

**FINAL REPORT**

PROTOCOL 418-013

ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS

SPONSOR'S STUDY NUMBER: T-6295.12

FINAL REPORT DATE: 24 JUNE 1999

PROTOCOL 418-013

ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS

SPONSOR'S STUDY NUMBER: T-6295.12

TABLE OF CONTENTS

| <u>SUBJECT</u>                     | <u>PAGE</u> |
|------------------------------------|-------------|
| I. SUMMARY AND CONCLUSION          | I-1         |
| A. Methods                         | I-1         |
| B. Results                         | I-2         |
| C. Conclusion                      | I-4         |
| II. DESCRIPTION OF TEST PROCEDURES | II-1        |
| A. Conduct of Study                | II-1        |
| A.1. Sponsor                       | II-1        |
| A.2. Testing Facility              | II-1        |
| A.3. Study Number                  | II-1        |
| A.4. Sponsor's Study Number        | II-1        |
| A.5. Purpose of the Study          | II-1        |
| A.6. Study Design                  | II-1        |

| <u>SUBJECT</u>                            | <u>PAGE</u> |
|-------------------------------------------|-------------|
| A.7. Regulatory Compliance                | II-1        |
| A.8. Ownership of the Study               | II-2        |
| A.9. Study Monitor                        | II-2        |
| A.10. Alternate Study Monitor             | II-2        |
| A.11. Study Director                      | II-2        |
| A.12. Technical Performance               | II-2        |
| A.13. Report Preparation                  | II-2        |
| A.14. Report Review                       | II-2        |
| A.15. Date Protocol Signed                | II-2        |
| A.16. Dates of Technical Performance      | II-3        |
| A.17. Records Maintained                  | II-3        |
| B. Test Article Information               | II-3        |
| B.1. Description                          | II-3        |
| B.2. Lot/Batch Number                     | II-3        |
| B.3. Date Received and Storage Conditions | II-3        |
| B.4. Special Handling Instructions        | II-3        |
| B.5. Analysis of Purity                   | II-4        |
| C. Vehicle Information                    | II-4        |
| C.1. Description                          | II-4        |
| C.2. Lot Numbers                          | II-4        |
| C.3. Date Received and Storage Conditions | II-4        |
| C.4. Special Handling Instructions        | II-4        |

| <u>SUBJECT</u>                                     | <u>PAGE</u> |
|----------------------------------------------------|-------------|
| C.5. Analysis of Purity                            | II-4        |
| D. Test Article Preparation and Storage Conditions | II-4        |
| D.1. Sample Information                            | II-5        |
| D.2. Analytical Results                            | II-5        |
| E. Test System                                     | II-5        |
| E.1. Species                                       | II-5        |
| E.2. Strain                                        | II-5        |
| E.3. Supplier (Source)                             | II-5        |
| E.4. Sex                                           | II-5        |
| E.5. Rationale for Test System                     | II-6        |
| E.6. Test System Data                              | II-6        |
| E.7. Breeder Male Rat Data                         | II-6        |
| E.8. Method of Randomization                       | II-6        |
| E.9. System of Identification                      | II-7        |
| F. Husbandry                                       | II-7        |
| F.1. Research Facility Registration                | II-7        |
| F.2. Study Rooms                                   | II-7        |
| F.3. Housing                                       | II-7        |
| F.4. Lighting                                      | II-7        |
| F.5. Sanitization                                  | II-8        |
| F.6. Feed                                          | II-8        |
| F.7. Feed Analysis                                 | II-8        |

| <u>SUBJECT</u>                                                       | <u>PAGE</u> |
|----------------------------------------------------------------------|-------------|
| F.8. Water                                                           | II-8        |
| F.9. Water Analysis                                                  | II-8        |
| G. Methods                                                           | II-9        |
| G.1. Dosage Administration                                           | II-9        |
| G.2. Rationale for Dosage Selection                                  | II-9        |
| G.3. Route of Administration                                         | II-9        |
| G.4. Rationale for Route of Administration                           | II-9        |
| G.5. Frequency of Administration                                     | II-9        |
| G.6. Length of Study                                                 | II-9        |
| G.7. Method of Study Performance                                     | II-10       |
| G.8. Gross Necropsy                                                  | II-11       |
| G.9. Statistical Analyses                                            | II-13       |
| III. RESULTS                                                         | III-1       |
| A. Mortality, Premature Delivery, Clinical and Necropsy Observations | III-1       |
| A.1. Mortality and Premature Delivery                                | III-1       |
| A.2. Clinical Observations                                           | III-1       |
| A.3. Necropsy Observations                                           | III-1       |
| B. Body Weights, Uterine Weights and Body Weight Changes             | III-1       |
| B.1. Precohabitation                                                 | III-1       |
| B.2. Gestation                                                       | III-2       |
| C. Absolute (g/day) and Relative (g/kg/day) Feed Consumption Values  | III-2       |
| C.1. Precohabitation                                                 | III-2       |

| <u>SUBJECT</u>                                                                    | <u>PAGE</u> |
|-----------------------------------------------------------------------------------|-------------|
| C.2. Gestation                                                                    | III-2       |
| D. Caesarean-Sectioning, Litter and Fetal Gross External Observations             | III-3       |
| D.1. Day 15 of Gestation                                                          | III-3       |
| D.2. Day 21 of Gestation                                                          | III-3       |
| REFERENCES                                                                        | III-4       |
| APPENDIX A - REPORT FIGURES                                                       |             |
| Figure 1. Body Weights - Precohabitation                                          | A-1         |
| Figure 2. Maternal Body Weights – Rats Caesarean-Sectioned on Day 15 of Gestation | A-2         |
| Figure 3. Maternal Body Weights – Rats Caesarean-Sectioned on Day 21 of Gestation | A-3         |
| APPENDIX B - REPORT TABLES                                                        |             |
| Table 1. Clinical and Necropsy Observations - Summary                             | B-1         |
| Table 2. Body Weights - Precohabitation - Summary                                 | B-4         |
| Table 3. Body Weight Changes - Precohabitation - Summary                          | B-5         |
| Table 4. Maternal Body Weights and Gravid Uterine Weights - Gestation - Summary   | B-6         |
| Table 5. Maternal Body Weight Changes - Gestation - Summary                       | B-10        |
| Table 6. Absolute Feed Consumption Values (g/day) - Precohabitation - Summary     | B-12        |
| Table 7. Relative Feed Consumption Values (g/kg/day) - Precohabitation - Summary  | B-13        |
| Table 8. Maternal Absolute Feed Consumption Values (g/day) - Gestation - Summary  | B-14        |

| <u>SUBJECT</u>                                                                                          | <u>PAGE</u> |
|---------------------------------------------------------------------------------------------------------|-------------|
| Table 9. Maternal Relative Feed Consumption Values (g/kg/day) - Gestation - Summary                     | B-16        |
| Table 10. Caesarean-Sectioning Observations - Summary                                                   | B-18        |
| Table 11. Litter Observations (Caesarean-Delivered Embryos or Fetuses) - Summary                        | B-21        |
| Table 12. Clinical Observations - Individual Data                                                       | B-22        |
| Table 13. Necropsy Observations - Individual Data                                                       | B-29        |
| Table 14. Body Weights - Precohabitation - Individual Data                                              | B-34        |
| Table 15. Maternal Body Weights - Presumed Gestation - Individual Data                                  | B-44        |
| Table 16. Feed Consumption Values - Precohabitation - Individual Data                                   | B-49        |
| Table 17. Maternal Feed Consumption Values - Presumed Gestation - Individual Data                       | B-54        |
| Table 18. Caesarean-Sectioning Observations - Individual Data                                           | B-59        |
| Table 19. Litter Observations (Caesarean-Delivered Embryos or Fetuses) - Individual Data                | B-63        |
| Table 20. Embryonal Vital Status or Fetal Sex, Vital Status and Body Weight - Individual Data           | B-67        |
| Table 21. Placental Weights - Individual Data                                                           | B-73        |
| APPENDIX C - PROTOCOL AND AMENDMENT                                                                     | C-1 to C-34 |
| APPENDIX D - DEVIATIONS FROM THE PROTOCOL AND THE STANDARD OPERATING PROCEDURES OF THE TESTING FACILITY | D-1         |
| APPENDIX E - TEMPERATURE AND RELATIVE HUMIDITY REPORTS                                                  | E-1 to E-3  |
| APPENDIX F - HISTORICAL CONTROL DATA                                                                    | F-1 to F-13 |

| <u>SUBJECT</u>                                                | <u>PAGE</u> |
|---------------------------------------------------------------|-------------|
| APPENDIX G - STATEMENT OF THE STUDY DIRECTOR                  | G-1         |
| APPENDIX H - QUALITY ASSURANCE UNIT FINAL REPORT<br>STATEMENT | H-1 to H-5  |



TITLE: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS

ARGUS RESEARCH LABORATORIES, INC.  
PROTOCOL NUMBER: 418-013  
SPONSOR'S STUDY NUMBER: T-6295.12

## **I. SUMMARY AND CONCLUSION**

### **A. Methods<sup>a</sup>**

Eighty virgin female Crl:CD®BR VAF/Plus® (Sprague-Dawley) rats were assigned to five dosage groups (Groups I through V), 16 rats per dosage group. The rats were administered the test article, PFOS (FC-95), or the vehicle, 0.5% Tween® 80 in Reverse Osmosis Membrane Processed Deionized Water (R.O. Deionized Water), orally (via gavage), once daily beginning 42 days prior to cohabitation through either day 14 or 20 of presumed gestation (DG 14 or DG 20). Dosages were 0 (Vehicle), 0.1, 0.4, 1.6 and 3.2 mg/kg/day. The dosage volume was 5 mL/kg.

The rats were observed for viability at least twice each day of the study and for clinical signs of effects of the test article before and approximately one hour after dosage and on the day sacrificed. Body weights were recorded daily during the dosage period and at sacrifice. Feed consumption values were recorded weekly to cohabitation and daily during presumed gestation.

Urine and fecal samples were collected one day prior to initiation of cohabitation to the following morning and DGs 6 to 7, 14 to 15 and 20 to 21. Samples were frozen and shipped to the Sponsor for analysis. Blood samples were collected on the day cohabitation was initiated and on DGs 7, 15 and 21. Blood was centrifuged and the serum was frozen and shipped to the Sponsor for analysis.

Rats were sacrificed on DG 15 or 21, as described below, and a gross necropsy of the thoracic, abdominal and pelvic viscera was performed. A liver section and the milk-secreting glands from the axillary, thoracic, abdominal and inguinal

- 
- 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 C (PROTOCOL AND AMENDMENT).

regions of each dam were collected, frozen and shipped to the Sponsor for analysis.

Eight randomly selected female rats, with a confirmed date of mating, per dosage group were Cesarean-sectioned on DG 15. The gravid uterus was excised and weighed. Rats were examined for number and distribution of corpora lutea, implantation sites, viable and nonviable embryos. A sample of the amniotic fluid of each viable embryo was collected and pooled by litter. Each viable embryo was removed from the uterus with the attached placenta and pooled by litter. These samples were frozen shipped to the Sponsor for analysis.

All remaining female rats in each dosage group were Cesarean-sectioned on DG 21 or estimated DG 21. The gravid uterus was excised and weighed. Individual placental weights were recorded. Rats were examined for number and distribution of corpora lutea, implantation sites, live and dead fetuses and early and late resorptions. Each fetus was removed from the uterus, weighed and examined for sex and gross external alterations. Samples of the amniotic fluid were collected when possible, and pooled by litter. Placentae were collected and pooled by litter. Blood samples were collected from each fetus, pooled by litter and centrifuged. All samples were frozen and shipped to the Sponsor for analysis.

Lung and liver samples were collected from three fetuses per litter from two to five litters per dosage group. Sections from the half of the lungs and one lobe of the liver were shipped to Pathology Associates International, Durham, North Carolina, for possible future evaluation. The other half of the lungs and the other lateral lobe of the liver were frozen and shipped to the Sponsor for analysis.

The livers of the remaining fetuses, plus any remaining liver from the three selected fetuses, were collected, pooled by litter and frozen. The remaining carcass (and head) of each fetus was frozen and shipped to the Sponsor for analysis.

## **B. Results**

No deaths or premature deliveries were attributed to PFOS treatment. Three rats (one each in the 0.1, 0.4 and 1.6 mg/kg/day dosage groups) were sacrificed because the eye was injured during orbital sinus bleeding. One rat in the vehicle control group did not have a confirmed mating date and delivered on day 66 of the study. Two rats in the 3.2 mg/kg/day dosage group delivered on DG 21. All other rats survived to scheduled sacrifice.

All adverse clinical observations during the prehabitation and gestation periods were considered unrelated to the test article and no gross lesions were revealed by necropsy.

Body weight gains for the entire prehabitation period (DSs 1 to 42) were 88.8%, 80.8%, 66.3% and 17.4% of the control group value in the 0.1, 0.4, 1.6 and 3.2 mg/kg/day dosage groups, respectively. Body weights were 98.0%, 96.3%, 93.6% and 85.3% of the control group value in these four respective dosage groups on DS 42.

As the result of random selection for assignment to Cesarean-sectioning on either DG 15 or DG 21, groups assigned to Cesarean-sectioning on DG 15 weighed less on DG 0 than groups assigned to Cesarean-sectioning on DG 21. Reflecting the random selection and differences in average body weights of the two subsets, as well as the relatively small group sizes, body weight gains differed in the two subsets. In both subsets, body weight gains were reduced on DGs 0 to 7 in groups administered 0.4 mg/kg/day and higher dosages of PFOS, after which body weight changes did not demonstrate a clear dosage-dependent pattern.

Absolute (g/day) and relative (g/kg/day) feed consumption values were reduced in the 0.4, 1.6 and 3.2 mg/kg/day dosage groups in each week of the prehabitation period. Reflecting these effects of the test article, absolute and relative feed consumption values were reduced for the entire prehabitation period (DSs 1 to 42) in the 0.4, 1.6 and 3.2 mg/kg/day dosage groups.

Groups administered 0.4 mg/kg/day and higher dosages of the test article had reduced absolute and relative feed consumption values during the first week of the gestation period. Absolute feed consumption values continued to be reduced for the remainder of the dosage period in the 0.4 and 1.6 mg/kg/day dosage groups assigned to DG 15 Cesarean-sectioning and in the 3.2 mg/kg/day dosage group for rats assigned to either DG 15 or DG 21 Cesarean-sectioning.

No Cesarean-sectioning or litter parameters were affected by dosages of the test article as high as 3.2 mg/kg/day administered to rats Cesarean-sectioned on DG 15.

The litter averages for implantations, litter sizes and live fetuses were reduced in the 3.2 mg/kg/day dosage group Cesarean-sectioned on DG 21. Values were below the ranges observed historically at the Testing Facility. Fetal body weights were also reduced in the 3.2 mg/kg/day dosage group. No other Cesarean-sectioning or litter parameters were affected by dosages of the test article as

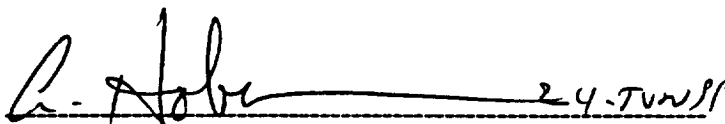
high as 3.2 mg/kg/day administered to rats Caesarean-sectioned on DG 21. No fetal gross external alterations were observed.

### C. Conclusion

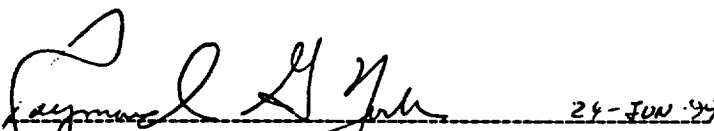
The purpose of this study, as stated in the protocol, was to evaluate the pharmacokinetics of PFOS in Fo generation dams and F1 generation fetuses following PFOS treatment to female rats during premating and gestation. This reports includes study data from the in-life portion which was conducted at Argus Research Laboratories, Inc. The PK samples that were collected during the in-life portion of the study were sent to the Sponsor for analysis and will be reported separately. It is the responsibility of the Sponsor, 3M Corporate Toxicology, to combine the in-life results with the analytical results into a final pharmacokinetic report. The results for this study mimic those reported in the Combined Oral (Gavage) Fertility, Developmental and Perinatal/Postnatal Reproduction Toxicity Study of PFOS in Rats (Argus Research Laboratories, Inc., Protocol 418-008), reported 10 June 1999.

 27 JUN 99

Mildred S. Christian, Ph.D., Fellow, ATS      Date  
Executive Director of Research

 24-JUN-99

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

 24-JUN-99

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 Laboratories, Inc., 905 Sheehy Drive, Building A, Horsham, Pennsylvania 19044-1297

**A.3. Study Number:**

418-013

**A.4. Sponsor's Study Number:**

T-6295.12

**A.5. Purpose of the Study:**

The purpose of this study was to evaluate the pharmacokinetics of PFOS in Fo generation dams and F1 generation fetuses following PFOS treatment of CrI:CD®BR VAF/Plus® female rats during premating and gestation.

**A.6. Study Design:**

The requirements of the U.S. Food and Drug Administration (FDA)<sup>(1)</sup> were used as the basis of study design.

**A.7. Regulatory Compliance:**

The study was conducted in compliance with Good Laboratory Practice (GLP) regulations of the U.S. Food and Drug Administration (FDA)<sup>(2)</sup>, the Japanese Ministry of Health and Welfare (MHW)<sup>(3)</sup> and the European Economic Community (EEC)<sup>(4)</sup>. 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:**

Marvin T. Case, D.V.M., Ph.D.

**A.10. Alternate Study Monitor:**

Andrew M. Seacat, Ph.D.

**A.11. Study Director:**

Raymond G. York, Ph.D., DABT (Associate Director of Research)

**A.12. Technical Performance:**

John F. Barnett, B.S. (Director of Laboratory Operations)

Margaret M. Martin (Research Associate)

Corrie L. Pabst (Quality Control Associate)

**A.13. Report Preparation:**

Raymond G. York, Ph.D., DABT

Jo Ann Frazee, M.S. (Study Coordinator)

Susan K. Bradshaw, B.S. (Data Management Specialist)

Karen G. Parker, A.A. (Report Administrator)

**A.14. Report Review:**

Mildred S. Christian, Ph.D., Fellow, ATS (Executive Director of Research)

Allan M. Hoberman, Ph.D, DABT (Director of Research)

**A.15. Date Protocol Signed:**

9 November 1998

**A.16. Dates of Technical Performance:**

|                                                                                 |                             |
|---------------------------------------------------------------------------------|-----------------------------|
| Rat Arrival Date                                                                | 10 NOV 98                   |
| Dosage Period (42 days prior to cohabitation<br>until DG <sup>a</sup> 14 or 20) | 16 NOV 98 - 21 JAN 99       |
| Cohabitation Period                                                             | 27 DEC 98 PM - 01 JAN 99 AM |
| Caesarean-Sectioning Period (DG 15)                                             | 12 JAN 99 - 13 JAN 99       |
| Caesarean-Sectioning Period (DG 21)                                             | 18 JAN 99 - 22 JAN 99       |

**A.17. Records Maintained:**

The original report, raw data and reserve samples of the bulk test article and vehicle components are retained in the archives of Argus Research Laboratories, Inc. 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 article will be returned to the Study Monitor upon completion of all work with the test article.

**B. Test Article Information:****B.1. Description:**

PFOS (FC-95) – an off-white powder

**B.2. Lot/Batch Number:**

217 (Expiration date: May 2000)

**B.3. Date Received and Storage Conditions:**

The test article was received on 21 October 1998, and stored at room temperature.

**B.4. Special Handling Instructions:**

Standard safety precautions (use of protective clothing, gloves, dust-mist respirator, safety goggles or safety glasses and a face-shield) were taken when handling the bulk test article and prepared suspensions.

---

a. DG is used as an abbreviation for day of (presumed) gestation.

**B.5. Analysis of Purity:**

Information regarding the identity, composition, strength and purity of the test article is on file with the Sponsor.

**C. Vehicle Information:****C.1. Description:**

0.5% Tween® 80 in Reverse Osmosis Membrane Processed Deionized Water (R.O. Deionized Water).

**C.2. Lot Numbers:**

Tween® 80 - M29477 and M03H05

**C.3. Date Received and Storage Conditions:**

The Tween® 80 was received from J.T. Baker, Phillipsburg, New Jersey, on 17 September 1998 (Lot Number M29477) and 3 December 1998 (Lot Number M03H05), and stored at room temperature. The R.O. deionized water is available from a continuous source at the Testing Facility and is maintained at room temperature.

**C.4. Special Handling Instructions:**

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

**C.5. Analysis of Purity:**

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

**D. Test Article Preparation and Storage Conditions:**

Suspensions of PFOS were prepared daily at concentrations of 0, 0.02, 0.08, 0.32 and 0.64 mg/mL. Prepared formulations were stored at room temperature.



**D.1. Sample Information:**

| Sample Type                | Size  | Date Retained                                    | Storage/Shipping Conditions | Shipped To                | Date Shipped           |
|----------------------------|-------|--------------------------------------------------|-----------------------------|---------------------------|------------------------|
| Concentration (all levels) | 2 mL* | 15 NOV 98<br>20 JAN 99                           | Frozen                      | Sponsor                   | 16 NOV 98<br>20 JAN 99 |
| Bulk Test Article Reserve  | 1 g   | 12 NOV 98                                        | Room temperature            | Testing Facility Archives | 25 NOV 98              |
| Vehicle Components Reserve |       |                                                  |                             |                           |                        |
| Tween® 80                  | 5 mL  | 12 NOV 98 <sup>b</sup><br>10 DEC 98 <sup>c</sup> | Room temperature            | Testing Facility Archives | 25 NOV 98<br>27 JAN 99 |
| R.O. deionized water       | 5 mL  | 12 NOV 98                                        | Room temperature            | Testing Facility Archives | 25 NOV 98              |

- a. Duplicate samples were taken from the first and last preparation on the day prepared. One sample of each set was shipped for analysis. The remaining samples were retained at the Testing Facility as backups. Backup samples are stored frozen (-70°C or below) and will be discarded at the request of the Sponsor.
- b. Lot Number M29477.
- c. Lot Number M03H05.

**D.2. Analytical Results:**

Data verifying the stability of the test article in the vehicle for 48 hours under the conditions of administration and the stability of the bulk test article are on file with the Sponsor. Homogeneity of prepared formulations is on file with the Sponsor.

Results of the concentration analysis were not available at the time of the writing of this report.

**E. Test System:****E.1. Species:**

Rat

**E.2. Strain:**

CrI:CD®BR VAF/Plus® (Sprague-Dawley)

**E.3. Supplier (Source):**

Charles River Laboratories, Inc., Raleigh, North Carolina

**E.4. Sex:**

Female (Note: Male rats were used only for the purposes of breeding and are not considered part of the Test System.)

**E.5. Rationale for Test System:**

The CrI:CD®BR VAF/Plus® (Sprague-Dawley) rat was selected as the Test System because: 1) this strain of rat was used in the reproductive and developmental toxicity studies; 2) historical data and experience exist at the Testing Facility<sup>(5-7)</sup>; and 3) the test article is pharmacologically active in the species and strain.

**E.6. Test System Data:**

|                                     |           |
|-------------------------------------|-----------|
| Number of Rats                      | 122       |
| Approximate Date of Birth           | 07 SEP 98 |
| Approximate Age at Arrival          | 65 days   |
| Weight (g) on the Day After Arrival | 193 - 223 |
| Weight (g) at Study Assignment      | 208 - 224 |

**E.7. Breeder Male Rat Data:**

|                                     |           |
|-------------------------------------|-----------|
| Number of Rats                      | 112       |
| Approximate Date of Birth           | 13 JAN 98 |
| Approximate Age at Arrival          | 78 days   |
| Weight (g) on the Day After Arrival | 300 - 356 |
| Weight (g) at Cohabitation          | 558 - 871 |

**E.8. Method of Randomization:**

Upon arrival, rats were assigned to individual housing on the basis of computer-generated random units. After acclimation, virgin female rats were selected for study on the basis of physical appearance and body weight recorded during acclimation. Female rats were assigned to five dosage groups (Groups I through V), 16 rats per dosage group, using a computer-generated (weight-ordered) randomization procedure. Within each dosage group, consecutive order was used to assign female rats to cohabitation with breeder male rats, one male rat per female rat. A table of random units was used to select eight female rats with confirmed mating dates per dosage group for Cesarean-section examinations on DG 15. The remaining female rats in each dosage group were Cesarean-sectioned on DG 21<sup>a</sup>.

- 
- a. See APPENDIX D (DEVIATIONS FROM THE PROTOCOL AND THE STANDARD OPERATING PROCEDURES OF THE TESTING FACILITY), item 1.

**E.9. System of Identification:**

Male rats were given unique permanent identification numbers upon assignment to the Testing Facility's breeder male rat population. Female rats were assigned temporary numbers at receipt and given unique permanent identification numbers when assigned to the study. Each rat was individually identified with a Monel® self-piercing ear tag (Gey Band and Tag Co., Inc., No. MSPT 20101) inscribed with the rat's designated unique permanent number.

**F. Husbandry:****F.1. Research Facility Registration:**

USDA Registration No. 23-R-099 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%. See APPENDIX E (TEMPERATURE AND RELATIVE HUMIDITY REPORTS.)

**F.3. Housing:**

All cage sizes and housing conditions were in compliance with the *Guide for the Care and Use of Laboratory Animals*<sup>(8)</sup>. Female rats were individually housed in stainless steel, wire-bottomed cages except during the cohabitation period and during collection intervals for urine and fecal samples. During cohabitation, each pair of rats was housed in the male rat's cage. During collection intervals for urine and fecal samples the female rats were individually housed in metabolism cages. No nesting materials were supplied because the female rats were sacrificed before parturition was expected.

**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.

**F.5. Sanitization:**

Cage pan liners were changed approximately three times each week. Cages were changed approximately every other week.

**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.

Neither the Study Director nor the Sponsor was aware of any agent present in the feed that was known to interfere 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 water bottles 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.

Neither the Study Director nor the Sponsor was aware of any agent present in the water that was known to interfere with the results of this study.

**G. Methods:****G.1. Dosage Administration:**

| Dosage Group | Dosage (mg/kg/day)* | Concentration (mg/mL) | Dosage Volume (mL/kg) | Number of Female Rats | Assigned Rat Numbers |
|--------------|---------------------|-----------------------|-----------------------|-----------------------|----------------------|
| I            | 0 (Vehicle)         | 0                     | 5                     | 16                    | 19501 - 19516        |
| II           | 0.1                 | 0.02                  | 5                     | 16                    | 19517 - 19532        |
| III          | 0.4                 | 0.08                  | 5                     | 16                    | 19533 - 19548        |
| IV           | 1.6                 | 0.32                  | 5                     | 16                    | 19549 - 19564        |
| V            | 3.2                 | 0.64                  | 5                     | 16                    | 19565 - 19580        |

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

**G.2. Rationale for Dosage Selection:**

Dosages were selected on the basis of a previous study conducted with the test article (Argus Research Laboratories, Inc., Protocol 418-008).

