 SPONSOR'S STUDY NUMBER: T-6889.6 HISTOPATHOLOGY REPORT

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ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS PROTOCOL 418-020 SPONSOR'S STUDY NUMBER: T-6889.6 HISTOPATHOLOGY REPORT

METHOD:

Microscopic examination was made of the specified tissues from male and female Crl:CD®(SD)IGS BR VAF/Plus® rats of the P and F1 generations divided into five groups used in a two-generation reproduction study of ammonium perfluorooctanoate (AFPO). A brief outline of the study design is shown below.

Group	Number of Rats per Sex per Generation	Dosage (mg/kg/day)	Concentration (mg/mL)	Dosage Volume (mL/kg)
I	30	0	0	5
II	30	1	0.2	5
III	30	3	0.6	5
IV	30	10	2	5
V	30	30	6	5

The test substance was considered 100% pure for the purpose of dosage calculations.

The P generation male and female rats were given the test substance once daily, beginning at approximately six weeks of age (at least 70 days before cohabitation) and continuing until the day before sacrifice. The F1 generation adult rats were given the same dosage levels of the test substances as their respective P generation sires and dams (once daily, beginning at weaning [approximately 70 days before cohabitation] and continuing until the day before sacrifice). F1 and F2 pups have been exposed to the test substance *in utero* during maternal gestation and via maternal milk during the lactation period.

The in-life portion of the study, necropsies, and recording of the gross necropsy observations were performed by the staff of Argus Research. The preserved tissues were then submitted to Research Pathology Services, Inc. for tissue processing, microscopic slide preparation and histopathologic evaluation. The protocol-specified tissues were routinely processed, embedded in paraffin, sectioned, and stained with hematoxylin and eosin for microscopic evaluation with

the exception of the testes sections which were stained with the periodic acid-Schiff technique.

The tissues specified for microscopic evaluation from the P and F1 generation adult rats of Groups I and V included adrenal glands, pituitary and testis, epididymis, prostate, seminal vesicles and coagulating gland (male rats) or ovaries, oviducts, uterus, cervix and vagina (female rats). In addition, the reproductive tissues were examined from male and female rats of the P generation and male rats of the F1 generation suspected of reduced fertility. Gross lesions were examined from all P and F1 generation rats and F1 and F2 pups of all groups.

Upon completion of the project, all raw data (remaining wet tissue, paraffin blocks, microscopic slides and histology records) will be returned to Argus Research for archiving.

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RESULTS:

The type, incidence, and degree of severity of all histomorphologic observations in the P and F1 generation adult rats are summarized in Tables 1 and 3, respectively. Tables 2 and 4 summarize the histomorphologic observations in the rats suspected of reduced fertility in the P and F1 generations, respectively. Individual microscopic findings from the P and F1 generation adult rats are presented in tabular form in Appendices I and II, respectively. A key to the individual microscopic observations precedes Table I-1 and Table II-1. The gross necropsy observations, microscopic findings, and a correlation of the gross and microscopic changes, when applicable, are included in Appendices III and IV for the P and F1 generation parental adult rats, respectively. Macroscopic observations and corresponding microscopic findings in the tissues with grossly observed changes for the F1 and F2 pups are listed in Appendix V.

P Generation Adult Rats (Tables 1 and 2, I-1 to I-10, Appendix III):

No treatment-related microscopic changes were observed in the reproductive organs of any of the 10 male and 10 female rats P generation rats selected for histopathologic evaluation that had been given 30 mg/kg/day of the test substance.

A treatment-related microscopic change was observed in the adrenal glands of 2/10 and 7/10 male rats of Groups IV and V, respectively, designated for examination (Table 1). The change in the adrenal glands consisted of increased thickness and prominence of the zona glomerulosa due to cytoplasmic hypertrophy and vacuolation of the cells of this zone of the adrenal cortex. A similar adrenal effect was not observed in the male rats of Groups II and III or in any of the Group V female rats.

Male and female rats described as showing "reduced fertility" were those male rats which failed to sire healthy offspring or for which sperm or spermatid number, sperm motility or morphology were affected or female rats that failed to mate, conceive or deliver healthy offspring. The rats characterized as "reduced fertility" of the P generation are identified in the individual tables of microscopic findings in

Appendix I as "SSRF". The type, incidence and degree of severity of these findings are summarized in Table 2. There were a few changes observed in these "reduced fertility" rats, but these changes occurred sporadically and are of the type that occur spontaneously in male and female rats of this age and strain (Table 2) and were not compound-related.

All other microscopic changes observed in the male and female rats designated for microscopic evaluation were considered to have occurred spontaneously and to be unrelated to treatment. The type, incidence, or severity of these spontaneously occurring changes was not influenced by administration of the test substance. In general, these changes occurred at single, low, or similar frequencies among the control and compound-treatment groups. These changes are listed and summarized in the attached histomorphology tables.

F1 Generation Adult Rats (Tables 3 and 4, II-1 to II-10, Appendix IV):

No treatment-related microscopic changes were observed in the reproductive organs of any of the 10 male and 10 female F1 generation rats selected for histopathologic examination that had been given 30 mg/kg/day of the test substance.

Microscopic examination of the adrenal glands revealed a treatment-related effect similar to that seen in the P generation male rats, consisting of an increased thickness and prominence of the zona glomerulosa due to cytoplasmic hypertrophy and vacuolation of cells of this zone of the adrenal cortex in 7/10 high dose male rats of the F1 generation (Table 3). This adrenal gland change was not observed in the F1 generation male rats of Groups II, III and IV or in any of the F1 generation Group V female rats.

Treatment-related microscopic changes also were observed in the liver of male rats of Groups III, IV and V. These livers were grossly observed to be enlarged or to have tan areas in the liver lobes. Microscopically, these gross changes were due to diffuse hypertrophy of hepatocytes (Table 3). Hepatocytes in all areas (diffuse) of the hepatic lobules were enlarged due to an increased dense,

eosinophilic cytoplasm. A very low incidence of single-cell or focal/multifocal necrosis of hepatocytes also was observed in a few rats of these groups. Hepatic tissue was available for microscopic examination only from rats with gross observations in the liver.

There were no compound-related microscopic changes observed in any of the male rats identified as having "reduced fertility" (Table 4). The few changes in the male reproductive tissues were typical of those that occur spontaneously and their type, incidence or severity was not affected by administration of the test substance. None of the changes that were observed in these male rats were of sufficient degree to have resulted in reproductive insufficiency. These rats are identified in the individual tables of microscopic findings as "SSRF".

All other microscopic changes observed in the various organs and tissues were considered to have occurred spontaneously and to be unrelated to treatment. These changes were typical of those of which occur in male and female rats used in multigeneration reproduction studies. The type, incidence or severity of these changes were not influenced by APFO administration. These changes are listed and summarized in the attached histomorphology tables.

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SUMMARY:

Microscopic examination was made of the specified tissues from selected parental male and female rats of the P and F1 generations and F1 and F2 generation pups of an oral (gavage) two-generation (one litter per generation) reproduction study of ammonium perfluorooctanoate (APFO). The concentrations used in the study were 0 (vehicle control), 1, 3, 10, or 30 mg/kg/day of the test substance.

No treatment-related microscopic changes were observed in the reproductive organs of any of the male or female rats of the P and F1 generations designated for microscopic examination that were given any of the dosage levels of APFO.

A treatment-related microscopic change was observed in the adrenal glands of the P generation male rats of the 10 and 30 mg/kg/day APFO-treatment groups and F1 generation male rats exposed to 30 mg/kg/day of APFO. This change was characterized by hypertrophy and vacuolation of cells of the zona glomerulosa of the adrenal cortex. A similar effect in the adrenal glands was not observed in male rats of the lower dosage groups or in female rats of the 30 mg/kg/day dosage group of either generation.

Microscopic examination of liver sections of F1 generation male rats which were observed grossly to be enlarged or have tan areas in the liver lobes showed up to marked diffuse hepatocellular hypertrophy. Single or lower incidences of hepatocellular necrosis also were observed in the male rats rats of these groups.

There were a few male and female rats in each of the P and F1 generations that were classified as demonstrating "reduced fertility". Microscopic examination of the reproductive organs of the male and female rats of the P generation and male rats of the F1 generation designated as "reduced fertility" animals showed no consistent microscopic changes and the changes that were seen were not considered to be treatment-related.

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All other microscopic changes observed in the various organs and tissues of the P and F1 generation adult male and female rats and F1 and F2 generation pups were considered to have occurred spontaneously and to be incidental and unrelated to treatment with APFO.

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QUALITY ASSURANCE UNIT STATEMENT

All aspects of the tissue processing, microscopic slide preparation, histopathologic evaluation and report preparation for the study listed above have been performed according to the Standard Operating Procedures of Research Pathology Services, Inc. and were audited in accordance with the procedures established by the Quality Assurance Unit of Research Pathology Services, Inc. in compliance with the Good Laboratory Practice regulations specified in the protocol.

Quality Assurance inspections were performed as shown below. There were no deviations from the protocol, Standard Operating Procedures and/or appropriate Good Laboratory Practice regulations noted during the conduct of the study that had any impact on study integrity. A summary report of QA inspections was submitted to the Study Director on March 25, 2002.

Dates of Inspection	Study Phase	Date Reported to Management	Date Reported to Study Director
10/25/01, 01/15/02	Trimming	10/31/01, 01/31/02	09/14/01, 02/01/02
11/07/01, 01/18/02	Embedding	11/30/01, 01/31/02	02/01/02
11/17/01, 12/27/01, 01/22/02	Microtomy	11/30/01, 12/31/01, 01/31/02	02/01/02
11/19/01, 12/28/01, 01/23/02	Staining	11/30/01, 12/31/01, 01/31/02	02/01/02
01/02/02	Histopathology	01/31/02	02/01/02
01/03/02	Data Entry	01/31/02	02/01/02
01/24/02	Data Verification	01/31/02	02/01/02
01/24/02	Data Processing	01/31/02	11/01/01, 02/01/02
01/28/02	Report Preparation	01/31/02	11/02/01, 02/01/02
01/31/02	Pre-Submission Audit	01/31/02	02/01/02
02/01/02	Draft Report	02/01/02	02/01/02
03/25/02	Final Report	03/25/02	03/25/02

Karen W. Harkins B.S.

Karen W. Harkins, BS — Date
Quality Assurance Unit

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TABLE 1

Incidence and Degree of Severity of Histomorphologic Observations
P Generation

Dose Group:	I	II	III	IV	V	I	II	III	IV	V
Sex:	M	M	M	M	M	F	F	F	F	F
Number of Animals/Group:	13	15	13	13	15	13	4	3	4	13
ADRENAL GLANDS:										
NO. EXAMINED	10	10	10	10	10	10	0	0	0	10
NO. NORMAL	7	8	6	7	2	8	0	0	0	9
-degeneration, cystic, cortex	[0]	[0]	[0]	[0]	[0]	[1]	[0]	[0]	[0]	[1]
minimal	0	0	0	0	0	1	0	0	0	1
-hypertrophy/vacuolation, zona glomerulosa	[0]	[0]	[0]	[2]	[7]	[1]	[0]	[0]	[0]	[0]
minimal	0	0	0	2	1	1	0	0	0	0
mild	0	0	0	0	2	0	0	0	0	0
moderate	0	0	0	0	4	0	0	0	0	0
-vacuolation, cortex	[3]	[2]	[4]	[1]	[3]	[0]	[0]	[0]	[0]	[0]
minimal	1	2	2	1	3	0	0	0	0	0
mild	2	0	1	0	0	0	0	0	0	0
moderate	0	0	1	0	0	0	0	0	0	0
PITUITARY:										
NO. EXAMINED	10	0	0	0	10	10	0	0	0	10
NO. NORMAL	10	0	0	0	10	9	0	0	0	10
-cyst(s), pars intermedia	0	0	0	0	0	1	0	0	0	0
TESTIS:										
NO. EXAMINED	13	4	2	2	15					
NO. NORMAL	12	3	2	1	13					
-atrophy/degeneration, multifocal	[1]	[0]	[0]	[0]	[2]					
moderate	1	0	0	0	1					
marked	0	0	0	0	1					
-dilatation, rete testis	0	1	0	1	1					
-hypoplasia, diffuse	[0]	[1]	[0]	[1]	[0]					
marked	0	1	0	1	0					
EPIDIDYMIS:										
NO. EXAMINED	13	4	2	2	14					
NO. NORMAL	10	0	1	1	10					
-atrophy	[0]	[1]	[0]	[1]	[1]					
minimal	0	1	0	0	0					
mild	0	0	0	1	0					
moderate	0	0	0	0	1					
-exfoliated spermatogenic cells	[0]	[1]	[1]	[0]	[2]					
minimal	0	0	0	0	1					
mild	0	1	0	0	0					
moderate	0	0	1	0	1					

[ ] = Total incidence of specified lesion, all grades.

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TABLE 1 (Continued)

Incidence and Degree of Severity of Histomorphologic Observations
P Generation

Dose Group:	I	II	III	IV	V	I	II	III	IV	V
Sex:	M	M	M	M	M	F	F	F	F	F
Number of Animals/Group:	13	15	13	13	15	13	4	3	4	13
EPIDIDYMIS (Continued):										
-hypospermia	[0]	[1]	[1]	[1]	[2]					
mild	0	0	1	0	0					
marked	0	1	0	1	2					
-infiltration, mononuclear-cell, focal	[3]	[3]	[0]	[1]	[2]					
minimal	3	2	0	1	2					
mild	0	1	0	0	0					
PROSTATE:										
NO. EXAMINED	13	3	2	1	14					
NO. NORMAL	4	1	2	0	6					
-atrophy, focal	[3]	[0]	[0]	[0]	[2]					
minimal	2	0	0	0	1					
mild	1	0	0	0	1					
-dilatation, glandular, focal	[2]	[0]	[0]	[0]	[2]					
minimal	0	0	0	0	1					
mild	1	0	0	0	1					
moderate	1	0	0	0	0					
-inflammation, chronic	[5]	[2]	[0]	[1]	[4]					
minimal	3	1	0	0	2					
mild	2	1	0	1	2					
-inflammation, suppurative, focal	[2]	[0]	[0]	[0]	[1]					
minimal	1	0	0	0	1					
mild	1	0	0	0	0					
SEMINAL VESICLES:										
NO. EXAMINED	13	3	2	1	14					
NO. NORMAL	13	3	2	1	14					
COAGULATING GLAND:										
NO. EXAMINED	13	3	2	1	14					
NO. NORMAL	13	3	2	1	14					
OVARIES:										
NO. EXAMINED						11	2	1	0	11
NO. NORMAL						8	2	1	0	10
-cyst(s), intraovarian						2	0	0	0	1
-cystic bursa(e)						1	0	0	0	0
OVIDUCT(S):										
NO. EXAMINED						10	2	1	0	11
NO. NORMAL						10	2	1	0	11
UTERUS:										
NO. EXAMINED						11	2	1	0	11
NO. NORMAL						1	1	1	0	0

[ ] = Total incidence of specified lesion, all grades.

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TABLE 1 (Continued)

Incidence and Degree of Severity of Histomorphologic Observations
P Generation

Dose Group:	I	II	III	IV	V	I	II	III	IV	V
Sex:	M	M	M	M	M	F	F	F	F	F
Number of Animals/Group:	13	15	13	13	15	13	4	3	4	13
UTERUS (Continued):										
-distention, lumen						[1]	[1]	[0]	[0]	[3]
minimal						0	0	0	0	1
mild						1	0	0	0	1
moderate						0	0	0	0	1
marked						0	1	0	0	0
-gland(s), endometrial, cystic						0	0	0	0	1
-macrophages, pigmented						[10]	[0]	[0]	[0]	[10]
minimal						2	0	0	0	1
mild						1	0	0	0	2
moderate						7	0	0	0	6
marked						0	0	0	0	1
CERVIX:										
NO. EXAMINED						11	2	1	0	10
NO. NORMAL						11	2	1	0	9
-dilatation						[0]	[0]	[0]	[0]	[1]
moderate						0	0	0	0	1
VAGINA:										
NO. EXAMINED						10	2	1	0	10
NO. NORMAL						8	2	1	0	10
-mucification						[2]	[0]	[0]	[0]	[0]
mild						1	0	0	0	0
moderate						1	0	0	0	0
OVARIAN FOLLICLES/CORPORA LUTEA:										
-absence of corpora lutea						0	0	0	0	1
-presence of corpora lutea						11	2	1	0	10
-presence of growing/antral follicles						11	2	1	0	11
EAR(S):										
NO. EXAMINED	0	2	0	1	0	2	1	1	3	2
NO. NORMAL	0	0	0	0	0	0	0	0	0	0
-chondropathy, auricular	[0]	[2]	[0]	[1]	[0]	[2]	[1]	[1]	[3]	[2]
mild	0	0	0	0	0	0	0	0	1	0
moderate	0	2	0	1	0	1	0	0	1	1
marked	0	0	0	0	0	1	1	1	1	1
EXTREMITIES:										
NO. EXAMINED	0	0	0	0	0	0	1	0	0	0
NO. NORMAL	0	0	0	0	0	0	0	0	0	0
-fracture	0	0	0	0	0	0	1	0	0	0

[ ] = Total incidence of specified lesion, all grades.

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TABLE 1 (Continued)

Incidence and Degree of Severity of Histomorphologic Observations
P Generation

Dose Group:	I	II	III	IV	V	I	II	III	IV	V
Sex:	M	M	M	M	M	F	F	F	F	F
Number of Animals/Group:	13	15	13	13	15	13	4	3	4	13
EYES:										
NO. EXAMINED	0	0	0	0	0	0	0	1	0	0
NO. NORMAL	0	0	0	0	0	0	0	0	0	0
-cataract	0	0	0	0	0	0	0	1	0	0
-keratitis, chronic	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[1]	[0]	[0]
moderate	0	0	0	0	0	0	0	1	0	0
KIDNEYS:										
NO. EXAMINED	0	1	2	1	2	0	0	0	0	0
NO. NORMAL	0	0	0	0	1	0	0	0	0	0
-dilatation, pelvis	[0]	[1]	[2]	[1]	[1]	[0]	[0]	[0]	[0]	[0]
minimal	0	1	1	1	0	0	0	0	0	0
mild	0	0	0	0	1	0	0	0	0	0
moderate	0	0	1	0	0	0	0	0	0	0
-hyperplasia, pelvic/papillary epithelium, focal	[0]	[0]	[0]	[1]	[0]	[0]	[0]	[0]	[0]	[0]
mild	0	0	0	1	0	0	0	0	0	0
LUNG:										
NO. EXAMINED	1	0	0	0	0	0	0	0	0	0
NO. NORMAL	0	0	0	0	0	0	0	0	0	0
-hemorrhage, multifocal	[1]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]
moderate	1	0	0	0	0	0	0	0	0	0
-inflammation, interstitial, multifocal	[1]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]
moderate	1	0	0	0	0	0	0	0	0	0
PALATE:										
NO. EXAMINED	0	0	0	0	0	1	0	0	0	0
NO. NORMAL	0	0	0	0	0	0	0	0	0	0
-fracture	0	0	0	0	0	1	0	0	0	0
-hemorrhage	[0]	[0]	[0]	[0]	[0]	[1]	[0]	[0]	[0]	[0]
marked	0	0	0	0	0	1	0	0	0	0

[ ] = Total incidence of specified lesion, all grades.

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TABLE 2

Incidence and Degree of Severity of Histomorphologic Observations - Reduced Fertility Animals
P Generation

Dose Group:	I	II	III	IV	V	I	II	III	IV	V
Sex:	M	M	M	M	M	F	F	F	F	F
Number of Animals/Group:	3	3	2	1	4	1	2	1	1	1
ADRENAL GLANDS:										
NO. EXAMINED	0	0	1	0	0	0	0	0	0	0
NO. NORMAL	0	0	1	0	0	0	0	0	0	0
TESTIS:										
NO. EXAMINED	3	3	2	1	4					
NO. NORMAL	2	3	2	1	3					
-atrophy/degeneration, multifocal	[1]	[0]	[0]	[0]	[1]					
moderate	1	0	0	0	1					
-dilatation, rete testis	0	0	0	0	1					
EPIDIDYMIS:										
NO. EXAMINED	3	3	2	1	4					
NO. NORMAL	3	0	1	1	2					
-atrophy	[0]	[0]	[0]	[0]	[1]					
moderate	0	0	0	0	1					
-exfoliated spermatogenic cells	[0]	[1]	[1]	[0]	[2]					
minimal	0	0	0	0	1					
mild	0	1	0	0	0					
moderate	0	0	1	0	1					
-hypospermia	[0]	[0]	[1]	[0]	[2]					
mild	0	0	1	0	0					
marked	0	0	0	0	2					
-infiltration, mononuclear-cell, focal	[0]	[2]	[0]	[0]	[0]					
minimal	0	1	0	0	0					
mild	0	1	0	0	0					
PROSTATE:										
NO. EXAMINED	3	3	2	1	4					
NO. NORMAL	0	1	2	0	3					
-atrophy, focal	[3]	[0]	[0]	[0]	[1]					
minimal	2	0	0	0	1					
mild	1	0	0	0	0					
-inflammation, chronic	[1]	[2]	[0]	[1]	[0]					
minimal	1	1	0	0	0					
mild	0	1	0	1	0					
SEMINAL VESICLES:										
NO. EXAMINED	3	3	2	1	4					
NO. NORMAL	3	3	2	1	4					
COAGULATING GLAND:										
NO. EXAMINED	3	3	2	1	4					
NO. NORMAL	3	3	2	1	4					

[ ] = Total incidence of specified lesion, all grades.

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TABLE 2 (Continued)

Incidence and Degree of Severity of Histomorphologic Observations - Reduced Fertility Animals
P Generation

Dose Group:	I	II	III	IV	V	I	II	III	IV	V
Sex:	M	M	M	M	M	F	F	F	F	F
Number of Animals/Group:	3	3	2	1	4	1	2	1	1	1
OVARIES:										
NO. EXAMINED						1	2	1	0	1
NO. NORMAL						0	2	1	0	0
-cyst(s), intraovarian						1	0	0	0	1
OVIDUCT(S):										
NO. EXAMINED						1	2	1	0	1
NO. NORMAL						1	2	1	0	1
UTERUS:										
NO. EXAMINED						1	2	1	0	1
NO. NORMAL						1	1	1	0	0
-distention, lumen						[0]	[1]	[0]	[0]	[1]
moderate						0	0	0	0	1
marked						0	1	0	0	0
CERVIX:										
NO. EXAMINED						1	2	1	0	1
NO. NORMAL						1	2	1	0	1
VAGINA:										
NO. EXAMINED						1	2	1	0	1
NO. NORMAL						0	2	1	0	1
-mucification						[1]	[0]	[0]	[0]	[0]
mild						1	0	0	0	0
OVARIAN FOLLICLES/CORPORA LUTEA:										
-absence of corpora lutea						0	0	0	0	1
-presence of corpora lutea						1	2	1	0	0
-presence of growing/antral follicles						1	2	1	0	1
EAR(S):										
NO. EXAMINED	0	1	0	0	0	0	0	1	0	0
NO. NORMAL	0	0	0	0	0	0	0	0	0	0
-chondropathy, auricular	[0]	[1]	[0]	[0]	[0]	[0]	[0]	[1]	[0]	[0]
moderate	0	1	0	0	0	0	0	0	0	0
marked	0	0	0	0	0	0	0	1	0	0
KIDNEYS:										
NO. EXAMINED	0	1	0	0	2	0	0	0	0	0
NO. NORMAL	0	0	0	0	1	0	0	0	0	0

[ ] = Total incidence of specified lesion, all grades.

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

TABLE 2 (Continued)

Incidence and Degree of Severity of Histomorphologic Observations - Reduced Fertility Animals
P Generation

Dose Group:	I	II	III	IV	V	I	II	III	IV	V
Sex:	M	M	M	M	M	F	F	F	F	F
Number of Animals/Group:	3	3	2	1	4	1	2	1	1	1
KIDNEYS (Continued):										
-dilatation, pelvis	[0]	[1]	[0]	[0]	[1]	[0]	[0]	[0]	[0]	[0]
minimal	0	1	0	0	0	0	0	0	0	0
mild	0	0	0	0	1	0	0	0	0	0

[ ] = Total incidence of specified lesion, all grades.

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

TABLE 3

Incidence and Degree of Severity of Histomorphologic Observations
F1 Generation

Dose Group:	I	II	III	IV	V	I	II	III	IV	V
Sex:	M	M	M	M	M	F	F	F	F	F
Number of Animals/Group:	17	13	19	26	25	12	5	1	1	11
ADRENAL GLANDS:										
NO. EXAMINED	10	10	10	10	9	10	0	0	0	10
NO. NORMAL	6	6	9	8	2	10	0	0	0	9
-hyperplasia, cortical, focal	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[1]
minimal	0	0	0	0	0	0	0	0	0	1
-hypertrophy/vacuolation, zona glomerulosa	[0]	[0]	[0]	[0]	[7]	[0]	[0]	[0]	[0]	[0]
minimal	0	0	0	0	3	0	0	0	0	0
mild	0	0	0	0	4	0	0	0	0	0
-vacuolation, cortex	[4]	[4]	[1]	[2]	[2]	[0]	[0]	[0]	[0]	[0]
minimal	4	4	1	2	2	0	0	0	0	0
LIVER:										
NO. EXAMINED	0	0	6	9	10	0	1	0	0	0
NO. NORMAL	0	0	0	0	0	0	0	0	0	0
-hematopoiesis, extramedullary, multifocal	[0]	[0]	[1]	[1]	[1]	[0]	[0]	[0]	[0]	[0]
minimal	0	0	1	1	1	0	0	0	0	0
-hypertrophy, hepatocellular, diffuse	[0]	[0]	[6]	[9]	[10]	[0]	[0]	[0]	[0]	[0]
mild	0	0	2	3	3	0	0	0	0	0
moderate	0	0	4	6	6	0	0	0	0	0
marked	0	0	0	0	1	0	0	0	0	0
-infarct, liver lobe	0	0	0	0	0	0	1	0	0	0
-inflammation, chronic, focal/multifocal	[0]	[0]	[2]	[2]	[1]	[0]	[0]	[0]	[0]	[0]
minimal	0	0	1	1	1	0	0	0	0	0
mild	0	0	1	1	0	0	0	0	0	0
-necrosis, focal/multifocal	[0]	[0]	[1]	[3]	[2]	[0]	[0]	[0]	[0]	[0]
minimal	0	0	0	1	0	0	0	0	0	0
mild	0	0	1	2	2	0	0	0	0	0
-necrosis, single-cell	[0]	[0]	[0]	[1]	[0]	[0]	[0]	[0]	[0]	[0]
minimal	0	0	0	1	0	0	0	0	0	0
TESTIS:										
NO. EXAMINED	12	3	2	2	10					
NO. NORMAL	11	3	2	2	10					
-atrophy/degeneration, multifocal	[1]	[0]	[0]	[0]	[0]					
minimal	1	0	0	0	0					
EPIDIDYMIS:										
NO. EXAMINED	12	3	2	2	10					
NO. NORMAL	10	3	2	2	7					

[ ] = Total incidence of specified lesion, all grades.

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

TABLE 3 (Continued)

Incidence and Degree of Severity of Histomorphologic Observations
F1 Generation

Dose Group:	I	II	III	IV	V	I	II	III	IV	V
Sex:	M	M	M	M	M	F	F	F	F	F
Number of Animals/Group:	17	13	19	26	25	12	5	1	1	11
EPIDIDYMIS (Continued):										
-infiltration, mononuclear-cell, focal	[2]	[0]	[0]	[0]	[3]					
minimal	2	0	0	0	3					
PROSTATE:										
NO. EXAMINED	12	3	2	2	10					
NO. NORMAL	10	2	1	1	7					
-atrophy, focal	[0]	[0]	[0]	[1]	[1]					
minimal	0	0	0	1	0					
mild	0	0	0	0	1					
-dilatation, glandular, focal	[1]	[0]	[0]	[0]	[0]					
mild	1	0	0	0	0					
-inflammation, chronic	[2]	[1]	[1]	[0]	[1]					
minimal	1	1	0	0	1					
mild	1	0	1	0	0					
-inflammation, suppurative	[0]	[0]	[0]	[0]	[1]					
minimal	0	0	0	0	1					
SEMINAL VESICLES:										
NO. EXAMINED	12	3	2	2	10					
NO. NORMAL	12	3	2	2	10					
COAGULATING GLAND:										
NO. EXAMINED	12	3	2	2	10					
NO. NORMAL	12	3	2	2	10					
OVARIES:										
NO. EXAMINED						10	0	0	0	10
NO. NORMAL						10	0	0	0	9
-cyst(s), intraovarian						0	0	0	0	1
UTERUS:										
NO. EXAMINED						10	0	0	0	10
NO. NORMAL						2	0	0	0	0
-distention, lumen						[2]	[0]	[0]	[0]	[2]
minimal						1	0	0	0	0
mild						1	0	0	0	0
moderate						0	0	0	0	2

[ ] = Total incidence of specified lesion, all grades.

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

TABLE 3 (Continued)

Incidence and Degree of Severity of Histomorphologic Observations
F1 Generation

Dose Group:	I	II	III	IV	V	I	II	III	IV	V
Sex:	M	M	M	M	M	F	F	F	F	F
Number of Animals/Group:	17	13	19	26	25	12	5	1	1	11
UTERUS (Continued):										
-macrophages, pigmented						[7]	[0]	[0]	[0]	[10]
minimal						0	0	0	0	1
mild						1	0	0	0	1
moderate						4	0	0	0	7
marked						2	0	0	0	1
CERVIX:										
NO. EXAMINED						10	0	0	0	10
NO. NORMAL						10	0	0	0	10
VAGINA:										
NO. EXAMINED						10	0	0	0	10
NO. NORMAL						6	0	0	0	7
-inflammation, chronic, focal						[1]	[0]	[0]	[0]	[0]
minimal						1	0	0	0	0
-mucification						[4]	[0]	[0]	[0]	[3]
minimal						2	0	0	0	0
mild						1	0	0	0	1
moderate						1	0	0	0	2
OVARIAN FOLLICLES/CORPORA LUTEA:										
-presence of corpora lutea						10	0	0	0	10
-presence of growing/antral follicles						10	0	0	0	10
PITUITARY:										
NO. EXAMINED	10	0	0	0	8	10	0	0	0	10
NO. NORMAL	10	0	0	0	6	10	0	0	0	9
-cyst(s), pars distalis	0	0	0	0	1	0	0	0	0	1
-cyst(s), pars intermedia	0	0	0	0	1	0	0	0	0	0
CECUM:										
NO. EXAMINED	0	0	0	1	0	0	0	0	0	0
NO. NORMAL	0	0	0	0	0	0	0	0	0	0
-distention	[0]	[0]	[0]	[1]	[0]	[0]	[0]	[0]	[0]	[0]
marked	0	0	0	1	0	0	0	0	0	0
-edema/inflammation, submucosa	[0]	[0]	[0]	[1]	[0]	[0]	[0]	[0]	[0]	[0]
mild	0	0	0	1	0	0	0	0	0	0
COLON:										
NO. EXAMINED	0	0	0	1	0	0	0	0	0	0
NO. NORMAL	0	0	0	0	0	0	0	0	0	0

[ ] = Total incidence of specified lesion, all grades.

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

TABLE 3 (Continued)

Incidence and Degree of Severity of Histomorphologic Observations
F1 Generation

Dose Group:	I	II	III	IV	V	I	II	III	IV	V
Sex:	M	M	M	M	M	F	F	F	F	F
Number of Animals/Group:	17	13	19	26	25	12	5	1	1	11
COLON (Continued):										
-distention	[0]	[0]	[0]	[1]	[0]	[0]	[0]	[0]	[0]	[0]
marked	0	0	0	1	0	0	0	0	0	0
EAR(S):										
NO. EXAMINED	0	0	0	1	0	3	0	0	0	1
NO. NORMAL	0	0	0	0	0	0	0	0	0	0
-chondropathy, auricular	[0]	[0]	[0]	[1]	[0]	[3]	[0]	[0]	[0]	[1]
moderate	0	0	0	0	0	1	0	0	0	0
marked	0	0	0	1	0	2	0	0	0	1
EYES:										
NO. EXAMINED	4	0	0	0	2	0	0	0	1	0
NO. NORMAL	1	0	0	0	2	0	0	0	0	0
-abscess, periocular	0	0	0	0	0	0	0	0	1	0
-atrophy, iris/ciliary body	[1]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]
marked	1	0	0	0	0	0	0	0	0	0
-atrophy, retinal, focal	[1]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]
mild	1	0	0	0	0	0	0	0	0	0
-inflammation, chronic, iris	[2]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]
moderate	2	0	0	0	0	0	0	0	0	0
-neuropathy, optic nerve(s)	[2]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]
moderate	2	0	0	0	0	0	0	0	0	0
ILEUM:										
NO. EXAMINED	0	0	0	1	0	0	1	0	0	0
NO. NORMAL	0	0	0	0	0	0	0	0	0	0
-*Advanced* autolysis precludes evaluation	0	0	0	1	0	0	0	0	0	0
-distention	[0]	[0]	[0]	[0]	[0]	[0]	[1]	[0]	[0]	[0]
marked	0	0	0	0	0	0	1	0	0	0
KIDNEYS:										
NO. EXAMINED	0	0	0	3	0	0	0	1	0	1
NO. NORMAL	0	0	0	0	0	0	0	0	0	0
-dilatation, pelvis	[0]	[0]	[0]	[3]	[0]	[0]	[0]	[1]	[0]	[1]
mild	0	0	0	2	0	0	0	1	0	0
moderate	0	0	0	1	0	0	0	0	0	1
-hyperplasia, pelvic/papillary urothelium	[0]	[0]	[0]	[1]	[0]	[0]	[0]	[0]	[0]	[0]
minimal	0	0	0	1	0	0	0	0	0	0

[ ] = Total incidence of specified lesion, all grades.

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

TABLE 3 (Continued)

Incidence and Degree of Severity of Histomorphologic Observations
F1 Generation

Dose Group:	I	II	III	IV	V	I	II	III	IV	V
Sex:	M	M	M	M	M	F	F	F	F	F
Number of Animals/Group:	17	13	19	26	25	12	5	1	1	11
KIDNEYS (Continued):										
-mineralization, pelvis	[0]	[0]	[0]	[1]	[0]	[0]	[0]	[0]	[0]	[0]
minimal	0	0	0	1	0	0	0	0	0	0
-pyelonephritis	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[1]
moderate	0	0	0	0	0	0	0	0	0	1
SKIN (GROSS LESION):										
NO. EXAMINED	1	0	1	0	0	0	0	0	0	0
NO. NORMAL	0	0	0	0	0	0	0	0	0	0
-dermatitis, chronic	[0]	[0]	[1]	[0]	[0]	[0]	[0]	[0]	[0]	[0]
moderate	0	0	1	0	0	0	0	0	0	0
-dermatitis, ulcerative	[1]	[0]	[1]	[0]	[0]	[0]	[0]	[0]	[0]	[0]
moderate	1	0	1	0	0	0	0	0	0	0
SPLEEN:										
NO. EXAMINED	0	0	0	1	1	1	0	0	0	0
NO. NORMAL	0	0	0	0	0	0	0	0	0	0
-atrophy	[0]	[0]	[0]	[0]	[1]	[1]	[0]	[0]	[0]	[0]
marked	0	0	0	0	1	1	0	0	0	0
-necrosis	[0]	[0]	[0]	[1]	[0]	[0]	[0]	[0]	[0]	[0]
marked	0	0	0	1	0	0	0	0	0	0
STOMACH:										
NO. EXAMINED	0	0	0	1	0	0	1	0	0	0
NO. NORMAL	0	0	0	0	0	0	0	0	0	0
-erosion(s), glandular mucosa	[0]	[0]	[0]	[1]	[0]	[0]	[1]	[0]	[0]	[0]
minimal	0	0	0	1	0	0	0	0	0	0
mild	0	0	0	0	0	0	1	0	0	0
-peritonitis, focal	[0]	[0]	[0]	[1]	[0]	[0]	[0]	[0]	[0]	[0]
minimal	0	0	0	1	0	0	0	0	0	0
-ulcer(s), glandular area	[0]	[0]	[0]	[1]	[0]	[0]	[0]	[0]	[0]	[0]
moderate	0	0	0	1	0	0	0	0	0	0
TAIL:										
NO. EXAMINED	0	0	0	1	3	0	3	0	0	1
NO. NORMAL	0	0	0	0	2	0	1	0	0	0
-abscess	0	0	0	1	0	0	0	0	0	0
-constriction, focal	0	0	0	0	1	0	0	0	0	0

[ ] = Total incidence of specified lesion, all grades.