**G.3. Route of Administration:**

Oral (gavage)

**G.4. Rationale for Route of Administration:**

The oral (gavage) route was selected for use because: 1) this was the route of administration in the developmental and reproductive toxicology studies; and 2) it is one of the possible routes of human exposure.

**G.5. Frequency of Administration:**

Appropriate dosages of the test article or vehicle were administered orally (via gavage) once daily to female rats beginning 42 days prior to cohabitation through either DG 14 or DG 20. The dosage volume was 5 mL/kg, adjusted daily on the basis of the individual body weights recorded before intubation. The rats were intubated once daily at approximately the same time each day.

**G.6. Length of Study:**

Approximately 11 weeks

**G.7. Method of Study Performance:**

The female rats were observed for viability at least twice each day of the study and for general appearance at least once during acclimation. The rats were also examined for clinical observations of effects of the test article, abortions, premature deliveries and deaths before and approximately one hour after dosage and once prior to sacrifice.

Body weights were recorded at least once during acclimation, daily during the dosage period and at sacrifice. Feed consumption values were recorded at least once during the acclimation period, weekly to cohabitation and daily during presumed gestation.

After 42 days of test article administration, 80 healthy virgin female rats were placed into cohabitation with 80 breeder male rats (one male rat per female rat in the male rat's cage)<sup>a</sup>. Mating was evaluated daily during the cohabitation period and confirmed by the observation of spermatozoa in a smear of the vaginal contents and/or a copulatory plug *in situ*. Female rats considered to be at DG 0 were returned to individual housing.

Urine and fecal samples were collected from female rats at the following intervals: one day prior to initiation of cohabitation to the following morning and from each of the mated female rats on DGs 6 to 7, 14 to 15 and 20 to 21. Following each 24-hour collection interval, samples were collected into centrifuge tubes, placed on dry ice and maintained frozen (-70°C or below) until shipment (on dry ice) to the Sponsor for analysis.

Blood samples were collected from each of the female rats following removal from metabolism caging (prior to test article or vehicle administration) on the day cohabitation was initiated (prior to cohabitation) and from each of the mated female rats on DGs 7, 15 and 21. On all days of collection except DGs 15 and 21 (dams at their terminal collection interval), blood samples (approximately 1 mL each) were collected from the orbital sinus. On DG 21, blood samples (approximately 4 mL each) were collected via the inferior vena cava. When blood collection on DG 15 was a final bleed for the respective dam (i.e., the dam was Caesarean-sectioned that day), the sample was approximately 4 mL and was collected via the inferior vena cava. Blood was transferred into serum separator tubes and spun in a refrigerated centrifuge. The serum was transferred into polypropylene tubes labeled with the study number, rat identification, date of collection, study day and collection timepoint. All samples were immediately frozen on dry ice and stored (-70°C or below) until shipment (on dry ice) to the Sponsor for analysis.

---

a. See APPENDIX D, item 1.

**G.8. Gross Necropsy<sup>a</sup>:**

Rats were sacrificed by carbon dioxide asphyxiation on DG 15 or 21, as described below. A gross necropsy of the thoracic, abdominal and pelvic viscera was performed. A liver section (right lateral lobe) and the milk-secreting glands from the axillary, thoracic, abdominal and inguinal regions (left side only) of each dam (except rats without confirmed dates of mating) were collected, frozen and stored (-70°C or below) until shipment (on dry ice) to the Sponsor for analysis. To confirm the pregnancy status, uteri from rats that appeared nonpregnant were stained with 10% ammonium sulfide<sup>(9)</sup>. Tissues with gross lesions were preserved in neutral buffered 10% formalin for possible future evaluation; all other maternal tissues were discarded. Representative photographs of maternal lesions are available in the raw data.

**G.8.a. DG 15 Cesarean-Sectioning**

Eight randomly selected female rats, with a confirmed date of mating, per dosage group were Cesarean-sectioned on DG 15. The gravid uterus was excised and weighed. Rats were examined for number and distribution of corpora lutea, implantation sites, viable and nonviable embryos. A viable embryo was defined as oval or crescent shaped, pink, firm and enclosed in an amniotic sac filled with clear fluid. A nonviable embryo is amorphous, small, pale pink to tan or deep red to black, soft and enclosed in an amniotic sac filled with clear, cloudy or opaque fluid.

A sample of the amniotic fluid of each viable embryo was collected and pooled per litter, frozen and stored (-70°C or below) until shipment, on dry ice, to the Sponsor for analysis. Each viable embryo was removed from the uterus with the attached placenta, pooled per litter frozen and stored (-70°C or below) until shipment, on dry ice, to the Sponsor for analysis.

**G.8.b. DG 21 Cesarean-Sectioning**

All remaining female rats in each dosage group were Cesarean-sectioned on DG 21 (rats with confirmed dates of mating) or estimated DG 21 (rats without confirmed dates of mating). The gravid uterus was excised and weighed. Individual placental weights were recorded. Rats were examined for number and distribution of corpora lutea, implantation sites, live and dead fetuses and early and late resorptions. An early resorption was defined as one in which organogenesis was not grossly evident. A late resorption was defined as one in

- 
- a. A table of random units was used to select one control group rat from which all tissues examined at necropsy were retained, in order to provide control tissues for any possible histopathological evaluations of gross lesions.

which the occurrence of organogenesis was grossly evident. A live fetus was defined as a term fetus that responded to stimuli. Nonresponding term fetuses are considered to be dead (there were no dead fetuses). Dead fetuses and late resorptions are differentiated by the degree of autolysis present; marked to extreme autolysis indicated that the fetus was a late resorption.

Each fetus was removed from the uterus, placed in an individual container and identified with a tag noting the study number, litter number, and uterine distribution. Each fetus was subsequently weighed and examined for sex and gross external alterations. Live fetuses were sacrificed via decapitation.

Samples of the amniotic fluid (when possible) and the placenta of each fetus were collected, individually pooled per litter, frozen and stored (-70°C or below) until shipment to the Sponsor for analysis. Blood samples were collected from each fetus via decapitation, pooled per litter and transferred into serum separator tubes. The samples were spun in a refrigerated centrifuge. The serum was transferred into polypropylene tubes labeled with the study number, litter identification, date of collection, study day and collection timepoint. All samples were immediately frozen on dry ice and stored (-70°C or below) until shipment (on dry ice) to the Sponsor for analysis.

Lung and liver samples were collected from three fetuses per litter from two to five litters per dosage group. One half of the lungs and one lateral lobe of the liver were individually retained in neutral buffered 10% formalin in scintillation vials. Prior to fixation, several (minimum of two) sections (approximately 1 mm thick) of this half of the lungs and this lobe of the liver were removed using a scalpel and retained in McDowell-Trump's Fixative (stored under refrigeration in scintillation vials). The lung and liver sections in McDowell-Trump's Fixative and the lung and liver samples in neutral buffered 10% formalin were shipped (on cold packs), for possible future evaluation by electron microscopy or light microscopy, respectively, to Pathology Associates International, Durham, North Carolina. The other half of the lungs and the other lateral lobe of the liver were flash frozen in liquid nitrogen and stored in heat-sealable pouches on dry ice. These flash frozen lung and liver samples were maintained frozen (-70°C or below) until shipment (on dry ice) to the Sponsor for analysis.

The livers of the remaining fetuses, plus any remaining liver from the three selected fetuses, were collected, pooled by litter and frozen. The remaining carcass (and head) of each fetus was frozen. These samples were maintained frozen (-70°C or below) until shipment (on dry ice) to the Sponsor for analysis.

#### **G.8.c. Moribund Sacrifice or Premature Delivery**

Rats that were sacrificed because of moribund condition or premature delivery were examined for the cause on the day the observation was made. The rats



were examined for gross lesions. A liver section (right lateral lobe) and the milk-secreting glands from the axillary, thoracic, abdominal and inguinal regions of each dam (left side only) were collected, frozen and stored (-70°C or below) until shipment (on dry ice) to the Sponsor for analysis. Pregnancy status and uterine contents were recorded. Delivered pups were examined to the extent possible, using the same methods described for term fetuses. Uteri of apparently nonpregnant rats were stained with 10% ammonium sulfide to confirm the absence of implantation sites<sup>(9)</sup>.

**G.9. Statistical Analyses:**

Averages and percentages were calculated. Litter values were used where appropriate.

### **III. RESULTS**

#### **A. Mortality, Premature Delivery, Clinical and Necropsy Observations (Summary - Table 1; Individual Data - Tables 12 and 13)**

##### **A.1. Mortality and Premature Delivery**

No deaths or premature deliveries were attributed to PFOS treatment. Three rats (one each in the 0.1, 0.4 and 1.6 mg/kg/day dosage groups) were sacrificed because the eye was injured during orbital sinus bleeding. One rat in the vehicle control group did not have a confirmed mating date and delivered on day 66 of the study. Two rats in the 3.2 mg/kg/day dosage group delivered on DG 21. All other rats survived to scheduled sacrifice.

##### **A.2. Clinical Observations**

All adverse clinical observations during the prehabitation and gestation periods were considered unrelated to the test article because: 1) the incidences were not dosage-dependent; and/or 2) the observation occurred in only one or two rats. These observations included missing or swollen forepaw digit, scabs on forepaw, swollen forepaw, localized alopecia on the limbs, head, back and/or underside, chromorhinorrhea, chromodacryorrhea, swollen ears, dental problems (missing, broken and/or misaligned incisors), swollen snout, corneal hemorrhage, corneal opacity, axillary mass, exophthalmos, enophthalmos, lenticular opacity, lacrimation, ungroomed coat, traumatized cornea, cloudy, white film on eye, missing right eye, large eye, dark red eye, and lids unable to close.

##### **A.3. Necropsy Observations**

No gross lesions were revealed by necropsy.

#### **B. Body Weights, Uterine Weights and Body Weight Changes (Figures 1 through 3; Summaries - Tables 2 through 5; Individual Data - Tables 14 and 15)**

##### **B.1. Precohabitation**

Body weight gains for the entire precohabitation period (DSs 1 to 42) were 88.8%, 80.8%, 66.3% and 17.4% of the control group value in the 0.1, 0.4, 1.6 and 3.2 mg/kg/day dosage groups, respectively. Body weights were 98.0%, 96.3%, 93.6% and 85.3 % of the control group value in these four respective dosage groups on DS 42.

## **B.2. Gestation**

As the result of random selection for assignment to Cesarean-sectioning on either DG 15 or DG 21, groups assigned to Cesarean-sectioning on DG 15 weighed less on DG 0 than groups assigned to Cesarean-sectioning on DG 21. Reflecting the random selection and differences in average body weights of the two subsets, as well as the relatively small group sizes, body weight gains differed in the two subsets. In both subsets, body weight gains were reduced on DGs 0 to 7 in groups administered 0.4 mg/kg/day and higher dosages of PFOS, after which body weight changes did not demonstrate a clear dosage-dependent pattern.

Gestation body weights and body weight gains were unaffected by the 0.1 mg/kg/day dosage of the test article. Gravid uterine weights were unaffected by dosages of the test article as high as 3.2 mg/kg/day.

## **C. Absolute (g/day) and Relative (g/kg/day) Feed Consumption Values (Summaries - Tables 6 through 9; Individual Data – Tables 16 and 17)**

### **C.1. Precohabitation**

Absolute (g/day) and relative (g/kg/day) feed consumption values were reduced in the 0.4, 1.6 and 3.2 mg/kg/day dosage groups in each week of the precohabitation period. Reflecting these effects of the test article, absolute feed consumption values were 94.8%, 92.2% and 83.8% of the control group value, and relative feed consumption values were 95.1%, 94.3% and 90.7% of the control group value for the entire precohabitation period (DSs 1 to 42) in the 0.4, 1.6 and 3.2 mg/kg/day dosage groups.

Absolute and relative feed consumption values during the precohabitation period were unaffected by the 0.1 mg/kg/day dosage of the test article.

### **C.2. Gestation**

Groups administered 0.4 mg/kg/day and higher dosages of the test article had reduced absolute and relative feed consumption values during the first week of the gestation period (no values were available for evaluation for the 1.6 mg/kg/day dosage group assigned to Cesarean-sectioning on DG 15). Absolute feed consumption values continued to be reduced for the remainder of the dosage period in the 0.4 and 1.6 mg/kg/day dosage groups assigned to DG 15 Cesarean-sectioning and in the 3.2 mg/kg/day dosage group for rats assigned to either DG 15 or DG 21 Cesarean-sectioning. Relative feed consumption values tended to be increased over the control group values for the 1.6 and 3.2 mg/kg/day dosage groups after DG 10.

Absolute and relative feed consumption values during gestation were unaffected by the 0.1 mg/kg/day dosage of the test article.

**D. Caesarean-Sectioning, Litter and Fetal Gross External Observations (Summaries –Tables 10 and 11; Individual Data - Tables 18 through 21)**

**D.1. Day 15 of Gestation**

Pregnancy occurred in 6 (75.0%), 7 (87.5%), 8 (100.0%), 6 (85.7%) and 8 (100.0%) of the rats in each dosage group.

No Caesarean-sectioning or litter parameters were affected by dosages of the test article as high as 3.2 mg/kg/day administered to rats Caesarean-sectioned on DG 15. The litter averages for corpora lutea, implantations, viable and nonviable embryos and percent nonviable embryos per litter were comparable among the five dosage groups. No dam had a litter consisting of only nonviable embryos.

**D.2. Day 21 of Gestation**

Pregnancy occurred in 7 (100.0%), 7 (100.0%), 5 (83.3%), 2 (50.0%) and 6 (100.0%) rats with a confirmed mating date in each dosage group. One rat in each of the 0.1 and 0.4 mg/kg/day dosage groups was moribund sacrificed on DG 0 and the pregnancy status could not be determined and two rats in the 3.2 mg/kg/day dosage group delivered before Caesarean-sectioning on DG 21, as previously described. As a result, Caesarean-sectioning observations were based on 7, 7, 5, 2 and 4 pregnant rats with one or more live fetuses in Groups I through V, respectively.

The litter averages for implantations, litter sizes and live fetuses were reduced in the 3.2 mg/kg/day dosage group. Values were below the ranges observed historically at the Testing Facility<sup>a</sup>. Fetal body weights were also reduced in the 3.2 mg/kg/day dosage group. No other Caesarean-sectioning or litter parameters were affected by dosages of the test article as high as 3.2 mg/kg/day administered to rats Caesarean-sectioned on DG 21. The litter averages for corpora lutea, early and late resorptions, placental weights, percent live male fetuses and percent resorbed conceptuses were comparable among the five dosage groups. No dam had a litter consisting of only resorbed conceptuses, and there were no dead fetuses. No fetal alterations were identified at gross external examination.

---

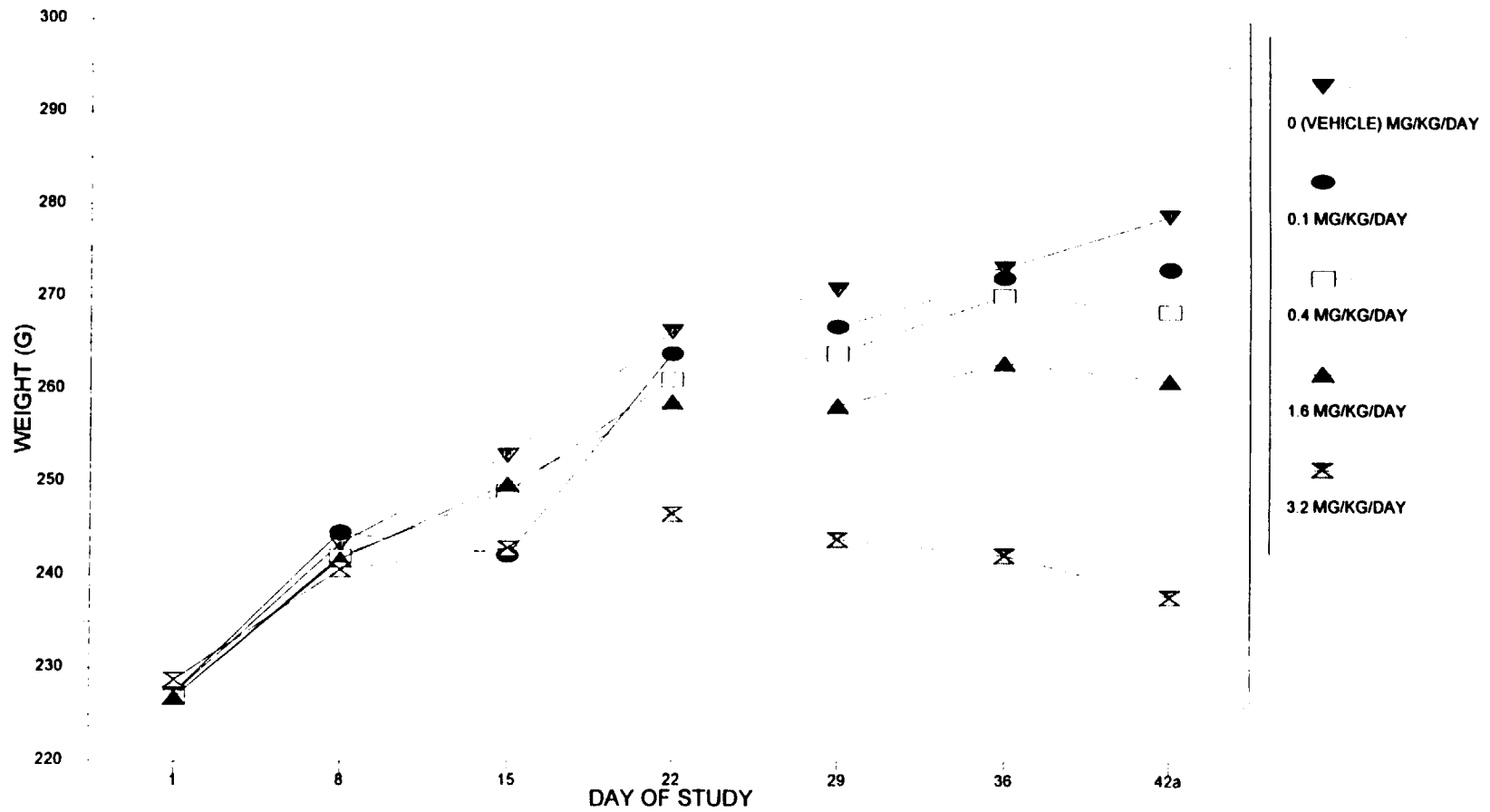
a. See APPENDIX F (HISTORICAL CONTROL DATA).

**REFERENCES**

1. U.S. Food and Drug Administration (1994). International Conference on Harmonisation; Guideline on detection of toxicity to reproduction for medicinal products. *Federal Register*, September 22, 1994, Vol. 59, No. 183.
2. U.S. Food and Drug Administration. Good Laboratory Practice Regulations; Final Rule. 21 CFR Part 58.
3. Japanese Ministry of Health and Welfare (1997). *Good Laboratory Practice Standard for Safety Studies on Drugs*, MHW Ordinance Number 21, March 26, 1997.
4. European Economic Community (1989). *Council decision on 28 July 1989 on the acceptance by the European Economic Community of an OECD decision/recommendation on compliance with principles of good laboratory practice*. Official Journal of the European Communities: Legislation. 32 (No. L 315; 28 October): 1-17.
5. 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.
6. 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.
7. 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.)
8. Institute of Laboratory Animal Resources (1996). *Guide for the Care and Use of Laboratory Animals*. National Academy Press, Washington, D.C.
9. Salewski, E. (1964). Färbemethode zum makroskopischen Nachweis von Implantationsstellen am Uterus der Ratte. *Arch. Pathol. Exp. Pharmacol.* 247:367.

**APPENDIX A**  
**REPORT FIGURES**

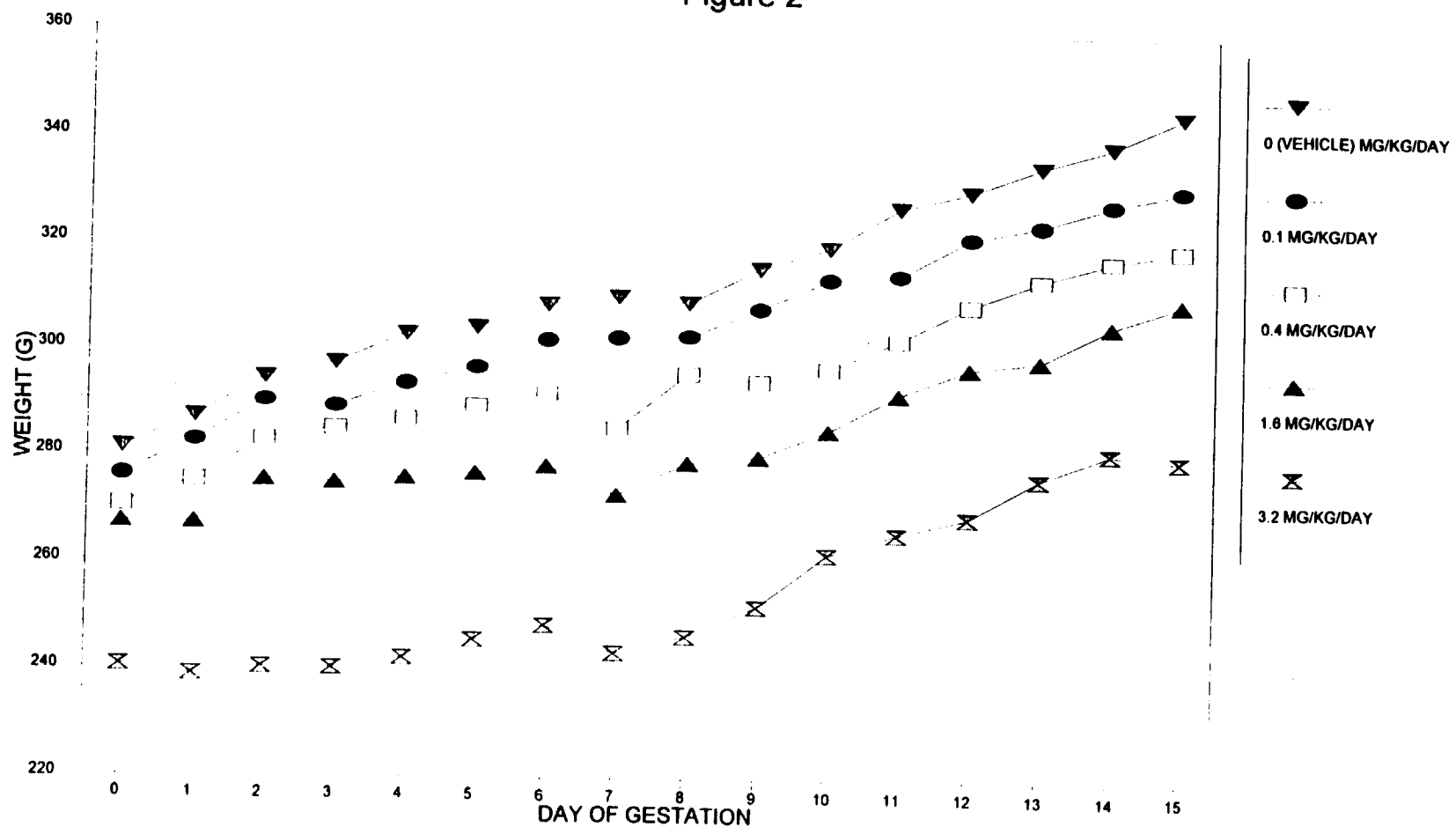
# BODY WEIGHTS PRECOHABITATION Figure 1



a. Last value recorded before cohabitation

# MATERNAL BODY WEIGHTS RATS CAESAREAN-SECTIONED ON DAY 15 OF GESTATION

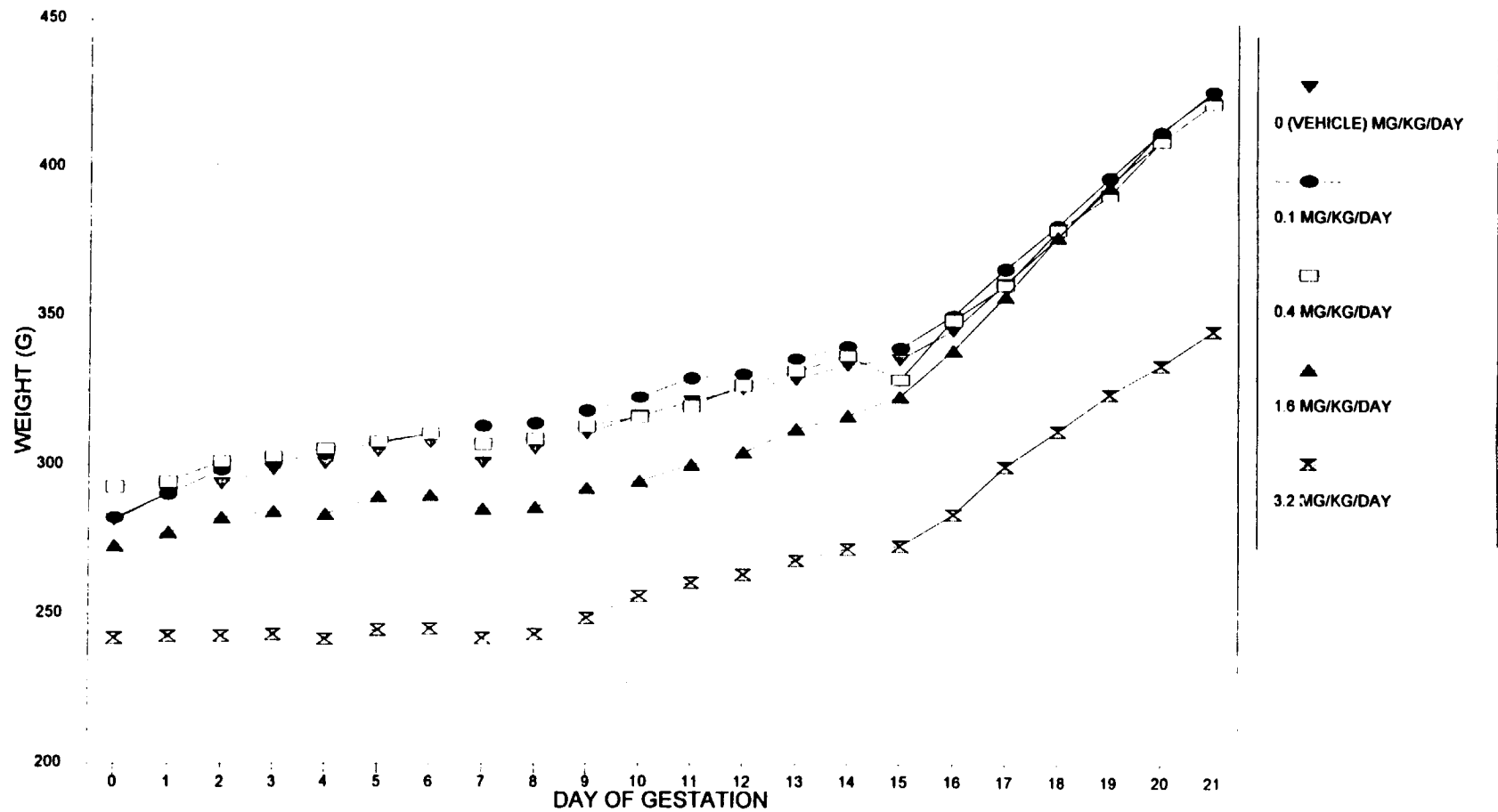
Figure 2





# MATERNAL BODY WEIGHTS RATS CAESAREAN-SECTIONED ON DAY 21 OF GESTATION

Figure 3



**APPENDIX B**  
**REPORT TABLES**

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 1 (PAGE 1): CLINICAL AND NECROPSY OBSERVATIONS - SUMMARY  
(See footnotes on the last page of this table.)

| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY)                                            | I<br>0 (VEHICLE) | II<br>0.1 | III<br>0.4 | IV<br>1.6 | V<br>3.2 |
|-------------------------------------------------------------------------------|------------------|-----------|------------|-----------|----------|
| MORTALITY                                                                     | 1                | 1         | 1          | 1         | 2        |
| DELIVERED AND SACRIFICED                                                      | 1a               | 0         | 0          | 0         | 2b,c     |
| MORIBUND SACRIFICED                                                           | 0                | 1d        | 1e         | 1f        | 0        |
| <u>PRECOHABITATION (DAY 1 OF STUDY TO THE DAY OF COHABITATION):</u>           |                  |           |            |           |          |
| MAXIMUM POSSIBLE INCIDENCE                                                    | 672/ 16          | 672/ 16   | 672/ 16    | 672/ 16   | 672/ 16  |
| FOREPAW: THIRD DIGIT MISSING                                                  | 0/ 0             | 0/ 0      | 0/ 0       | 0/ 0      | 34/ 1    |
| LOCALIZED ALOPECIA: TOTAL                                                     | 40/ 1            | 43/ 2     | 0/ 0       | 26/ 2     | 9/ 1     |
| LIMBS                                                                         | 40/ 1            | 43/ 2     | 0/ 0       | 14/ 1     | 9/ 1     |
| UNDERSIDE                                                                     | 0/ 0             | 0/ 0      | 0/ 0       | 12/ 1     | 0/ 0     |
| FOREPAW: THIRD DIGIT SWOLLEN                                                  | 0/ 0             | 0/ 0      | 0/ 0       | 0/ 0      | 3/ 1     |
| FOREPAWS: SCAB(S)                                                             | 0/ 0             | 0/ 0      | 0/ 0       | 14/ 1     | 3/ 1     |
| CHROMORHINORRHEA                                                              | 0/ 0             | 0/ 0      | 1/ 1       | 5/ 4      | 1/ 1     |
| CHROMODACRYORRHEA                                                             | 0/ 0             | 5/ 1      | 0/ 0       | 0/ 0      | 1/ 1     |
| EARS: SWOLLEN                                                                 | 0/ 0             | 0/ 0      | 0/ 0       | 3/ 1      | 0/ 0     |
| FOREPAWS: SWOLLEN                                                             | 0/ 0             | 0/ 0      | 0/ 0       | 2/ 1      | 0/ 0     |
| INCISORS: TOTAL                                                               | 0/ 0             | 21/ 1     | 0/ 0       | 0/ 0      | 0/ 0     |
| MISSING/BROKEN                                                                | 0/ 0             | 12/ 1     | 0/ 0       | 0/ 0      | 0/ 0     |
| MISALIGNED                                                                    | 0/ 0             | 9/ 1      | 0/ 0       | 0/ 0      | 0/ 0     |
| SNOUT: SWOLLEN                                                                | 0/ 0             | 1/ 1      | 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.           |                  |           |            |           |          |

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 1 (PAGE 2): CLINICAL AND NECROPSY OBSERVATIONS - SUMMARY  
(See footnotes on the last page of this table.)

| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY)                                                                                                                   | I<br>0 (VEHICLE) | II<br>0.1 | III<br>0.4 | IV<br>1.6 | V<br>3.2 |
|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------|------------|-----------|----------|
| PRESUMED GESTATION: g                                                                                                                                |                  |           |            |           |          |
| MAXIMUM POSSIBLE INCIDENCE                                                                                                                           | 282/ 15          | 283/ 16   | 261/ 15    | 216/ 12   | 260/ 14  |
| LOCALIZED ALOPECIA: TOTAL                                                                                                                            | 3/ 1             | 37/ 3     | 3/ 1       | 45/ 3     | 46/ 4    |
| LIMBS                                                                                                                                                | 3/ 1             | 23/ 2d    | 0/ 0       | 37/ 2     | 43/ 3c   |
| UNDERSIDE                                                                                                                                            | 0/ 0             | 0/ 0      | 3/ 1       | 16/ 1     | 3/ 1     |
| HEAD                                                                                                                                                 | 0/ 0             | 14/ 1     | 0/ 0       | 0/ 0      | 0/ 0     |
| BACK                                                                                                                                                 | 0/ 0             | 0/ 0      | 0/ 0       | 7/ 1      | 0/ 0     |
| FOREPAW: THIRD DIGIT MISSING                                                                                                                         | 0/ 0             | 0/ 0      | 0/ 0       | 0/ 0      | 22/ 1    |
| CORNEAL HEMORRHAGE                                                                                                                                   | 0/ 0             | 0/ 0      | 0/ 0       | 6/ 1      | 16/ 1    |
| CORNEAL OPACITY                                                                                                                                      | 0/ 0             | 27/ 3d    | 20/ 2e     | 0/ 0      | 16/ 1    |
| RIGHT AXILLA: MASS                                                                                                                                   | 0/ 0             | 0/ 0      | 0/ 0       | 0/ 0      | 11/ 1    |
| EXOPHTHALMOS                                                                                                                                         | 0/ 0             | 4/ 2d     | 4/ 2e      | 1/ 1      | 2/ 1     |
| CHROMODACRYORRHEA                                                                                                                                    | 11/ 1            | 1/ 1d     | 1/ 1e      | 0/ 0      | 1/ 1     |
| FOREPAWS: SCAB(S)                                                                                                                                    | 0/ 0             | 0/ 0      | 0/ 0       | 1/ 1      | 0/ 0     |
| ENOPHTHALMOS                                                                                                                                         | 0/ 0             | 0/ 0      | 8/ 1       | 0/ 0      | 0/ 0     |
| LENTICULAR OPACITY                                                                                                                                   | 16/ 1a           | 0/ 0      | 3/ 1       | 0/ 0      | 0/ 0     |
| LACRIMATION                                                                                                                                          | 0/ 0             | 0/ 0      | 2/ 1       | 0/ 0      | 0/ 0     |
| RIGHT EYE: LARGE                                                                                                                                     | 0/ 0             | 1/ 1d     | 1/ 1e      | 0/ 0      | 0/ 0     |
| RIGHT EYE: DARK RED                                                                                                                                  | 0/ 0             | 1/ 1d     | 1/ 1e      | 0/ 0      | 0/ 0     |
| MAXIMUM POSSIBLE INCIDENCE = (DAYS x RATS)/NUMBER OF RATS EXAMINED PER GROUP.<br>N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RATS WITH OBSERVATION. |                  |           |            |           |          |

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 1 (PAGE 3): CLINICAL AND NECROPSY OBSERVATIONS - SUMMARY

| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY) | I<br>0 (VEHICLE) | II<br>0.1 | III<br>0.4 | IV<br>1.6 | V<br>3.2 |
|------------------------------------|------------------|-----------|------------|-----------|----------|
| <u>PRESUMED GESTATION: g</u>       |                  |           |            |           |          |
| MAXIMUM POSSIBLE INCIDENCE         | 282/ 15          | 283/ 16   | 261/ 15    | 216/ 12   | 260/ 14  |
| RIGHT EYE: LIDS UNABLE TO CLOSE    | 0/ 0             | 1/ 1d     | 1/ 1e      | 0/ 0      | 0/ 0     |
| CHROMORRHINORRHEA                  | 7/ 2             | 0/ 0      | 1/ 1       | 0/ 0      | 0/ 0     |
| SNOUT: SWOLLEN                     | 0/ 0             | 3/ 2d     | 1/ 1e      | 0/ 0      | 0/ 0     |
| UNGROOMED COAT                     | 0/ 0             | 0/ 0      | 1/ 1       | 0/ 0      | 0/ 0     |
| TRAUMATIZED CORNEA                 | 0/ 0             | 33/ 3     | 0/ 0       | 0/ 0      | 0/ 0     |
| RIGHT EYE: CLOUDY, WHITE FILM      | 0/ 0             | 11/ 1     | 0/ 0       | 0/ 0      | 0/ 0     |
| RIGHT EYE: MISSING                 | 0/ 0             | 11/ 1     | 0/ 0       | 0/ 0      | 0/ 0     |
| INCISORS: MISSING/BROKEN           | 0/ 0             | 7/ 1      | 0/ 0       | 0/ 0      | 0/ 0     |

PERSISTENT ADVERSE CLINICAL OBSERVATIONS WERE CONFIRMED AT NECROPSY, NO ADDITIONAL GROSS LESIONS WERE IDENTIFIED

MAXIMUM POSSIBLE INCIDENCE = (DAYS x RATS)/NUMBER OF RATS EXAMINED PER GROUP.  
N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RATS WITH OBSERVATION.

- Dam 19503 did not have a confirmed mating date and delivered on day 66 of study.
- Dam 19571 delivered on day 21 of gestation.
- Dam 19579 delivered on day 21 of gestation.
- Rat 19520 was moribund sacrificed on day 0 of presumed gestation; pregnancy status could not be determined.
- Rat 19541 was moribund sacrificed on day 0 of presumed gestation; pregnancy status could not be determined.
- Rat 19557 was moribund sacrificed on day 43 of study.
- Restricted to rats with a confirmed mating date.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 2 (PAGE 1): BODY WEIGHTS - PRECOHABITATION - SUMMARY

| DOSAGE GROUP       |          | I            | II           | III          | IV           | V            |
|--------------------|----------|--------------|--------------|--------------|--------------|--------------|
| DOSAGE (MG/KG/DAY) |          | 0 (VEHICLE)  | 0.1          | 0.4          | 1.6          | 3.2          |
| RATS TESTED        | N        | 16           | 16           | 16           | 16           | 16           |
| BODY WEIGHT (G)    |          |              |              |              |              |              |
| DAY 1              | MEAN±S.D | 227.3 ± 7.2  | 227.4 ± 4.3  | 226.9 ± 6.2  | 226.9 ± 6.9  | 228.8 ± 7.0  |
| DAY 8              | MEAN±S.D | 243.4 ± 10.2 | 244.6 ± 6.8  | 242.0 ± 9.4  | 241.7 ± 10.1 | 240.6 ± 10.3 |
| DAY 15             | MEAN±S.D | 252.9 ± 11.6 | 252.1 ± 8.6  | 249.0 ± 11.7 | 249.8 ± 11.2 | 242.9 ± 10.7 |
| DAY 22             | MEAN±S.D | 266.3 ± 12.8 | 263.9 ± 10.5 | 261.1 ± 15.1 | 258.7 ± 12.3 | 246.6 ± 12.4 |
| DAY 29             | MEAN±S.D | 270.9 ± 16.0 | 266.9 ± 11.5 | 264.0 ± 17.1 | 258.4 ± 14.4 | 243.9 ± 13.7 |
| DAY 36             | MEAN±S.D | 273.3 ± 18.6 | 272.2 ± 12.7 | 270.3 ± 17.9 | 263.0 ± 15.0 | 242.2 ± 15.1 |
| DAY 42a            | MEAN±S.D | 278.9 ± 18.2 | 273.2 ± 15.4 | 268.6 ± 23.4 | 261.1 ± 15.9 | 237.8 ± 14.2 |

DAY = DAY OF STUDY

a. Last value recorded before cohabitation.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 3 (PAGE 1): BODY WEIGHT CHANGES - PRECOHABITATION - SUMMARY

| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY) |           | I<br>0 (VEHICLE) | II<br>0.1    | III<br>0.4   | IV<br>1.6    | V<br>3.2    |
|------------------------------------|-----------|------------------|--------------|--------------|--------------|-------------|
| RATS TESTED                        | N         | 16               | 16           | 16           | 16           | 16          |
| BODY WEIGHT CHANGE (G)             |           |                  |              |              |              |             |
| DAYS 1 - 8                         | MEAN±S.D. | +16.1 ± 5.6      | +17.2 ± 5.1  | +15.1 ± 5.1  | +14.8 ± 5.7  | +11.9 ± 6.2 |
| DAYS 8 - 15                        | MEAN±S.D. | +9.5 ± 5.6       | +7.5 ± 4.7   | +7.0 ± 4.4   | +8.1 ± 4.7   | +2.3 ± 4.6  |
| DAYS 15 - 22                       | MEAN±S.D. | +13.4 ± 5.8      | +11.8 ± 4.8  | +12.1 ± 5.2  | +8.9 ± 4.2   | +3.6 ± 4.9  |
| DAYS 22 - 29                       | MEAN±S.D. | +4.6 ± 6.6       | +3.0 ± 5.7   | +2.9 ± 6.1   | -0.2 ± 4.8   | -2.6 ± 6.0  |
| DAYS 29 - 36                       | MEAN±S.D. | +2.4 ± 7.1       | +5.3 ± 5.4   | +6.3 ± 6.4   | +4.6 ± 4.4   | -1.7 ± 6.4  |
| DAYS 36 - 42a                      | MEAN±S.D. | +5.6 ± 5.2       | +0.9 ± 6.1   | -1.7 ± 23.6  | -1.9 ± 6.0   | -4.5 ± 5.7  |
| DAYS 1 - 42a                       | MEAN±S.D. | +51.6 ± 16.9     | +45.8 ± 14.6 | +41.7 ± 22.6 | +34.2 ± 13.2 | +9.0 ± 11.3 |

DAYS = DAYS OF STUDY

a. Last value recorded before cohabitation.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 4 (PAGE 1): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - GESTATION - SUMMARY

RATS CAESAREAN-SECTIONED ON DAY 15 OF GESTATION

| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY) |           | I<br>0 (VEHICLE) | II<br>0.1    | III<br>0.4   | IV<br>1.6    | V<br>3.2     |
|------------------------------------|-----------|------------------|--------------|--------------|--------------|--------------|
| RATS TESTED                        | N         | 8                | 8            | 8            | 8            | 8            |
| INCLUDED IN ANALYSES               | N         | 8                | 8            | 8            | 7a           | 8            |
| PREGNANT                           | N         | 6                | 7            | 8            | 6            | 8            |
| MATERNAL BODY WEIGHT (G)           |           |                  |              |              |              |              |
| DAY 0                              | MEAN±S.D. | 281.0 ± 28.9     | 276.0 ± 10.5 | 270.4 ± 14.4 | 267.2 ± 16.4 | 240.5 ± 10.5 |
| DAY 1                              | MEAN±S.D. | 287.0 ± 26.0     | 282.4 ± 13.0 | 275.1 ± 20.8 | 267.2 ± 15.1 | 238.9 ± 13.6 |
| DAY 2                              | MEAN±S.D. | 294.3 ± 25.1     | 290.0 ± 11.2 | 282.8 ± 19.3 | 275.3 ± 17.0 | 240.2 ± 13.4 |
| DAY 3                              | MEAN±S.D. | 297.2 ± 27.5     | 289.1 ± 11.2 | 285.0 ± 16.9 | 274.8 ± 17.4 | 240.0 ± 14.8 |
| DAY 4                              | MEAN±S.D. | 302.8 ± 28.4     | 293.6 ± 10.5 | 286.8 ± 17.4 | 275.8 ± 15.8 | 242.1 ± 10.8 |
| DAY 5                              | MEAN±S.D. | 304.2 ± 26.2     | 296.6 ± 12.4 | 289.4 ± 16.3 | 276.8 ± 19.0 | 245.6 ± 12.2 |
| DAY 6                              | MEAN±S.D. | 308.7 ± 27.1     | 302.0 ± 14.2 | 291.9 ± 17.3 | 278.3 ± 16.3 | 248.4 ± 11.7 |
| DAY 7                              | MEAN±S.D. | 310.2 ± 28.2     | 302.6 ± 12.2 | 285.5 ± 20.6 | 273.0 ± 14.5 | 243.4 ± 13.0 |
| DAY 8                              | MEAN±S.D. | 309.2 ± 25.0     | 302.8 ± 12.0 | 295.8 ± 21.3 | 279.0 ± 17.7 | 246.5 ± 9.7  |
| DAY 9                              | MEAN±S.D. | 315.7 ± 23.1     | 308.0 ± 13.7 | 294.4 ± 17.9 | 280.3 ± 16.1 | 252.2 ± 10.2 |
| DAY 10                             | MEAN±S.D. | 319.7 ± 25.0     | 313.7 ± 17.9 | 296.9 ± 19.0 | 285.3 ± 15.6 | 262.0 ± 10.5 |
| DAY 11                             | MEAN±S.D. | 327.3 ± 24.5     | 314.6 ± 13.9 | 302.4 ± 18.6 | 292.2 ± 16.8 | 265.9 ± 9.9  |
| DAY 12                             | MEAN±S.D. | 330.5 ± 23.9     | 321.7 ± 15.0 | 309.1 ± 18.7 | 297.2 ± 18.9 | 269.1 ± 9.5  |

DAY = DAY OF GESTATION

a. Excludes values for rat 19561; necropsy and Caesarean-section observations were not recorded.



PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 4 (PAGE 2): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - GESTATION - SUMMARY

| RATS CAESAREAN-SECTIONED ON DAY 15 OF GESTATION |           |                  |              |              |              |              |
|-------------------------------------------------|-----------|------------------|--------------|--------------|--------------|--------------|
| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY)              |           | I<br>0 (VEHICLE) | II<br>0.1    | III<br>0.4   | IV<br>1.6    | V<br>3.2     |
| RATS TESTED                                     | N         | 8                | 8            | 8            | 8            | 8            |
| INCLUDED IN ANALYSES                            | N         | 8                | 8            | 8            | 7a           | 8            |
| PREGNANT                                        | N         | 6                | 7            | 8            | 6            | 8            |
| MATERNAL BODY WEIGHT (G)                        |           |                  |              |              |              |              |
| DAY 13                                          | MEAN+S.D. | 335.3 ± 24.6     | 324.3 ± 15.6 | 314.0 ± 19.8 | 298.8 ± 17.8 | 276.6 ± 13.3 |
| DAY 14                                          | MEAN+S.D. | 339.2 ± 25.8     | 328.4 ± 15.5 | 317.8 ± 19.2 | 305.5 ± 20.8 | 281.6 ± 12.6 |
| DAY 15                                          | MEAN+S.D. | 345.2 ± 27.8     | 331.1 ± 18.6 | 319.9 ± 22.4 | 309.8 ± 17.7 | 280.4 ± 13.3 |
| GRAVID UTERINE WEIGHTS (G)                      |           |                  |              |              |              |              |
| DAY 15C b                                       | MEAN+S.D. | 19.8 ± 4.3       | 17.5 ± 5.2   | 16.3 ± 5.6   | 17.6 ± 1.3   | 17.1 ± 4.0   |
|                                                 | MEAN+S.D. | 325.3 ± 25.7     | 313.7 ± 15.7 | 303.6 ± 19.5 | 292.2 ± 16.9 | 263.3 ± 11.3 |

DAY = DAY OF GESTATION

- a. Excludes values for rat 19561; necropsy and Caesarean-section observations were not recorded.  
b. 15C = Corrected maternal body weight (day 15 of gestation body weight minus the gravid uterine weight).

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 4 (PAGE 3): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - GESTATION - SUMMARY

| RATS CAESAREAN-SECTIONED ON DAY 21 OF GESTATION |           |                  |              |              |              |              |  |
|-------------------------------------------------|-----------|------------------|--------------|--------------|--------------|--------------|--|
| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY)              |           | I<br>0 (VEHICLE) | II<br>0.1    | III<br>0.4   | IV<br>1.6    | V<br>3.2     |  |
| RATS TESTED                                     | N         | 8                | 8            | 8            | 8            | 8            |  |
| INCLUDED IN ANALYSES                            | N         | 7a               | 7b           | 6a,b         | 4a,c         | 6a           |  |
| PREGNANT                                        | N         | 7                | 7            | 5            | 2            | 6            |  |
| MATERNAL BODY WEIGHT (G)                        |           |                  |              |              |              |              |  |
| DAY 0                                           | MEAN±S.D. | 281.6 ± 14.5     | 282.3 ± 19.1 | 292.8 ± 22.7 | 273.0 ± 1.4  | 242.0 ± 14.7 |  |
| DAY 1                                           | MEAN±S.D. | 290.3 ± 15.6     | 290.4 ± 17.9 | 294.4 ± 24.7 | 277.5 ± 0.7  | 242.8 ± 17.3 |  |
| DAY 2                                           | MEAN±S.D. | 293.8 ± 14.8     | 298.3 ± 16.5 | 301.2 ± 24.8 | 282.5 ± 0.7  | 242.7 ± 18.2 |  |
| DAY 3                                           | MEAN±S.D. | 298.4 ± 12.6     | 300.4 ± 19.3 | 302.6 ± 23.3 | 284.5 ± 2.1  | 243.2 ± 20.3 |  |
| DAY 4                                           | MEAN±S.D. | 300.4 ± 13.4     | 304.0 ± 14.2 | 305.4 ± 24.5 | 283.5 ± 0.7  | 241.8 ± 21.3 |  |
| DAY 5                                           | MEAN±S.D. | 304.8 ± 9.6      | 307.4 ± 16.8 | 307.8 ± 26.1 | 289.5 ± 2.1  | 244.8 ± 22.8 |  |
| DAY 6                                           | MEAN±S.D. | 307.6 ± 10.7     | 310.6 ± 17.4 | 310.6 ± 26.6 | 290.0 ± 2.8  | 245.2 ± 24.2 |  |
| DAY 7                                           | MEAN±S.D. | 301.0 ± 12.8     | 313.3 ± 18.3 | 307.4 ± 25.9 | 285.5 ± 0.7  | 242.0 ± 19.8 |  |
| DAY 8                                           | MEAN±S.D. | 305.8 ± 12.8     | 314.4 ± 16.6 | 309.0 ± 26.1 | 286.0 ± 1.4  | 243.5 ± 21.0 |  |
| DAY 9                                           | MEAN±S.D. | 311.0 ± 10.4     | 318.7 ± 15.4 | 313.4 ± 27.3 | 292.5 ± 2.1  | 249.0 ± 20.5 |  |
| DAY 10                                          | MEAN±S.D. | 317.0 ± 8.8      | 323.1 ± 16.9 | 316.6 ± 26.3 | 295.0 ± 7.1  | 256.3 ± 18.1 |  |
| DAY 11                                          | MEAN±S.D. | 321.7 ± 10.1     | 329.6 ± 15.2 | 320.2 ± 23.7 | 300.5 ± 7.8  | 260.7 ± 21.2 |  |
| DAY 12                                          | MEAN±S.D. | 326.1 ± 11.6     | 330.8 ± 16.8 | 327.2 ± 28.2 | 304.5 ± 12.0 | 263.5 ± 21.0 |  |

DAY = DAY OF GESTATION

- a. Excludes values for rats that did not have a confirmed mating date.
- b. Excludes values for rats 19520 and 19541, which were moribund sacrificed on day 0 of presumed gestation; pregnancy status could not be determined.
- c. Excludes values for rat 19557, which was moribund sacrificed on day 43 of study (day 2 of cohabitation).

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 4 (PAGE 4): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - GESTATION - SUMMARY

| RATS CAESAREAN-SECTIONED ON DAY 21 OF GESTATION |           |                  |              |              |              |              |
|-------------------------------------------------|-----------|------------------|--------------|--------------|--------------|--------------|
| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY)              |           | I<br>0 (VEHICLE) | II<br>0.1    | III<br>0.4   | IV<br>1.6    | V<br>3.2     |
| RATS TESTED                                     | N         | 8                | 8            | 8            | 8            | 8            |
| INCLUDED IN ANALYSES                            | N         | 7a               | 7b           | 6a,b         | 4a,c         | 6a           |
| PREGNANT                                        | N         | 7                | 7            | 5            | 2            | 6            |
| MATERNAL BODY WEIGHT (G)                        |           |                  |              |              |              |              |
| DAY 13                                          | MEAN±S.D. | 329.1 ± 10.1     | 336.0 ± 14.9 | 331.8 ± 28.0 | 312.5 ± 4.9  | 268.2 ± 21.2 |
| DAY 14                                          | MEAN±S.D. | 334.0 ± 12.1     | 340.3 ± 17.4 | 337.0 ± 28.7 | 317.0 ± 12.7 | 272.2 ± 22.2 |
| DAY 15                                          | MEAN±S.D. | 336.0 ± 16.0     | 339.7 ± 17.5 | 329.2 ± 24.3 | 323.5 ± 6.4  | 273.2 ± 20.3 |
| DAY 16                                          | MEAN±S.D. | 345.7 ± 13.8     | 350.7 ± 20.9 | 349.4 ± 29.5 | 339.0 ± 15.6 | 283.8 ± 20.8 |
| DAY 17                                          | MEAN±S.D. | 361.8 ± 16.2     | 366.8 ± 22.8 | 361.0 ± 28.1 | 357.5 ± 12.0 | 300.0 ± 27.4 |
| DAY 18                                          | MEAN±S.D. | 377.4 ± 15.5     | 381.4 ± 23.2 | 379.8 ± 31.0 | 377.5 ± 20.5 | 312.0 ± 26.7 |
| DAY 19                                          | MEAN±S.D. | 395.6 ± 18.5     | 397.6 ± 24.9 | 391.8 ± 29.7 | 394.5 ± 24.7 | 324.5 ± 29.6 |
| DAY 20                                          | MEAN±S.D. | 410.1 ± 20.1     | 413.0 ± 25.2 | 410.2 ± 34.7 | 413.5 ± 34.6 | 334.3 ± 32.5 |
| DAY 21                                          | MEAN±S.D. | 423.0 ± 27.4     | 427.0 ± 29.0 | 423.0 ± 30.7 | 426.5 ± 23.3 | 346.0 ± 33.8 |
| GRAVID UTERINE WEIGHTS (G)                      |           |                  |              |              |              |              |
| DAY 21C d                                       | MEAN±S.D. | 96.3 ± 12.0      | 92.0 ± 27.0  | 91.3 ± 34.0  | 112.7 ± 37.0 | 59.5 ± 26.8  |
|                                                 | MEAN±S.D. | 326.7 ± 22.6     | 335.0 ± 22.4 | 331.7 ± 26.2 | 313.8 ± 13.6 | 283.2 ± 23.8 |

DAY = DAY OF GESTATION

- Excludes values for rats that did not have a confirmed mating date.
- Excludes values for rats 19520 and 19541, which were moribund sacrificed on day 0 of presumed gestation; pregnancy status could not be determined.
- Excludes values for rat 19557, which was moribund sacrificed on day 43 of study (day 2 of cohabitation).
- 21C = Corrected maternal body weight (day 21 of gestation body weight minus the gravid uterine weight).