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

TABLE 3 (Continued)

Incidence and Degree of Severity of Histomorphologic Observations
F1 Generation

Dose Group:	I	II	III	IV	V	I	II	III	IV	V
Sex:	M	M	M	M	M	F	F	F	F	F
Number of Animals/Group:	17	13	19	26	25	12	5	1	1	11
TAIL (Continued):										
-hyperplasia/hyperkeratosis	[0]	[0]	[0]	[1]	[0]	[0]	[0]	[0]	[0]	[0]
moderate	0	0	0	1	0	0	0	0	0	0
-inflammation, chronic	[0]	[0]	[0]	[0]	[0]	[0]	[1]	[0]	[0]	[1]
minimal	0	0	0	0	0	0	1	0	0	0
mild	0	0	0	0	0	0	0	0	0	1
-necrosis, focal	[0]	[0]	[0]	[0]	[0]	[0]	[1]	[0]	[0]	[1]
mild	0	0	0	0	0	0	1	0	0	1
THYMUS:										
NO. EXAMINED	0	0	0	1	0	0	0	0	0	0
NO. NORMAL	0	0	0	0	0	0	0	0	0	0
-atrophy	[0]	[0]	[0]	[1]	[0]	[0]	[0]	[0]	[0]	[0]
marked	0	0	0	1	0	0	0	0	0	0
URETER:										
NO. EXAMINED	0	0	0	0	0	0	0	0	0	1
NO. NORMAL	0	0	0	0	0	0	0	0	0	0
-distention	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[1]
marked	0	0	0	0	0	0	0	0	0	1
-hyperplasia, mucosa	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[1]
moderate	0	0	0	0	0	0	0	0	0	1
-inflammation, chronic	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[1]
mild	0	0	0	0	0	0	0	0	0	1
URINARY BLADDER:										
NO. EXAMINED	0	0	0	0	0	0	0	0	0	1
NO. NORMAL	0	0	0	0	0	0	0	0	0	0
-cystitis, hyperplastic	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[1]
marked	0	0	0	0	0	0	0	0	0	1

[ ] = Total incidence of specified lesion, all grades.

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

TABLE 4

Incidence and Degree of Severity of Histomorphologic Observations - Reduced Fertility Animals
F1 Generation

Dose Group:	I	II	III	IV	V
Sex:	M	M	M	M	M
Number of Animals/Group:	2	3	2	2	1
ADRENAL GLANDS:					
NO. EXAMINED	0	0	0	1	0
NO. NORMAL	0	0	0	1	0
TESTIS:					
NO. EXAMINED	2	3	2	2	1
NO. NORMAL	2	3	2	2	1
EPIDIDYMIS:					
NO. EXAMINED	2	3	2	2	1
NO. NORMAL	2	3	2	2	0
-infiltration, mononuclear-cell, focal	[0]	[0]	[0]	[0]	[1]
minimal	0	0	0	0	1
PROSTATE:					
NO. EXAMINED	2	3	2	2	1
NO. NORMAL	2	2	1	1	1
-atrophy, focal	[0]	[0]	[0]	[1]	[0]
minimal	0	0	0	1	0
-inflammation, chronic	[0]	[1]	[1]	[0]	[0]
minimal	0	1	0	0	0
mild	0	0	1	0	0
SEMINAL VESICLES:					
NO. EXAMINED	2	3	2	2	1
NO. NORMAL	2	3	2	2	1
COAGULATING GLAND:					
NO. EXAMINED	2	3	2	2	1
NO. NORMAL	2	3	2	2	1

[ ] = Total incidence of specified lesion, all grades.

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS PROTOCOL 418-020 HISTOPATHOLOGY REPORT

APPENDIX I

HISTOMORPHOLOGIC OBSERVATIONS

P GENERATION

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS PROTOCOL 418-020 HISTOPATHOLOGY REPORT

KEY TO HISTOMORPHOLOGIC OBSERVATIONS

-	=	No change (not remarkable, within normal histologic limits or indicated change not present).
*	=	Tissue not available (specified tissue missing, insufficient tissue in plane of section, artifact precludes evaluation, or specified tissue not present in section).
< >	=	Microscopic finding(s) in tissue(s) with gross observation(s).
<->	=	Within normal limits [no microscopic change(s) to correlate with the gross observation(s)].
( )	=	Only one of a pair of organs available for processing/evaluation.
A	=	Advanced autolysis precludes evaluation.
P	=	Indicated change or lesion present.
1	=	Minimal degree or amount of indicated change or lesion.
2	=	Mild degree or amount of indicated change or lesion.
3	=	Moderate degree or amount of indicated change or lesion.
4	=	Marked degree or amount of indicated change or lesion.

SS	=	Sacrifice-Scheduled
SD	=	Spontaneous Death
SM	=	Sacrifice-Moribund
SSRF	=	Scheduled (Reduced Fertility)

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

TABLE I-1

Histomorphologic Observations
P Generation

Dose Group:	I	I	I	I	I	I	I
Animal Number:	13602	13609	13610	13611	13612	13614	13615
Sex:	M	M	M	M	M	M	M
Death Type:	SS	SSRF	SSRF	SSRF	SS	SS	SS
ADRENAL GLANDS:							
-vacuolation, cortex	-				-	-	2
PITUITARY:	-				-	-	-
TESTIS:							
-atrophy/degeneration, multifocal	-	3	-	-	-	-	-
EPIDIDYMIS:							
-infiltration, mononuclear-cell, focal	1	-	-	-	-	-	-
PROSTATE:							
-atrophy, focal	-	2	1	1	-	-	-
-dilatation, glandular, focal	-	-	-	-	-	-	3
-inflammation, chronic	1	-	-	1	-	2	-
-inflammation, suppurative, focal	-	-	-	-	-	-	1
SEMINAL VESICLES:	-	-	-	-	-	-	-
COAGULATING GLAND:	-	-	-	-	-	-	-
LUNG:							
-hemorrhage, multifocal						<3>	
-inflammation, interstitial, multifocal						<3>	

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

TABLE I-1 (Continued)

Histomorphologic Observations
P Generation

Dose Group:	I	I	I	I	I	I
Animal Number:	13616	13621	13622	13624	13625	13626
Sex:	M	M	M	M	M	M
Death Type:	SS	SS	SS	SS	SS	SS
ADRENAL GLANDS:						
-vacuolation, cortex	-	-	-	-	1	2
PITUITARY:	-	-	-	-	-	-
TESTIS:	-	-	-	-	-	-
EPIDIDYMIS:						
-infiltration, mononuclear-cell, focal	-	-	-	1	-	1
PROSTATE:						
-dilatation, glandular, focal	-	-	-	2	-	-
-inflammation, chronic	-	-	2	1	-	-
-inflammation, suppurative, focal	-	-	-	-	2	-
SEMINAL VESICLES:	-	-	-	-	-	-
COAGULATING GLAND:	-	-	-	-	-	-
EAR(S):	<*>					

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

TABLE I-2

Histomorphologic Observations
P Generation

Dose Group:	II	II	II	II	II	II	II	II
Animal Number:	13632	13636	13638	13639	13642	13644	13645	13646
Sex:	M	M	M	M	M	M	M	M
Death Type:	SS	SS	SSRF	SSRF	SS	SS	SS	SS
ADRENAL GLANDS:								
-vacuolation, cortex	-				-	-	-	1
TESTIS:								
-dilatation, rete testis		<P>	-	-				
-hypoplasia, diffuse		<4>	-	-				
EPIDIDYMIS:								
-atrophy		<1>	-	-				
-exfoliated spermatogenic cells		-	2	-				
-hypospermia		<4>	-	-				
-infiltration, mononuclear-cell, focal		<1>	-	1				
PROSTATE:								
-inflammation, chronic			-	2				
SEMINAL VESICLES:			-	-				
COAGULATING GLAND:			-	-				
EAR(S):								
-chondropathy, auricular			<3>					
KIDNEYS:								
-dilatation, pelvis				<1>				

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

TABLE I-2 (Continued)

Histomorphologic Observations
P Generation

Dose Group:	II	II	II	II	II	II	II
Animal Number:	13650	13651	13652	13653	13654	13655	13656
Sex:	M	M	M	M	M	M	M
Death Type:	SSRF	SS	SS	SS	SS	SS	SS
ADRENAL GLANDS:							
-vacuolation, cortex		1	-		-	-	-
TESTIS:	-						
EPIDIDYMIS:							
-infiltration, mononuclear-cell, focal	2						
PROSTATE:							
-inflammation, chronic	1						
SEMINAL VESICLES:	-						
COAGULATING GLAND:	-						
EAR(S):							
-chondropathy, auricular				<3>			

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

TABLE I-3

Histomorphologic Observations
P Generation

Dose Group:	III	III	III	III	III	III	III
Animal Number:	13661	13662	13668	13670	13671	13672	13673
Sex:	M	M	M	M	M	M	M
Death Type:	SS	SSRF	SS	SS	SS	SS	SS
ADRENAL GLANDS:							
-vacuolation, cortex	1	-	-		-		-
TESTIS:		-					
EPIDIDYMIS:		-					
PROSTATE:		-					
SEMINAL VESICLES:		-					
COAGULATING GLAND:		-					
KIDNEYS:							
-dilatation, pelvis				<3>		<1>	

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

TABLE I-3 (Continued)

Histomorphologic Observations
P Generation

Dose Group:	III	III	III	III	III	III
Animal Number:	13674	13675	13676	13682	13683	13684
Sex:	M	M	M	M	M	M
Death Type:	SSRF	SS	SS	SS	SS	SS
ADRENAL GLANDS:						
-vacuolation, cortex		2	-	1	3	-
TESTIS:	-					
EPIDIDYMIS:						
-exfoliated spermatogenic cells	3					
-hypospermia	2					
PROSTATE:	-					
SEMINAL VESICLES:	-					
COAGULATING GLAND:	-					

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

TABLE I-4

Histomorphologic Observations
P Generation

Dose Group:	IV	IV	IV	IV	IV	IV	IV
Animal Number:	13693	13695	13699	13700	13703	13704	13706
Sex:	M	M	M	M	M	M	M
Death Type:	SS	SS	SS	SSRF	SS	SS	SS
ADRENAL GLANDS:							
-vacuolation, cortex	-	-	-		-	-	1
TESTIS:							
-dilatation, rete testis				-			<P>
-hypoplasia, diffuse				-			<4>
EPIDIDYMIS:							
-atrophy				-			<2>
-hypospermia				-			<4>
-infiltration, mononuclear-cell, focal				-			<1>
PROSTATE:							
-inflammation, chronic				2			
SEMINAL VESICLES:				-			
COAGULATING GLAND:				-			

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
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TABLE I-4 (Continued)

Histomorphologic Observations
P Generation

Dose Group:	IV	IV	IV	IV	IV	IV
Animal Number:	13708	13710	13711	13716	13717	13719
Sex:	M	M	M	M	M	M
Death Type:	SS	SS	SS	SS	SS	SS
ADRENAL GLANDS:						
-hypertrophy/vacuolation, zona glomerulosa	-		1	1		-
EAR(S):						
-chondropathy, auricular		<3>				
KIDNEYS:						
-dilatation, pelvis					<1>	
-hyperplasia, pelvic/papillary epithelium, focal					<2>	

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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TABLE I-5

Histomorphologic Observations
P Generation

Dose Group:	V	V	V	V	V	V	V	V
Animal Number:	13721	13722	13728	13729	13731	13732	13733	13734
Sex:	M	M	M	M	M	M	M	M
Death Type:	SS	SS	SS	SSRF	SS	SM	SSRF	SS
ADRENAL GLANDS:								
-hypertrophy/vacuolation, zona glomerulosa	1	3	3		2			-
-vacuolation, cortex	-	-	1		-			1
PITUITARY:	-	-	-		-			-
TESTIS:								
-atrophy/degeneration, multifocal	-	-	-	-	-	<4>	-	-
EPIDIDYMIS:								
-atrophy	-	-	-	-	-		<3>	-
-exfoliated spermatogenic cells	-	-	-	-	-		<1>	-
-hypospermia	-	-	-	-	-		4	-
-infiltration, mononuclear-cell, focal	1	1	-	-	-		-	-
PROSTATE:								
-dilatation, glandular, focal	-	2	-	-	1		-	-
-inflammation, chronic	2	-	-	-	2		-	-
-inflammation, suppurative, focal	-	-	-	-	-		-	1
SEMINAL VESICLES:	-	-	-	-	-		-	-
COAGULATING GLAND:	-	-	-	-	-		-	-
KIDNEYS:								
-dilatation, pelvis				<->			<2>	

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

TABLE I-5 (Continued)

Histomorphologic Observations
P Generation

Dose Group:	V	V	V	V	V	V	V
Animal Number:	13735	13736	13741	13742	13743	13744	13750
Sex:	M	M	M	M	M	M	M
Death Type:	SS	SS	SSRF	SS	SS	SS	SSRF
ADRENAL GLANDS:							
-hypertrophy/vacuolation, zona glomerulosa	-	3		2	3	-	
-vacuolation, cortex	-	-		1	-	-	
PITUITARY:	-	-		-	-	-	
TESTIS:							
-atrophy/degeneration, multifocal	-	-	<3>	-	-	-	<->
-dilatation, rete testis	-	-	<P>	-	-	-	<->
EPIDIDYMIS:							
-exfoliated spermatogenic cells	-	-	<3>	-	-	-	-
-hypospermia	-	-	<4>	-	-	-	-
PROSTATE:							
-atrophy, focal	2	-	-	-	-	-	1
-inflammation, chronic	-	1	-	-	1	-	-
SEMINAL VESICLES:	-	-	-	-	-	-	-
COAGULATING GLAND:	-	-	-	-	-	-	-

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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TABLE I-6

Histomorphologic Observations
P Generation

Dose Group:	I	I	I	I	I	I	I
Animal Number:	13802	13804	13809	13811	13812	13814	13815
Sex:	F	F	F	F	F	F	F
Death Type:	SS	SM	SS	SSRF	SS	SS	SS
ADRENAL GLANDS:	-		-		-		-
PITUITARY:							
-cyst(s), pars intermedia	P		-		-		-
OVARIES:							
-cyst(s), intraovarian	-		-	P	-		-
OVIDUCT(S):	-		-	-	*		-
UTERUS:							
-distention, lumen	2		-	-	-		-
-macrophages, pigmented	3		3	-	3		3
CERVIX:	-		-	-	-		-
VAGINA:							
-mucification	3		-	2	-		-
OVARIAN FOLLICLES/CORPORA LUTEA:							
-presence of corpora lutea	P		P	P	P		P
-presence of growing/antral follicles	P		P	P	P		P
EAR(S):							
-chondropathy, auricular						<3>	
PALATE:							
-fracture		<P>					
-hemorrhage		<4>					

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
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TABLE I-6 (Continued)

Histomorphologic Observations
P Generation

Dose Group:	I	I	I	I	I	I
Animal Number:	13816	13821	13822	13824	13825	13826
Sex:	F	F	F	F	F	F
Death Type:	SS	SS	SM	SS	SS	SS
ADRENAL GLANDS:						
-degeneration, cystic, cortex	1	-	-	-	-	-
-hypertrophy/vacuolation, zona glomerulosa	-	1	-	-	-	-
PITUITARY:	-	-	-	-	-	-
OVARIES:						
-cyst(s), intraovarian	-	P	-	-	-	-
-cystic bursa(e)	-	-	-	-	-	P
OVIDUCT(S):	-	-	-	-	-	-
UTERUS:						
-macrophages, pigmented	1	2	3	3	3	1
CERVIX:	-	-	-	-	-	-
VAGINA:	-	-	-	-	-	*
OVARIAN FOLLICLES/CORPORA LUTEA:						
-presence of corpora lutea	P	P	P	P	P	P
-presence of growing/antral follicles	P	P	P	P	P	P
EAR(S):						
-chondropathy, auricular					<4>	

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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TABLE I-7

Histomorphologic Observations
P Generation

Dose Group:	II	II	II	II
Animal Number:	13836	13840	13851	13856
Sex:	F	F	F	F
Death Type:	SM	SSRF	SSRF	SS
OVARIES:		-	-	
OVIDUCT(S):		-	-	
UTERUS:				
-distention, lumen		-	4	
CERVIX:		-	-	
VAGINA:		-	-	
OVARIAN FOLLICLES/CORPORA LUTEA:				
-presence of corpora lutea		P	P	
-presence of growing/antral follicles		P	P	
EAR(S):				
-chondropathy, auricular				<4>
EXTREMITIES:				
-fracture	<P>			

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
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TABLE I-8

Histomorphologic Observations
P Generation

Dose Group:	III	III	III
Animal Number:	13862	13869	13885
Sex:	F	F	F
Death Type:	SSRF	SS	SS
OVARIES:	-		
OVIDUCT(S):	-		
UTERUS:	-		
CERVIX:	-		
VAGINA:	-		
OVARIAN FOLLICLES/CORPORA LUTEA:			
-presence of corpora lutea	P		
-presence of growing/antral follicles	P		
EAR(S):			
-chondropathy, auricular	<4>		
EYES:			
-cataract		<P>	
-keratitis, chronic		<3>	
KIDNEYS:			<*>

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
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TABLE I-9

Histomorphologic Observations
P Generation

Dose Group:	IV	IV	IV	IV
Animal Number:	13898	13900	13901	13908
Sex:	F	F	F	F
Death Type:	SS	SSRF	SS	SS
OVARIES:		*		
OVIDUCT(S):		*		
UTERUS:		*		
CERVIX:		*		
VAGINA:		*		
OVARIAN FOLLICLES/CORPORA LUTEA:		*		
EAR(S):				
-chondropathy, auricular	<4>		<3>	<2>

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
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TABLE I-10

Histomorphologic Observations
P Generation

Dose Group:	V	V	V	V	V	V	V
Animal Number:	13921	13922	13927	13928	13929	13933	13934
Sex:	F	F	F	F	F	F	F
Death Type:	SS	SS	SS	SS	SSRF	SS	SS
ADRENAL GLANDS:							
-degeneration, cystic, cortex	-	-		-		1	-
PITUITARY:	-	-		-		-	-
OVARIES:							
-cyst(s), intraovarian	-	-		-	P	-	-
OVIDUCT(S):	-	-		-	-	-	-
UTERUS:							
-distention, lumen	-	-		2	3	-	-
-gland(s), endometrial, cystic	-	-		-	-	P	-
-macrophages, pigmented	3	3		2	-	2	3
CERVIX:	-	-		*	-	-	-
VAGINA:	-	-		*	-	-	-
OVARIAN FOLLICLES/CORPORA LUTEA:							
-absence of corpora lutea	-	-		-	P	-	-
-presence of corpora lutea	P	P		P	-	P	P
-presence of growing/antral follicles	P	P		P	P	P	P
EAR(S):							
-chondropathy, auricular			<4>				

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

TABLE I-10 (Continued)

Histomorphologic Observations
P Generation

Dose Group:	V	V	V	V	V	V
Animal Number:	13935	13936	13942	13943	13944	13946
Sex:	F	F	F	F	F	F
Death Type:	SS	SS	SS	SS	SS	SS
ADRENAL GLANDS:	-	-	-	-	-	
PITUITARY:	-	-	-	-	-	
OVARIES:	-	-	-	-	-	
OVIDUCT(S):	-	-	-	-	-	
UTERUS:						
-distention, lumen	-	-	-	-	1	
-macrophages, pigmented	1	4	3	3	3	
CERVIX:						
-dilatation	-	3	-	-	-	
VAGINA:	-	-	-	-	-	
OVARIAN FOLLICLES/CORPORA LUTEA:						
-presence of corpora lutea	P	P	P	P	P	
-presence of growing/antral follicles	P	P	P	P	P	
EAR(S):						
-chondropathy, auricular						<3>

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS PROTOCOL 418-020 HISTOPATHOLOGY REPORT

APPENDIX II

HISTOMORPHOLOGIC OBSERVATIONS

F1 GENERATION

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS PROTOCOL 418-020 HISTOPATHOLOGY REPORT

KEY TO HISTOMORPHOLOGIC OBSERVATIONS

-	=	No change (not remarkable, within normal histologic limits or indicated change not present).
*	=	Tissue not available (specified tissue missing, insufficient tissue in plane of section, artifact precludes evaluation, or specified tissue not present in section).
< >	=	Microscopic finding(s) in tissue(s) with gross observation(s).
<->	=	Within normal limits [no microscopic change(s) to correlate with the gross observation(s)].
( )	=	Only one of a pair of organs available for processing/evaluation.
A	=	Advanced autolysis precludes evaluation.
P	=	Indicated change or lesion present.
1	=	Minimal degree or amount of indicated change or lesion.
2	=	Mild degree or amount of indicated change or lesion.
3	=	Moderate degree or amount of indicated change or lesion.
4	=	Marked degree or amount of indicated change or lesion.