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 5 (PAGE 1): MATERNAL BODY WEIGHT CHANGES - GESTATION - SUMMARY

RATS CAESAREAN-SECTIONED ON DAY 15 OF GESTATION

| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY) |           | I<br>0 (VEHICLE) | II<br>0.1    | III<br>0.4   | IV<br>1.6   | V<br>3.2    |
|------------------------------------|-----------|------------------|--------------|--------------|-------------|-------------|
| RATS TESTED                        | N         | 8                | 8            | 8            | 8           | 8           |
| INCLUDED IN ANALYSES               | N         | 8                | 8            | 8            | 7a          | 8           |
| PREGNANT                           | N         | 6                | 7            | 8            | 6           | 8           |
| MATERNAL BODY<br>WEIGHT CHANGE (G) |           |                  |              |              |             |             |
| DAYS 0 - 7                         | MEAN±S.D. | +29.2 ± 7.7      | +26.6 ± 5.0  | +15.1 ± 7.6  | +5.8 ± 9.0  | +2.9 ± 11.3 |
| DAYS 7 - 8                         | MEAN±S.D. | -1.0 ± 6.4       | +0.3 ± 3.9   | +10.2 ± 7.8  | +6.0 ± 6.1  | +3.1 ± 8.0  |
| DAYS 8 - 9                         | MEAN±S.D. | +6.5 ± 3.9       | +5.1 ± 2.5   | -1.4 ± 10.6  | +1.3 ± 5.5  | +5.8 ± 2.0  |
| DAYS 9 - 10                        | MEAN±S.D. | +4.0 ± 3.5       | +5.7 ± 11.6  | +2.5 ± 3.2   | +5.0 ± 2.4  | +9.8 ± 5.5  |
| DAYS 7 - 10                        | MEAN±S.D. | +9.5 ± 5.8       | +11.1 ± 8.9  | +11.4 ± 5.0  | +12.3 ± 8.8 | +18.6 ± 8.5 |
| DAYS 10 - 13                       | MEAN±S.D. | +15.7 ± 2.1      | +10.6 ± 11.0 | +17.1 ± 7.6  | +13.5 ± 4.3 | +14.6 ± 5.3 |
| DAYS 13 - 15                       | MEAN±S.D. | +9.8 ± 3.9       | +6.8 ± 12.2  | +5.9 ± 9.6   | +11.0 ± 4.6 | +3.8 ± 4.6  |
| DAYS 0 - 15                        | MEAN±S.D. | +64.2 ± 9.9      | +55.1 ± 10.2 | +49.5 ± 12.8 | +42.7 ± 4.2 | +39.9 ± 8.5 |
| DAYS 0 - 15C b                     | MEAN±S.D. | +44.3 ± 11.7     | +37.7 ± 8.0  | +33.2 ± 11.6 | +25.1 ± 3.2 | +22.8 ± 7.2 |

DAYS = DAYS OF GESTATION

a. Excludes values for rat 19561; necropsy and Caesarean-section observation were not recorded.

b. 15C = Corrected maternal body weight (day 15 of gestation body weight minus the gravid uterine weight).

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)  
TABLE 5 (PAGE 2): MATERNAL BODY WEIGHT CHANGES - GESTATION - SUMMARY

| RATS CAESAREAN-SECTIONED ON DAY 21 OF GESTATION |           |                  |               |               |               |               |
|-------------------------------------------------|-----------|------------------|---------------|---------------|---------------|---------------|
| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY)              |           | I<br>0 (VEHICLE) | II<br>0.1     | III<br>0.4    | IV<br>1.6     | V<br>3.2      |
| RATS TESTED                                     | N         | 8                | 8             | 8             | 8             | 8             |
| INCLUDED IN ANALYSES                            | N         | 7a               | 7b            | 6a,b          | 4a,c          | 6a            |
| PREGNANT                                        | N         | 7                | 7             | 5             | 2             | 6             |
| MATERNAL BODY WEIGHT CHANGE (G)                 |           |                  |               |               |               |               |
| DAYS 0 - 7                                      | MEAN±S.D. | +19.4 ± 9.6      | +31.0 ± 11.7  | +14.6 ± 7.6   | +12.5 ± 0.7   | +0.0 ± 6.8    |
| DAYS 7 - 8                                      | MEAN±S.D. | +4.8 ± 10.2      | +1.1 ± 7.6    | +1.6 ± 4.8    | +0.5 ± 2.1    | +1.5 ± 3.7    |
| DAYS 8 - 9                                      | MEAN±S.D. | +5.1 ± 3.1       | +4.3 ± 3.4    | +4.4 ± 8.0    | +6.5 ± 0.7    | +5.5 ± 4.9    |
| DAYS 9 - 10                                     | MEAN±S.D. | +6.0 ± 2.9       | +4.4 ± 4.9    | +3.2 ± 5.2    | +2.5 ± 4.9    | +7.3 ± 4.4    |
| DAYS 7 - 10                                     | MEAN±S.D. | +16.0 ± 11.0     | +9.8 ± 6.9    | +9.2 ± 7.2    | +9.5 ± 7.8    | +14.3 ± 6.7   |
| DAYS 10 - 13                                    | MEAN±S.D. | +12.1 ± 4.0      | +12.8 ± 3.7   | +15.2 ± 5.5   | +17.5 ± 2.1   | +11.8 ± 8.1   |
| DAYS 13 - 15                                    | MEAN±S.D. | +6.8 ± 7.4       | +3.7 ± 9.6    | -2.6 ± 15.4   | +11.0 ± 1.4   | +5.0 ± 7.3    |
| DAYS 15 - 18                                    | MEAN±S.D. | +41.4 ± 4.5      | +41.7 ± 14.8  | +50.6 ± 11.6  | +54.0 ± 14.1  | +38.8 ± 11.8  |
| DAYS 18 - 21                                    | MEAN±S.D. | +45.6 ± 15.7     | +45.6 ± 12.2  | +43.2 ± 12.3  | +49.0 ± 2.8   | +34.0 ± 8.5   |
| DAYS 0 - 21                                     | MEAN±S.D. | +141.4 ± 25.0    | +144.7 ± 20.3 | +130.2 ± 23.8 | +153.5 ± 24.7 | +104.0 ± 26.3 |
| DAYS 0 - 21C d                                  | MEAN±S.D. | +45.2 ± 18.5     | +52.7 ± 16.4  | +38.9 ± 14.0  | +40.8 ± 12.2  | +36.2 ± 16.7  |

DAYS = DAYS OF GESTATION

- Excludes values for rats that did not have a confirmed mating date.
- Excludes values for rats 19520 and 19541, which were moribund sacrificed on day 0 of presumed gestation; pregnancy status could not be determined.
- Excludes values for rat 19557, which was moribund sacrificed on day 43 of study (day 2 of cohabitation).
- 21C = Corrected maternal body weight (day 21 of gestation body weight minus the gravid uterine weight).

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 6 (PAGE 1): ABSOLUTE FEED CONSUMPTION VALUES (G/DAY) - PRECOHABITATION - SUMMARY

| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY) |           | I<br>0 (VEHICLE) | II<br>0.1            | III<br>0.4           | IV<br>1.6            | V<br>3.2             |
|------------------------------------|-----------|------------------|----------------------|----------------------|----------------------|----------------------|
| RATS TESTED                        |           | N                | 16                   | 16                   | 16                   | 16                   |
| FEED CONSUMPTION (G)               |           |                  |                      |                      |                      |                      |
| DAYS 1 - 8                         | MEAN±S.D. |                  | 19.7 ± 1.8<br>{ 15}a | 19.4 ± 1.5           | 18.8 ± 1.8           | 18.9 ± 1.5<br>{ 15}a |
| DAYS 8 - 15                        | MEAN±S.D. |                  | 18.8 ± 1.8<br>{ 11}a | 18.8 ± 1.6<br>{ 15}a | 17.4 ± 1.6<br>{ 15}a | 18.2 ± 1.9<br>{ 15}a |
| DAYS 15 - 22                       | MEAN±S.D. |                  | 20.0 ± 1.7<br>{ 14}a | 19.5 ± 1.6           | 18.5 ± 2.1<br>{ 15}a | 17.9 ± 1.7<br>{ 13}a |
| DAYS 22 - 29                       | MEAN±S.D. |                  | 18.6 ± 1.8<br>{ 12}a | 18.9 ± 1.9<br>{ 15}a | 18.1 ± 2.3<br>{ 14}a | 17.2 ± 1.7<br>{ 13}a |
| DAYS 29 - 36                       | MEAN±S.D. |                  | 18.7 ± 2.0           | 18.0 ± 1.8           | 18.0 ± 1.5           | 17.1 ± 1.8           |
| DAYS 36 - 42b                      | MEAN±S.D. |                  | 19.5 ± 2.2<br>{ 13}a | 18.0 ± 1.8           | 17.9 ± 1.7<br>{ 13}a | 16.7 ± 1.8<br>{ 13}a |
| DAYS 1 - 42b                       | MEAN±S.D. |                  | 19.2 ± 1.3<br>{ 13}a | 18.8 ± 1.4           | 18.2 ± 1.8<br>{ 13}a | 17.7 ± 1.4<br>{ 13}a |
|                                    |           |                  |                      |                      |                      | 15.1 ± 1.5<br>{ 15}a |
|                                    |           |                  |                      |                      |                      | 16.6 ± 1.6<br>{ 15}a |
|                                    |           |                  |                      |                      |                      | 16.4 ± 1.5<br>{ 14}a |
|                                    |           |                  |                      |                      |                      | 15.3 ± 1.7<br>{ 14}a |
|                                    |           |                  |                      |                      |                      | 14.8 ± 1.3<br>{ 13}a |
|                                    |           |                  |                      |                      |                      | 16.1 ± 1.1<br>{ 13}a |

DAYS = DAYS OF STUDY

{ } = NUMBER OF VALUES AVERAGED

a. Excludes values that were incorrectly recorded, as well as those associated with spillage.

b. Last value recorded before cohabitation.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 7 (PAGE 1): RELATIVE FEED CONSUMPTION VALUES (G/KG/DAY) - PRECOHABITATION - SUMMARY

| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY) |           | I<br>0 (VEHICLE)     | II<br>0.1            | III<br>0.4           | IV<br>1.6            | V<br>3.2             |
|------------------------------------|-----------|----------------------|----------------------|----------------------|----------------------|----------------------|
| RATS TESTED                        | N         | 16                   | 16                   | 16                   | 16                   | 16                   |
| FEED CONSUMPTION (g)               |           |                      |                      |                      |                      |                      |
| DAYS 1 - 8                         | MEAN±S.D. | 83.8 ± 6.1<br>[ 15]a | 82.1 ± 6.1           | 80.0 ± 5.7           | 80.6 ± 5.9<br>[ 15]a | 81.4 ± 4.9           |
| DAYS 8 - 15                        | MEAN±S.D. | 75.8 ± 5.4<br>[ 11]a | 75.6 ± 6.0<br>[ 15]a | 70.8 ± 4.2<br>[ 15]a | 74.3 ± 7.6<br>[ 15]a | 68.7 ± 5.0<br>[ 15]a |
| DAYS 15 - 22                       | MEAN±S.D. | 77.0 ± 5.1<br>[ 14]a | 75.5 ± 5.8           | 72.8 ± 4.8<br>[ 15]a | 70.4 ± 5.6<br>[ 13]a | 66.6 ± 5.2<br>[ 14]a |
| DAYS 22 - 29                       | MEAN±S.D. | 69.4 ± 5.2<br>[ 12]a | 71.4 ± 6.4<br>[ 15]a | 68.8 ± 4.8<br>[ 14]a | 66.1 ± 5.8<br>[ 13]a | 62.4 ± 5.1           |
| DAYS 29 - 36                       | MEAN±S.D. | 68.8 ± 6.2           | 67.0 ± 5.8           | 67.6 ± 4.7           | 65.6 ± 6.5           | 61.4 ± 4.9<br>[ 15]a |
| DAYS 36 - 42b                      | MEAN±S.D. | 71.5 ± 9.4<br>[ 13]a | 65.6 ± 5.4           | 65.9 ± 4.8<br>[ 13]a | 64.0 ± 7.9<br>[ 13]a | 61.9 ± 5.0<br>[ 13]a |
| DAYS 1 - 42b                       | MEAN±S.D. | 74.2 ± 4.9<br>[ 13]a | 72.4 ± 4.7           | 70.6 ± 4.3<br>[ 13]a | 70.0 ± 6.0<br>[ 13]a | 67.3 ± 2.6<br>[ 13]a |

DAYS = DAYS OF STUDY

[ ] = NUMBER OF VALUES AVERAGED

a. Excludes values that were incorrectly recorded, as well as those associated with spillage.

b. Last value recorded before cohabitation.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 8 (PAGE 1): MATERNAL ABSOLUTE FEED CONSUMPTION VALUES (G/DAY) - GESTATION - SUMMARY

RATS CAESAREAN-SECTIONED ON DAY 15 OF GESTATION

| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY)   |           | I<br>0 (VEHICLE) | II<br>0.1           | III<br>0.4          | IV<br>1.6  | V<br>3.2            |
|--------------------------------------|-----------|------------------|---------------------|---------------------|------------|---------------------|
| RATS TESTED                          | N         | 8                | 8                   | 8                   | 8          | 8                   |
| INCLUDED IN ANALYSES                 | N         | 8                | 8                   | 8                   | 7a         | 8                   |
| PREGNANT                             | N         | 6                | 7                   | 8                   | 6          | 8                   |
| MATERNAL FEED<br>CONSUMPTION (G/DAY) |           |                  |                     |                     |            |                     |
| DAYS 0 - 7                           | MEAN±S.D. | 24.0 ± 2.2       | 22.5 ± 2.0          | 20.4 ± 2.8<br>[ 2]b | b          | 16.5 ± 1.7<br>[ 3]b |
| DAYS 7 - 8                           | MEAN±S.D. | 22.7 ± 1.2       | 21.4 ± 2.7          | 21.0 ± 2.5          | 19.5 ± 2.8 | 16.8 ± 4.3          |
| DAYS 8 - 9                           | MEAN±S.D. | 24.2 ± 1.9       | 24.7 ± 3.4          | 22.1 ± 2.4          | 22.3 ± 1.6 | 20.1 ± 1.4          |
| DAYS 9 - 10                          | MEAN±S.D. | 25.0 ± 2.9       | 23.0 ± 3.5          | 22.6 ± 3.5          | 21.7 ± 1.4 | 20.5 ± 2.3          |
| DAYS 7 - 10                          | MEAN±S.D. | 24.0 ± 1.7       | 23.0 ± 3.0          | 21.9 ± 2.3          | 21.2 ± 1.7 | 19.1 ± 1.8          |
| DAYS 10 - 13                         | MEAN±S.D. | 24.8 ± 2.6       | 24.3 ± 2.2          | 23.2 ± 1.9          | 23.0 ± 2.0 | 22.6 ± 1.7          |
| DAYS 13 - 15                         | MEAN±S.D. | 21.9 ± 2.1       | 20.7 ± 1.4<br>[ 6]b | 18.9 ± 3.0<br>[ 7]b | 18.8 ± 1.1 | 18.7 ± 2.6<br>[ 5]b |
| DAYS 0 - 15                          | MEAN±S.D. | 23.9 ± 2.0       | 23.0 ± 1.8<br>[ 6]b | 21.0 ± 2.2<br>[ 7]b | 20.1 ± 1.2 | 18.0 ± 1.8<br>[ 5]b |

DAYS = DAYS OF GESTATION

[ ] = NUMBER OF VALUES AVERAGED

- a. Excludes values for rat 19561; necropsy and Caesarean-section observations were not recorded.  
b. Excludes values that were not recorded, as well as those associated with spillage.



PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 8 (PAGE 2): MATERNAL ABSOLUTE FEED CONSUMPTION VALUES (G/DAY) - GESTATION - SUMMARY

| RATS CAESAREAN-SECTIONED ON DAY 21 OF GESTATION |           |             |            |            |            |            |            |
|-------------------------------------------------|-----------|-------------|------------|------------|------------|------------|------------|
| DOSAGE GROUP                                    |           | I           | II         | III        | IV         | V          |            |
| DOSAGE (MG/KG/DAY)                              |           | 0 (VEHICLE) | 0.1        | 0.4        | 1.6        | 3.2        |            |
| RATS TESTED                                     | N         | 8           | 8          | 8          | 8          | 8          |            |
| INCLUDED IN ANALYSES                            | N         | 7a          | 7b         | 6a,b       | 4a,c       | 6a         |            |
| PREGNANT                                        | N         | 7           | 7          | 5          | 2          | 6          |            |
| MATERNAL FEED CONSUMPTION (G/DAY)               |           |             |            |            |            |            |            |
| DAYS 0 - 7                                      | MEAN±S.D. | 23.6 ± 1.4  | 23.7 ± 2.3 | 21.0 ± 3.3 | 20.3 ± 1.0 | 17.0 ± 1.8 |            |
| DAYS 7 - 8                                      | MEAN±S.D. | 21.8 ± 2.6  | 23.0 ± 3.1 | [ 3]d      | 22.2 ± 2.4 | 20.5 ± 0.7 | 15.2 ± 3.4 |
| DAYS 8 - 9                                      | MEAN±S.D. | 23.6 ± 2.4  | 25.6 ± 1.8 | 22.8 ± 4.5 | 20.0 ± 4.2 | 18.2 ± 2.7 | [ 5]d      |
| DAYS 9 - 10                                     | MEAN±S.D. | 24.3 ± 1.5  | 24.8 ± 3.4 | 22.4 ± 4.5 | 22.5 ± 0.7 | 20.0 ± 2.1 |            |
| DAYS 7 - 10                                     | MEAN±S.D. | 23.2 ± 1.4  | 24.4 ± 2.3 | 22.5 ± 3.6 | 21.0 ± 1.4 | 18.0 ± 2.1 |            |
| DAYS 10 - 13                                    | MEAN±S.D. | 24.4 ± 1.8  | 25.3 ± 2.0 | 24.5 ± 2.8 | 23.3 ± 1.4 | 20.9 ± 1.9 |            |
| DAYS 13 - 15                                    | MEAN±S.D. | 22.1 ± 2.5  | 20.9 ± 1.6 | 19.1 ± 2.9 | 21.8 ± 1.8 | 17.6 ± 2.0 |            |
| DAYS 15 - 18                                    | MEAN±S.D. | 25.3 ± 2.1  | [ 6]d      | 24.9 ± 4.7 | 26.8 ± 0.2 | 23.6 ± 2.4 |            |
| DAYS 18 - 21                                    | MEAN±S.D. | 23.9 ± 3.2  | 25.1 ± 2.6 | 24.9 ± 2.4 | 25.5 ± 0.7 | 21.9 ± 4.2 |            |
| DAYS 0 - 21                                     | MEAN±S.D. | 23.8 ± 1.1  | 24.1 ± 1.6 | 23.0 ± 2.6 | 22.6 ± 0.1 | 19.0 ± 1.9 |            |

DAYS = DAYS OF GESTATION

[ ] = NUMBER OF VALUES AVERAGED

- Excludes values for rats that did not have a confirmed mating date.
- Excludes values for rats 19520 and 19541, which were moribund sacrificed on day 0 of presumed gestation; pregnancy status could not be determined.
- Excludes values for rat 19557, which was moribund sacrificed on day 43 of study (day 2 of cohabitation).
- Excludes values that were not recorded, as well as those associated with spillage.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 9 (PAGE 1): MATERNAL RELATIVE FEED CONSUMPTION VALUES (G/KG/DAY) - GESTATION - SUMMARY

RATS CAESAREAN-SECTIONED ON DAY 15 OF GESTATION

| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY)   |           | I<br>0 (VEHICLE) | II<br>0.1           | III<br>0.4          | IV<br>1.6  | V<br>3.2            |
|--------------------------------------|-----------|------------------|---------------------|---------------------|------------|---------------------|
| RATS TESTED                          | N         | 8                | 8                   | 8                   | 8          | 8                   |
| INCLUDED IN ANALYSES                 | N         | 8                | 8                   | 8                   | 7a         | 8                   |
| PREGNANT                             | N         | 6                | 7                   | 8                   | 6          | 8                   |
| MATERNAL FEED CONSUMPTION (G/KG/DAY) |           |                  |                     |                     |            |                     |
| DAYS 0 - 7                           | MEAN±S.D. | 80.6 ± 8.2       | 77.2 ± 6.8          | 71.6 ± 5.2<br>[ 2]b | b          | 67.0 ± 6.6<br>[ 3]b |
| DAYS 7 - 8                           | MEAN±S.D. | 73.6 ± 7.3       | 70.9 ± 9.1          | 72.2 ± 6.8          | 70.5 ± 7.6 | 69.0 ± 20.7         |
| DAYS 8 - 9                           | MEAN±S.D. | 77.6 ± 7.0       | 80.8 ± 9.8          | 75.0 ± 5.9          | 79.9 ± 4.5 | 80.8 ± 6.1          |
| DAYS 9 - 10                          | MEAN±S.D. | 78.8 ± 8.1       | 74.0 ± 11.1         | 76.3 ± 8.6          | 76.7 ± 4.3 | 79.7 ± 8.0          |
| DAYS 7 - 10                          | MEAN±S.D. | 76.6 ± 6.2       | 75.2 ± 9.4          | 74.7 ± 4.2          | 75.8 ± 4.0 | 76.4 ± 9.0          |
| DAYS 10 - 13                         | MEAN±S.D. | 75.8 ± 6.5       | 76.3 ± 6.3          | 75.7 ± 3.3          | 78.6 ± 7.5 | 84.3 ± 5.6          |
| DAYS 13 - 15                         | MEAN±S.D. | 64.6 ± 5.2       | 63.3 ± 4.2<br>[ 6]b | 60.2 ± 8.6<br>[ 7]b | 61.7 ± 5.2 | 67.2 ± 6.4<br>[ 5]b |
| DAYS 0 - 15                          | MEAN±S.D. | 76.5 ± 6.2       | 75.8 ± 5.1<br>[ 6]b | 71.8 ± 3.8<br>[ 7]b | 70.9 ± 4.7 | 71.3 ± 4.6<br>[ 5]b |

DAYS = DAYS OF GESTATION

[ ] = NUMBER OF VALUES AVERAGED

a. Excludes values for rat 19561; necropsy and Caesarean-section observations were not recorded.

b. Excludes values that were not recorded, as well as those associated with spillage.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 9 (PAGE 2): MATERNAL RELATIVE FEED CONSUMPTION VALUES (G/KG/DAY) - GESTATION - SUMMARY

| RATS CAESAREAN-SECTIONED ON DAY 21 OF GESTATION |           |                  |             |             |             |             |
|-------------------------------------------------|-----------|------------------|-------------|-------------|-------------|-------------|
| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY)              |           | I<br>0 (VEHICLE) | II<br>0.1   | III<br>0.4  | IV<br>1.6   | V<br>3.2    |
| RATS TESTED                                     | N         | 8                | 8           | 8           | 8           | 8           |
| INCLUDED IN ANALYSES                            | N         | 7a               | 7b          | 6a,b        | 4a,c        | 6a          |
| PREGNANT                                        | N         | 7                | 7           | 5           | 2           | 6           |
| MATERNAL FEED CONSUMPTION (G/KG/DAY)            |           |                  |             |             |             |             |
| DAYS 0 - 7                                      | MEAN±S.D. | 79.6 ± 7.2       | 79.0 ± 7.5  | 71.6 ± 5.0  | 71.6 ± 3.3  | 70.2 ± 5.7  |
| DAYS 7 - 8                                      | MEAN±S.D. | 72.0 ± 7.7       | 73.1 ± 7.6  | [ 3]d       |             | [ 4]d       |
| DAYS 8 - 9                                      | MEAN±S.D. | 76.7 ± 10.0      | 80.8 ± 5.7  | 72.2 ± 7.9  | 71.8 ± 2.6  | 61.6 ± 14.6 |
| DAYS 9 - 10                                     | MEAN±S.D. | 77.4 ± 6.1       | 77.3 ± 8.2  | 73.2 ± 12.7 | 69.1 ± 14.3 | [ 5]d       |
| DAYS 7 - 10                                     | MEAN±S.D. | 75.3 ± 5.4       | 77.0 ± 5.2  | 70.6 ± 9.6  | 76.6 ± 1.2  | 73.8 ± 9.7  |
| DAYS 10 - 13                                    | MEAN±S.D. | 75.3 ± 5.3       | 76.6 ± 4.6  | 71.9 ± 8.7  | 72.4 ± 4.3  | 79.8 ± 12.4 |
| DAYS 13 - 15                                    | MEAN±S.D. | 66.4 ± 6.7       | 62.3 ± 4.1  | 75.4 ± 4.2  | 76.8 ± 2.6  | 73.2 ± 11.1 |
| DAYS 15 - 18                                    | MEAN±S.D. | 71.4 ± 5.2       | [ 6]d       | 57.4 ± 7.6  | 68.4 ± 3.8  | 80.1 ± 8.9  |
| DAYS 18 - 21                                    | MEAN±S.D. | 59.4 ± 6.2       | 67.1 ± 14.1 | 70.1 ± 12.2 | 76.9 ± 3.5  | 65.0 ± 7.5  |
| DAYS 0 - 21                                     | MEAN±S.D. | 72.1 ± 4.0       | 62.3 ± 7.0  | 62.1 ± 6.7  | 63.5 ± 5.8  | 80.6 ± 4.5  |
|                                                 |           |                  | 72.0 ± 3.2  | 69.1 ± 5.4  | 71.2 ± 1.6  | 66.4 ± 11.2 |
|                                                 |           |                  |             |             |             | 70.4 ± 4.1  |