SS	=	Sacrifice-Scheduled
SD	=	Spontaneous Death
SM	=	Sacrifice-Moribund
SSRF	=	Scheduled (Reduced Fertility)

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
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TABLE II-1

Histomorphologic Observations
F1 Generation

Dose Group:	I	I	I	I	I	I	I	I	I
Animal Number:	1003	1012	1017	1018	1019	1020	1022	1024	1026
Sex:	M	M	M	M	M	M	M	M	M
Death Type:	SS	SSRF	SS	SM	SM	SM	SS	SD	SS
ADRENAL GLANDS:									
-vacuolation, cortex	-		1						1
TESTIS:	-	-	-						-
EPIDIDYMIS:									
-infiltration, mononuclear-cell, focal	1	-	-						-
PROSTATE:	-	-	-						-
SEMINAL VESICLES:	-	-	-						-
COAGULATING GLAND:	-	-	-						-
PITUITARY:	-		-						-
EYES:									
-atrophy, iris/ciliary body				-	-	<->			<4>
-atrophy, retinal, focal				-	-	<->			<2>
-inflammation, chronic, iris				<3>	<3>	<->			-
-neuropathy, optic nerve(s)				<3>	<3>	<->			-
SKIN (GROSS LESION):									
-dermatitis, ulcerative							<3>		

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
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TABLE II-1 (Continued)

Histomorphologic Observations
F1 Generation

Dose Group:	I	I	I	I	I	I	I	I
Animal Number:	1034	1035	1040	1047	1048	1051	1052	1054
Sex:	M	M	M	M	M	M	M	M
Death Type:	SS	SS	SSRF	SS	SS	SS	SS	SS
ADRENAL GLANDS:								
-vacuolation, cortex	-	-		-	-	1	1	-
TESTIS:								
-atrophy/degeneration, multifocal	-	-	-	-	-	1	-	-
EPIDIDYMIS:								
-infiltration, mononuclear-cell, focal	-	-	-	1	-	-	-	-
PROSTATE:								
-dilatation, glandular, focal	-	-	-	2	-	-	-	-
-inflammation, chronic	-	-	-	2	-	-	-	1
SEMINAL VESICLES:	-	-	-	-	-	-	-	-
COAGULATING GLAND:	-	-	-	-	-	-	-	-
PITUITARY:	-	-		-	-	-	-	-

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

TABLE II-2

Histomorphologic Observations
F1 Generation

Dose Group:	II	II	II	II	II	II	II
Animal Number:	1063	1066	1077	1078	1082	1096	1098
Sex:	M	M	M	M	M	M	M
Death Type:	SS	SSRF	SSRF	SS	SSRF	SS	SS
TESTIS:		-	-		<-->		
EPIDIDYMIS:		-	-		<-->		
PROSTATE:							
-inflammation, chronic		-	1		-		
SEMINAL VESICLES:		-	-		-		
COAGULATING GLAND:		-	-		-		
ADRENAL GLANDS:							
-vacuolation, cortex	-			1		-	-

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
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TABLE II-2 (Continued)

Histomorphologic Observations
F1 Generation

Dose Group:	II	II	II	II	II	II
Animal Number:	1100	1106	1107	1116	1118	1120
Sex:	M	M	M	M	M	M
Death Type:	SS	SS	SS	SS	SS	SS
ADRENAL GLANDS:						
-vacuolation, cortex	1	-	1	-	-	1

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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TABLE II-3

Histomorphologic Observations
F1 Generation

Dose Group:	III	III	III	III	III	III	III	III	III	III
Animal Number:	1123	1124	1125	1126	1128	1129	1134	1136	1142	1149
Sex:	M	M	M	M	M	M	M	M	M	M
Death Type:	SS	SS	SS	SS	SS	SS	SS	SS	SSRF	SS
TESTIS:									-	
EPIDIDYMIS:									-	
PROSTATE:										
-inflammation, chronic									2	
SEMINAL VESICLES:									-	
COAGULATING GLAND:									-	
ADRENAL GLANDS:						-	-	-		-
LIVER:										
-hematopoiesis, extramedullary, multifocal		<1>	-	-	-					
-hypertrophy, hepatocellular, diffuse		<3>	<3>	<2>	<3>					
-inflammation, chronic, focal/multifocal		-	<2>	<1>	-					
-necrosis, focal/multifocal		<2>	-	-	-					
SKIN (GROSS LESION):										
-dermatitis, chronic				<3>						
-dermatitis, ulcerative				<3>						

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
PROTOCOL 418-020
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TABLE II-3 (Continued)

Histomorphologic Observations
F1 Generation

Dose Group:	III	III	III	III	III	III	III	III	III
Animal Number:	1154	1156	1159	1164	1165	1167	1175	1177	1180
Sex:	M	M	M	M	M	M	M	M	M
Death Type:	SS	SS	SS	SS	SS	SSRF	SS	SS	SS
TESTIS:						-			
EPIDIDYMIS:						-			
PROSTATE:						-			
SEMINAL VESICLES:						-			
COAGULATING GLAND:						-			
ADRENAL GLANDS:									
-vacuolation, cortex	-		-	-			-	1	-
LIVER:									
-hypertrophy, hepatocellular, diffuse		<2>			<3>				

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
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TABLE II-4

Histomorphologic Observations
F1 Generation

Dose Group:	IV	IV	IV	IV	IV	IV	IV	IV	IV
Animal Number:	1182	1189	1190	1191	1192	1193	1194	1197	1198
Sex:	M	M	M	M	M	M	M	M	M
Death Type:	SS	SS	SS	SS	SSRF	SS	SS	SS	SS
TESTIS:					-				
EPIDIDYMIS:					-				
PROSTATE:									
-atrophy, focal					1				
SEMINAL VESICLES:					-				
COAGULATING GLAND:					-				
ADRENAL GLANDS:	-	-			-		-		-
LIVER:									
-hypertrophy, hepatocellular, diffuse			<3>	<3>		<3>			
-inflammation, chronic, focal/multifocal			<1>	-		-			
-necrosis, single-cell			<1>	-		-			
TAIL:									
-abscess								<P>	
-hyperplasia/hyperkeratosis								<3>	

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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TABLE II-4 (Continued)

Histomorphologic Observations
F1 Generation

Dose Group:	IV	IV	IV	IV	IV	IV	IV	IV	IV
Animal Number:	1200	1205	1206	1207	1211	1212	1217	1218	1223
Sex:	M	M	M	M	M	M	M	M	M
Death Type:	SM	SS	SS	SSRF	SS	SS	SS	SS	SS
TESTIS:				-					
EPIDIDYMIS:				-					
PROSTATE:				-					
SEMINAL VESICLES:				-					
COAGULATING GLAND:				-					
ADRENAL GLANDS:									
-vacuolation, cortex					-	-	1		
CECUM:									
-distention	<4>								
-edema/inflammation, submucosa	<2>								
COLON:									
-distention	<4>								
ILEUM:	<A>								
LIVER:									
-hematopoiesis, extramedullary, multifocal		-	-					<1>	-
-hypertrophy, hepatocellular, diffuse		<3>	<2>					<2>	<2>
-necrosis, focal/multifocal		<2>	-					<1>	-
STOMACH:									
-erosion(s), glandular mucosa	<1>								
-peritonitis, focal	<1>								
-ulcer(s), glandular area	<3>								
THYMUS:									
-atrophy	<4>								

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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TABLE II-4 (Continued)

Histomorphologic Observations
F1 Generation

Dose Group:	IV	IV	IV	IV	IV	IV	IV	IV
Animal Number:	1224	1225	1229	1232	1234	1235	1236	1240
Sex:	M	M	M	M	M	M	M	M
Death Type:	SS	SS	SS	SS	SS	SS	SS	SS
ADRENAL GLANDS:								
-vacuolation, cortex		1					-	
EAR(S):								
-chondropathy, auricular			<4>					
KIDNEYS:								
-dilatation, pelvis	<3>			<2>				<2>
-hyperplasia, pelvic/papillary urothelium	-			-				<1>
-mineralization, pelvis	-			-				<1>
LIVER:								
-hypertrophy, hepatocellular, diffuse					<3>	<3>		
-inflammation, chronic, focal/multifocal					<2>	-		
-necrosis, focal/multifocal					<2>	-		
SPLEEN:								
-necrosis			<4>					

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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TABLE II-5

Histomorphologic Observations
F1 Generation

Dose Group:	V	V	V	V	V	V	V	V	V
Animal Number:	1241	1243	1244	1250	1251	1254	1256	1262	1263
Sex:	M	M	M	M	M	M	M	M	M
Death Type:	SS	SS	SS	SS	SS	SS	SS	SS	SD
TESTIS:	-		-			-			
EPIDIDYMIS:	-		-			-			
PROSTATE:									
-inflammation, chronic	-		-			1			
SEMINAL VESICLES:	-		-			-			
COAGULATING GLAND:	-		-			-			
ADRENAL GLANDS:									
-hypertrophy/vacuolation, zona glomerulosa	2		1			2			
-vacuolation, cortex	-		1			-			
PITUITARY:									
-cyst(s), pars distalis	-		P			-			
EYES:									<->
LIVER:									
-hypertrophy, hepatocellular, diffuse					<3>		<2>	<3>	
TAIL:									
-constriction, focal				<->				<P>	

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
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SPONSOR'S STUDY NUMBER: T-6889.6

TABLE II-5 (Continued)

Histomorphologic Observations
F1 Generation

Dose Group:	V	V	V	V	V	V	V	V	V
Animal Number:	1264	1266	1268	1269	1270	1271	1273	1275	1276
Sex:	M	M	M	M	M	M	M	M	M
Death Type:	SD	SS	SS	SS	SS	SS	SS	SM	SS
TESTIS:		-		-		-	-		
EPIDIDYMIS:									
-infiltration, mononuclear-cell, focal		-		-		1	-		
PROSTATE:									
-atrophy, focal		-		-		2	-		
-inflammation, suppurative		1		-		-	-		
SEMINAL VESICLES:		-		-		-	-		
COAGULATING GLAND:		-		-		-	-		
ADRENAL GLANDS:									
-hypertrophy/vacuolation, zona glomerulosa		2		-		-	1		
-vacuolation, cortex		-		-		-	1		
PITUITARY:									
-cyst(s), pars intermedia		P		-		-	*		
EYES:	<->								
LIVER:									
-hypertrophy, hepatocellular, diffuse			<4>					<2>	<3>
-inflammation, chronic, focal/multifocal			-					-	<1>
-necrosis, focal/multifocal			<2>					<2>	-
SPLEEN:									
-atrophy								<4>	
TAIL:					<->				

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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TABLE II-5 (Continued)

Histomorphologic Observations
F1 Generation

Dose Group:	V	V	V	V	V	V	V
Animal Number:	1278	1279	1283	1287	1288	1293	1295
Sex:	M	M	M	M	M	M	M
Death Type:	SSRF	SS	SS	SS	SS	SS	SS
TESTIS:	-			-	-		
EPIDIDYMIS:							
-infiltration, mononuclear-cell, focal	1			1	-		
PROSTATE:	-			-	-		
SEMINAL VESICLES:	-			-	-		
COAGULATING GLAND:	-			-	-		
ADRENAL GLANDS:							
-hypertrophy/vacuolation, zona glomerulosa				1	2		
PITUITARY:				-	-		
LIVER:							
-hematopoiesis, extramedullary, multifocal		-	<1>			-	-
-hypertrophy, hepatocellular, diffuse		<3>	<2>			<3>	<3>

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUORODCTANOATE (AFPO) IN RATS
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TABLE II-6

Histomorphologic Observations
F1 Generation

Dose Group:	I	I	I	I	I	I
Animal Number:	1312	1321	1328	1335	1340	1341
Sex:	F	F	F	F	F	F
Death Type:	SS	SS	SS	SS	SS	SS
OVARIES:	-	-	-	-	-	
UTERUS:						
-distention, lumen	-	-	-	-	1	
-macrophages, pigmented	-	3	3	3	3	
CERVIX:	-	-	-	-	-	
VAGINA:						
-mucification	-	-	2	-	3	
OVARIAN FOLLICLES/CORPORA LUTEA:						
-presence of corpora lutea	P	P	P	P	P	
-presence of growing/antral follicles	P	P	P	P	P	
ADRENAL GLANDS:	-	-	-	-	-	
PITUITARY:	-	-	-	-	-	
EAR(S):						
-chondropathy, auricular				<4>		<3>

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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TABLE II-6 (Continued)

Histomorphologic Observations
F1 Generation

Dose Group:	I	I	I	I	I	I
Animal Number:	1342	1345	1353	1355	1359	19780
Sex:	F	F	F	F	F	F
Death Type:	SS	SS	SS	SS	SS	SS
OVARIES:	-	-	-	-	-	
UTERUS:						
-distention, lumen	2	-	-	-	-	
-macrophages, pigmented	-	-	4	4	2	
CERVIX:	-	-	-	-	-	
VAGINA:						
-inflammation, chronic, focal	-	1	-	-	-	
-mucification	-	1	-	-	1	
OVARIAN FOLLICLES/CORPORA LUTEA:						
-presence of corpora lutea	P	P	P	P	P	
-presence of growing/antral follicles	P	P	P	P	P	
ADRENAL GLANDS:	-	-	-	-	-	
PITUITARY:	-	-	-	-	-	
EAR(S):						
-chondropathy, auricular	<4>					
SPLEEN:						
-atrophy						<4>

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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TABLE II-7

Histomorphologic Observations
F1 Generation

Dose Group:	II	II	II	II	II
Animal Number:	1365	1373	1374	1407	1415
Sex:	F	F	F	F	F
Death Type:	SD	SD	SS	SS	SS
ILEUM:					
-distention		<4>			
LIVER:					
-infarct, liver lobe					<P>
STOMACH:					
-erosion(s), glandular mucosa		<2>			
TAIL:					
-inflammation, chronic	-		<->	<1>	
-necrosis, focal	<2>		<->	-	

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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TABLE II-8

Histomorphologic Observations
F1 Generation

Dose Group:	III
Animal Number:	1428
Sex:	F
Death Type:	SS
KIDNEYS:	
-dilatation, pelvis	<2>

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
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TABLE II-9

Histomorphologic Observations
F1 Generation

Dose Group:	IV
Animal Number:	1495
Sex:	F
Death Type:	SS
EYES:	
-abscess, periocular	<P>

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
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TABLE II-10

Histomorphologic Observations
F1 Generation

Dose Group:	V	V	V	V	V	V
Animal Number:	1544	1546	1548	1551	1552	1557
Sex:	F	F	F	F	F	F
Death Type:	SS	SS	SS	SS	SS	SS
OVARIES:	-	-	-		-	-
UTERUS:						
-distention, lumen	-	-	3		3	-
-macrophages, pigmented	3	4	3		3	2
CERVIX:	-	-	-		-	-
VAGINA:						
-mucification	-	-	-		-	3
OVARIAN FOLLICLES/CORPORA LUTEA:						
-presence of corpora lutea	P	P	P		P	P
-presence of growing/antral follicles	P	P	P		P	P
ADRENAL GLANDS:						
-hyperplasia, cortical, focal	1	-	-		-	-
PITUITARY:						
-cyst(s), pars distalis	P	-	-		-	-
EAR(S):						
-chondropathy, auricular			<4>			
TAIL:						
-inflammation, chronic				<2>		
-necrosis, focal				<2>		

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
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TABLE II-10 (Continued)

Histomorphologic Observations
F1 Generation

Dose Group:	V	V	V	V	V
Animal Number:	1573	1579	1589	1593	1598
Sex:	F	F	F	F	F
Death Type:	SS	SS	SS	SS	SS
OVARIES:					
-cyst(s), intraovarian	-	-	-	P	-
UTERUS:					
-macrophages, pigmented	3	1	3	3	3
CERVIX:	-	-	-	-	-
VAGINA:					
-mucification	-	3	2	-	-
OVARIAN FOLLICLES/CORPORA LUTEA:					
-presence of corpora lutea	P	P	P	P	P
-presence of growing/antral follicles	P	P	P	P	P
ADRENAL GLANDS:	-	-	-	-	-
PITUITARY:	-	-	-	-	-
KIDNEYS:					
-dilatation, pelvis				<3>	
-pyelonephritis				<3>	
URETER:					
-distention				<4>	
-hyperplasia, mucosa				<3>	
-inflammation, chronic				<2>	
URINARY BLADDER:					
-cystitis, hyperplastic				<4>	

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS PROTOCOL 418-020 HISTOPATHOLOGY REPORT

APPENDIX III

INDIVIDUAL ANIMAL GROSS AND HISTOMORPHOLOGY DATA

P Generation

KEY TO CORRELATION OF HISTOMORPHOLOGIC OBSERVATIONS

Not applicable = Microscopic evaluation/correlation not appropriate or not required by protocol.