DAYS = DAYS OF GESTATION

[ ] = NUMBER OF VALUES AVERAGED

- Excludes values for rats that did not have a confirmed mating date.
- Excludes values for rats 19520 and 19541, which were moribund sacrificed on day 0 of presumed gestation; pregnancy status could not be determined.
- Excludes values for rat 19557, which was moribund sacrificed on day 43 of study (day 2 of cohabitation).
- Excludes values that were not recorded, as well as those associated with spillage.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 10 (PAGE 1): CAESAREAN-SECTIONING OBSERVATIONS - SUMMARY

| RATS CAESAREAN-SECTIONED ON DAY 15 OF GESTATION              |           |             |  |            |  |             |  |            |  |            |  |
|--------------------------------------------------------------|-----------|-------------|--|------------|--|-------------|--|------------|--|------------|--|
| DOSAGE GROUP                                                 |           | I           |  | II         |  | III         |  | IV         |  | V          |  |
| DOSAGE (MG/KG/DAY)                                           |           | 0 (VEHICLE) |  | 0.1        |  | 0.4         |  | 1.6        |  | 3.2        |  |
| RATS TESTED                                                  | N         | 8           |  | 8          |  | 8           |  | 8          |  | 8          |  |
| INCLUDED IN ANALYSES                                         | N         | 8           |  | 8          |  | 8           |  | 7a         |  | 8          |  |
| PREGNANT                                                     | N(%)      | 6 ( 75.0)   |  | 7 ( 87.5)  |  | 8 (100.0)   |  | 6 ( 85.7)  |  | 8 (100.0)  |  |
| RATS PREGNANT AND CAESAREAN-SECTIONED ON DAY 15 OF GESTATION |           |             |  |            |  |             |  |            |  |            |  |
|                                                              | N         | 6           |  | 7          |  | 8           |  | 6          |  | 8          |  |
| CORPORA LUTEA                                                | MEAN±S.D. | 17.3 ± 3.4  |  | 18.0 ± 1.7 |  | 17.1 ± 3.0  |  | 19.8 ± 3.2 |  | 17.4 ± 2.6 |  |
| IMPLANTATIONS                                                | MEAN±S.D. | 15.8 ± 1.9  |  | 13.4 ± 3.8 |  | 13.0 ± 3.7  |  | 14.2 ± 1.3 |  | 13.6 ± 3.5 |  |
| VIABLE EMBRYOS                                               | N         | 89          |  | 86         |  | 94          |  | 77         |  | 101        |  |
|                                                              | MEAN±S.D. | 14.8 ± 2.8  |  | 12.3 ± 3.7 |  | 11.8 ± 4.7  |  | 12.8 ± 1.2 |  | 12.6 ± 2.9 |  |
| NONVIABLE EMBRYOS                                            | N         | 6           |  | 8          |  | 10          |  | 8          |  | 8          |  |
|                                                              | MEAN±S.D. | 1.0 ± 1.3   |  | 1.1 ± 1.3  |  | 1.2 ± 1.4   |  | 1.3 ± 1.0  |  | 1.0 ± 1.4  |  |
| DAMS WITH ANY NONVIABLE EMBRYOS                              | N(%)      | 3 ( 50.0)   |  | 5 ( 71.4)  |  | 4 ( 50.0)   |  | 5 ( 83.3)  |  | 4 ( 50.0)  |  |
| DAMS WITH ALL NONVIABLE EMBRYOS                              | N(%)      | 0 ( 0.0)    |  | 0 ( 0.0)   |  | 0 ( 0.0)    |  | 0 ( 0.0)   |  | 0 ( 0.0)   |  |
| DAMS WITH VIABLE EMBRYOS                                     | N(%)      | 6 (100.0)   |  | 7 (100.0)  |  | 8 (100.0)   |  | 6 (100.0)  |  | 8 (100.0)  |  |
| % NONVIABLE EMBRYOS/LITTER                                   | MEAN±S.D. | 6.8 ± 8.4   |  | 8.6 ± 9.3  |  | 13.4 ± 17.7 |  | 9.2 ± 6.5  |  | 6.2 ± 8.3  |  |

a. Excludes values for rat 19561; necropsy and Caesarean-section observations were not recorded.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 10 (PAGE 2): CAESAREAN-SECTIONING OBSERVATIONS - SUMMARY

| RATS CAESAREAN-SECTIONED ON DAY 21 OF GESTATION              |  |              |                     |                     |                     |                     |                      |     |   |     |   |
|--------------------------------------------------------------|--|--------------|---------------------|---------------------|---------------------|---------------------|----------------------|-----|---|-----|---|
| DOSAGE GROUP                                                 |  | I            |                     | II                  |                     | III                 |                      | IV  |   | V   |   |
| DOSAGE (MG/KG/DAY)                                           |  | 0 (VEHICLE)  |                     | 0.1                 |                     | 0.4                 |                      | 1.6 |   | 3.2 |   |
| RATS TESTED                                                  |  | N            | 8                   | 8                   | 8                   | 8                   | 8                    | 8   | 8 | 8   | 8 |
| INCLUDED IN ANALYSES                                         |  | N            | 7a                  | 7b                  | 6a,b                | 4a,c                | 6a                   |     |   |     |   |
| PREGNANT DELIVERED                                           |  | N(%)<br>N(%) | 7(100.0)<br>0( 0.0) | 7(100.0)<br>0( 0.0) | 5( 83.3)<br>0( 0.0) | 2( 50.0)<br>0( 0.0) | 6(100.0)<br>2( 33.3) |     |   |     |   |
| RATS PREGNANT AND CAESAREAN-SECTIONED ON DAY 21 OF GESTATION |  | N            | 7                   | 7                   | 5                   | 2                   | 4                    |     |   |     |   |
| CORPORA LUTEA                                                |  | MEAN±S.D.    | 18.6 ± 4.2          | 16.1 ± 2.3          | 21.8 ± 4.8          | 20.5 ± 2.1          | 16.2 ± 2.5           |     |   |     |   |
| IMPLANTATIONS                                                |  | MEAN±S.D.    | 15.1 ± 2.1          | 14.0 ± 2.9          | 14.4 ± 4.2          | 17.0 ± 7.1          | 10.5 ± 4.4           |     |   |     |   |
| LITTER SIZES                                                 |  | MEAN±S.D.    | 13.7 ± 1.7          | 12.4 ± 4.0          | 13.2 ± 5.2          | 16.0 ± 5.6          | 8.8 ± 4.4            |     |   |     |   |
| LIVE FETUSES                                                 |  | N            | 96                  | 87                  | 66                  | 32                  | 35                   |     |   |     |   |
|                                                              |  | MEAN±S.D.    | 13.7 ± 1.7          | 12.4 ± 4.0          | 13.2 ± 5.2          | 16.0 ± 5.6          | 8.8 ± 4.4            |     |   |     |   |
| DEAD FETUSES                                                 |  | N            | 0                   | 0                   | 0                   | 0                   | 0                    |     |   |     |   |
| RESORPTIONS                                                  |  | MEAN±S.D.    | 1.4 ± 1.7           | 1.6 ± 1.5           | 1.2 ± 1.8           | 1.0 ± 1.4           | 1.8 ± 1.5            |     |   |     |   |
| EARLY RESORPTIONS                                            |  | N            | 10                  | 9                   | 6                   | 2                   | 7                    |     |   |     |   |
|                                                              |  | MEAN±S.D.    | 1.4 ± 1.7           | 1.3 ± 1.1           | 1.2 ± 1.8           | 1.0 ± 1.4           | 1.8 ± 1.5            |     |   |     |   |
| LATE RESORPTIONS                                             |  | N            | 0                   | 2                   | 0                   | 0                   | 0                    |     |   |     |   |
|                                                              |  | MEAN±S.D.    | 0.0 ± 0.0           | 0.3 ± 0.8           | 0.0 ± 0.0           | 0.0 ± 0.0           | 0.0 ± 0.0            |     |   |     |   |
| a. Excludes values for rats that died.                       |  |              |                     |                     |                     |                     |                      |     |   |     |   |

a. Excludes values for rats that did not have a confirmed mating date.

b. Excludes values for rats 19520 and 19541, which were moribund sacrificed on day 0 of presumed gestation; pregnancy status could not be determined.

c. Excludes values for rat 19557, which was moribund sacrificed on day 43 of study (day 2 of cohabitation).

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 10 (PAGE 3): CAESAREAN-SECTIONING OBSERVATIONS - SUMMARY

| RATS CAESAREAN-SECTIONED ON DAY 21 OF GESTATION                    |      |                  |           |            |           |          |
|--------------------------------------------------------------------|------|------------------|-----------|------------|-----------|----------|
| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY)                                 |      | I<br>0 (VEHICLE) | II<br>0.1 | III<br>0.4 | IV<br>1.6 | V<br>3.2 |
| RATS TESTED                                                        | N    | 8                | 8         | 8          | 8         | 8        |
| INCLUDED IN ANALYSES                                               | N    | 7a               | 7b        | 6a,b       | 4a,c      | 6a       |
| PREGNANT                                                           | N(%) | 7(100.0)         | 7(100.0)  | 5( 83.3)   | 2( 50.0)  | 6(100.0) |
| DELIVERED                                                          | N(%) | 0( 0.0)          | 0( 0.0)   | 0( 0.0)    | 0( 0.0)   | 2( 33.3) |
| RATS PREGNANT AND<br>CAESAREAN-SECTIONED<br>ON DAY 21 OF GESTATION | N    | 7                | 7         | 5          | 2         | 4        |
| DAMS WITH ANY RESORPTIONS                                          | N(%) | 5( 71.4)         | 5( 71.4)  | 2( 40.0)   | 1( 50.0)  | 3( 75.0) |
| DAMS WITH ALL CONCEPTUSES<br>RESORBED                              | N(%) | 0( 0.0)          | 0( 0.0)   | 0( 0.0)    | 0( 0.0)   | 0( 0.0)  |
| DAMS WITH VIABLE FETUSES                                           | N(%) | 7(100.0)         | 7(100.0)  | 5(100.0)   | 2(100.0)  | 4(100.0) |
| PLACENTAE APPEARED NORMAL                                          | N(%) | 7(100.0)         | 7(100.0)  | 5(100.0)   | 2(100.0)  | 4(100.0) |

a. Excludes values for rats that did not have a confirmed mating date.

b. Excludes values for rats 19520 and 19541, which were moribund sacrificed on day 0 of presumed gestation; pregnancy status could not be determined.

c. Excludes values for rat 19557, which was moribund sacrificed on day 43 of study (day 2 of cohabitation).

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 11 (PAGE 1): LITTER OBSERVATIONS (CAESAREAN-DELIVERED EMBRYOS OR FETUSES) - SUMMARY

| RATS CAESAREAN-SECTIONED ON DAY 21 OF GESTATION                    |           |             |      |        |      |        |      |        |      |        |            |
|--------------------------------------------------------------------|-----------|-------------|------|--------|------|--------|------|--------|------|--------|------------|
| DOSAGE GROUP                                                       |           | I           |      | II     |      | III    |      | IV     |      | V      |            |
| DOSAGE (MG/KG/DAY)                                                 |           | 0 (VEHICLE) |      | 0.1    |      | 0.4    |      | 1.6    |      | 3.2    |            |
| LITTERS WITH ONE OR MORE LIVE FETUSES                              |           | N           | 7    | 7      |      | 5      |      | 2      |      | 4      |            |
| IMPLANTATIONS                                                      | MEAN±S.D. | 15.1 ±      | 2.1  | 14.0 ± | 2.9  | 14.4 ± | 4.2  | 17.0 ± | 7.1  | 10.5 ± | 4.4        |
| LIVE FETUSES                                                       | N         | 96          |      | 87     |      | 66     |      | 32     |      | 35     |            |
|                                                                    | MEAN±S.D. | 13.7 ±      | 1.7  | 12.4 ± | 4.0  | 13.2 ± | 5.2  | 16.0 ± | 5.6  | 8.8 ±  | 4.4        |
| LIVE MALE FETUSES                                                  | N         | 44          |      | 46     |      | 36     |      | 15     |      | 19     |            |
| % LIVE MALE FETUSES/LITTER                                         | MEAN±S.D. | 46.0 ±      | 11.7 | 52.2 ± | 14.2 | 59.3 ± | 19.4 | 45.8 ± | 5.9  | 55.3 ± | 31.8       |
| LIVE FETAL BODY WEIGHTS (GRAMS)/LITTER                             | MEAN±S.D. | 5.12 ±      | 0.29 | 5.31 ± | 0.42 | 5.06 ± | 0.09 | 5.02 ± | 0.16 | 4.72 ± | 0.23       |
| MALE FETUSES                                                       | MEAN±S.D. | 5.24 ±      | 0.29 | 5.50 ± | 0.54 | 5.19 ± | 0.12 | 5.12 ± | 0.20 | 4.82 ± | 0.28       |
| FEMALE FETUSES                                                     | MEAN±S.D. | 5.02 ±      | 0.33 | 5.06 ± | 0.33 | 4.84 ± | 0.14 | 4.95 ± | 0.16 | 4.69 ± | 0.27 [ 3]a |
| PLACENTAL WEIGHTS (GRAMS)/LITTER                                   | MEAN±S.D. | 0.50 ±      | 0.06 | 0.54 ± | 0.08 | 0.48 ± | 0.06 | 0.50 ± | 0.06 | 0.55 ± | 0.11       |
| MALE FETUSES                                                       | MEAN±S.D. | 0.50 ±      | 0.06 | 0.55 ± | 0.09 | 0.49 ± | 0.07 | 0.52 ± | 0.09 | 0.56 ± | 0.11       |
| FEMALE FETUSES                                                     | MEAN±S.D. | 0.49 ±      | 0.05 | 0.52 ± | 0.07 | 0.44 ± | 0.08 | 0.47 ± | 0.04 | 0.53 ± | 0.13 [ 3]a |
| % RESORBED CONCEPTUSES/LITTER                                      | MEAN±S.D. | 8.8 ±       | 9.9  | 13.4 ± | 14.6 | 11.0 ± | 19.2 | 4.6 ±  | 6.4  | 18.3 ± | 13.7       |
| NO FETAL ALTERATIONS WERE IDENTIFIED AT GROSS EXTERNAL EXAMINATION |           |             |      |        |      |        |      |        |      |        |            |

NO FETAL ALTERATIONS WERE IDENTIFIED AT GROSS EXTERNAL EXAMINATION

[ ] = NUMBER OF VALUES AVERAGED

a. Litter 19568 had no female fetuses.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 12 (PAGE 1): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

| DOSAGE GROUP I |             | 0 (VEHICLE) MG/KG/DAY       |
|----------------|-------------|-----------------------------|
| RAT #          |             | DESCRIPTION                 |
| 19501          |             | NO ADVERSE FINDINGS         |
| 19502          |             | NO ADVERSE FINDINGS         |
| 19503          | DS( 43- 66) | LENTICULAR OPACITY          |
|                | DS( 66 )    | DELIVERED AND SACRIFICED    |
| 19504          |             | NO ADVERSE FINDINGS         |
| 19505          |             | NO ADVERSE FINDINGS         |
| 19506          |             | NO ADVERSE FINDINGS         |
| 19507          |             | NO ADVERSE FINDINGS         |
| 19508          |             | NO ADVERSE FINDINGS         |
| 19509          | DG( 17- 21) | CHROMORHINORRHEA a          |
| 19510          |             | NO ADVERSE FINDINGS         |
| 19511          | DS( 3- 42)  | LOCALIZED ALOPECIA: LIMBS   |
|                | DG( 0- 2)   | LOCALIZED ALOPECIA: LIMBS   |
|                | DG( 3 )     | ALOPECIA NO LONGER APPARENT |
|                | DG( 0- 15)  | LENTICULAR OPACITY          |
|                | DG( 14- 15) | CHROMORHINORRHEA a          |
| 19512          | DG( 11- 21) | CHROMODACRYORRHEA a         |
| 19513          |             | NO ADVERSE FINDINGS         |
| 19514          |             | NO ADVERSE FINDINGS         |
| 19515          |             | NO ADVERSE FINDINGS         |
| 19516          |             | NO ADVERSE FINDINGS         |

DS = DAY OF STUDY      DG = DAY OF PRESUMED GESTATION  
a. Observation confirmed at necropsy.



PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 12 (PAGE 2): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

| DOSAGE GROUP II |             | 0.1 MG/KG/DAY                   |
|-----------------|-------------|---------------------------------|
| RAT #           |             | DESCRIPTION                     |
| 19517           | DG( 7- 15)  | TRAUMATIZED CORNEA a            |
| 19518           |             | NO ADVERSE FINDINGS             |
| 19519           | DS( 13- 42) | LOCALIZED ALOPECIA: LIMBS       |
|                 | DG( 0- 21)  | LOCALIZED ALOPECIA: LIMBS a     |
| 19520           | DS( 10- 14) | CHROMODACRYORRHEA               |
|                 | DS( 10- 21) | INCISORS: MISSING/BROKEN        |
|                 | DS( 22 )    | INCISORS: GROWN IN              |
|                 | DS( 22- 30) | INCISORS: MISALIGNED            |
|                 | DS( 31 )    | INCISORS: REALIGNED             |
|                 | DS( 30- 42) | LOCALIZED ALOPECIA: LIMBS       |
|                 | DS( 42 )    | SNOUT: SWOLLEN                  |
|                 | DG( 0 )     | CHROMODACRYORRHEA a             |
|                 | DG( 0 )     | EXOPHTHALMOS a                  |
|                 | DG( 0 )     | SNOUT: SWOLLEN a                |
|                 | DG( 0 )     | LOCALIZED ALOPECIA: LIMBS a     |
|                 | DG( 0 )     | CORNEAL OPACITY                 |
|                 | DG( 0 )     | RIGHT EYE: LARGE                |
|                 | DG( 0 )     | RIGHT EYE: DARK RED             |
|                 | DG( 0 )     | RIGHT EYE: LIDS UNABLE TO CLOSE |
|                 | DG( 0 )     | MORIBUND SACRIFICED             |
| 19521           | DS( 44- 45) | EXOPHTHALMOS                    |
|                 | DG( 0 )     | EXOPHTHALMOS NO LONGER APPARENT |
|                 | DG( 4- 5)   | SNOUT: SWOLLEN                  |
|                 | DG( 6 )     | SWELLING RESOLVED               |
|                 | DG( 11- 21) | CORNEAL OPACITY                 |
| 19522           |             | NO ADVERSE FINDINGS             |
| 19523           |             | NO ADVERSE FINDINGS             |
| 19524           | DS( 43- 45) | RIGHT EYE: CLOUDY, WHITE FILM   |
|                 | DS( 43- 45) | SNOUT: SWOLLEN                  |
|                 | DG( 0 )     | SWELLING RESOLVED               |
|                 | DS( 44- 45) | EXOPHTHALMOS                    |
|                 | DG( 0 )     | EXOPHTHALMOS NO LONGER APPARENT |
|                 | DG( 0- 10)  | TRAUMATIZED CORNEA              |
|                 | DG( 0- 10)  | RIGHT EYE: CLOUDY, WHITE FILM   |
|                 | DG( 0- 13)  | LOCALIZED ALOPECIA: HEAD        |
|                 | DG( 14 )    | ALOPECIA NO LONGER APPARENT     |
|                 | DG( 11- 21) | RIGHT EYE: MISSING a            |

DS = DAY OF STUDY      DG = DAY OF PRESUMED GESTATION

a. Observation confirmed at necropsy.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 12 (PAGE 3): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

| DOSAGE GROUP II |            | 0.1 MG/KG/DAY                   |
|-----------------|------------|---------------------------------|
| RAT #           |            | DESCRIPTION                     |
| 19525           |            | NO ADVERSE FINDINGS             |
| 19526           |            | NO ADVERSE FINDINGS             |
| 19527           |            | NO ADVERSE FINDINGS             |
| 19528           | DG( 2- 8)  | INCISORS: MISSING/BROKEN        |
|                 | DG( 9 )    | INCISORS: GROWN IN              |
| 19529           |            | NO ADVERSE FINDINGS             |
| 19530           |            | NO ADVERSE FINDINGS             |
| 19531           | DG( 0- 2)  | EXOPHTHALMOS                    |
|                 | DG( 3 )    | EXOPHTHALMOS NO LONGER APPARENT |
|                 | DG( 1- 15) | CORNEAL OPACITY                 |
|                 | DG( 3- 15) | TRAUMATIZED CORNEA a            |
| 19532           |            | NO ADVERSE FINDINGS             |

DS = DAY OF STUDY      DG = DAY OF PRESUMED GESTATION  
a. Observation confirmed at necropsy.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 12 (PAGE 4): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

| DOSAGE GROUP III |             | 0.4 MG/KG/DAY                   |
|------------------|-------------|---------------------------------|
| RAT #            |             | DESCRIPTION                     |
| 19533            | DG( 0- 1)   | LACRIMATION                     |
|                  | DG( 0- 2)   | LENTICULAR OPACITY              |
|                  | DG( 0- 2)   | EXOPHTHALMOS                    |
|                  | DG( 3 )     | EXOPHTHALMOS NO LONGER APPARENT |
|                  | DG( 3- 21)  | CORNEAL OPACITY                 |
|                  | DG( 14- 21) | ENOPHTHALMOS a                  |
| 19534            |             | NO ADVERSE FINDINGS             |
| 19535            | DS( 25 )    | CHROMORHINORRHEA                |
| 19536            |             | NO ADVERSE FINDINGS             |
| 19537            |             | NO ADVERSE FINDINGS             |
| 19538            |             | NO ADVERSE FINDINGS             |
| 19539            |             | NO ADVERSE FINDINGS             |
| 19540            |             | NO ADVERSE FINDINGS             |
| 19541            | DG( 0 )     | CHROMODACRYORRHEA a             |
|                  | DG( 0 )     | EXOPHTHALMOS a                  |
|                  | DG( 0 )     | SNOUT: SWOLLEN a                |
|                  | DG( 0 )     | CORNEAL OPACITY                 |
|                  | DG( 0 )     | RIGHT EYE: LARGE                |
|                  | DG( 0 )     | RIGHT EYE: DARK RED             |
|                  | DG( 0 )     | RIGHT EYE: LIDS UNABLE TO CLOSE |
|                  | DG( 0 )     | MORIBUND SACRIFICED             |
| 19542            | DG( 10- 12) | LOCALIZED ALOPECIA: UNDERSIDE   |
|                  | DG( 13 )    | ALOPECIA NO LONGER APPARENT     |
| 19543            |             | NO ADVERSE FINDINGS             |
| 19544            |             | NO ADVERSE FINDINGS             |
| 19545            |             | NO ADVERSE FINDINGS             |
| 19546            | DG( 1 )     | CHROMORHINORRHEA                |
|                  | DG( 1 )     | UNGROOMED COAT                  |
| 19547            |             | NO ADVERSE FINDINGS             |
| 19548            |             | NO ADVERSE FINDINGS             |

DS = DAY OF STUDY      DG = DAY OF PRESUMED GESTATION  
a. Observation confirmed at necropsy.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 12 (PAGE 5): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

| DOSAGE GROUP IV |              | 1.6 MG/KG/DAY                   |
|-----------------|--------------|---------------------------------|
| RAT #           |              | DESCRIPTION                     |
| 19549           | DS( 57- 59 ) | LOCALIZED ALOPECIA: LIMBS       |
|                 | DS( 60 )     | ALOPECIA NO LONGER APPARENT     |
|                 | DS( 62- 63 ) | LOCALIZED ALOPECIA: LIMBS       |
|                 | DS( 64 )     | ALOPECIA NO LONGER APPARENT     |
| 19550           |              | NO ADVERSE FINDINGS             |
| 19551           |              | NO ADVERSE FINDINGS             |
| 19552           | DS( 44- 50 ) | CORNEAL OPACITY                 |
|                 | DS( 50- 68 ) | CORNEAL HEMORRHAGE a            |
|                 | DS( 62- 68 ) | LOCALIZED ALOPECIA: LIMBS a     |
| 19553           |              | NO ADVERSE FINDINGS             |
| 19554           | DS( 1 )      | CHROMORHINORRHEA                |
| 19555           |              | NO ADVERSE FINDINGS             |
| 19556           | DS( 29- 43 ) | LOCALIZED ALOPECIA: LIMBS       |
|                 | DG( 0- 21 )  | LOCALIZED ALOPECIA: LIMBS a     |
| 19557           | DS( 43 )     | CHROMODACRYORRHEA a             |
|                 | DS( 43 )     | EXOPHTHALMOS a                  |
|                 | DS( 43 )     | SNOUT: SWOLLEN a                |
|                 | DS( 43 )     | CORNEAL OPACITY                 |
|                 | DS( 43 )     | RIGHT EYE: LARGE                |
|                 | DS( 43 )     | RIGHT EYE: DARK RED             |
|                 | DS( 43 )     | RIGHT EYE: LIDS UNABLE TO CLOSE |
|                 | DS( 43 )     | MORIBUND SACRIFICED             |
| 19558           | DS( 36- 38 ) | EARS: SWOLLEN                   |
|                 | DS( 39 )     | SWELLING RESOLVED               |
| 19559           | DG( 15 )     | EXOPHTHALMOS                    |
|                 | DG( 16 )     | EXOPHTHALMOS NO LONGER APPARENT |
|                 | DG( 16- 21 ) | CORNEAL HEMORRHAGE a            |
| 19560           | DS( 2 )      | CHROMORHINORRHEA                |
|                 | DG( 15- 21 ) | LOCALIZED ALOPECIA: BACK a      |
| 19561           |              | NO ADVERSE FINDINGS             |
| 19562           | DS( 23 )     | CHROMORHINORRHEA                |
| 19563           |              | NO ADVERSE FINDINGS             |

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION

a. Observation confirmed at necropsy.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 12 (PAGE 6): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

| DOSAGE GROUP IV                                       |             | 1.6 MG/KG/DAY                                             |
|-------------------------------------------------------|-------------|-----------------------------------------------------------|
| RAT #                                                 |             | DESCRIPTION                                               |
| 19564                                                 | DS( 1 )     | CHROMORHINORRHEA                                          |
|                                                       | DS( 6 )     | CHROMORHINORRHEA                                          |
|                                                       | DS( 29- 42) | LEFT FOREPAW: SCAB (DID NOT EXCEED 0.5 CM X 0.3 CM)       |
|                                                       | DS( 34- 35) | RIGHT FOREPAW: SCAB (0.4 CM X 0.3 CM)                     |
|                                                       | DS( 36- 42) | RIGHT FOREPAW: TWO SCABS (DID NOT EXCEED 0.5 CM X 0.3 CM) |
|                                                       | DS( 31- 42) | LOCALIZED ALOPECIA: UNDERSIDE                             |
|                                                       | DS( 36- 37) | FOREPAWS: SWOLLEN                                         |
|                                                       | DS( 38 )    | SWELLING RESOLVED                                         |
|                                                       | DG( 0 )     | LEFT FOREPAW: SCAB (DID NOT EXCEED 0.5 CM X 0.3 CM)       |
|                                                       | DG( 0 )     | RIGHT FOREPAW: TWO SCABS (DID NOT EXCEED 0.5 CM X 0.3 CM) |
|                                                       | DG( 1 )     | SCABS HEALED                                              |
|                                                       | DG( 0- 15)  | LOCALIZED ALOPECIA: UNDERSIDE a                           |
|                                                       | DG( 1- 15)  | LOCALIZED ALOPECIA: LIMBS a                               |
| DS = DAY OF STUDY      DG = DAY OF PRESUMED GESTATION |             |                                                           |
| a. Observation confirmed at necropsy.                 |             |                                                           |