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13602 DOSE GROUP: I
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

EPIDIDYMIS: infiltration, mononuclear-cell, focal (minimal)
PROSTATE: inflammation, chronic (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS COAGULATING GLAND PITUITARY SEMINAL VESICLES
TESTIS

End of Record- 13602

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13609 DOSE GROUP: I
SEX: M DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

PROSTATE:	atrophy, focal (mild)
TESTIS:	atrophy/degeneration, multifocal (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND EPIDIDYMIS SEMINAL VESICLES

End of Record- 13609

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
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Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13610 DOSE GROUP: I
SEX: M DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

PROSTATE: atrophy, focal (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND EPIDIDYMIS SEMINAL VESICLES TESTIS

End of Record- 13610

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
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Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13611 DOSE GROUP: I
SEX: M DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S): HISTOMORPHOLOGIC OBSERVATION(S):

GENERAL: No gross changes. Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

PROSTATE: inflammation, chronic (minimal)
atrophy, focal (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	EPIDIDYMIS	SEMINAL VESICLES	TESTIS

End of Record- 13611

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13612 DOSE GROUP: I
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	COAGULATING GLAND	EPIDIDYMIS	PITUITARY
PROSTATE	SEMINAL VESICLES	TESTIS	

End of Record- 13612

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
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Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13614 | DOSE GROUP: I
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LUNG: All lobes- dark red areas too numerous to count ranging in size from pinpoint to 0.2cm in diameter.	hemorrhage, multifocal inflammation, interstitial, multifocal

HISTOMORPHOLOGIC OBSERVATIONS:

LUNG:	hemorrhage, multifocal (moderate) inflammation, interstitial, multifocal (moderate)
PROSTATE:	inflammation, chronic (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	COAGULATING GLAND	EPIDIDYMIS	PITUITARY
SEMINAL VESICLES	TESTIS		

End of Record- 13614

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13615 DOSE GROUP: I
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	vacuolation, cortex (mild)
PROSTATE:	inflammation, suppurative, focal (minimal)
	dilatation, glandular, focal (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	EPIDIDYMIS	PITUITARY	SEMINAL VESICLES
TESTIS			

End of Record- 13615

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13616 DOSE GROUP: I
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

EAR(S): Swollen, both.

HISTOMORPHOLOGIC OBSERVATION(S):

Tissue not available

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	COAGULATING GLAND	EPIDIDYMIS	PITUITARY
PROSTATE	SEMINAL VESICLES	TESTIS	

TISSUE(S) NOT AVAILABLE FOR EVALUATION:

EAR(S)

End of Record- 13616

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13621 DOSE GROUP: I
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	COAGULATING GLAND	EPIDIDYMIS	PITUITARY
PROSTATE	SEMINAL VESICLES	TESTIS	

End of Record- 13621

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13622 DOSE GROUP: I
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

PROSTATE: inflammation, chronic (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	COAGULATING GLAND	EPIDIDYMIS	PITUITARY
SEMINAL VESICLES	TESTIS		

End of Record- 13622

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13624 | DOSE GROUP: I
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

EPIDIDYMIS: infiltration, mononuclear-cell, focal (minimal)
PROSTATE: inflammation, chronic (minimal)
dilatation, glandular, focal (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS COAGULATING GLAND PITUITARY SEMINAL VESICLES
TESTIS

End of Record- 13624

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13625 | DOSE GROUP: I
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	vacuolation, cortex (minimal)
PROSTATE:	inflammation, suppurative, focal (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND EPIDIDYMIS PITUITARY SEMINAL VESICLES
TESTIS

End of Record- 13625

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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P Generation

ANIMAL NUMBER: 13626 DOSE GROUP: I
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: vacuolation, cortex (mild)
EPIDIDYMIS: infiltration, mononuclear-cell, focal (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND PITUITARY PROSTATE SEMINAL VESICLES
TESTIS

End of Record- 13626

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13632 | DOSE GROUP: II
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S): | HISTOMORPHOLOGIC OBSERVATION(S):

GENERAL: No gross changes. | Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13632

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13636 | DOSE GROUP: II
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EPIDIDYMIDES: Right- small and flaccid.	atrophy, EPIDIDYMIS hypospermia, EPIDIDYMIS infiltration, mononuclear-cell, focal, EPIDIDYMIS
TESTES: Right- small and flaccid.	hypoplasia, diffuse, TESTIS dilatation, rete testis, TESTIS

HISTOMORPHOLOGIC OBSERVATIONS:

EPIDIDYMIS:	atrophy (minimal) hypospermia (marked) infiltration, mononuclear-cell, focal (minimal)
TESTIS:	hypoplasia, diffuse (marked) dilatation, rete testis

End of Record- 13636

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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P Generation

ANIMAL NUMBER: 13638 DOSE GROUP: II
SEX: M DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EAR(S): Swollen, right.	chondropathy, auricular

HISTOMORPHOLOGIC OBSERVATIONS:

EAR(S):	chondropathy, auricular (moderate)
EPIDIDYMIS:	exfoliated spermatogenic cells (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	PROSTATE	SEMINAL VESICLES	TESTIS

End of Record- 13638

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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Appendix III
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ANIMAL NUMBER: 13639 | DOSE GROUP: II
SEX: M | DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
KIDNEYS: Right- pelvis, slight dilation.	dilatation, pelvis

HISTOMORPHOLOGIC OBSERVATIONS:

EPIDIDYMIS:	infiltration, mononuclear-cell, focal (minimal)
KIDNEYS:	dilatation, pelvis (minimal)
PROSTATE:	inflammation, chronic (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND SEMINAL VESICLES TESTIS

End of Record- 13639

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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P Generation

ANIMAL NUMBER: 13642	DOSE GROUP: II
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13642

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13644 DOSE GROUP: II
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13644

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13645 DOSE GROUP: II
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13645

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
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Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13646 DOSE GROUP: II
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: vacuolation, cortex (minimal)

End of Record- 13646

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
Individual Animal Gross and Histomorphology Data
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ANIMAL NUMBER: 13650 | DOSE GROUP: II
SEX: M | DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

EPIDIDYMIS:	infiltration, mononuclear-cell, focal (mild)
PROSTATE:	inflammation, chronic (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND SEMINAL VESICLES TESTIS

End of Record- 13650

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 13651	DOSE GROUP: II
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: vacuolation, cortex (minimal)

End of Record- 13651

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 13652	DOSE GROUP: II
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13652

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13653	DOSE GROUP: II
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EAR(S): Swollen, right.	chondropathy, auricular

HISTOMORPHOLOGIC OBSERVATIONS:

EAR(S): chondropathy, auricular (moderate)

End of Record- 13653

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
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P Generation

ANIMAL NUMBER: 13654	DOSE GROUP: II
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13654

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13655 DOSE GROUP: II
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13655

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 13656 DOSE GROUP: II
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13656

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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P Generation

ANIMAL NUMBER: 13661	DOSE GROUP: III
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	vacuolation, cortex (minimal)

End of Record- 13661

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 13662 DOSE GROUP: III
SEX: M DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	COAGULATING GLAND	EPIDIDYMIS	PROSTATE
SEMINAL VESICLES	TESTIS		

End of Record- 13662

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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SPONSOR'S STUDY NUMBER: T-3889.6

Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13668 DOSE GROUP: III
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13668

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13670	DOSE GROUP: III
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
KIDNEYS: Right- pelvis, moderate dilation.	dilatation, pelvis

HISTOMORPHOLOGIC OBSERVATIONS:

KIDNEYS: dilatation, pelvis (moderate)

End of Record- 13670

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
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P Generation

ANIMAL NUMBER: 13671 DOSE GROUP: III
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13671

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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P Generation

ANIMAL NUMBER: 13672	DOSE GROUP: III
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
KIDNEYS: Right- pelvis, slight dilation.	dilatation, pelvis

HISTOMORPHOLOGIC OBSERVATIONS:

KIDNEYS: dilatation, pelvis (minimal)

End of Record- 13672

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13673 DOSE GROUP: III
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13673

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13674 DOSE GROUP: III
SEX: M DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

EPIDIDYMIS: hypospermia (mild)
exfoliated spermatogenic cells (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND PROSTATE SEMINAL VESICLES TESTIS

End of Record- 13674

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13675 DOSE GROUP: III
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: vacuolation, cortex (mild)

End of Record- 13675

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13676 DOSE GROUP: III
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13676

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13682 DOSE GROUP: III
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: vacuolation, cortex (minimal)

End of Record- 13682

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13683 DOSE GROUP: III
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	vacuolation, cortex (moderate)

End of Record- 13683

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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P Generation

ANIMAL NUMBER: 13684 | DOSE GROUP: III
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S): | HISTOMORPHOLOGIC OBSERVATION(S):

GENERAL: No gross changes. | Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13684

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13693 DOSE GROUP: IV
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13693

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 13695	DOSE GROUP: IV
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13695

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

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ANIMAL NUMBER: 13699	DOSE GROUP: IV
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13699

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13700 DOSE GROUP: IV
SEX: M DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

PROSTATE: inflammation, chronic (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND EPIDIDYMIS SEMINAL VESICLES TESTIS

End of Record- 13700

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
Individual Animal Gross and Histomorphology Data
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ANIMAL NUMBER: 13703 | DOSE GROUP: IV
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13703

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
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P Generation

ANIMAL NUMBER: 13704 DOSE GROUP: IV
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13704

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
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ANIMAL NUMBER: 13706 | DOSE GROUP: IV
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EPIDIDYMIDES: Right- small and flaccid.	atrophy, EPIDIDYMIS hypospermia, EPIDIDYMIS infiltration, mononuclear-cell, focal, EPIDIDYMIS
TESTES: Right- small and flaccid.	hypoplasia, diffuse, TESTIS dilatation, rete testis, TESTIS

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	vacuolation, cortex (minimal)
EPIDIDYMIS:	atrophy (mild)
	hypospermia (marked)
	infiltration, mononuclear-cell, focal (minimal)
TESTIS:	hypoplasia, diffuse (marked)
	dilatation, rete testis

End of Record- 13706

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 13708 DOSE GROUP: IV
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13708

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 13710	DOSE GROUP: IV
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EAR(S): Swollen, right.	chondropathy, auricular

HISTOMORPHOLOGIC OBSERVATIONS:

EAR(S): chondropathy, auricular (moderate)

End of Record- 13710

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 13711 DOSE GROUP: IV
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: hypertrophy/vacuolation, zona glomerulosa (minimal)

End of Record- 13711

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 13716 DOSE GROUP: IV
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: hypertrophy/vacuolation, zona glomerulosa (minimal)

End of Record- 13716

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Individual Animal Gross and Histomorphology Data
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ANIMAL NUMBER: 13717	DOSE GROUP: IV
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
KIDNEYS: Right- pelvis, slight dilation.	dilatation, pelvis hyperplasia, pelvic/papillary epithelium, focal

HISTOMORPHOLOGIC OBSERVATIONS:

KIDNEYS:	dilatation, pelvis (minimal) hyperplasia, pelvic/papillary epithelium, focal (mild)

End of Record- 13717

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13719	DOSE GROUP: IV
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 13719

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
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ANIMAL NUMBER: 13721 DOSE GROUP: V
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	hypertrophy/vacuolation, zona glomerulosa (minimal)
EPIDIDYMIS:	infiltration, mononuclear-cell, focal (minimal)
PROSTATE:	inflammation, chronic (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	PITUITARY	SEMINAL VESICLES	TESTIS

End of Record- 13721

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 13722 | DOSE GROUP: V
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	hypertrophy/vacuolation, zona glomerulosa (moderate)
EPIDIDYMIS:	infiltration, mononuclear-cell, focal (minimal)
PROSTATE:	dilatation, glandular, focal (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	PITUITARY	SEMINAL VESICLES	TESTIS

End of Record- 13722

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13728 | DOSE GROUP: V
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S): | HISTOMORPHOLOGIC OBSERVATION(S):

GENERAL: No gross changes. | Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: hypertrophy/vacuolation, zona glomerulosa (moderate)
vacuolation, cortex (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	EPIDIDYMIS	PITUITARY	PROSTATE
SEMINAL VESICLES	TESTIS		

End of Record- 13728

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13729 DOSE GROUP: V
SEX: M DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
KIDNEYS: Right- pelvis, slight dilation.	No microscopic change to correlate

HISTOMORPHOLOGIC OBSERVATIONS:

KIDNEYS: No microscopic change to correlate

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	EPIDIDYMIS	KIDNEYS	PROSTATE
SEMINAL VESICLES	TESTIS		

End of Record- 13729

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13731 DOSE GROUP: V
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	hypertrophy/vacuolation, zona glomerulosa (mild)
PROSTATE:	inflammation, chronic (mild)
	dilatation, glandular, focal (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND EPIDIDYMIS PITUITARY SEMINAL VESICLES
TESTIS

End of Record- 13731

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
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ANIMAL NUMBER: 13732	DOSE GROUP: V
SEX: M	DEATH TYPE: Sacrifice-Moribund

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: All lobes pale, tan in color.	necrosis, centrilobular
TESTES: Bilateral- red.	atrophy/degeneration, multifocal, TESTIS

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER:	necrosis, centrilobular (moderate)
TESTIS:	atrophy/degeneration, multifocal (marked)

End of Record- 13732

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 13733 | DOSE GROUP: V
SEX: M | DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EPIDIDYMIDES: Left- small and flaccid.	exfoliated spermatogenic cells, EPIDIDYMIS atrophy, EPIDIDYMIS
KIDNEYS: Right- pelvis, slight dilation.	dilatation, pelvis

HISTOMORPHOLOGIC OBSERVATIONS:

EPIDIDYMIS:	exfoliated spermatogenic cells (minimal) atrophy (moderate) hypospermia (marked)
KIDNEYS:	dilatation, pelvis (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	PROSTATE	SEMINAL VESICLES	TESTIS

End of Record- 13733

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13734 DOSE GROUP: V
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: vacuolation, cortex (minimal)
PROSTATE: inflammation, suppurative, focal (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND EPIDIDYMIS PITUITARY SEMINAL VESICLES
TESTIS

End of Record- 13734

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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P Generation

ANIMAL NUMBER: 13735 DOSE GROUP: V
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

PROSTATE: atrophy, focal (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	COAGULATING GLAND	EPIDIDYMIS	PITUITARY
SEMINAL VESICLES	TESTIS		

End of Record- 13735

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13736 | DOSE GROUP: V
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	hypertrophy/vacuolation, zona glomerulosa (moderate)
PROSTATE:	inflammation, chronic (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND EPIDIDYMIS PITUITARY SEMINAL VESICLES
TESTIS

End of Record- 13736

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 13741
SEX: M

DOSE GROUP: V
DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EPIDIDYMIDES: Bilateral- soft and flaccid.	hypospermia, EPIDIDYMIS exfoliated spermatogenic cells, EPIDIDYMIS
TESTES: Bilateral- soft and flaccid.	atrophy/degeneration, multifocal, TESTIS dilatation, rete testis, TESTIS

HISTOMORPHOLOGIC OBSERVATIONS:

EPIDIDYMIS:	hypospermia (marked) exfoliated spermatogenic cells (moderate)
TESTIS:	dilatation, rete testis atrophy/degeneration, multifocal (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	PROSTATE	SEMINAL VESICLES

End of Record- 13741

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13742 DOSE GROUP: V
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: hypertrophy/vacuolation, zona glomerulosa (mild)
vacuolation, cortex (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	EPIDIDYMIS	PITUITARY	PROSTATE
SEMINAL VESICLES	TESTIS		

End of Record- 13742

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 13743 DOSE GROUP: V
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	hypertrophy/vacuolation, zona glomerulosa (moderate)
PROSTATE:	inflammation, chronic (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND EPIDIDYMIS PITUITARY SEMINAL VESICLES
TESTIS

End of Record- 13743

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13744 DOSE GROUP: V
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	COAGULATING GLAND	EPIDIDYMIS	PITUITARY
PROSTATE	SEMINAL VESICLES	TESTIS	

End of Record- 13744

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 13750 DOSE GROUP: V
SEX: M DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
TESTES: Left- large.	No microscopic change to correlate, TESTIS

HISTOMORPHOLOGIC OBSERVATIONS:

PROSTATE:	atrophy, focal (minimal)
TESTIS:	No microscopic change to correlate

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	EPIDIDYMIS	SEMINAL VESICLES	TESTIS

End of Record- 13750

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 13802 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea
	presence of growing/antral follicles
PITUITARY:	cyst(s), pars intermedia
UTERUS:	macrophages, pigmented (moderate)
	distention, lumen (mild)
VAGINA:	mucification (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)

End of Record- 13802

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 13804 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Moribund

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
HEAD: Broken palate.	fracture, PALATE hemorrhage, PALATE

HISTOMORPHOLOGIC OBSERVATIONS:

PALATE:	fracture
	hemorrhage (marked)

End of Record- 13804

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13809 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 13809

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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P Generation

ANIMAL NUMBER: 13811 DOSE GROUP: I
SEX: F DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea
	presence of growing/antral follicles
OVARIES:	cyst(s), intraovarian
VAGINA:	mucification (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

CERVIX OVIDUCT(S) UTERUS

End of Record- 13811

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13812 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	PITUITARY
VAGINA			

TISSUE(S) NOT AVAILABLE FOR EVALUATION:

OVIDUCT(S)

End of Record- 13812

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13814	DOSE GROUP: I
SEX: F	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EAR(S): Swollen, right.	chondropathy, auricular

HISTOMORPHOLOGIC OBSERVATIONS:

EAR(S): chondropathy, auricular (moderate)

End of Record- 13814

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13815 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 13815

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13816 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	degeneration, cystic, cortex (minimal)
OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea
	presence of growing/antral follicles
UTERUS:	macrophages, pigmented (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

CERVIX	OVARIES	OVIDUCT(S)	PITUITARY
VAGINA			

End of Record- 13816

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13821 | DOSE GROUP: I
SEX: F | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	hypertrophy/vacuolation, zona glomerulosa (minimal)
OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea
	presence of growing/antral follicles
OVARIES:	cyst(s), intraovarian
UTERUS:	macrophages, pigmented (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

CERVIX	OVIDUCT(S)	PITUITARY	VAGINA

End of Record- 13821

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13822 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Moribund

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 13822

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13824 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 13824

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13825 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EAR(S): Swollen, both.	chondropathy, auricular

HISTOMORPHOLOGIC OBSERVATIONS:

EAR(S):	chondropathy, auricular (marked)
OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea
	presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 13825

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13826 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea
	presence of growing/antral follicles
OVARIES:	cystic bursa(e)
UTERUS:	macrophages, pigmented (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS CERVIX OVIDUCT(S) PITUITARY

TISSUE(S) NOT AVAILABLE FOR EVALUATION:

VAGINA

End of Record- 13826

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13836 DOSE GROUP: II
SEX: F DEATH TYPE: Sacrifice-Moribund

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EXTREMITIES: Swollen limbs, left front leg, left front paw.	fracture

HISTOMORPHOLOGIC OBSERVATIONS:

EXTREMITIES: fracture

End of Record- 13836

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13840 DOSE GROUP: II
SEX: F DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA: presence of corpora lutea
presence of growing/antral follicles

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

CERVIX OVARIES OVIDUCT(S) UTERUS
VAGINA

End of Record- 13840

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13851 DOSE GROUP: II
SEX: F DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	distention, lumen (marked)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