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 12 (PAGE 7): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

| DOSAGE GROUP V |             | 3.2 MG/KG/DAY                                 |
|----------------|-------------|-----------------------------------------------|
| RAT #          |             | DESCRIPTION                                   |
| 19565          | DG( 0- 15)  | CORNEAL HEMORRHAGE a                          |
|                | DG( 1- 2)   | EXOPHTHALMOS                                  |
|                | DG( 3 )     | EXOPHTHALMOS NO LONGER APPARENT               |
| 19566          | DS( 13 )    | CHROMODACRYORRHEA                             |
|                | DG( 0- 15)  | CORNEAL OPACITY                               |
|                | DG( 13- 15) | LOCALIZED ALOPECIA: UNDERSIDE a               |
| 19567          |             | NO ADVERSE FINDINGS                           |
| 19568          | DS( 9- 11)  | RIGHT FOREPAW: THIRD DIGIT SWOLLEN            |
|                | DS( 12 )    | SWELLING RESOLVED                             |
|                | DS( 9- 42)  | RIGHT FOREPAW: THIRD DIGIT MISSING            |
|                | DG( 0- 21)  | RIGHT FOREPAW: THIRD DIGIT MISSING a          |
| 19569          |             | NO ADVERSE FINDINGS                           |
| 19570          | DS( 34- 43) | LOCALIZED ALOPECIA: LIMBS                     |
|                | DS( 36- 38) | RIGHT FOREPAW: SCAB (0.2 CM IN DIAMETER)      |
|                | DS( 39 )    | SCAB HEALED                                   |
|                | DG( 0- 15)  | LOCALIZED ALOPECIA: LIMBS a                   |
| 19571          | DG( 21 )    | DELIVERED AND SACRIFICED                      |
| 19572          | DG( 11- 21) | LEFT AXILLA: MASS (1.5 CM X 1.0 CM X 1.0 CM)a |
| 19573          |             | NO ADVERSE FINDINGS                           |
| 19574          | DS( 1 )     | CHROMORHINORRHEA                              |
| 19575          | DG( 1 )     | CHROMODACRYORRHEA                             |
| 19576          |             | NO ADVERSE FINDINGS                           |
| 19577          |             | NO ADVERSE FINDINGS                           |
| 19578          | DS( 54- 68) | LOCALIZED ALOPECIA: BACK a                    |
| 19579          | DG( 0- 21)  | LOCALIZED ALOPECIA: LIMBS a                   |
|                | DG( 21 )    | DELIVERED AND SACRIFICED                      |
| 19580          | DG( 11- 15) | LOCALIZED ALOPECIA: LIMBS a                   |

DS = DAY OF STUDY      DG = DAY OF PRESUMED GESTATION

a. Observation confirmed at necropsy.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 13 (PAGE 1): NECROPSY OBSERVATIONS - INDIVIDUAL DATA

| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY) | RAT<br>NUMBER | DAY OF<br>NECROPSY | PREGNANCY<br>STATUS | DOSAGES<br>ADMINISTERED | OBSERVATIONS a                                                                                                                                |
|------------------------------------|---------------|--------------------|---------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| I                                  |               |                    |                     |                         |                                                                                                                                               |
| 0 (VEHICLE)                        | 19501         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                                  |
|                                    | 19502         | DG 15              | NP                  | 58                      | ALL TISSUES APPEARED NORMAL.                                                                                                                  |
|                                    | 19503         | DS 66              | P                   | 66                      | DELIVERED AND SACRIFICED ON DAY 66 OF STUDY.<br>ALL TISSUES APPEARED NORMAL.<br>UTERINE CONTENTS: 14 IMPLANTATION SITES (14 DELIVERED PUPS).b |
|                                    | 19504         | DG 21              | P                   | 65                      | ALL TISSUES APPEARED NORMAL.                                                                                                                  |
|                                    | 19505         | DG 21              | P                   | 64                      | ALL TISSUES APPEARED NORMAL.                                                                                                                  |
|                                    | 19506         | DG 21              | P                   | 64                      | ALL TISSUES APPEARED NORMAL.                                                                                                                  |
|                                    | 19507         | DG 21              | P                   | 67                      | ALL TISSUES APPEARED NORMAL.                                                                                                                  |
|                                    | 19508         | DG 15              | P                   | 58                      | ALL TISSUES APPEARED NORMAL.                                                                                                                  |
|                                    | 19509         | DG 21              | P                   | 64                      | ALL TISSUES APPEARED NORMAL.                                                                                                                  |
|                                    | 19510         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                                  |
|                                    | 19511         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                                  |
|                                    | 19512         | DG 21              | P                   | 66                      | ALL TISSUES APPEARED NORMAL.                                                                                                                  |
|                                    | 19513         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                                  |
|                                    | 19514         | DG 15              | NP                  | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                                  |
|                                    | 19515         | DG 15              | P                   | 58                      | ALL TISSUES APPEARED NORMAL.                                                                                                                  |
|                                    | 19516         | DG 21              | P                   | 65                      | ALL TISSUES APPEARED NORMAL.                                                                                                                  |

P = PREGNANT NP = NOT PREGNANT

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION

a. Refer to the individual clinical observations table (Table 12) for external observations confirmed at necropsy.

b. Appeared normal for their developmental ages at the time maternal death occurred.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 13 (PAGE 2): NECROPSY OBSERVATIONS - INDIVIDUAL DATA

| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY) | RAT<br>NUMBER | DAY OF<br>NECROPSY | PREGNANCY<br>STATUS | DOSAGES<br>ADMINISTERED | OBSERVATIONS a                                                                                                                   |
|------------------------------------|---------------|--------------------|---------------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| II                                 |               |                    |                     |                         |                                                                                                                                  |
| 0.1                                | 19517         | DG 15              | NP                  | 58                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19518         | DG 21              | P                   | 64                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19519         | DG 21              | P                   | 63                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19520         | DG 0               | -                   | 43                      | MORIBUND SACRIFICED ON DAY 0 OF PRESUMED GESTATION;<br>PREGNANCY STATUS COULD NOT BE DETERMINED.<br>ALL TISSUES APPEARED NORMAL. |
|                                    | 19521         | DG 21              | P                   | 66                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19522         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19523         | DG 21              | P                   | 67                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19524         | DG 21              | P                   | 66                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19525         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19526         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19527         | DG 15              | P                   | 58                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19528         | DG 21              | P                   | 63                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19529         | DG 21              | P                   | 63                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19530         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19531         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19532         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |

P = PREGNANT NP = NOT PREGNANT

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION

a. Refer to the individual clinical observations table (Table 12) for external observations confirmed at necropsy.



PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 13 (PAGE 3): NECROPSY OBSERVATIONS - INDIVIDUAL DATA

| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY) | RAT<br>NUMBER | DAY OF<br>NECROPSY | PREGNANCY<br>STATUS | DOSAGES<br>ADMINISTERED | OBSERVATIONS a                                                                                                                   |
|------------------------------------|---------------|--------------------|---------------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| III<br>0.4                         | 19533         | DG 21              | P                   | 63                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19534         | DG 21              | P                   | 63                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19535         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19536         | DG 21              | P                   | 65                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19537         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19538         | DG 15              | P                   | 58                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19539         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19540         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19541         | DG 0               | -                   | 43                      | MORIBUND SACRIFICED ON DAY 0 OF PRESUMED GESTATION;<br>PREGNANCY STATUS COULD NOT BE DETERMINED.<br>ALL TISSUES APPEARED NORMAL. |
|                                    | 19542         | DG 15              | P                   | 58                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19543         | DG 21              | P                   | 66                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19544         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19545         | DS 68              | NP                  | 67                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19546         | DG 21              | P                   | 63                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19547         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |
|                                    | 19548         | DG 21              | NP                  | 63                      | ALL TISSUES APPEARED NORMAL.                                                                                                     |

P = PREGNANT NP = NOT PREGNANT

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION

a. Refer to the individual clinical observations table (Table 12) for external observations confirmed at necropsy.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 13 (PAGE 4): NECROPSY OBSERVATIONS - INDIVIDUAL DATA

| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY) | RAT<br>NUMBER | DAY OF<br>NECROPSY | PREGNANCY<br>STATUS | DOSAGES<br>ADMINISTERED | OBSERVATIONS a                                                                                  |
|------------------------------------|---------------|--------------------|---------------------|-------------------------|-------------------------------------------------------------------------------------------------|
| IV                                 |               |                    |                     |                         |                                                                                                 |
| 1.6                                | 19549         | DS 68              | NP                  | 67                      | ALL TISSUES APPEARED NORMAL.                                                                    |
|                                    | 19550         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                    |
|                                    | 19551         | DS 68              | NP                  | 67                      | ALL TISSUES APPEARED NORMAL.                                                                    |
|                                    | 19552         | DS 68              | NP                  | 67                      | ALL TISSUES APPEARED NORMAL.                                                                    |
|                                    | 19553         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                    |
|                                    | 19554         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                    |
|                                    | 19555         | DG 15              | NP                  | 57                      | ALL TISSUES APPEARED NORMAL.                                                                    |
|                                    | 19556         | DG 21              | NP                  | 64                      | ALL TISSUES APPEARED NORMAL.                                                                    |
|                                    | 19557         | DS 43              | -                   | 43                      | MORIBUND SACRIFICED ON DAY 43 OF STUDY (DAY 2 OF COHABITATION).<br>ALL TISSUES APPEARED NORMAL. |
|                                    | 19558         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                    |
|                                    | 19559         | DG 21              | NP                  | 64                      | ALL TISSUES APPEARED NORMAL.                                                                    |
|                                    | 19560         | DG 21              | P                   | 66                      | ALL TISSUES APPEARED NORMAL.                                                                    |
|                                    | 19561b        | DG 15              | -                   | 57                      | -                                                                                               |
|                                    | 19562         | DG 21              | P                   | 65                      | ALL TISSUES APPEARED NORMAL.                                                                    |
|                                    | 19563         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                    |
|                                    | 19564         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                    |

P = PREGNANT NP = NOT PREGNANT

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION

a. Refer to the individual clinical observations table (Table 12) for external observations confirmed at necropsy.

b. Necropsy and Caesarean-section observations were not recorded for rat 19561.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 13 (PAGE 5): NECROPSY OBSERVATIONS - INDIVIDUAL DATA

| DOSAGE GROUP<br>DOSAGE (MG/KG/DAY) | RAT<br>NUMBER | DAY OF<br>NECROPSY | PREGNANCY<br>STATUS | DOSAGES<br>ADMINISTERED | OBSERVATIONS a                                                                                                                                                                          |
|------------------------------------|---------------|--------------------|---------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| V                                  |               |                    |                     |                         |                                                                                                                                                                                         |
| 3.2                                | 19565         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                                                                            |
|                                    | 19566         | DG 15              | P                   | 58                      | ALL TISSUES APPEARED NORMAL.                                                                                                                                                            |
|                                    | 19567         | DG 15              | P                   | 58                      | ALL TISSUES APPEARED NORMAL.                                                                                                                                                            |
|                                    | 19568         | DG 21              | P                   | 63                      | ALL TISSUES APPEARED NORMAL.                                                                                                                                                            |
|                                    | 19569         | DG 21              | P                   | 66                      | ALL TISSUES APPEARED NORMAL.                                                                                                                                                            |
|                                    | 19570         | DG 15              | P                   | 58                      | ALL TISSUES APPEARED NORMAL.                                                                                                                                                            |
|                                    | 19571         | DG 21              | P                   | 66                      | DELIVERED ON DAY 21 OF GESTATION.<br>ALL TISSUES APPEARED NORMAL.<br>UTERINE CONTENTS: 15 IMPLANTATION SITES (SEVEN<br>DELIVERED PUPS, SIX LIVE FETUSES AND TWO EARLY<br>RESORPTIONS).b |
|                                    | 19572         | DG 21              | P                   | 64                      | ALL TISSUES APPEARED NORMAL.                                                                                                                                                            |
|                                    | 19573         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                                                                            |
|                                    | 19574         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                                                                            |
|                                    | 19575         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                                                                            |
|                                    | 19576         | DS 68              | NP                  | 67                      | ALL TISSUES APPEARED NORMAL.                                                                                                                                                            |
|                                    | 19577         | DG 21              | P                   | 63                      | ALL TISSUES APPEARED NORMAL.                                                                                                                                                            |
|                                    | 19578         | DS 68              | NP                  | 67                      | ALL TISSUES APPEARED NORMAL.                                                                                                                                                            |
|                                    | 19579         | DG 21              | P                   | 65                      | DELIVERED ON DAY 21 OF GESTATION.<br>ALL TISSUES APPEARED NORMAL.<br>UTERINE CONTENTS: 11 IMPLANTATION SITES (THREE<br>DELIVERED PUPS AND EIGHT LIVE FETUSES).b                         |
|                                    | 19580         | DG 15              | P                   | 57                      | ALL TISSUES APPEARED NORMAL.                                                                                                                                                            |

P = PREGNANT NP = NOT PREGNANT

DS = DAY OF STUDY DG = DAY OF PRESUMED GESTATION

a. Refer to the individual clinical observations table (Table 12) for external observations confirmed at necropsy.

b. Appeared normal for their developmental ages at the time maternal death occurred.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 14 (PAGE 1): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA

| RAT #                 | DOSAGE GROUP I |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0 (VEHICLE) MG/KG/DAY |                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| DAY                   | 1              | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   |
| 19501                 | 215.           | 218. | 222. | 219. | 220. | 226. | 232. | 231. | 228. | 223. | 227. | 232. | 234. | 231. | 230. | 234. |
| 19502                 | 221.           | 231. | 234. | 240. | 230. | 240. | 243. | 243. | 240. | 244. | 248. | 247. | 249. | 246. | 251. | 254. |
| 19503                 | 227.           | 224. | 224. | 226. | 234. | 235. | 233. | 238. | 237. | 240. | 236. | 241. | 247. | 248. | 245. | 241. |
| 19504                 | 231.           | 233. | 235. | 239. | 242. | 240. | 251. | 252. | 252. | 254. | 256. | 259. | 264. | 263. | 266. | 271. |
| 19505                 | 225.           | 224. | 225. | 232. | 238. | 242. | 243. | 242. | 242. | 245. | 246. | 247. | 250. | 254. | 256. | 254. |
| 19506                 | 240.           | 236. | 240. | 243. | 248. | 253. | 251. | 254. | 255. | 255. | 253. | 260. | 263. | 261. | 263. | 261. |
| 19507                 | 219.           | 222. | 224. | 223. | 221. | 221. | 226. | 231. | 234. | 229. | 234. | 238. | 242. | 240. | 240. | 246. |
| 19508                 | 225.           | 227. | 228. | 226. | 232. | 238. | 240. | 238. | 241. | 247. | 249. | 244. | 252. | 256. | 258. | 252. |
| 19509                 | 221.           | 219. | 218. | 222. | 226. | 227. | 227. | 227. | 230. | 233. | 236. | 231. | 238. | 242. | 245. | 243. |
| 19510                 | 236.           | 234. | 234. | 238. | 243. | 238. | 243. | 250. | 250. | 252. | 245. | 253. | 258. | 258. | 251. | 258. |
| 19511                 | 229.           | 229. | 230. | 236. | 242. | 243. | 241. | 251. | 256. | 251. | 248. | 258. | 262. | 258. | 256. | 268. |
| 19512                 | 235.           | 232. | 240. | 243. | 241. | 240. | 245. | 251. | 248. | 249. | 254. | 259. | 255. | 256. | 261. | 263. |
| 19513                 | 235.           | 238. | 240. | 246. | 252. | 254. | 252. | 261. | 264. | 266. | 264. | 267. | 274. | 276. | 274. | 281. |
| 19514                 | 234.           | 228. | 238. | 240. | 244. | 240. | 250. | 252. | 257. | 247. | 249. | 256. | 259. | 260. | 260. | 257. |
| 19515                 | 223.           | 224. | 227. | 222. | 223. | 229. | 233. | 230. | 229. | 230. | 235. | 235. | 235. | 234. | 235. | 241. |
| 19516                 | 221.           | 226. | 230. | 234. | 231. | 237. | 239. | 243. | 238. | 249. | 246. | 248. | 248. | 250. | 255. | 254. |
| DAY                   | 17             | 18   | 19   | 20   | 21   | 22   | 23   | 24   | 25   | 26   | 27   | 28   | 29   | 30   | 31   | 32   |
| 19501                 | 237.           | 237. | 236. | 239. | 244. | 244. | 238. | 244. | 246. | 246. | 245. | 247. | 250. | 248. | 244. | 250. |
| 19502                 | 256.           | 257. | 254. | 260. | 266. | 264. | 263. | 262. | 268. | 273. | 273. | 268. | 268. | 270. | 268. | 266. |
| 19503                 | 246.           | 254. | 253. | 252. | 253. | 260. | 259. | 252. | 257. | 259. | 261. | 256. | 260. | 263. | 263. | 259. |
| 19504                 | 272.           | 271. | 273. | 272. | 281. | 280. | 282. | 277. | 279. | 285. | 286. | 284. | 281. | 287. | 291. | 287. |
| 19505                 | 253.           | 257. | 261. | 260. | 260. | 257. | 257. | 262. | 264. | 268. | 272. | 271. | 275. | 272. | 273. | 271. |
| 19506                 | 268.           | 267. | 264. | 268. | 268. | 266. | 262. | 265. | 268. | 267. | 265. | 269. | 276. | 272. | 265. | 271. |
| 19507                 | 250.           | 251. | 251. | 251. | 259. | 261. | 262. | 255. | 257. | 263. | 263. | 264. | 260. | 268. | 264. | 267. |
| 19508                 | 258.           | 265. | 264. | 260. | 267. | 272. | 268. | 267. | 270. | 273. | 271. | 268. | 274. | 274. | 276. | 271. |
| 19509                 | 246.           | 249. | 249. | 245. | 253. | 257. | 256. | 251. | 256. | 257. | 257. | 252. | 258. | 258. | 260. | 256. |
| 19510                 | 261.           | 261. | 256. | 262. | 264. | 265. | 255. | 262. | 264. | 258. | 259. | 262. | 261. | 259. | 257. | 264. |
| 19511                 | 269.           | 271. | 266. | 272. | 277. | 273. | 267. | 280. | 280. | 274. | 274. | 285. | 286. | 281. | 277. | 288. |
| 19512                 | 267.           | 264. | 270. | 274. | 272. | 273. | 275. | 282. | 280. | 275. | 284. | 284. | 282. | 279. | 280. | 283. |
| 19513                 | 284.           | 288. | 284. | 294. | 300. | 299. | 292. | 297. | 304. | 303. | 305. | 310. | 311. | 308. | 302. | 313. |
| 19514                 | 264.           | 269. | 268. | 269. | 270. | 275. | 274. | 278. | 276. | 273. | 282. | 287. | 284. | 277. | 285. | 290. |
| 19515                 | 244.           | 244. | 245. | 249. | 252. | 251. | 247. | 248. | 253. | 246. | 242. | 245. | 248. | 248. | 244. | 240. |
| 19516                 | 251.           | 258. | 265. | 260. | 256. | 264. | 266. | 265. | 265. | 268. | 272. | 270. | 261. | 268. | 275. | 274. |

DAY = DAY OF STUDY

ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 14 (PAGE 2): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA

| RAT # | DOSAGE GROUP I        |      |      |      |      |      |      |      |      |      |
|-------|-----------------------|------|------|------|------|------|------|------|------|------|
|       | 0 (VEHICLE) MG/KG/DAY |      |      |      |      |      |      |      |      |      |
| DAY   | 33                    | 34   | 35   | 36   | 37   | 38   | 39   | 40   | 41   | 42a  |
| 19501 | 251.                  | 252. | 249. | 250. | 252. | 252. | 249. | 251. | 256. | 255. |
| 19502 | 268.                  | 276. | 270. | 266. | 271. | 274. | 271. | 270. | 273. | 280. |
| 19503 | 263.                  | 266. | 267. | 263. | 265. | 268. | 268. | 269. | 270. | 277. |
| 19504 | 288.                  | 293. | 295. | 292. | 292. | 295. | 296. | 292. | 293. | 298. |
| 19505 | 281.                  | 279. | 280. | 278. | 280. | 285. | 283. | 282. | 280. | 285. |
| 19506 | 273.                  | 266. | 264. | 260. | 256. | 257. | 257. | 254. | 261. | 261. |
| 19507 | 262.                  | 266. | 270. | 262. | 262. | 268. | 268. | 267. | 263. | 266. |
| 19508 | 278.                  | 285. | 283. | 277. | 283. | 288. | 283. | 279. | 288. | 289. |
| 19509 | 258.                  | 262. | 260. | 259. | 258. | 260. | 258. | 260. | 262. | 266. |
| 19510 | 268.                  | 265. | 257. | 259. | 254. | 260. | 260. | 263. | 261. | 260. |
| 19511 | 290.                  | 287. | 282. | 291. | 292. | 284. | 284. | 292. | 296. | 292. |
| 19512 | 285.                  | 281. | 284. | 286. | 286. | 284. | 287. | 292. | 288. | 288. |
| 19513 | 317.                  | 314. | 308. | 317. | 318. | 317. | 312. | 322. | 325. | 324. |
| 19514 | 288.                  | 283. | 286. | 288. | 287. | 286. | 290. | 298. | 293. | 290. |
| 19515 | 250.                  | 248. | 245. | 246. | 251. | 255. | 252. | 251. | 257. | 257. |
| 19516 | 271.                  | 277. | 278. | 279. | 274. | 278. | 282. | 280. | 274. | 275. |

DAY = DAY OF STUDY

ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Last value recorded before cohabitation.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 14 (PAGE 3): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA

| RAT # | DOSAGE GROUP II |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|       | 0.1 MG/KG/DAY   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| DAY   | 1               | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   |
| 19517 | 221.            | 219. | 225. | 228. | 230. | 227. | 233. | 237. | 235. | 232. | 238. | 244. | 244. | 240. | 242. | 249. |
| 19518 | 234.            | 238. | 237. | 249. | 250. | 250. | 252. | 261. | 264. | 264. | 265. | 262. | 271. | 273. | 272. | 271. |
| 19519 | 225.            | 230. | 236. | 237. | 237. | 243. | 247. | 244. | 248. | 252. | 254. | 252. | 251. | 258. | 260. | 258. |
| 19520 | 230.            | 227. | 232. | 237. | 240. | 238. | 243. | 242. | 239. | 240. | 240. | 246. | 241. | 240. | 246. | 250. |
| 19521 | 220.            | 222. | 229. | 235. | 239. | 235. | 242. | 245. | 244. | 242. | 248. | 254. | 251. | 250. | 257. | 259. |
| 19522 | 234.            | 236. | 237. | 242. | 247. | 250. | 245. | 256. | 255. | 255. | 250. | 258. | 263. | 258. | 257. | 263. |
| 19523 | 228.            | 227. | 228. | 232. | 238. | 238. | 234. | 239. | 240. | 243. | 243. | 245. | 248. | 251. | 250. | 254. |
| 19524 | 233.            | 231. | 235. | 239. | 239. | 236. | 242. | 250. | 249. | 249. | 254. | 257. | 256. | 256. | 262. | 265. |
| 19525 | 224.            | 218. | 225. | 229. | 231. | 229. | 233. | 235. | 232. | 234. | 239. | 240. | 240. | 242. | 240. | 246. |
| 19526 | 227.            | 230. | 229. | 228. | 234. | 238. | 240. | 241. | 239. | 246. | 249. | 251. | 247. | 243. | 250. | 258. |
| 19527 | 227.            | 233. | 231. | 233. | 237. | 239. | 244. | 248. | 244. | 252. | 254. | 260. | 258. | 255. | 258. | 262. |
| 19528 | 229.            | 231. | 237. | 238. | 240. | 239. | 245. | 248. | 242. | 243. | 248. | 253. | 252. | 251. | 250. | 256. |
| 19529 | 226.            | 229. | 227. | 234. | 235. | 234. | 234. | 239. | 238. | 243. | 238. | 241. | 244. | 243. | 242. | 243. |
| 19530 | 228.            | 229. | 230. | 238. | 239. | 242. | 234. | 240. | 244. | 245. | 243. | 251. | 255. | 252. | 250. | 257. |
| 19531 | 222.            | 220. | 230. | 233. | 236. | 235. | 242. | 244. | 247. | 242. | 241. | 243. | 249. | 248. | 244. | 253. |
| 19532 | 230.            | 230. | 230. | 228. | 234. | 239. | 244. | 245. | 239. | 246. | 248. | 253. | 250. | 246. | 254. | 256. |
| DAY   | 17              | 18   | 19   | 20   | 21   | 22   | 23   | 24   | 25   | 26   | 27   | 28   | 29   | 30   | 31   | 32   |
| 19517 | 247.            | 245. | 250. | 249. | 253. | 247. | 254. | 256. | 257. | 256. | 261. | 260. | 256. | 249. | 258. | 261. |
| 19518 | 275.            | 276. | 279. | 278. | 280. | 288. | 286. | 284. | 289. | 290. | 289. | 285. | 293. | 291. | 289. | 289. |
| 19519 | 264.            | 267. | 270. | 265. | 266. | 271. | 274. | 274. | 269. | 273. | 278. | 276. | 270. | 277. | 280. | 278. |
| 19520 | 248.            | 246. | 254. | 250. | 254. | 253. | 258. | 258. | 257. | 260. | 260. | 260. | 263. | 255. | 259. | 261. |
| 19521 | 259.            | 258. | 264. | 269. | 267. | 264. | 268. | 272. | 272. | 266. | 275. | 275. | 271. | 268. | 276. | 280. |
| 19522 | 268.            | 266. | 257. | 265. | 269. | 270. | 267. | 275. | 282. | 278. | 272. | 278. | 281. | 277. | 274. | 280. |
| 19523 | 260.            | 259. | 259. | 262. | 268. | 266. | 262. | 263. | 267. | 269. | 269. | 267. | 268. | 271. | 268. | 264. |
| 19524 | 264.            | 264. | 266. | 272. | 270. | 268. | 275. | 277. | 276. | 276. | 280. | 285. | 276. | 273. | 278. | 282. |
| 19525 | 245.            | 249. | 247. | 247. | 251. | 255. | 253. | 251. | 250. | 247. | 251. | 253. | 252. | 257. | 252. | 258. |
| 19526 | 256.            | 252. | 250. | 256. | 262. | 265. | 260. | 260. | 263. | 266. | 268. | 264. | 260. | 268. | 271. | 270. |
| 19527 | 267.            | 264. | 264. | 269. | 270. | 275. | 273. | 270. | 272. | 277. | 278. | 277. | 270. | 275. | 280. | 278. |
| 19528 | 255.            | 254. | 260. | 260. | 256. | 256. | 256. | 266. | 261. | 259. | 266. | 264. | 256. | 252. | 261. | 263. |
| 19529 | 244.            | 243. | 242. | 245. | 246. | 248. | 241. | 246. | 247. | 246. | 240. | 251. | 246. | 247. | 244. | 248. |
| 19530 | 259.            | 261. | 254. | 264. | 269. | 267. | 264. | 264. | 270. | 267. | 265. | 271. | 271. | 266. | 263. | 265. |
| 19531 | 255.            | 255. | 253. | 258. | 264. | 261. | 255. | 262. | 265. | 265. | 262. | 270. | 271. | 270. | 262. | 270. |
| 19532 | 257.            | 256. | 255. | 262. | 268. | 269. | 265. | 265. | 270. | 270. | 274. | 271. | 267. | 270. | 276. | 273. |