CERVIX	OVARIES	OVIDUCT(S)	VAGINA

End of Record- 13851

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13856 DOSE GROUP: II
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EAR(S): Swollen, right.	chondropathy, auricular

HISTOMORPHOLOGIC OBSERVATIONS:

EAR(S): chondropathy, auricular (marked)

End of Record- 13856

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13862 DOSE GROUP: III
SEX: F DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EAR(S): Swollen, both.	chondropathy, auricular

HISTOMORPHOLOGIC OBSERVATIONS:

EAR(S):	chondropathy, auricular (marked)
OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea
	presence of growing/antral follicles

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

CERVIX	OVARIES	OVIDUCT(S)	UTERUS
VAGINA			

End of Record- 13862

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13869	DOSE GROUP: III
SEX: F	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EYES: Traumatized cornea.	keratitis, chronic cataract

HISTOMORPHOLOGIC OBSERVATIONS:

EYES:	keratitis, chronic (moderate) cataract

End of Record- 13869

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13885 DOSE GROUP: III
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
KIDNEYS: Left- pelvis, marked dilation.	Tissue not available

TISSUE(S) NOT AVAILABLE FOR EVALUATION:

KIDNEYS

End of Record- 13885

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13898	DOSE GROUP: IV
SEX: F	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EAR(S): Swollen, right.	chondropathy, auricular

HISTOMORPHOLOGIC OBSERVATIONS:

EAR(S): chondropathy, auricular (marked)

End of Record- 13898

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13900 DOSE GROUP: IV
SEX: F DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

TISSUE(S) NOT AVAILABLE FOR EVALUATION:

CERVIX
OVARIAN FOLLICLES/CORPORA LUTEA
OVARIES
OVIDUCT(S)
UTERUS
VAGINA

End of Record- 13900

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13901 DOSE GROUP: IV
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EAR(S): Swollen, right.	chond opathy, auricular

HISTOMORPHOLOGIC OBSERVATIONS:

EAR(S): chondropathy, auricular (moderate)

End of Record- 13901

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13908	DOSE GROUP: IV
SEX: F	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EAR(S): Swollen, right.	chondropathy, auricular

HISTOMORPHOLOGIC OBSERVATIONS:

EAR(S): chondropathy, auricular (mild)

End of Record- 13908

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13921 DOSE GROUP: V
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 13921

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13922 DOSE GROUP: V
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 13922

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13927	DOSE GROUP: V
SEX: F	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EAR(S): Swollen, right.	chondropathy, auricular

HISTOMORPHOLOGIC OBSERVATIONS:

EAR(S): chondropathy, auricular (marked)

End of Record- 13927

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13928 DOSE GROUP: V
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea
	presence of growing/antral follicles
UTERUS:	macrophages, pigmented (mild)
	distention, lumen (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	OVARIES	OVIDUCT(S)	PITUITARY

TISSUE(S) NOT AVAILABLE FOR EVALUATION:

CERVIX
VAGINA

End of Record- 13928

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13929 DOSE GROUP: V
SEX: F DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	absence of corpora lutea presence of growing/antral follicles
OVARIES:	cyst(s), intraovarian
UTERUS:	distention, lumen (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

CERVIX	OVIDUCT(S)	VAGINA

End of Record- 13929

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13933 DOSE GROUP: V
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	degeneration, cystic, cortex (minimal)
OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea
	presence of growing/antral follicles
UTERUS:	gland(s), endometrial, cystic
	macrophages, pigmented (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

CERVIX	OVARIES	OVIDUCT(S)	PITUITARY
VAGINA			

End of Record- 13933

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13934 DOSE GROUP: V
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 13934

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13935 | DOSE GROUP: V
SEX: F | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 13935

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13936 DOSE GROUP: V
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

CERVIX:	dilatation (moderate)
OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea
	presence of growing/antral follicles
UTERUS:	macrophages, pigmented (marked)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS OVARIES OVIDUCT(S) PITUITARY
VAGINA

End of Record- 13936

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13942 DOSE GROUP: V
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 13942

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 13943 DOSE GROUP: V
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 13943

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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P Generation

ANIMAL NUMBER: 13944 DOSE GROUP: V
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate) distention, lumen (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 13944

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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Appendix III
Individual Animal Gross and Histomorphology Data
P Generation

ANIMAL NUMBER: 13946 | DOSE GROUP: V
SEX: F | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EAR(S): Swollen.	chondropathy, auricular

HISTOMORPHOLOGIC OBSERVATIONS:

EAR(S): chondropathy, auricular (moderate)

End of Record- 13946

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS PROTOCOL 418-020 HISTOPATHOLOGY REPORT

APPENDIX IV

INDIVIDUAL ANIMAL GROSS AND HISTOMORPHOLOGY DATA

F1 Generation

KEY TO CORRELATION OF HISTOMORPHOLOGIC OBSERVATIONS

Not applicable = Microscopic evaluation/correlation not appropriate or not required by protocol.

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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Individual Animal Gross and Histomorphology Data
F1 Generation

ANIMAL NUMBER: 1003 DOSE GROUP: I
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

EPIDIDYMIS: infiltration, mononuclear-cell, focal (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	COAGULATING GLAND	PITUITARY	PROSTATE
SEMINAL VESICLES	TESTIS		

End of Record- 1003

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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Individual Animal Gross and Histomorphology Data
F1 Generation

ANIMAL NUMBER: 1012 DOSE GROUP: I
SEX: M DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND EPIDIDYMIS PROSTATE SEMINAL VESICLES
TESTIS

End of Record- 1012

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
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F1 Generation

ANIMAL NUMBER: 1017 DOSE GROUP: I
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: vacuolation, cortex (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	EPIDIDYMIS	PITUITARY	PROSTATE
SEMINAL VESICLES	TESTIS		

End of Record- 1017

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1018	DOSE GROUP: I
SEX: M	DEATH TYPE: Sacrifice-Moribund

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EYES: Corneal opacity, both eyes.	inflammation, chronic, iris neuropathy, optic nerve(s)

HISTOMORPHOLOGIC OBSERVATIONS:

EYES:	inflammation, chronic, iris (moderate) neuropathy, optic nerve(s) (moderate)

End of Record- 1018

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
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F1 Generation

ANIMAL NUMBER: 1019 DOSE GROUP: I
SEX: M DEATH TYPE: Sacrifice-Moribund

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EYES: Corneal opacity, both eyes.	inflammation, chronic, iris neuropathy, optic nerve(s)

HISTOMORPHOLOGIC OBSERVATIONS:

EYES:	inflammation, chronic, iris (moderate) neuropathy, optic nerve(s) (moderate)

End of Record- 1019

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1020 DOSE GROUP: I
SEX: M DEATH TYPE: Sacrifice-Moribund

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EYES: Corneal opacity, both eyes.	No microscopic change to correlate

HISTOMORPHOLOGIC OBSERVATIONS:

EYES: No microscopic change to correlate

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

EYES

End of Record- 1020

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1022	DOSE GROUP: I
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
HEAD: Lesion, left side, 1.0cm in diameter.	dermatitis, ulcerative, SKIN (GROSS LESION)

HISTOMORPHOLOGIC OBSERVATIONS:

SKIN (GROSS LESION): dermatitis, ulcerative (moderate)

End of Record- 1022

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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Individual Animal Gross and Histomorphology Data
F1 Generation

ANIMAL NUMBER: 1024 DOSE GROUP: I
SEX: M DEATH TYPE: Spontaneous Death

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LUNG: Mottled dark red, all lobes.	hemorrhage, multifocal

HISTOMORPHOLOGIC OBSERVATIONS:

LUNG: hemorrhage, multifocal (mild)

End of Record- 1024

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1026 | DOSE GROUP: I
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EYES: Right eye enlarged.	atrophy, retinal, focal atrophy, iris/ciliary body

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	vacuolation, cortex (minimal)
EYES:	atrophy, retinal, focal (mild) atrophy, iris/ciliary body (marked)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	EPIDIDYMIS	PITUITARY	PROSTATE
SEMINAL VESICLES	TESTIS		

End of Record- 1026

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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Individual Animal Gross and Histomorphology Data
F1 Generation

ANIMAL NUMBER: 1034 DOSE GROUP: I
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	COAGULATING GLAND	EPIDIDYMIS	PITUITARY
PROSTATE	SEMINAL VESICLES	TESTIS	

End of Record- 1034

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1035 DOSE GROUP: I
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S): HISTOMORPHOLOGIC OBSERVATION(S):

GENERAL: No gross changes. Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	COAGULATING GLAND	EPIDIDYMIS	PITUITARY
PROSTATE	SEMINAL VESICLES	TESTIS	

End of Record- 1035

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1040 DOSE GROUP: I
SEX: M DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND EPIDIDYMIS PROSTATE SEMINAL VESICLES
TESTIS

End of Record- 1040

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1047 DOSE GROUP: I
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

EPIDIDYMIS:	infiltration, mononuclear-cell, focal (minimal)
PROSTATE:	inflammation, chronic (mild)
	dilatation, glandular, focal (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS COAGULATING GLAND PITUITARY SEMINAL VESICLES
TESTIS

End of Record- 1047

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1048 DOSE GROUP: I
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	COAGULATING GLAND	EPIDIDYMIS	PITUITARY
PROSTATE	SEMINAL VESICLES	TESTIS	

End of Record- 1048

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1051 DOSE GROUP: I
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	vacuolation, cortex (minimal)
TESTIS:	atrophy/degeneration, multifocal (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND EPIDIDYMIS PITUITARY PROSTATE
SEMINAL VESICLES

End of Record- 1051

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1052 | DOSE GROUP: I
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: vacuolation, cortex (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	EPIDIDYMIS	PITUITARY	PROSTATE
SEMINAL VESICLES	TESTIS		

End of Record- 1052

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1054 DOSE GROUP: I
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

PROSTATE: inflammation, chronic (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	COAGULATING GLAND	EPIDIDYMIS	PITUITARY
SEMINAL VESICLES	TESTIS		

End of Record- 1054

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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Individual Animal Gross and Histomorphology Data
F1 Generation

ANIMAL NUMBER: 1063 | DOSE GROUP: II
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1063

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1066 | DOSE GROUP: II
SEX: M | DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND EPIDIDYMIS PROSTATE SEMINAL VESICLES
TESTIS

End of Record- 1066

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1077 | DOSE GROUP: II
SEX: M | DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

PROSTATE: inflammation, chronic (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND EPIDIDYMIS SEMINAL VESICLES TESTIS

End of Record- 1077

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1078 DOSE GROUP: II
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	vacuolation, cortex (minimal)

End of Record- 1078

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1082	DOSE GROUP: II
SEX: M	DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EPIDIDYMIDES: Left- small.	No microscopic change to correlate, EPIDIDYMIS
TESTES: Left- small, flaccid.	No microscopic change to correlate, TESTIS

HISTOMORPHOLOGIC OBSERVATIONS:

EPIDIDYMIS:	No microscopic change to correlate
TESTIS:	No microscopic change to correlate

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	EPIDIDYMIS	PROSTATE	SEMINAL VESICLES
TESTIS			

End of Record- 1082

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1096 DOSE GROUP: II
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1096

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1098 DOSE GROUP: II
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1098

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1100 | DOSE GROUP: II
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S): | HISTOMORPHOLOGIC OBSERVATION(S):

GENERAL: No gross changes. | Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: vacuolation, cortex (minimal)

End of Record- 1100

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1106 DOSE GROUP: II
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1106

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1107	DOSE GROUP: II
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	vacuolation, cortex (minimal)

End of Record- 1107

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1116 DOSE GROUP: II
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1116

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1118 | DOSE GROUP: II
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1118

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1120 DOSE GROUP: II
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: vacuolation, cortex (minimal)

End of Record- 1120

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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Individual Animal Gross and Histomorphology Data
F1 Generation

ANIMAL NUMBER: 1123	DOSE GROUP: III
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
HEAD: Swollen snout.	fracture with callus formation deviation, nasal septum

HISTOMORPHOLOGIC OBSERVATIONS:

HEAD:	fracture with callus formation deviation, nasal septum

End of Record- 1123

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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Individual Animal Gross and Histomorphology Data
F1 Generation

ANIMAL NUMBER: 1124 | DOSE GROUP: III
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Left lateral lobe- tan areas too numerous to count, ranging from pinpoint to 0.3cm.	hypertrophy, hepatocellular, diffuse necrosis, focal/multifocal hematopoiesis, extramedullary, multifocal

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER:	hypertrophy, hepatocellular, diffuse (moderate) necrosis, focal/multifocal (mild) hematopoiesis, extramedullary, multifocal (minimal)

End of Record- 1124

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1125
SEX: M

DOSE GROUP: III
DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Left lateral lobe- tan areas (4) ranged in size from pinpoint to 0.1cm.	hypertrophy, hepatocellular, diffuse inflammation, chronic, focal/multifocal

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER:	inflammation, chronic, focal/multifocal (mild) hypertrophy, hepatocellular, diffuse (moderate)

End of Record- 1125

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1126 | DOSE GROUP: III
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
HEAD: Lesion, neck, right side, 2.0 x 0.5cm; lesion, head, top, 0.2cm in diameter; lesion, head, right side, 0.2cm in diameter; lesion, head, left side, 0.2cm in diameter.	dermatitis, chronic, SKIN (GROSS LESION) dermatitis, ulcerative, SKIN (GROSS LESION)
LIVER: Left lateral lobe- tan areas ranging from a pinpoint to 0.2cm in size, too numerous to count.	hypertrophy, hepatocellular, diffuse inflammation, chronic, focal/multifocal

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER:	inflammation, chronic, focal/multifocal (minimal) hypertrophy, hepatocellular, diffuse (mild)
SKIN (GROSS LESION):	dermatitis, chronic (moderate) dermatitis, ulcerative (moderate)

End of Record- 1126

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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F1 Generation

ANIMAL NUMBER: 1128 DOSE GROUP: III
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Left lateral lobe- tan area, 0.4 x 0.2cm.	hypertrophy, hepatocellular, diffuse

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER: hypertrophy, hepatocellular, diffuse (moderate)

End of Record- 1128

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1129 | DOSE GROUP: III
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1129

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 1134 DOSE GROUP: III
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1134

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
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ANIMAL NUMBER: 1136 | DOSE GROUP: III
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

HEAD: Swollen snout.

HISTOMORPHOLOGIC OBSERVATION(S):

fracture with callus formation
necrosis, tooth
rhinitis, suppurative

HISTOMORPHOLOGIC OBSERVATIONS:

HEAD: fracture with callus formation
necrosis, tooth
rhinitis, suppurative (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1136

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1142 DOSE GROUP: III
SEX: M DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

PROSTATE: inflammation, chronic (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND EPIDIDYMIS SEMINAL VESICLES TESTIS

End of Record- 1142

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
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ANIMAL NUMBER: 1149 | DOSE GROUP: III
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1149

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
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ANIMAL NUMBER: 1154 DOSE GROUP: III
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1154

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
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ANIMAL NUMBER: 1156 | DOSE GROUP: III
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Left lateral lobe- 6 tan areas, pinpoint to 0.3cm.	hypertrophy, hepatocellular, diffuse

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER: hypertrophy, hepatocellular, diffuse (mild)

End of Record- 1156

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 1159 | DOSE GROUP: III
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1159

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1164 DOSE GROUP: III
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1164

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1165 | DOSE GROUP: III
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Left lateral lobe- tan areas too numerous to count, ranging in size from pinpoint to 0.2cm.	hypertrophy, hepatocellular, diffuse

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER: hypertrophy, hepatocellular, diffuse (moderate)

End of Record- 1165

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1167 | DOSE GROUP: III
SEX: M | DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND EPIDIDYMIS PROSTATE SEMINAL VESICLES
TESTIS

End of Record- 1167

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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Individual Animal Gross and Histomorphology Data
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ANIMAL NUMBER: 1175 | DOSE GROUP: III
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1175

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1177 | DOSE GROUP: III
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	vacuolation, cortex (minimal)

End of Record- 1177

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1180 | DOSE GROUP: III
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1180

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1182 DOSE GROUP: IV
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1182

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1189	DOSE GROUP: IV
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1189

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1190
SEX: M

DOSE GROUP: IV
DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Left lateral lobe, median lobe- tan areas ranging from a pinpoint to 0.2cm in size, too numerous to count.	hypertrophy, hepatocellular, diffuse inflammation, chronic, focal/multifocal necrosis, single-cell

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER:	inflammation, chronic, focal/multifocal (minimal) necrosis, single-cell (minimal) hypertrophy, hepatocellular, diffuse (moderate)

End of Record- 1190

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1191 DOSE GROUP: IV
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Lateral lobe- tan areas too numerous to count ranging in size from pinpoint to 0.1cm.	hypertrophy, hepatocellular, diffuse

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER: hypertrophy, hepatocellular, diffuse (moderate)

End of Record- 1191

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1192 DOSE GROUP: IV
SEX: M DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

PROSTATE: atrophy, focal (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS COAGULATING GLAND EPIDIDYMIS SEMINAL VESICLES
TESTIS

End of Record- 1192

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1193 DOSE GROUP: IV
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Left lateral lobe- four tan areas, pinpoint to 0.2cm.	hypertrophy, hepatocellular, diffuse

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER: hypertrophy, hepatocellular, diffuse (moderate)

End of Record- 1193

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1194 | DOSE GROUP: IV
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S): | HISTOMORPHOLOGIC OBSERVATION(S):

GENERAL: No gross changes. | Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1194

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1197
SEX: M

DOSE GROUP: IV
DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
TAIL: Tip missing 5.0cm from base.	hyperplasia/hyperkeratosis abscess

HISTOMORPHOLOGIC OBSERVATIONS:

TAIL:	hyperplasia/hyperkeratosis (moderate) abscess

End of Record- 1197

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1198	DOSE GROUP: IV
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1198

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1200
SEX: M

DOSE GROUP: IV
DEATH TYPE: Sacrifice-Moribund

GROSS OBSERVATION(S):

GASTROINTESTINAL TRACT: Intestines- distended with gas; stomach, cardiac region- ulcerations one region too numerous to count, range in size from pinpoint to 0.1cm in diameter, second region five ulcerations pinpoint size in diameter.

THYMUS: Small.

HISTOMORPHOLOGIC OBSERVATION(S):

ulcer(s), glandular area, STOMACH
erosion(s), glandular mucosa, STOMACH
peritonitis, focal, STOMACH
Advanced autolysis precludes evaluation, ILEUM
distention, COLON
distention, CECUM
edema/inflammation, submucosa, CECUM
atrophy

HISTOMORPHOLOGIC OBSERVATIONS:

CECUM:	distention (marked)
	edema/inflammation, submucosa (mild)
COLON:	distention (marked)
ILEUM:	Advanced autolysis precludes evaluation
STOMACH:	ulcer(s), glandular area (moderate)
	erosion(s), glandular mucosa (minimal)
	peritonitis, focal (minimal)
THYMUS:	atrophy (marked)

AUTOLYSIS PRECLUDES EVALUATION:

ILEUM

End of Record- 1200

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1205 | DOSE GROUP: IV
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Left lateral lobe- tan areas ranging in size from pinpoint to 0.5cm, too numerous to count.	hypertrophy, hepatocellular, diffuse necrosis, focal/multifocal

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER:	necrosis, focal/multifocal (mild) hypertrophy, hepatocellular, diffuse (moderate)

End of Record- 1205

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1206 | DOSE GROUP: IV
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Left lateral lobe- tan ares, too numerous to count, ranging in size from pinpoint to 0.5 x 0.1cm.	hypertrophy, hepatocellular, diffuse

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER: hypertrophy, hepatocellular, diffuse (mild)

End of Record- 1206

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1207 | DOSE GROUP: IV
SEX: M | DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S): | HISTOMORPHOLOGIC OBSERVATION(S):

GENERAL: No gross changes. | Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND EPIDIDYMIS PROSTATE SEMINAL VESICLES
TESTIS

End of Record- 1207

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1211 DOSE GROUP: IV
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1211

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) -
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ANIMAL NUMBER: 1212 DOSE GROUP: IV
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1212

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1217 DOSE GROUP: IV
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: vacuolation, cortex (minimal)

End of Record- 1217

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1218 | DOSE GROUP: IV
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Left lateral lobe- one tan and black area, 0.2 x 0.2cm; caudate lobe- one tan area, 0.4cm.	hypertrophy, hepatocellular, diffuse necrosis, focal/multifocal hematopoiesis, extramedullary, multifocal

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER:	necrosis, focal/multifocal (minimal) hematopoiesis, extramedullary, multifocal (minimal) hypertrophy, hepatocellular, diffuse (mild)

End of Record- 1218

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1223 DOSE GROUP: IV
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Left lateral lobe- tan area, too numerous to count, ranging in size from pinpoint to 0.2cm in diameter.	hypertrophy, hepatocellular, diffuse

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER: hypertrophy, hepatocellular, diffuse (mild)

End of Record- 1223

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1224	DOSE GROUP: IV
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
KIDNEYS: Right- pelvic dilation, slight.	dilatation, pelvis

HISTOMORPHOLOGIC OBSERVATIONS:

KIDNEYS: dilatation, pelvis (moderate)

End of Record- 1224

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1225 | DOSE GROUP: IV
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: vacuolation, cortex (minimal)

End of Record- 1225

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1229 DOSE GROUP: IV
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EAR(S): Swollen, both.	chondropathy, auricular
SPLEEN: Tan area, 2.0 x 1.5cm, extends into the parenchyma.	necrosis

HISTOMORPHOLOGIC OBSERVATIONS:

EAR(S):	chondropathy, auricular (marked)
SPLEEN:	necrosis (marked)

End of Record- 1229

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1232	DOSE GROUP: IV
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
KIDNEYS: Right- pelvic dilation, slight.	dilatation, pelvis

HISTOMORPHOLOGIC OBSERVATIONS:

KIDNEYS: dilatation, pelvis (mild)

End of Record- 1232

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1234 | DOSE GROUP: IV
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Tan areas, median lobe one tan area 0.2cm, left lateral lobe too numerous to count, ranging from pinpoint to 0.7cm.	hypertrophy, hepatocellular, diffuse necrosis, focal/multifocal inflammation, chronic, focal/multifocal

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER:	necrosis, focal/multifocal (mild) inflammation, chronic, focal/multifocal (mild) hypertrophy, hepatocellular, diffuse (moderate)

End of Record- 1234

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1235 | DOSE GROUP: IV
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Tan areas, median lobe too numerous to count ranging in size from pinpoint to 0.3cm, left lateral lobe 4-5 tam areas ranging from pinpoint to 0.1cm.	hypertrophy, hepatocellular, diffuse

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER: hypertrophy, hepatocellular, diffuse (moderate)

End of Record- 1235

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1236 | DOSE GROUP: IV
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS

End of Record- 1236

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1240	DOSE GROUP: IV
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
KIDNEYS: Right- pelvic dilation, slight.	dilatation, pelvis mineralization, pelvis hyperplasia, pelvic/papillary urothelium

HISTOMORPHOLOGIC OBSERVATIONS:

KIDNEYS:	dilatation, pelvis (mild) mineralization, pelvis (minimal) hyperplasia, pelvic/papillary urothelium (minimal)

End of Record- 1240

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1241 DOSE GROUP: V
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: hypertrophy/vacuolation, zona glomerulosa (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	EPIDIDYMIS	PITUITARY	PROSTATE
SEMINAL VESICLES	TESTIS		

End of Record- 1241

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1243 | DOSE GROUP: V
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
HEAD: Lesion, 0.2cm in diameter.	dermatitis, chronic

HISTOMORPHOLOGIC OBSERVATIONS:

HEAD:	dermatitis, chronic (moderate)

End of Record- 1243

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1244 | DOSE GROUP: V
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	hypertrophy/vacuolation, zona glomerulosa (minimal) vacuolation, cortex (minimal)
PITUITARY:	cyst(s), pars distalis

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND EPIDIDYMIS PROSTATE SEMINAL VESICLES
TESTIS

End of Record- 1244

ORAL (GA/AGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1250 | DOSE GROUP: V
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
TAIL: Annular constriction.	No microscopic change to correlate

HISTOMORPHOLOGIC OBSERVATIONS:

TAIL: No microscopic change to correlate

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

TAIL

End of Record- 1250

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1251 DOSE GROUP: V
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Left lateral lobe and median lobe- tan areas, too numerous to count, ranging in size from pinpoint to 0.3cm in diameter.	hypertrophy, hepatocellular, diffuse

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER: hypertrophy, hepatocellular, diffuse (moderate)

End of Record- 1251

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1254 DOSE GROUP: V
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	hypertrophy/vacuolation, zona glomerulosa (mild)
PROSTATE:	inflammation, chronic (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	EPIDIDYMIS	PITUITARY	SEMINAL VESICLES
TESTIS			

End of Record- 1254

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1256	DOSE GROUP: V
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Left lateral lobe- tan area, 0.8cm.	hypertrophy, hepatocellular, diffuse

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER: hypertrophy, hepatocellular, diffuse (mild)

End of Record- 1256

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1262 DOSE GROUP: V
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Tan areas, median lobe five tan areas pinpoint to 0.3cm; left lateral lobe tan six tan areas pinpoint to 0.1cm.	hypertrophy, hepatocellular, diffuse
TAIL: Annular constrictions of tail.	constriction, focal

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER:	hypertrophy, hepatocellular, diffuse (moderate)
TAIL:	constriction, focal

End of Record- 1262

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1263 DOSE GROUP: V
SEX: M DEATH TYPE: Spontaneous Death

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EYES: Corneal opacity, both eyes.	No microscopic change to correlate

HISTOMORPHOLOGIC OBSERVATIONS:

EYES: No microscopic change to correlate

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

EYES

End of Record- 1263

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1264 DOSE GROUP: V
SEX: M DEATH TYPE: Spontaneous Death

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EYES: Corneal opacity, both eyes.	No microscopic change to correlate

HISTOMORPHOLOGIC OBSERVATIONS:

EYES: No microscopic change to correlate

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

EYES

End of Record- 1264

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1266 | DOSE GROUP: V
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	hypertrophy/vacuolation, zona glomerulosa (mild)
PITUITARY:	cyst(s), pars intermedia
PROSTATE:	inflammation, suppurative (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	EPIDIDYMIS	SEMINAL VESICLES	TESTIS

End of Record- 1266

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1268 | DOSE GROUP: V
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Tan area, median lobe too numerous to count ranging in size from pinpoint to 0.4 x 0.2cm.	hypertrophy, hepatocellular, diffuse necrosis, focal/multifocal

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER:	necrosis, focal/multifocal (mild) hypertrophy, hepatocellular, diffuse (marked)

End of Record- 1268

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1269	DOSE GROUP: V
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	COAGULATING GLAND	EPIDIDYMIS	PITUITARY
PROSTATE	SEMINAL VESICLES	TESTIS	

End of Record- 1269

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1270 DOSE GROUP: V
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
TAIL: Annular constriction.	No microscopic change to correlate

HISTOMORPHOLOGIC OBSERVATIONS:

TAIL: No microscopic change to correlate

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

TAIL

End of Record- 1270

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1271 DOSE GROUP: V
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

EPIDIDYMIS: infiltration, mononuclear-cell, focal (minimal)
PROSTATE: atrophy, focal (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS COAGULATING GLAND PITUITARY SEMINAL VESICLES
TESTIS

End of Record- 1271

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1273 DOSE GROUP: V
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	hypertrophy/vacuolation, zona glomerulosa (minimal) vacuolation, cortex (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND EPIDIDYMIS PROSTATE SEMINAL VESICLES
TESTIS

COMMENTS:

PITUITARY	The pituitary was damaged at necropsy and the section that could be obtained was not adequate for evaluation.

TISSUE(S) NOT AVAILABLE FOR EVALUATION:

PITUITARY

End of Record- 1273

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1275 | DOSE GROUP: V
SEX: M | DEATH TYPE: Sacrifice-Moribund

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Median lobe- tan areas too numerous to count ranging in size from pinpoint to 0.1cm.	hypertrophy, hepatocellular, diffuse necrosis, focal/multifocal
SPLEEN: Small.	atrophy

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER:	necrosis, focal/multifocal (mild) hypertrophy, hepatocellular, diffuse (mild)
SPLEEN:	atrophy (marked)

End of Record- 1275

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1276
SEX: M

DOSE GROUP: V
DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Large.	hypertrophy, hepatocellular, diffuse inflammation, chronic, focal/multifocal

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER:	inflammation, chronic, focal/multifocal (minimal) hypertrophy, hepatocellular, diffuse (moderate)

End of Record- 1276

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1278 DOSE GROUP: V
SEX: M DEATH TYPE: Scheduled (Reduced Fertility)

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

EPIDIDYMIS:	infiltration, mononuclear-cell, focal (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	PROSTATE	SEMINAL VESICLES	TESTIS

End of Record- 1278

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1279	DOSE GROUP: V
SEX: M	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Left lateral lobe- tan areas too numerous to count.	hypertrophy, hepatocellular, diffuse

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER: hypertrophy, hepatocellular, diffuse (moderate)

End of Record- 1279

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1283 | DOSE GROUP: V
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Left lateral and median lobes- tan areas too numerous to count ranging in size from pinpoint to 0.3 x 0.1cm.	hypertrophy, hepatocellular, diffuse hematopoiesis, extramedullary, multifocal

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER:	hematopoiesis, extramedullary, multifocal (minimal) hypertrophy, hepatocellular, diffuse (mild)

End of Record- 1283

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1287 | DOSE GROUP: V
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S): | HISTOMORPHOLOGIC OBSERVATION(S):

GENERAL: No gross changes. | Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: hypertrophy/vacuolation, zona glomerulosa (minimal)
EPIDIDYMIS: infiltration, mononuclear-cell, focal (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND PITUITARY PROSTATE SEMINAL VESICLES
TESTIS

End of Record- 1287

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1288 DOSE GROUP: V
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS: hypertrophy/vacuolation, zona glomerulosa (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

COAGULATING GLAND	EPIDIDYMIS	PITUITARY	PROSTATE
SEMINAL VESICLES	TESTIS		

End of Record- 1288

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1293 | DOSE GROUP: V
SEX: M | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Left lateral lobe too numerous to count tan areas ranging in size from pinpoint to 0.5cm.	hypertrophy, hepatocellular, diffuse

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER: hypertrophy, hepatocellular, diffuse (moderate)

End of Record- 1293

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1295 DOSE GROUP: V
SEX: M DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Left lateral lobe four tan and white areas ranging in size from pinpoint to 0.3cm.	hypertrophy, hepatocellular, diffuse

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER: hypertrophy, hepatocellular, diffuse (moderate)

End of Record- 1295

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1312 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA: presence of corpora lutea
presence of growing/antral follicles

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	UTERUS	VAGINA	

End of Record- 1312

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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Individual Animal Gross and Histomorphology Data
F1 Generation

ANIMAL NUMBER: 1321 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 1321

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1328 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate)
VAGINA:	mucification (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS CERVIX OVARIES OVIDUCT(S)
PITUITARY

End of Record- 1328

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1335 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EAR(S): Swollen, both.	chondropathy, auricular

HISTOMORPHOLOGIC OBSERVATIONS:

EAR(S):	chondropathy, auricular (marked)
OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea
	presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 1335

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1340 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate) distention, lumen (minimal)
VAGINA:	mucification (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS CERVIX OVARIES OVIDUCT(S)
PITUITARY

End of Record- 1340

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1341 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EAR(S): Swollen, both.	chondropathy, auricular

HISTOMORPHOLOGIC OBSERVATIONS:

EAR(S): chondropathy, auricular (moderate)

End of Record- 1341

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1342 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EAR(S): Swollen, both.	chondropathy, auricular

HISTOMORPHOLOGIC OBSERVATIONS:

EAR(S):	chondropathy, auricular (marked)
OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea
	presence of growing/antral follicles
UTERUS:	distention, lumen (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 1342

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1345 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
VAGINA:	inflammation, chronic, focal (minimal) mucification (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	UTERUS		

End of Record- 1345

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1353 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (marked)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 1353

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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Appendix IV
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F1 Generation

ANIMAL NUMBER: 1355 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (marked)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 1355

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
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F1 Generation

ANIMAL NUMBER: 1359 DOSE GROUP: I
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (mild)
VAGINA:	mucification (minimal)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY			

End of Record- 1359

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
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F1 Generation

ANIMAL NUMBER: 19780	DOSE GROUP: I
SEX: F	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
SPLEEN: Small.	atrophy

HISTOMORPHOLOGIC OBSERVATIONS:

SPLEEN:	atrophy (marked)

End of Record- 19780

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
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ANIMAL NUMBER: 1365 DOSE GROUP: II
SEX: F DEATH TYPE: Spontaneous Death

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
TAIL: Tip missing.	necrosis, focal

HISTOMORPHOLOGIC OBSERVATIONS:

TAIL:	necrosis, focal (mild)

End of Record- 1365

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1373
SEX: F

DOSE GROUP: II
DEATH TYPE: Spontaneous Death

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GASTROINTESTINAL TRACT: Stomach and intestines-distention.	erosion(s), glandular mucosa, STOMACH distention, ILEUM
LUNG: Dorsal surface, right apical lobe, depressed white area, 0.3cm in diameter.	necrosis, focal macrophages, alveoli, focal

HISTOMORPHOLOGIC OBSERVATIONS:

ILEUM:	distention (marked)
LUNG:	necrosis, focal (mild)
	macrophages, alveoli, focal (mild)
STOMACH:	erosion(s), glandular mucosa (mild)

End of Record- 1373

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1374 DOSE GROUP: II
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
TAIL: Annular constrictions of the tail.	No microscopic change to correlate

HISTOMORPHOLOGIC OBSERVATIONS:

TAIL: No microscopic change to correlate

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

TAIL

End of Record- 1374

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1407	DOSE GROUP: II
SEX: F	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
TAIL: Tip missing.	inflammation, chronic

HISTOMORPHOLOGIC OBSERVATIONS:

TAIL:	inflammation, chronic (minimal)

End of Record- 1407

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1415	DOSE GROUP: II
SEX: F	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
LIVER: Left lateral lobe- mass adhered to left lateral lobe, 2.0 x 1.2 x 0.4cm, firm.	infarct, liver lobe

HISTOMORPHOLOGIC OBSERVATIONS:

LIVER: infarct, liver lobe

End of Record- 1415

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1428	DOSE GROUP: III
SEX: F	DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
KIDNEYS: Pelvic dilation, slight, bilateral.	dilatation, pelvis

HISTOMORPHOLOGIC OBSERVATIONS:

KIDNEYS: dilatation, pelvis (mild)

End of Record- 1428

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
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ANIMAL NUMBER: 1495 DOSE GROUP: IV
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EYES: Soft tissue surrounding eye swollen.	abscess, periocular

HISTOMORPHOLOGIC OBSERVATIONS:

EYES: abscess, periocular

End of Record- 1495

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1544 | DOSE GROUP: V
SEX: F | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
GENERAL: No gross changes.	Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

ADRENAL GLANDS:	hyperplasia, cortical, focal (minimal)
OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea
	presence of growing/antral follicles
PITUITARY:	cyst(s), pars distalis
UTERUS:	macrophages, pigmented (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

CERVIX	OVARIES	OVIDUCT(S)	VAGINA

End of Record- 1544

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
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ANIMAL NUMBER: 1546 DOSE GROUP: V
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (marked)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 1546

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1548 | DOSE GROUP: V
SEX: F | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
EAR(S): Swollen, right.	chondropathy, auricular

HISTOMORPHOLOGIC OBSERVATIONS:

EAR(S):	chondropathy, auricular (marked)
OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea
	presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate)
	distention, lumen (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 1548

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1551 DOSE GROUP: V
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
TAIL: Tip missing 11 cm from the base.	inflammation, chronic necrosis, focal

HISTOMORPHOLOGIC OBSERVATIONS:

TAIL:	inflammation, chronic (mild) necrosis, focal (mild)

End of Record- 1551

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
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ANIMAL NUMBER: 1552 DOSE GROUP: V
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate) distention, lumen (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 1552

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1557 DOSE GROUP: V
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea
	presence of growing/antral follicles
UTERUS:	macrophages, pigmented (mild)
VAGINA:	mucification (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS CERVIX OVARIES OVIDUCT(S)
PITUITARY

End of Record- 1557

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1573 DOSE GROUP: V
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 1573

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS
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F1 Generation

ANIMAL NUMBER: 1579 DOSE GROUP: V
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea
	presence of growing/antral follicles
UTERUS:	macrophages, pigmented (minimal)
VAGINA:	mucification (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY			

End of Record- 1579

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1589 DOSE GROUP: V
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):

GENERAL: No gross changes.