DAY = DAY OF STUDY

ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 14 (PAGE 4): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA

| RAT # | DOSAGE GROUP II |      |      |      |      |      |      |      |      |      |
|-------|-----------------|------|------|------|------|------|------|------|------|------|
|       | 0.1 MG/KG/DAY   |      |      |      |      |      |      |      |      |      |
| DAY   | 33              | 34   | 35   | 36   | 37   | 38   | 39   | 40   | 41   | 42a  |
| 19517 | 262.            | 256. | 259. | 262. | 260. | 255. | 262. | 266. | 265. | 257. |
| 19518 | 294.            | 298. | 295. | 296. | 301. | 303. | 300. | 298. | 303. | 310. |
| 19519 | 273.            | 277. | 280. | 276. | 273. | 269. | 276. | 278. | 278. | 276. |
| 19520 | 265.            | 265. | 269. | 272. | 267. | 264. | 265. | 268. | 273. | 263. |
| 19521 | 279.            | 274. | 281. | 284. | 280. | 279. | 288. | 288. | 285. | 288. |
| 19522 | 285.            | 286. | 276. | 280. | 286. | 285. | 278. | 282. | 287. | 282. |
| 19523 | 271.            | 273. | 274. | 266. | 266. | 268. | 273. | 274. | 275. | 274. |
| 19524 | 282.            | 276. | 280. | 279. | 278. | 276. | 281. | 284. | 280. | 279. |
| 19525 | 253.            | 254. | 254. | 251. | 257. | 252. | 254. | 255. | 252. | 255. |
| 19526 | 262.            | 262. | 268. | 270. | 269. | 268. | 271. | 270. | 272. | 272. |
| 19527 | 278.            | 276. | 282. | 286. | 286. | 284. | 279. | 283. | 285. | 293. |
| 19528 | 257.            | 253. | 260. | 261. | 258. | 256. | 262. | 266. | 259. | 257. |
| 19529 | 251.            | 247. | 242. | 247. | 249. | 250. | 244. | 254. | 253. | 251. |
| 19530 | 274.            | 270. | 267. | 271. | 274. | 272. | 267. | 270. | 277. | 269. |
| 19531 | 273.            | 269. | 266. | 277. | 283. | 276. | 273. | 280. | 282. | 276. |
| 19532 | 272.            | 277. | 281. | 278. | 271. | 271. | 282. | 278. | 280. | 269. |

DAY = DAY OF STUDY

ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Last value recorded before cohabitation.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 14 (PAGE 5): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA

| RAT # | DOSAGE GROUP III |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-------|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|       | 0.4 MG/KG/DAY    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| DAY   | 1                | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   |
| 19533 | 221.             | 224. | 222. | 220. | 226. | 236. | 228. | 229. | 223. | 227. | 233. | 231. | 232. | 230. | 235. | 236. |
| 19534 | 234.             | 241. | 244. | 251. | 256. | 258. | 253. | 262. | 266. | 263. | 259. | 264. | 266. | 269. | 267. | 276. |
| 19535 | 221.             | 220. | 226. | 223. | 226. | 230. | 227. | 229. | 230. | 230. | 233. | 230. | 230. | 232. | 235. | 234. |
| 19536 | 225.             | 225. | 230. | 233. | 235. | 230. | 230. | 242. | 242. | 243. | 240. | 243. | 246. | 246. | 245. | 246. |
| 19537 | 217.             | 219. | 223. | 221. | 222. | 224. | 227. | 233. | 227. | 229. | 235. | 233. | 231. | 231. | 234. | 237. |
| 19538 | 230.             | 227. | 229. | 233. | 237. | 237. | 241. | 242. | 243. | 243. | 244. | 248. | 246. | 247. | 248. | 250. |
| 19539 | 226.             | 227. | 225. | 230. | 231. | 230. | 234. | 238. | 233. | 230. | 233. | 236. | 239. | 238. | 236. | 240. |
| 19540 | 230.             | 229. | 230. | 234. | 236. | 236. | 233. | 241. | 243. | 243. | 241. | 246. | 250. | 250. | 249. | 251. |
| 19541 | 218.             | 218. | 216. | 220. | 225. | 226. | 227. | 229. | 230. | 230. | 228. | 234. | 236. | 236. | 236. | 231. |
| 19542 | 237.             | 236. | 231. | 240. | 245. | 244. | 240. | 250. | 252. | 253. | 248. | 250. | 257. | 261. | 258. | 255. |
| 19543 | 234.             | 233. | 242. | 244. | 249. | 245. | 252. | 254. | 254. | 253. | 257. | 257. | 263. | 258. | 266. | 268. |
| 19544 | 231.             | 231. | 232. | 235. | 241. | 245. | 246. | 248. | 245. | 254. | 253. | 258. | 257. | 253. | 259. | 262. |
| 19545 | 222.             | 220. | 232. | 231. | 231. | 229. | 234. | 238. | 239. | 240. | 235. | 239. | 241. | 245. | 248. | 246. |
| 19546 | 234.             | 235. | 231. | 239. | 240. | 239. | 242. | 248. | 248. | 248. | 250. | 258. | 263. | 265. | 263. | 267. |
| 19547 | 223.             | 228. | 228. | 230. | 235. | 232. | 234. | 243. | 242. | 240. | 239. | 247. | 248. | 246. | 247. | 251. |
| 19548 | 228.             | 231. | 233. | 234. | 239. | 242. | 246. | 246. | 243. | 247. | 249. | 250. | 253. | 254. | 258. | 259. |
| DAY   | 17               | 18   | 19   | 20   | 21   | 22   | 23   | 24   | 25   | 26   | 27   | 28   | 29   | 30   | 31   | 32   |
| 19533 | 240.             | 237. | 238. | 244. | 246. | 245. | 246. | 243. | 245. | 248. | 252. | 250. | 244. | 247. | 253. | 257. |
| 19534 | 282.             | 280. | 281. | 286. | 291. | 288. | 281. | 293. | 296. | 297. | 295. | 303. | 298. | 296. | 291. | 302. |
| 19535 | 239.             | 238. | 242. | 243. | 244. | 248. | 244. | 247. | 245. | 247. | 251. | 251. | 254. | 255. | 258. | 256. |
| 19536 | 246.             | 250. | 253. | 255. | 252. | 255. | 259. | 255. | 255. | 258. | 261. | 260. | 256. | 262. | 265. | 261. |
| 19537 | 238.             | 234. | 235. | 237. | 244. | 243. | 236. | 239. | 238. | 238. | 244. | 243. | 240. | 240. | 240. | 245. |
| 19538 | 252.             | 253. | 252. | 255. | 254. | 252. | 253. | 255. | 255. | 256. | 256. | 256. | 254. | 254. | 256. | 259. |
| 19539 | 242.             | 242. | 244. | 246. | 248. | 248. | 246. | 248. | 253. | 250. | 247. | 250. | 253. | 249. | 251. | 253. |
| 19540 | 256.             | 256. | 253. | 264. | 263. | 263. | 260. | 266. | 274. | 270. | 269. | 275. | 280. | 274. | 273. | 277. |
| 19541 | 235.             | 240. | 239. | 238. | 239. | 244. | 241. | 242. | 236. | 242. | 244. | 246. | 239. | 243. | 248. | 247. |
| 19542 | 261.             | 265. | 264. | 259. | 266. | 269. | 268. | 266. | 266. | 272. | 272. | 264. | 272. | 274. | 272. | 265. |
| 19543 | 266.             | 265. | 276. | 281. | 274. | 277. | 281. | 285. | 287. | 284. | 289. | 290. | 284. | 278. | 282. | 290. |
| 19544 | 265.             | 265. | 262. | 269. | 273. | 276. | 274. | 271. | 284. | 278. | 280. | 275. | 270. | 278. | 281. | 276. |
| 19545 | 244.             | 247. | 253. | 253. | 254. | 255. | 257. | 259. | 260. | 261. | 260. | 263. | 262. | 265. | 260. | 260. |
| 19546 | 269.             | 274. | 278. | 274. | 283. | 288. | 286. | 285. | 288. | 292. | 295. | 293. | 286. | 294. | 297. | 293. |
| 19547 | 249.             | 252. | 249. | 251. | 258. | 259. | 254. | 257. | 263. | 262. | 259. | 263. | 267. | 265. | 267. | 269. |
| 19548 | 261.             | 260. | 261. | 266. | 268. | 267. | 264. | 266. | 269. | 268. | 268. | 266. | 265. | 268. | 264. | 263. |

DAY = DAY OF STUDY

ALL WEIGHTS WERE RECORDED IN GRAMS (G).



PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 14 (PAGE 6): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA

| RAT # | DOSAGE GROUP III |      |      |      |      |      |      |      |      |      |  |
|-------|------------------|------|------|------|------|------|------|------|------|------|--|
|       | 0.4 MG/KG/DAY    |      |      |      |      |      |      |      |      |      |  |
| DAY   | 33               | 34   | 35   | 36   | 37   | 38   | 39   | 40   | 41   | 42a  |  |
| 19533 | 254.             | 252. | 256. | 259. | 260. | 257. | 256. | 261. | 264. | 259. |  |
| 19534 | 302.             | 300. | 299. | 308. | 308. | 305. | 302. | 308. | 307. | 311. |  |
| 19535 | 254.             | 254. | 258. | 257. | 262. | 263. | 261. | 262. | 259. | 259. |  |
| 19536 | 262.             | 264. | 264. | 262. | 259. | 266. | 266. | 264. | 262. | 268. |  |
| 19537 | 246.             | 247. | 247. | 253. | 252. | 250. | 248. | 255. | 253. | 254. |  |
| 19538 | 258.             | 258. | 259. | 259. | 261. | 260. | 258. | 256. | 260. | 260. |  |
| 19539 | 256.             | 254. | 252. | 258. | 258. | 259. | 257. | 257. | 257. | 255. |  |
| 19540 | 280.             | 281. | 280. | 282. | 289. | 281. | 278. | 284. | 289. | 286. |  |
| 19541 | 242.             | 243. | 244. | 246. | 243. | 248. | 244. | 249. | 247. | 246. |  |
| 19542 | 271.             | 278. | 274. | 267. | 274. | 276. | 274. | 269. | 273. | 276. |  |
| 19543 | 285.             | 282. | 289. | 291. | 294. | 288. | 293. | 296. | 291. | 286. |  |
| 19544 | 274.             | 276. | 283. | 289. | 282. | 284. | 275. | 290. | 295. | 211. |  |
| 19545 | 268.             | 267. | 264. | 260. | 264. | 272. | 272. | 270. | 270. | 290. |  |
| 19546 | 291.             | 299. | 300. | 298. | 295. | 299. | 308. | 305. | 300. | 274. |  |
| 19547 | 269.             | 268. | 273. | 272. | 274. | 271. | 271. | 275. | 275. | 297. |  |
| 19548 | 264.             | 268. | 266. | 264. | 261. | 260. | 261. | 264. | 267. | 266. |  |

DAY = DAY OF STUDY

ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Last value recorded before cohabitation.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 14 (PAGE 7): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA

| RAT # | DOSAGE GROUP IV |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1.6 MG/KG/DAY |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| DAY   | 1               | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19549 | 220.            | 220. | 219. | 226. | 229. | 227. | 228. | 231. | 233. | 233. | 230. | 235. | 237. | 238. | 238. | 241. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19550 | 239.            | 236. | 247. | 250. | 251. | 251. | 253. | 264. | 260. | 263. | 256. | 264. | 270. | 269. | 263. | 269. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19551 | 228.            | 230. | 230. | 234. | 240. | 242. | 242. | 252. | 250. | 249. | 250. | 251. | 261. | 263. | 264. | 263. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19552 | 230.            | 230. | 235. | 242. | 236. | 232. | 237. | 240. | 239. | 231. | 239. | 243. | 242. | 238. | 242. | 245. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19553 | 218.            | 216. | 215. | 221. | 228. | 226. | 223. | 224. | 233. | 230. | 232. | 230. | 233. | 236. | 236. | 232. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19554 | 232.            | 236. | 234. | 239. | 247. | 248. | 246. | 250. | 254. | 254. | 251. | 258. | 260. | 263. | 259. | 264. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19555 | 231.            | 234. | 237. | 234. | 240. | 249. | 248. | 248. | 246. | 250. | 253. | 258. | 253. | 256. | 260. | 264. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19556 | 230.            | 229. | 232. | 240. | 238. | 233. | 240. | 246. | 243. | 240. | 247. | 253. | 251. | 246. | 254. | 257. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19557 | 221.            | 225. | 224. | 223. | 226. | 230. | 234. | 236. | 231. | 238. | 239. | 243. | 243. | 241. | 244. | 247. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19558 | 234.            | 239. | 239. | 244. | 247. | 250. | 246. | 249. | 252. | 256. | 256. | 258. | 259. | 263. | 267. | 263. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19559 | 220.            | 227. | 228. | 230. | 227. | 235. | 237. | 234. | 235. | 239. | 237. | 233. | 238. | 242. | 242. | 238. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19560 | 225.            | 229. | 232. | 230. | 232. | 238. | 243. | 246. | 240. | 246. | 247. | 252. | 248. | 248. | 255. | 255. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19561 | 220.            | 220. | 222. | 228. | 232. | 224. | 218. | 230. | 237. | 235. | 233. | 234. | 242. | 239. | 231. | 239. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19562 | 235.            | 239. | 242. | 243. | 239. | 236. | 241. | 241. | 240. | 240. | 245. | 249. | 247. | 250. | 250. | 253. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19563 | 216.            | 220. | 221. | 225. | 229. | 230. | 229. | 234. | 233. | 235. | 229. | 233. | 239. | 240. | 239. | 240. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19564 | 231.            | 230. | 229. | 230. | 240. | 240. | 242. | 242. | 241. | 247. | 245. | 250. | 251. | 252. | 252. | 252. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DAY   | 17              | 18   | 19   | 20   | 21   | 22   | 23   | 24   | 25   | 26   | 27   | 28   | 29   | 30   | 31   | 32   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19549 | 248.            | 246. | 248. | 250. | 252. | 252. | 248. | 253. | 254. | 253. | 251. | 254. | 249. | 251. | 250. | 256. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19550 | 271.            | 267. | 265. | 271. | 273. | 275. | 268. | 274. | 275. | 272. | 266. | 272. | 275. | 272. | 265. | 271. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19551 | 265.            | 270. | 272. | 273. | 273. | 275. | 279. | 284. | 280. | 278. | 279. | 281. | 274. | 279. | 283. | 284. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19552 | 245.            | 240. | 244. | 247. | 246. | 243. | 244. | 249. | 249. | 246. | 248. | 252. | 247. | 241. | 243. | 249. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19553 | 232.            | 238. | 237. | 236. | 235. | 240. | 236. | 238. | 233. | 234. | 239. | 238. | 232. | 234. | 241. | 239. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19554 | 266.            | 267. | 263. | 267. | 271. | 271. | 266. | 269. | 271. | 269. | 267. | 271. | 271. | 266. | 265. | 271. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19555 | 266.            | 263. | 268. | 272. | 272. | 270. | 275. | 276. | 277. | 273. | 282. | 284. | 282. | 275. | 283. | 285. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19556 | 258.            | 251. | 260. | 263. | 266. | 264. | 264. | 268. | 261. | 262. | 272. | 267. | 261. | 257. | 260. | 263. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19557 | 251.            | 247. | 246. | 251. | 253. | 254. | 252. | 254. | 256. | 255. | 257. | 256. | 249. | 252. | 251. | 251. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19558 | 266.            | 266. | 268. | 271. | 269. | 276. | 273. | 273. | 276. | 277. | 280. | 282. | 280. | 284. | 283. | 280. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19559 | 242.            | 244. | 245. | 242. | 246. | 250. | 248. | 244. | 248. | 247. | 248. | 242. | 246. | 248. | 246. | 243. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19560 | 257.            | 253. | 255. | 260. | 260. | 256. | 259. | 264. | 262. | 256. | 260. | 262. | 257. | 250. | 256. | 266. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19561 | 242.            | 239. | 236. | 241. | 244. | 245. | 241. | 247. | 249. | 244. | 242. | 245. | 247. | 242. | 240. | 243. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19562 | 258.            | 256. | 259. | 256. | 264. | 264. | 267. | 266. | 262. | 266. | 266. | 267. | 262. | 262. | 268. | 269. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19563 | 243.            | 247. | 246. | 243. | 242. | 245. | 248. | 246. | 247. | 246. | 246. | 249. | 249. | 253. | 252. | 253. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19564 | 255.            | 253. | 254. | 257. | 260. | 259. | 258. | 256. | 261. | 261. | 259. | 259. | 254. | 258. | 257. | 254. |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

DAY = DAY OF STUDY

ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 14 (PAGE 8): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA

| RAT # | DOSAGE GROUP IV<br>1.6 MG/KG/DAY |      |      |      |      |      |      |      |      |           |
|-------|----------------------------------|------|------|------|------|------|------|------|------|-----------|
|       | DAY                              | 33   | 34   | 35   | 36   | 37   | 38   | 39   | 40   | 41<br>42a |
| 19549 |                                  | 256. | 255. | 252. | 258. | 259. | 263. | 266. | 264. | 269.      |
| 19550 |                                  | 272. | 274. | 266. | 272. | 272. | 270. | 266. | 269. | 271.      |
| 19551 |                                  | 280. | 284. | 284. | 284. | 280. | 278. | 283. | 283. | 283.      |
| 19552 |                                  | 250. | 252. | 254. | 257. | 257. | 260. | 262. | 262. | 261.      |
| 19553 |                                  | 237. | 228. | 231. | 235. | 231. | 226. | 227. | 232. | 233.      |
| 19554 |                                  | 273. | 272. | 267. | 272. | 272. | 268. | 268. | 271. | 273.      |
| 19555 |                                  | 284. | 280. | 287. | 287. | 290. | 282. | 288. | 288. | 286.      |
| 19556 |                                  | 257. | 254. | 261. | 261. | 258. | 250. | 258. | 258. | 256.      |
| 19557 |                                  | 252. | 252. | 255. | 255. | 259. | 256. | 252. | 254. | 255.      |
| 19558 |                                  | 282. | 281. | 284. | 288. | 288. | 290. | 291. | 294. | 291.      |
| 19559 |                                  | 248. | 250. | 249. | 247. | 252. | 254. | 255. | 252. | 254.      |
| 19560 |                                  | 261. | 259. | 265. | 266. | 265. | 260. | 266. | 264. | 259.      |
| 19561 |                                  | 246. | 246. | 242. | 246. | 249. | 252. | 244. | 249. | 246.      |
| 19562 |                                  | 266. | 263. | 266. | 268. | 269. | 271. | 268. | 268. | 273.      |
| 19563 |                                  | 254. | 251. | 253. | 258. | 253. | 257. | 260. | 258. | 260.      |
| 19564 |                                  | 249. | 256. | 256. | 254. | 253. | 250. | 257. | 256. | 256.      |

DAY = DAY OF STUDY

ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Last value recorded before cohabitation.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 14 (PAGE 9): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA

| RAT # | DOSAGE GROUP V |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    | 3.2 MG/KG/DAY |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
|-------|----------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|---------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
| DAY   | 1              | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | </ |

DAY = DAY OF STUDY

ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 14 (PAGE 10): BODY WEIGHTS - PRECOHABITATION - INDIVIDUAL DATA

| RAT # | DOSAGE GROUP V<br>3.2 MG/KG/DAY |      |      |      |      |      |      |      |      |           |
|-------|---------------------------------|------|------|------|------|------|------|------|------|-----------|
|       | DAY                             | 33   | 34   | 35   | 36   | 37   | 38   | 39   | 40   | 41 42a    |
| 19565 |                                 | 233. | 234. | 233. | 233. | 232. | 233. | 227. | 231. | 232. 225. |
| 19566 |                                 | 246. | 248. | 236. | 242. | 249. | 243. | 236. | 236. | 244. 244. |
| 19567 |                                 | 224. | 224. | 221. | 222. | 223. | 226. | 224. | 222. | 225. 223. |
| 19568 |                                 | 264. | 263. | 267. | 266. | 267. | 267. | 265. | 269. | 268. 268. |
| 19569 |                                 | 246. | 245. | 240. | 244. | 241. | 241. | 238. | 239. | 238. 234. |
| 19570 |                                 | 252. | 250. | 247. | 250. | 249. | 250. | 247. | 245. | 246. 249. |
| 19571 |                                 | 244. | 243. | 252. | 244. | 244. | 239. | 243. | 242. | 241. 241. |
| 19572 |                                 | 238. | 235. | 236. | 239. | 237. | 234. | 236. | 243. | 240. 245. |
| 19573 |                                 | 238. | 241. | 243. | 243. | 238. | 240. | 237. | 240. | 236. 235. |
| 19574 |                                 | 248. | 245. | 249. | 251. | 251. | 248. | 247. | 250. | 251. 240. |
| 19575 |                                 | 249. | 250. | 245. | 241. | 246. | 243. | 245. | 246. | 243. 233. |
| 19576 |                                 | 257. | 257. | 265. | 268. | 261. | 261. | 262. | 264. | 261. 255. |
| 19577 |                                 | 227. | 225. | 227. | 226. | 227. | 226. | 224. | 224. | 224. 221. |
| 19578 |                                 | 256. | 252. | 254. | 257. | 258. | 251. | 253. | 254. | 251. 249. |
| 19579 |                                 | 211. | 209. | 208. | 210. | 214. | 217. | 214. | 216. | 212. 211. |
| 19580 |                                 | 244. | 242. | 239. | 240. | 237. | 235. | 234. | 238. | 237. 231. |

DAY = DAY OF STUDY

ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Last value recorded before cohabitation.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 15 (PAGE 1): MATERNAL BODY WEIGHTS - PRESUMED GESTATION - INDIVIDUAL DATA

| RAT #     | DOSAGE GROUP I |                                                        |      |      |      |      |      |      |      |      |                        |      |      | 0 (VEHICLE) MG/KG/DAY |       |  |  |  |  |  |  |  |  |  |  |  |
|-----------|----------------|--------------------------------------------------------|------|------|------|------|------|------|------|------|------------------------|------|------|-----------------------|-------|--|--|--|--|--|--|--|--|--|--|--|
| PREGNANCY |                |                                                        |      |      |      |      |      |      |      |      |                        |      |      |                       |       |  |  |  |  |  |  |  |  |  |  |  |
| STATUS    | DAY            | 0                                                      | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9                      | 10   | 11   | 12                    |       |  |  |  |  |  |  |  |  |  |  |  |
| 19501     | P              | 257.                                                   | 263. | 269. | 270. | 274. | 278. | 280. | 277. | 285. | 289.                   | 295. | 302. | 306.                  |       |  |  |  |  |  |  |  |  |  |  |  |
| 19502     | NP             | 276.                                                   | 288. | 294. | 297. | 300. | 304. | 303. | 307. | 306. | 308.                   | 316. | 316. | 316.                  |       |  |  |  |  |  |  |  |  |  |  |  |
| 19503     | P              | NO CONFIRMED MATING DATE; DELIVERED ON DAY 66 OF STUDY |      |      |      |      |      |      |      |      |                        |      |      |                       |       |  |  |  |  |  |  |  |  |  |  |  |
| 19504     | P              | 295.                                                   | 306. | 308. | 308. | 311. | 313. | 317. | 316. | 318. | 320.                   | 323. | 329. | 343.                  |       |  |  |  |  |  |  |  |  |  |  |  |
| 19505     | P              | 281.                                                   | 294. | 301. | 301. | 302. | 308. | 309. | 306. | 309. | 316.                   | 323. | 332. | 328.                  |       |  |  |  |  |  |  |  |  |  |  |  |
| 19506     | P              | 266.                                                   | 273. | 279. | 284. | 287. | 295. | 297. | 294. | 301. | 304.                   | 313. | 312. | 318.                  |       |  |  |  |  |  |  |  |  |  |  |  |
| 19507     | P              | 272.                                                   | 284. | 286. | 290. | 291. | 298. | 296. | 289. | 287. | 296.                   | 305. | 310. | 310.                  |       |  |  |  |  |  |  |  |  |  |  |  |
| 19508     | P              | 291.                                                   | 297. | 306. | 313. | 314. | 313. | 315. | 319. | 318. | 325.                   | 333. | 339. | 344.                  |       |  |  |  |  |  |  |  |  |  |  |  |
| 19509     | P              | 269.                                                   | 273. | 273. | 284. | 287. | 293. | 299. | 299. | 293. | 302.                   | 306. | 311. | 317.                  |       |  |  |  |  |  |  |  |  |  |  |  |
| 19510     | P              | 259.                                                   | 267. | 278. | 279. | 290. | 291. | 301. | 302. | 302. | 311.                   | 311. | 325. | 322.                  |       |  |  |  |  |  |  |  |  |  |  |  |
| 19511     | P              | 291.                                                   | 299. | 305. | 307. | 311. | 311. | 316. | 322. | 310. | 321.                   | 324. | 329. | 334.                  |       |  |  |  |  |  |  |  |  |  |  |  |
| 19512     | P              | 306.                                                   | 314. | 312. | 316. | 323. | 318. | 324. | 318. | 322. | 324.                   | 326. | 330. | 333.                  |       |  |  |  |  |  |  |  |  |  |  |  |
| 19513     | P              | 330.                                                   | 329. | 334. | 340. | 350. | 349. | 355. | 355. | 353. | 353.                   | 360. | 367. | 369.                  |       |  |  |  |  |  |  |  |  |  |  |  |
| 19514     | NP             | 290.                                                   | 298. | 302. | 301. | 311. | 313. | 316. | 321. | 321. | 325.                   | 326. | 330. | 337.                  |       |  |  |  |  |  |  |  |  |  |  |  |
| 19515     | P              | 258.                                                   | 267. | 274. | 274. | 278. | 283. | 285. | 286. | 287. | 295.                   | 295. | 302. | 308.                  |       |  |  |  |  |  |  |  |  |  |  |  |
| 19516     | P              | 282.                                                   | 288. | 298. | 306. | 302. | 309. | 311. | 285. | 311. | 315.                   | 323. | 328. | 334.                  |       |  |  |  |  |  |  |  |  |  |  |  |
|           |                | DAY 13                                                 | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   | GRAVID UTERINE WEIGHTS |      |      |                       |       |  |  |  |  |  |  |  |  |  |  |  |
| 19501     | P              | 311.                                                   | 310. | 315. |      |      |      |      |      |      |                        |      |      |                       | 16.56 |  |  |  |  |  |  |  |  |  |  |  |
| 19502     | NP             | 318.                                                   | 314. | 310. |      |      |      |      |      |      |                        |      |      |                       | ----- |  |  |  |  |  |  |  |  |  |  |  |
| 19503     | P              | NO CONFIRMED MATING DATE; DELIVERED ON DAY 66 OF STUDY |      |      |      |      |      |      |      |      |                        |      |      |                       | ----- |  |  |  |  |  |  |  |  |  |  |  |
| 19504     | P              | 342.                                                   | 347. | 348. | 357. | 368. | 385. | 396. | 418. | 430. | 79.93                  |      |      |                       |       |  |  |  |  |  |  |  |  |  |  |  |
| 19505     | P              | 333.                                                   | 337. | 343. | 356. | 374. | 390. | 415. | 433. | 452. | 118.23                 |      |      |                       |       |  |  |  |  |  |  |  |  |  |  |  |
| 19506     | P              | 325.                                                   | 326. | 335. | 340. | 360. | 376. | 397. | 412. | 431. | 99.38                  |      |      |                       |       |  |  |  |  |  |  |  |  |  |  |  |
| 19507     | P              | 312.                                                   | 316. | 304. | 323. | 335. | 350. | 363. | 371. | 394. | 93.66                  |      |      |                       |       |  |  |  |  |  |  |  |  |  |  |  |
| 19508     | P              | 350.                                                   | 349. | 364. |      |      |      |      |      |      |                        |      |      |                       | 21.37 |  |  |  |  |  |  |  |  |  |  |  |
| 19509     | P              | 322.                                                   | 324. | 328. | 333. | 345. | 363. | 380. | 399. | 377. | 86.56                  |      |      |                       |       |  |  |  |  |  |  |  |  |  |  |  |
| 19510     | P              | 330.                                                   | 338. | 339. |      |      |      |      |      |      |                        |      |      |                       | 15.76 |  |  |  |  |  |  |  |  |  |  |  |
| 19511     | P              | 338.                                                   | 345. | 351. |      |      |      |      |      |      |                        |      |      |                       | 27.22 |  |  |  |  |  |  |  |  |  |  |  |
| 19512     | P              | 336.                                                   | 341. | 344. | 354. | 376. | 388. | 406. | 416. | 431. | 96.29                  |      |      |                       |       |  |  |  |  |  |  |  |  |  |  |  |
| 19513     | P              | 374.                                                   | 380. | 386. |      |      |      |      |      |      |                        |      |      |                       | 21.00 |  |  |  |  |  |  |  |  |  |  |  |
| 19514     | NP             | 335.                                                   | 337. | 342. |      |      |      |      |      |      |                        |      |      |                       | ----- |  |  |  |  |  |  |  |  |  |  |  |
| 19515     | P              | 309.                                                   | 313. | 316. |      |      |      |      |      |      |                        |      |      |                       | 17.04 |  |  |  |  |  |  |  |  |  |  |  |
| 19516     | P              | 334.                                                   | 347. | 350. | 357. | 375. | 390. | 412. | 422. | 446. | 99.80                  |      |      |                       |       |  |  |  |  |  |  |  |  |  |  |  |