HISTOMORPHOLOGIC OBSERVATION(S):

Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate)
VAGINA:	mucification (mild)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY			

End of Record- 1589

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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F1 Generation

ANIMAL NUMBER: 1593 | DOSE GROUP: V
SEX: F | DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S):	HISTOMORPHOLOGIC OBSERVATION(S):
KIDNEYS: Right- pelvis moderate dilation.	dilatation, pelvis pyelonephritis
URETER: Calculi, 1.0 x 0.5xm, one located at the caudal end of each ureter.	distention hyperplasia, mucosa inflammation, chronic
URINARY BLADDER: Walls thickened.	cystitis, hyperplastic

HISTOMORPHOLOGIC OBSERVATIONS:

KIDNEYS:	dilatation, pelvis (moderate) pyelonephritis (moderate)
OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
OVARIES:	cyst(s), intraovarian
URETER:	distention (marked) hyperplasia, mucosa (moderate) inflammation, chronic (mild)
URINARY BLADDER:	cystitis, hyperplastic (marked)
UTERUS:	macrophages, pigmented (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVIDUCT(S)	PITUITARY
VAGINA			

End of Record- 1593

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION)
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ANIMAL NUMBER: 1598 DOSE GROUP: V
SEX: F DEATH TYPE: Sacrifice-Scheduled

GROSS OBSERVATION(S): HISTOMORPHOLOGIC OBSERVATION(S):

GENERAL: No gross changes. Not applicable

HISTOMORPHOLOGIC OBSERVATIONS:

OVARIAN FOLLICLES/CORPORA LUTEA:	presence of corpora lutea presence of growing/antral follicles
UTERUS:	macrophages, pigmented (moderate)

THE FOLLOWING TISSUE(S) WERE WITHIN NORMAL LIMITS:

ADRENAL GLANDS	CERVIX	OVARIES	OVIDUCT(S)
PITUITARY	VAGINA		

End of Record- 1598

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (AFPO) IN RATS PROTOCOL 418-020 SPONSOR'S STUDY NUMBER: T-6889.6 HISTOPATHOLOGY REPORT

APPENDIX V

INDIVIDUAL ANIMAL GROSS AND HISTOMORPHOLOGY DATA

GROSS LESIONS - F1 and F2 Pups

ORAL (GAVAGE) TWO-GENERATION (ONE LITTER PER GENERATION) REPRODUCTION STUDY OF AMMONIUM PERFLUOROOCTANOATE (APFO) IN RATS
PROTOCOL 418-020
SPONSOR'S STUDY NUMBER: T-6889.6

APPENDIX V

Individual Animal Gross and Histomorphology Data
Gross Lesions - F1 and F2 Pups

Dam #, Group #, Pup #	Gross Observation(s)	Histomorphologic Observations
13921, Group V, Pup #1	Mouth- mass #3, 0.2 x 0.3 x 0.1cm	Tissue not available
13946, Group I, Pup #10	Kidney- right, pelvis, dilated, moderate	Tissue not available
1304, Group I, Pup #1	Kidney- pelvis, dilated, slight	Dilatation, pelvis, moderate
1383, Group II, Pup #6	Kidney- right, dilation, pelvis, moderate	Dilatation, pelvis, moderate
1459, Group III, Pup #14	Kidney- bilateral, dilation, pelvis, moderate	Dilatation, pelvis, mild
1476, Group III, Pup #3	Kidney- right, pelvis, dilated, slight	Dilatation, pelvis, mild
1523, Group IV, Pup #11	Tail- bent	Tissue not available
1523, Group IV, Pup #3	Domed head; brain- dilated third and lateral ventricles, marked	Dilatation, ventricular, marked
	Eye- right not present	Confirmed microscopically

APPENDIX L

HISTORICAL CONTROL DATA

FEMALE FERTILITY
HISTORICAL CONTROL DATA
Crl:CD®BR VAF/Plus® [Crl:CD®(SD)IGS BR VAF/Plus®] RATS

SUMMARY

1995-2002

1891 TOTAL LITTERS

		AVERAGE	MINIMUM	MAXIMUM	# STUDIES INCL. IN ANALYSIS
DELIVERED LITTERS	N		4	33	93
IMPLANTATION SITES PER DELIVERED LITTER	N		63	519	93
	MEAN	15.3	13.4	17.7	93
PUPS FOUND DEAD OR PRESUMED CANNIBALIZED					
DAY 1	N				
	N				
	%	0.4%	0.0%	2.7%	72
DAYS 1-4	N				
	N				
	%	2.2%	0.0%	9.0%	88
DAYS 15-21	N				
	N				
	%	0.3%	0.0%	3.8%	68
VIABILITY INDEX (Day 4)	%	97.8%	91.0%	100.0%	84
	N				
	N				
VIABILITY INDEX (Day 7)	%	1.0	91.5%	100.0%	10
	N				
	N				
LACTATION INDEX	%	98.8%	94.4%	100.0%	77
	N				
	N				
SURVIVING PUPS/LITTER					
Day 1	MEAN	14.2	12.0	16.1	92

FEMALE FERTILITY
HISTORICAL CONTROL DATA
Crl:CD®BR VAF/Plus® [Crl:CD®(SD)IGS BR VAF/Plus®] RATS

SUMMARY

1995-2002

1891 TOTAL LITTERS

		AVERAGE	MINIMUM	MAXIMUM	# STUDIES INCL. IN ANALYSIS
DELIVERED LITTERS	N		4	33	93
Day 4 (Preculling)	MEAN	13.9	11.4	15.8	89
Day 4 (Postculling)	MEAN	8.7	7.6	10.0	27
Day 21	MEAN	11.8	6.0	15.5	67
PUP WEIGHT/LITTER (GRAMS)					
Day 7	MEAN	13.0	10.6	17.6	62
Day 14	MEAN	26.0	21.2	34.8	48
Day 21	MEAN	40.9	31.1	60.4	67

DURATION OF GESTATION
HISTORICAL CONTROL DATA
Crl:CD®BR VAF/Plus® [Crl:CD®(SD)IGS BR VAF/Plus®] RATS

1997-2002

SUMMARY

1428 TOTAL LITTERS

		AVERAGE	MINIMUM	MAXIMUM	# STUDIES INCL. IN ANALYSIS
DELIVERED LITTERS	N		8	33	59
DURATION OF GESTATION IN DAYS	MEAN	22.6	21.7	23.2	59

SEXUAL MATURATION
HISTORICAL CONTROL DATA
Crl:CD®BR VAF/Plus® (Crl:CD®(SD)IGS BR VAF/Plus®) RATS

CODE: **1995 - 2000**
DRAFT FINAL REPORT MAIL DATE:
TYPE OF STUDY: **SUMMARY**

42 STUDIES INCLUDED IN ANALYSIS

SEXUAL MATURATION		AVERAGE	MINIMUM	MAXIMUM
MALE RATS	N			
Preputial Separation				
(Avg. day postpartum obs.)	MEAN	**46.1**	**43.9**	**47.7**
FEMALE RATS	N			
Vagina Patent				
(Avg. day postpartum obs.)	MEAN	**32.1**	**30.1**	**34.0**

SEXUAL MATURATION
HISTORICAL CONTROL DATA
Crl:CD®BR VAF/Plus® (Crl:CD®(SD)IGS BR VAF/Plus®) RATS

CODE:		142	148	151	187	188	192	199
DRAFT FINAL REPORT MAIL DATE:		03/21/95	06/13/95	07/20/95	07/23/96	08/05/96	08/30/96	10/09/96
TYPE OF STUDY:		Seg. III	Harmonized Seg. II/III	Harmonized Seg. II/III	Seg. II/III	Repro. and Postnatal	Seg. II/III	Seg. II/III
SEXUAL MATURATION								
MALE RATS	N	25	25	25	25	25	25	25
Preputial Separation								
(Avg. day postpartum obs.)	MEAN	46.7	46.7	44.7	46.1	45.9	44.5	47.6
FEMALE RATS	N	24	25	25	25	25	25	25
Vagina Patent								
(Avg. day postpartum obs.)	MEAN	32.4	32.1	31.9	32.2	31.6	31.8	31.4

SEXUAL MATURATION
HISTORICAL CONTROL DATA
Crl:CD®BR VAF/Plus® (Crl:CD®(SD)IGS BR VAF/Plus®) RATS

CODE:		208	222	228	234
DRAFT FINAL REPORT MAIL DATE:		10/25/96	01/14/97	01/23/97	03/05/97
TYPE OF STUDY:		Embryo-Fetal Dev.	Seg. II/III	Pre and Postnatal Dev.	Seg. II/III
SEXUAL MATURATION					
MALE RATS	N	66	25	24	25
Preputial Separation					
(Avg. day postpartum obs.)	MEAN	45.3	45.9	45.8	46.2
FEMALE RATS	N	80	25	25	24
Vagina Patent					
(Avg. day postpartum obs.)	MEAN	32.9	31.7	31.7	31.8

SEXUAL MATURATION
HISTORICAL CONTROL DATA
Crl:CD®BR VAF/Plus® (Crl:CD®(SD)IGS BR VAF/Plus®) RATS

CODE:		242	251	255	258	266	282	290
DRAFT FINAL REPORT MAIL DATE:		04/09/97	06/02/97	06/11/97	07/18/97	09/30/97	02/03/98	03/10/98
TYPE OF STUDY:		Seg. II/III	Pre and Post Natal	Seg. II/III	Seg. II/III	Seg. II/III	Pre and Post Natal	Dev. Neurotox.
SEXUAL MATURATION								
MALE RATS	N	25	136	25	25	25	24	20
Preputial Separation (Avg. day postpartum obs.)	MEAN	46.6	45.3	45.7	43.9	46.8	45.7	44.2
FEMALE RATS	N	25	34	25	25	25	24	20
Vagina Patent (Avg. day postpartum obs.)	MEAN	32.0	33.7	30.1	30.3	32.0	32.6	32.4

SEXUAL MATURATION
HISTORICAL CONTROL DATA
Crl:CD®BR VAF/Plus® (Crl:CD®(SD)IGS BR VAF/Plus®) RATS

CODE:		294	305	310	345	353	359
DRAFT FINAL REPORT MAIL DATE:		04/30/98	06/23/98	08/03/98	01/28/99	03/05/99	04/21/99
TYPE OF STUDY:		Neurobehav. Dev.	Comb. Pil.+ Full Dev. + Peri/Post Repro.	Oral (Gavage) 6-wk. toxicity and toxicokin.	Dev. Neurotox.	Multi-Gen.	Dev. Neurotox.
SEXUAL MATURATION							
MALE RATS	N	60	25	14	60	30	57
Preputial Separation							
(Avg. day postpartum obs.)	MEAN	45.2	46.7	45.1	45.4	46.1	47.2
FEMALE RATS	N	60	25	15	60	30	51
Vagina Patent							
(Avg. day postpartum obs.)	MEAN	31.6	32.1	32.2	31.6	32.5	32.0

FEMALE FERTILITY
HISTORICAL CONTROL DATA
Crl:CD®BR VAF/Plus® [Crl:CD®(SD)IGS BR VAF/Plus®] RATS

1992 - 2002

SUMMARY

3343 TOTAL RATS

		AVERAGE	MINIMUM	MAXIMUM	# STUDIES INCLUDED
ESTROUS CYCLING OBSERVATIONS					
RATS EVALUATED	N		8	48	131
PREDOSAGE ESTROUS CYCLING					
ESTROUS STAGES/7 DAYS	MEAN	2.0	2.0	2.0	2
ESTROUS STAGES/14 DAYS	MEAN	3.4	2.4	3.9	79
ESTROUS STAGES/15 DAYS	MEAN	3.6	3.6	3.6	1
ESTROUS STAGES/16 DAYS	MEAN	3.9	3.9	3.9	1
MEAN NUMBER OF COMPLETE ESTROUS CYCLES/GROUP	MEAN	3.7	3.5	3.8	3
RATS WITH 6 OR MORE CONSEC. DAYS OF DIESTRUS	N		0	2	85
RATS WITH 6 OR MORE CONSEC. DAYS OF ESTRUS	N		0	0	85
MEAN ESTROUS CYCLE LENGTH/GROUP	MEAN	4.1	4.1	4.1	3
PRECOHABITATION ESTROUS CYCLING					
MEAN NUMBER OF COMPLETE ESTROUS CYCLES/GROUP	MEAN	3.2	3.2	3.2	4
ESTROUS STAGES/14 DAYS	MEAN	3.4	2.5	7.0	117
ESTROUS STAGES/20 DAYS	MEAN				
ESTROUS STAGES/21 DAYS	MEAN	5.0	4.8	5.2	7
ESTROUS STAGES/28 DAYS	MEAN	6.5	6.5	6.5	1
RATS WITH 6 OR MORE CONSEC. DAYS OF DIESTRUS	N		0	7	126
RATS WITH 6 OR MORE CONSEC. DAYS OF ESTRUS	N		0	3	126
MEAN ESTROUS CYCLE LENGTH/GROUP	MEAN	4.1	4.0	4.2	3

FEMALE FERTILITY
HISTORICAL CONTROL DATA
Crl:CD®BR VAF/Plus® [Crl:CD®(SD)IGS BR VAF/Plus®] RATS

1992 - 2002

SUMMARY

3343 TOTAL RATS

		AVERAGE	MINIMUM	MAXIMUM	# STUDIES INCLUDED
RECOVERY PER. ESTROUS CYCLING					
ESTROUS STAGES/28 DAYS	MEAN	5.0	5.0	5.0	1
RATS WITH 6 OR MORE CONSEC. DAYS OF DIESTRUS	N		0	0	1
RATS WITH 6 OR MORE CONSEC. DAYS OF ESTRUS	N		0	0	1

FEMALE FERTILITY
HISTORICAL CONTROL DATA
Crl:CD®BR VAF/Plus® [Crl:CD®(SD)IGS BR VAF/Plus®] RATS

1992 - 2002

SUMMARY

3343 TOTAL RATS

		AVERAGE	MINIMUM	MAXIMUM	# STUDIES INCLUDED
RATS IN COHABITATION	N		7	40	117
DAYS IN COHABITATION	MEAN	2.8	1.6	5.2	116
RATS THAT MATED	N				
	%	99.3%	87.5%	100.0%	111
RATS WITH CONFIRMED MATING DATES	N		7	39	115
RATS MATING					
DAYS 1-4	N				
	%	96.0%	96.0%	96.0%	1
DAYS 5-7	N				
	%	4.0%	4.0%	4.0%	1
RATS MATED BY FIRST MALE					
DAYS 1-7	N				
	%	97.0%	84.0%	100.0%	113
DAYS 8-14	N				
	%	2.1%	0.0%	16.0%	97
DAYS 15-21	N				
	%	2.0%	0.0%	4.0%	2
RATS MATED BY SECOND MALE					
DAYS 8-14	N				
	%	2.6%	0.0%	12.5%	13
DAYS 15-21	N				
	%	2.0%	0.0%	8.0%	54
FERTILITY INDEX	N				
	N				
	%	93.8%	64.0%	100.0%	111
COPULATION INDEX	N				
	N				
	%	98.5%	93.3%	100.0%	7
PREGNANCY RATE	N				
	N				
	%	96.7%	92.0%	100.0%	4
RATS PREGNANT/RATS IN COHABITATION	N				
	N				
	%	93.1%	64.0%	100.0%	107

APPENDIX M

QUALITY ASSURANCE STATEMENT

905 Sheehy Drive, Bldg. A
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Telephone: (215) 443-8710
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ARGUS RESEARCH
Charles River Laboratories
Discovery and Development Services

QUALITY ASSURANCE STATEMENT

Argus Protocol: 418-020

Sponsor's Study Number: T-6889.6

Study Director: Raymond G. York, Ph.D., DABT

The protocol, critical phases, raw data and final report were inspected by the Quality Assurance Unit (QAU), to assure conformance with:

U.S. Environmental Protection Agency. Federal Insecticide, Fungicide and Rodenticide Act/Toxic Substances Control Act (FIFRA/TSCA); Good Laboratory Practice Standards; Final Rule. 40 CFR Part 160/Part 792.

Organisation for Economic Co-operation and Development (1998). The Revised OECD Principles of Good Laboratory Practices [C(97)186/Final].

The undersigned indicate that the interim report is an accurate representation of the raw data. Data provided by the Sponsor or a subcontractor were not audited by the Argus Research Quality Assurance Unit.

The QAU inspection and report audit dates are listed below:

Inspection Phase	Inspection Date(s)	Date(s) Findings Submitted to Study Director	Date(s) Findings Submitted to Management
Protocol	06-07 NOV 00	07 NOV 00	07 NOV 00
TS Preparation	16 NOV 00	20 NOV 00	20 NOV 00
TS Administration	17 NOV 00	20 NOV 00	20 NOV 00
Natural Delivery/ Litter Observations	15 FEB 01	26 FEB 01	26 FEB 01
Blood Collection	02 MAR 01	12 MAR 01	12 MAR 01
Male Sacrifice/ Sperm Evaluations	02 MAR 01	12 MAR 01	12 MAR 01
Dam/Litter Sacrifice	08 MAR 01	12 MAR 01	12 MAR 01
Vaginal Patency	13 MAR 01	13 MAR 01	13 MAR 01
Preputial Separation	23 MAR 01	30 MAR 01	30 MAR 01
F1 Natural Delivery/ Litter Observations	21 JUN 01	27 JUN 01	27 JUN 01
F1 Blood Collection	03 JUL 01	03 JUL 01	03 JUL 01
F1 Male Sacrifice/ Sperm Evaluations	03 JUL 01	05 JUL 01	05 JUL 01
F1 Dam/Litter Sacrifice	13 JUL 01	23 JUL 01	23 JUL 01
In-Life Data	16-24 MAY 01	24 MAY 01	24 MAY 01
	19-20 JUL 01 and 23-26 JUL 01	27 JUL 01	27 JUL 01
	19-21 NOV 01, 26-30 NOV 01 and 01,03-04 DEC 01	04 DEC 01	04 DEC 01
	10-17 DEC 01	17 DEC 01	17 DEC 01
Formulations Data	06 AUG 01	06 AUG 01	06 AUG 01
	17 DEC 01	17 DEC 01	17 DEC 01
Necropsy Data	04-07 DEC 01	07 DEC 01	07 DEC 01
	17-18 DEC 01	18 DEC 01	18 DEC 01

Inspection Phase	Inspection Date(s)	Date(s) Findings Submitted to Study Director	Date(s) Findings Submitted to Management
Report Tables	30 JUL 01 and 03 AUG 01	03 AUG 01	03 AUG 01
	30 JUL 01 to 05 AUG 01	06 AUG 01	06 AUG 01
	17-21 DEC 01	21 DEC 01	21 DEC 01
Report Text	06-09 AUG 01	09 AUG 01	09 AUG 01
	13-14 AUG 01	14 AUG 01	14 AUG 01
	17,20,21,26 DEC 01	26 DEC 01	26 DEC 01
	26-27 DEC 01	27 DEC 01	27 DEC 01
	27 DEC 01	27 DEC 01	27 DEC 01
Revised Report	25 MAR 02	25 MAR 02	25 MAR 02

26 Mar 02

Matthew J. Vaneman, B.S. Date
Manager of Regulatory Compliance

26 Mar 02

Cynthia M. Kelsch Date
Quality Assurance Associate/Team Leader and Principal Auditor