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)

DAY = DAY OF PRESUMED GESTATION

ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 15 (PAGE 2): MATERNAL BODY WEIGHTS - PRESUMED GESTATION - INDIVIDUAL DATA

| RAT #            | DOSAGE GROUP II                                                                              |                                                                                              |      |      |      |      |      |      |      |                        |      |        |      |
|------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|------|------|------|------|------|------|------|------------------------|------|--------|------|
| 0.1 MG/KG/DAY    |                                                                                              |                                                                                              |      |      |      |      |      |      |      |                        |      |        |      |
| PREGNANCY STATUS | DAY 0                                                                                        | 1                                                                                            | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9                      | 10   | 11     | 12   |
| 19517 NP         | 277.                                                                                         | 276.                                                                                         | 268. | 270. | 272. | 272. | 271. | 272. | 272. | 273.                   | 272. | 274.   | 281. |
| 19518 P          | 308.                                                                                         | 316.                                                                                         | 319. | 320. | 322. | 329. | 333. | 338. | 334. | 334.                   | 339. | 346.   | 347. |
| 19519 P          | 276.                                                                                         | 280.                                                                                         | 288. | 287. | 296. | 296. | 302. | 304. | 307. | 316.                   | 320. | 328.   | 332. |
| 19520            | 247.                                                                                         | MORIBUND SACRIFICED ON DAY 0 OF PRESUMED GESTATION; PREGNANCY STATUS COULD NOT BE DETERMINED |      |      |      |      |      |      |      |                        |      |        |      |
| 19521 P          | 292.                                                                                         | 299.                                                                                         | 308. | 309. | 303. | 306. | 315. | 306. | 313. | 321.                   | 320. | 321.   | 328. |
| 19522 P          | 292.                                                                                         | 295.                                                                                         | 305. | 305. | 308. | 318. | 320. | 320. | 319. | 328.                   | 328. | 332.   | 338. |
| 19523 P          | 288.                                                                                         | 294.                                                                                         | 304. | 310. | 309. | 312. | 315. | 330. | 317. | 318.                   | 332. | 334.   | 336. |
| 19524 P          | 296.                                                                                         | 304.                                                                                         | 311. | 319. | 318. | 327. | 327. | 323. | 331. | 336.                   | 342. | 346.   | 348. |
| 19525 P          | 259.                                                                                         | 261.                                                                                         | 271. | 272. | 274. | 277. | 278. | 281. | 281. | 285.                   | 283. | 287.   | 291. |
| 19526 P          | 278.                                                                                         | 280.                                                                                         | 288. | 287. | 291. | 291. | 294. | 301. | 303. | 306.                   | 308. | 313.   | 317. |
| 19527 P          | 281.                                                                                         | 293.                                                                                         | 294. | 296. | 300. | 302. | 310. | 310. | 303. | 310.                   | 340. | 318.   | 326. |
| 19528 P          | 258.                                                                                         | 275.                                                                                         | 285. | 290. | 300. | 300. | 300. | 308. | 315. | 317.                   | 317. | 330.   | 327. |
| 19529 P          | 258.                                                                                         | 265.                                                                                         | 273. | 268. | 280. | 282. | 282. | 284. | 284. | 289.                   | 292. | 302.   | 298. |
| 19530 P          | 271.                                                                                         | 285.                                                                                         | 293. | 287. | 296. | 297. | 312. | 307. | 309. | 313.                   | 317. | 323.   | 329. |
| 19531 P          | 270.                                                                                         | 270.                                                                                         | 281. | 280. | 290. | 292. | 294. | 296. | 296. | 298.                   | 308. | 312.   | 323. |
| 19532 P          | 281.                                                                                         | 293.                                                                                         | 298. | 297. | 296. | 299. | 306. | 303. | 309. | 316.                   | 312. | 317.   | 328. |
|                  | DAY 13                                                                                       | 14                                                                                           | 15   | 16   | 17   | 18   | 19   | 20   | 21   | GRAVID UTERINE WEIGHTS |      |        |      |
| 19517 NP         | 279.                                                                                         | 273.                                                                                         | 281. |      |      |      |      |      |      |                        |      |        |      |
| 19518 P          | 354.                                                                                         | 357.                                                                                         | 359. | 370. | 385. | 392. | 412. | 424. | 448. |                        |      | 71.83  |      |
| 19519 P          | 333.                                                                                         | 338.                                                                                         | 339. | 361. | 379. | 397. | 414. | 429. | 433. |                        |      | 115.99 |      |
| 19520            | MORIBUND SACRIFICED ON DAY 0 OF PRESUMED GESTATION; PREGNANCY STATUS COULD NOT BE DETERMINED |                                                                                              |      |      |      |      |      |      |      |                        |      |        |      |
| 19521 P          | 336.                                                                                         | 335.                                                                                         | 339. | 353. | 370. | 389. | 402. | 413. | 429. |                        |      | 101.43 |      |
| 19522 P          | 339.                                                                                         | 346.                                                                                         | 355. |      |      |      |      |      |      |                        |      | 18.40  |      |
| 19523 P          | 339.                                                                                         | 346.                                                                                         | 325. | 353. | 368. | 378. | 390. | 405. | 411. |                        |      | 88.34  |      |
| 19524 P          | 351.                                                                                         | 361.                                                                                         | 367. | 373. | 393. | 411. | 430. | 450. | 470. |                        |      | 117.23 |      |
| 19525 P          | 292.                                                                                         | 297.                                                                                         | 303. |      |      |      |      |      |      |                        |      | 8.80   |      |
| 19526 P          | 318.                                                                                         | 322.                                                                                         | 324. |      |      |      |      |      |      |                        |      | 15.42  |      |
| 19527 P          | 328.                                                                                         | 335.                                                                                         | 342. |      |      |      |      |      |      |                        |      | 25.35  |      |
| 19528 P          | 330.                                                                                         | 337.                                                                                         | 329. | 318. | 329. | 343. | 355. | 370. | 378. |                        |      | 42.75  |      |
| 19529 P          | 309.                                                                                         | 308.                                                                                         | 320. | 327. | 344. | 360. | 380. | 400. | 420. |                        |      | 106.57 |      |
| 19530 P          | 333.                                                                                         | 335.                                                                                         | 314. |      |      |      |      |      |      |                        |      | 16.30  |      |
| 19531 P          | 328.                                                                                         | 332.                                                                                         | 333. |      |      |      |      |      |      |                        |      | 21.41  |      |
| 19532 P          | 332.                                                                                         | 332.                                                                                         | 347. |      |      |      |      |      |      |                        |      | 16.54  |      |

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)

DAY = DAY OF PRESUMED GESTATION

ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 15 (PAGE 3): MATERNAL BODY WEIGHTS - PRESUMED GESTATION - INDIVIDUAL DATA

| RAT #            | DOSAGE GROUP III                                                                             |                                                                                              |      |      |      |      |      |      |      |                        |      |      | 0.4 MG/KG/DAY |  |
|------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|------|------|------|------|------|------|------|------------------------|------|------|---------------|--|
| PREGNANCY STATUS | DAY 0                                                                                        | 1                                                                                            | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9                      | 10   | 11   | 12            |  |
| 19533 P          | 267.                                                                                         | 270.                                                                                         | 273. | 273. | 275. | 274. | 278. | 276. | 281. | 278.                   | 282. | 289. | 288.          |  |
| 19534 P          | 323.                                                                                         | 325.                                                                                         | 333. | 329. | 333. | 336. | 342. | 336. | 342. | 345.                   | 341. | 349. | 356.          |  |
| 19535 P          | 253.                                                                                         | 244.                                                                                         | 260. | 266. | 267. | 270. | 274. | 268. | 278. | 281.                   | 281. | 285. | 293.          |  |
| 19536 P          | 274.                                                                                         | 275.                                                                                         | 282. | 285. | 286. | 289. | 289. | 290. | 293. | 295.                   | 296. | 304. | 310.          |  |
| 19537 P          | 257.                                                                                         | 257.                                                                                         | 266. | 265. | 268. | 269. | 272. | 257. | 264. | 266.                   | 267. | 275. | 279.          |  |
| 19538 P          | 260.                                                                                         | 267.                                                                                         | 268. | 274. | 272. | 278. | 279. | 269. | 279. | 280.                   | 285. | 289. | 297.          |  |
| 19539 P          | 262.                                                                                         | 261.                                                                                         | 271. | 277. | 280. | 284. | 286. | 279. | 292. | 298.                   | 296. | 303. | 306.          |  |
| 19540 P          | 285.                                                                                         | 291.                                                                                         | 301. | 302. | 310. | 310. | 315. | 303. | 308. | 319.                   | 320. | 320. | 330.          |  |
| 19541            | 234.                                                                                         | MORIBUND SACRIFICED ON DAY 0 OF PRESUMED GESTATION; PREGNANCY STATUS COULD NOT BE DETERMINED |      |      |      |      |      |      |      |                        |      |      |               |  |
| 19542 P          | 284.                                                                                         | 292.                                                                                         | 294. | 294. | 297. | 302. | 306. | 304. | 303. | 304.                   | 310. | 317. | 324.          |  |
| 19543 P          | 304.                                                                                         | 316.                                                                                         | 318. | 319. | 323. | 328. | 327. | 331. | 331. | 333.                   | 338. | 328. | 349.          |  |
| 19544 P          | 290.                                                                                         | 304.                                                                                         | 314. | 310. | 308. | 306. | 313. | 315. | 327. | 313.                   | 320. | 328. | 330.          |  |
| 19545 NP         | MATING NOT CONFIRMED                                                                         |                                                                                              |      |      |      |      |      |      |      |                        |      |      |               |  |
| 19546 P          | 296.                                                                                         | 286.                                                                                         | 300. | 307. | 310. | 312. | 317. | 304. | 298. | 316.                   | 326. | 331. | 333.          |  |
| 19547 P          | 272.                                                                                         | 285.                                                                                         | 288. | 292. | 292. | 296. | 290. | 289. | 315. | 294.                   | 296. | 302. | 314.          |  |
| 19548 NP         | 270.                                                                                         | 276.                                                                                         | 279. | 280. | 284. | 283. | 283. | 267. | 284. | 288.                   | 288. | 287. | 292.          |  |
|                  | DAY 13                                                                                       | 14                                                                                           | 15   | 16   | 17   | 18   | 19   | 20   | 21   | GRAVID UTERINE WEIGHTS |      |      |               |  |
| 19533 P          | 294.                                                                                         | 298.                                                                                         | 298. | 306. | 323. | 338. | 352. | 371. | 387. | 85.28                  |      |      |               |  |
| 19534 P          | 363.                                                                                         | 367.                                                                                         | 334. | 378. | 380. | 400. | 405. | 438. | 445. | 94.87                  |      |      |               |  |
| 19535 P          | 303.                                                                                         | 305.                                                                                         | 312. |      |      |      |      |      |      | 9.30                   |      |      |               |  |
| 19536 P          | 315.                                                                                         | 320.                                                                                         | 317. | 338. | 353. | 371. | 397. | 418. | 429. | 123.08                 |      |      |               |  |
| 19537 P          | 281.                                                                                         | 284.                                                                                         | 285. |      |      |      |      |      |      | 6.02                   |      |      |               |  |
| 19538 P          | 301.                                                                                         | 302.                                                                                         | 291. |      |      |      |      |      |      | 18.47                  |      |      |               |  |
| 19539 P          | 310.                                                                                         | 321.                                                                                         | 319. |      |      |      |      |      |      | 19.11                  |      |      |               |  |
| 19540 P          | 331.                                                                                         | 340.                                                                                         | 335. |      |      |      |      |      |      | 20.45                  |      |      |               |  |
| 19541            | MORIBUND SACRIFICED ON DAY 0 OF PRESUMED GESTATION; PREGNANCY STATUS COULD NOT BE DETERMINED |                                                                                              |      |      |      |      |      |      |      |                        |      |      |               |  |
| 19542 P          | 343.                                                                                         | 334.                                                                                         | 339. |      |      |      |      |      |      | 19.46                  |      |      |               |  |
| 19543 P          | 353.                                                                                         | 361.                                                                                         | 364. | 375. | 396. | 419. | 430. | 447. | 458. | 116.27                 |      |      |               |  |
| 19544 P          | 329.                                                                                         | 333.                                                                                         | 345. |      |      |      |      |      |      | 16.14                  |      |      |               |  |
| 19545 NP         | MATING NOT CONFIRMED                                                                         |                                                                                              |      |      |      |      |      |      |      |                        |      |      |               |  |
| 19546 P          | 334.                                                                                         | 339.                                                                                         | 333. | 350. | 353. | 371. | 375. | 377. | 396. | 36.94                  |      |      |               |  |
| 19547 P          | 314.                                                                                         | 323.                                                                                         | 333. |      |      |      |      |      |      | 21.57                  |      |      |               |  |
| 19548 NP         | 296.                                                                                         | 291.                                                                                         | 286. | 284. | 284. | 284. | 285. | 291. | 294. |                        |      |      |               |  |

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)

DAY = DAY OF PRESUMED GESTATION

ALL WEIGHTS WERE RECORDED IN GRAMS (G).



PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 15 (PAGE 4): MATERNAL BODY WEIGHTS - PRESUMED GESTATION - INDIVIDUAL DATA

| RAT #         | DOSAGE GROUP IV                                                |        |      |      |      |      |      |      |      |        |                        |      |       |    |
|---------------|----------------------------------------------------------------|--------|------|------|------|------|------|------|------|--------|------------------------|------|-------|----|
| 1.6 MG/KG/DAY |                                                                |        |      |      |      |      |      |      |      |        |                        |      |       |    |
| PREGNANCY     | STATUS                                                         | DAY 0  | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8      | 9                      | 10   | 11    | 12 |
| 19549 NP      | MATING NOT CONFIRMED                                           |        |      |      |      |      |      |      |      |        |                        |      |       |    |
| 19550 P       | 276.                                                           | 276.   | 279. | 279. | 278. | 284. | 290. | 266. | 281. | 291.   | 294.                   | 303. | 312.  |    |
| 19551 NP      | MATING NOT CONFIRMED                                           |        |      |      |      |      |      |      |      |        |                        |      |       |    |
| 19552 NP      | MATING NOT CONFIRMED                                           |        |      |      |      |      |      |      |      |        |                        |      |       |    |
| 19553 P       | 245.                                                           | 245.   | 252. | 254. | 256. | 253. | 255. | 256. | 259. | 261.   | 269.                   | 275. | 277.  |    |
| 19554 P       | 282.                                                           | 275.   | 282. | 278. | 280. | 282. | 286. | 282. | 286. | 288.   | 296.                   | 299. | 303.  |    |
| 19555 NP      | 292.                                                           | 293.   | 300. | 299. | 301. | 300. | 295. | 296. | 287. | 293.   | 287.                   | 294. | 296.  |    |
| 19556 NP      | 267.                                                           | 268.   | 261. | 264. | 266. | 264. | 258. | 262. | 263. | 261.   | 259.                   | 267. | 266.  |    |
| 19557         | MORIBUND SACRIFICED ON DAY 43 OF STUDY (DAY 2 OF COHABITATION) |        |      |      |      |      |      |      |      |        |                        |      |       |    |
| 19558 P       | 286.                                                           | 287.   | 302. | 305. | 303. | 308. | 299. | 297. | 309. | 302.   | 306.                   | 317. | 324.  |    |
| 19559 NP      | 260.                                                           | 260.   | 264. | 267. | 265. | 269. | 268. | 268. | 271. | 273.   | 276.                   | 279. | 273.  |    |
| 19560 P       | 274.                                                           | 278.   | 283. | 286. | 284. | 291. | 288. | 286. | 285. | 291.   | 290.                   | 295. | 296.  |    |
| 19561a        | 254.                                                           | 260.   | 262. | 259. | 264. | 265. | 262. | 268. | 262. | 266.   | 268.                   | 271. | 265.  |    |
| 19562 P       | 272.                                                           | 277.   | 282. | 283. | 283. | 288. | 292. | 285. | 287. | 294.   | 300.                   | 306. | 313.  |    |
| 19563 P       | 256.                                                           | 263.   | 273. | 267. | 270. | 266. | 267. | 266. | 265. | 264.   | 268.                   | 276. | 279.  |    |
| 19564 P       | 258.                                                           | 257.   | 264. | 266. | 268. | 268. | 273. | 271. | 274. | 276.   | 279.                   | 283. | 288.  |    |
|               |                                                                | DAY 13 | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21     | GRAVID UTERINE WEIGHTS |      |       |    |
| 19549 NP      | MATING NOT CONFIRMED                                           |        |      |      |      |      |      |      |      |        |                        |      |       |    |
| 19550 P       | 311.                                                           | 314.   | 322. |      |      |      |      |      |      |        |                        |      | 17.57 |    |
| 19551 NP      | MATING NOT CONFIRMED                                           |        |      |      |      |      |      |      |      |        |                        |      |       |    |
| 19552 NP      | MATING NOT CONFIRMED                                           |        |      |      |      |      |      |      |      |        |                        |      |       |    |
| 19553 P       | 286.                                                           | 287.   | 292. |      |      |      |      |      |      |        |                        |      | 18.42 |    |
| 19554 P       | 307.                                                           | 318.   | 323. |      |      |      |      |      |      |        |                        |      | 17.90 |    |
| 19555 NP      | 298.                                                           | 296.   | 299. |      |      |      |      |      |      |        |                        |      |       |    |
| 19556 NP      | 268.                                                           | 263.   | 261. | 268. | 270. | 265. | 272. | 276. | 270. |        |                        |      |       |    |
| 19557         | MORIBUND SACRIFICED ON DAY 43 OF STUDY (DAY 2 OF COHABITATION) |        |      |      |      |      |      |      |      |        |                        |      |       |    |
| 19558 P       | 324.                                                           | 337.   | 332. |      |      |      |      |      |      |        |                        |      | 19.53 |    |
| 19559 NP      | 267.                                                           | 259.   | 250. | 252. | 254. | 252. | 258. | 258. | 257. |        |                        |      |       |    |
| 19560 P       | 309.                                                           | 308.   | 319. | 328. | 349. | 363. | 377. | 389. | 410. |        |                        |      |       |    |
| 19561a        | 260.                                                           | 262.   | 263. |      |      |      |      |      |      |        |                        |      | 86.60 |    |
| 19562 P       | 316.                                                           | 326.   | 328. | 350. | 366. | 392. | 412. | 438. | 443. | 138.89 |                        |      |       |    |
| 19563 P       | 278.                                                           | 285.   | 295. |      |      |      |      |      |      |        |                        |      | 16.06 |    |
| 19564 P       | 287.                                                           | 292.   | 295. |      |      |      |      |      |      |        |                        |      | 16.16 |    |

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)

DAY = DAY OF PRESUMED GESTATION

ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Necropsy and Caesarean-section observations were not recorded for rat 19561.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 15 (PAGE 5): MATERNAL BODY WEIGHTS - PRESUMED GESTATION - INDIVIDUAL DATA

| RAT #            | DOSAGE GROUP V       |      |      |      |      |      |      |      |      |                        |      |       |      |
|------------------|----------------------|------|------|------|------|------|------|------|------|------------------------|------|-------|------|
| 3.2 MG/KG/DAY    |                      |      |      |      |      |      |      |      |      |                        |      |       |      |
| PREGNANCY STATUS | DAY 0                | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9                      | 10   | 11    | 12   |
| 19565 P          | 234.                 | 224. | 227. | 228. | 229. | 230. | 234. | 219. | 234. | 240.                   | 250. | 251.  | 257. |
| 19566 P          | 244.                 | 252. | 249. | 251. | 246. | 244. | 244. | 245. | 241. | 249.                   | 266. | 270.  | 271. |
| 19567 P          | 228.                 | 226. | 228. | 230. | 231. | 234. | 237. | 236. | 245. | 250.                   | 254. | 256.  | 261. |
| 19568 P          | 259.                 | 263. | 264. | 266. | 266. | 270. | 270. | 264. | 270. | 275.                   | 276. | 284.  | 287. |
| 19569 P          | 249.                 | 247. | 248. | 247. | 244. | 252. | 252. | 248. | 245. | 249.                   | 262. | 256.  | 265. |
| 19570 P          | 257.                 | 257. | 258. | 260. | 253. | 266. | 265. | 260. | 265. | 272.                   | 275. | 281.  | 282. |
| 19571 P          | 245.                 | 247. | 249. | 253. | 256. | 255. | 259. | 245. | 245. | 259.                   | 268. | 275.  | 278. |
| 19572 P          | 250.                 | 255. | 252. | 255. | 253. | 257. | 259. | 259. | 262. | 261.                   | 264. | 277.  | 275. |
| 19573 P          | 229.                 | 225. | 223. | 227. | 238. | 244. | 247. | 250. | 243. | 248.                   | 256. | 260.  | 266. |
| 19574 P          | 252.                 | 253. | 256. | 261. | 261. | 261. | 266. | 245. | 254. | 262.                   | 275. | 275.  | 279. |
| 19575 P          | 243.                 | 239. | 239. | 228. | 239. | 242. | 250. | 256. | 250. | 252.                   | 269. | 268.  | 277. |
| 19576 NP         | MATING NOT CONFIRMED |      |      |      |      |      |      |      |      |                        |      |       |      |
| 19577 P          | 230.                 | 229. | 230. | 227. | 219. | 208. | 208. | 219. | 217. | 221.                   | 230. | 236.  | 240. |
| 19578 NP         | MATING NOT CONFIRMED |      |      |      |      |      |      |      |      |                        |      |       |      |
| 19579 P          | 219.                 | 216. | 213. | 211. | 213. | 227. | 223. | 217. | 222. | 229.                   | 238. | 236.  | 236. |
| 19580 P          | 237.                 | 235. | 242. | 235. | 240. | 244. | 244. | 236. | 240. | 245.                   | 251. | 266.  | 260. |
|                  | DAY 13               | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   | GRAVID UTERINE WEIGHTS |      |       |      |
| 19565 P          | 259.                 | 264. | 261. |      |      |      |      |      |      |                        |      | 7.98  |      |
| 19566 P          | 278.                 | 286. | 285. |      |      |      |      |      |      |                        |      | 15.83 |      |
| 19567 P          | 269.                 | 278. | 266. |      |      |      |      |      |      |                        |      | 17.59 |      |
| 19568 P          | 288.                 | 291. | 290. | 296. | 312. | 315. | 328. | 341. | 351. |                        |      | 41.84 |      |
| 19569 P          | 264.                 | 266. | 278. | 287. | 306. | 319. | 334. | 346. | 349. |                        |      | 86.30 |      |
| 19570 P          | 294.                 | 302. | 291. |      |      |      |      |      |      |                        |      | 20.43 |      |
| 19571 P          | 288.                 | 293. | 297. | 304. | 332. | 346. | 357. | 369. | 385. |                        |      | ----- |      |
| 19572 P          | 282.                 | 290. | 276. | 300. | 317. | 330. | 349. | 360. | 376. |                        |      | 78.32 |      |
| 19573 P          | 268.                 | 273. | 275. |      |      |      |      |      |      |                        |      | 17.44 |      |
| 19574 P          | 285.                 | 288. | 291. |      |      |      |      |      |      |                        |      | 17.60 |      |
| 19575 P          | 294.                 | 292. | 299. |      |      |      |      |      |      |                        |      | 19.43 |      |
| 19576 NP         | MATING NOT CONFIRMED |      |      |      |      |      |      |      |      |                        |      |       |      |
| 19577 P          | 247.                 | 245. | 248. | 258. | 264. | 274. | 280. | 286. | 295. |                        |      | 31.64 |      |
| 19578 NP         | MATING NOT CONFIRMED |      |      |      |      |      |      |      |      |                        |      |       |      |
| 19579 P          | 240.                 | 248. | 250. | 258. | 269. | 288. | 299. | 304. | 320. |                        |      | ----- |      |
| 19580 P          | 266.                 | 270. | 275. |      |      |      |      |      |      |                        |      | 20.54 |      |

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)

DAY = DAY OF PRESUMED GESTATION

ALL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 16 (PAGE 1): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA

| RAT # | DOSAGE GROUP I |      |       |        |        |        |        | 0 (VEHICLE) MG/KG/DAY |
|-------|----------------|------|-------|--------|--------|--------|--------|-----------------------|
|       | DAYS           | 1- 8 | 8- 15 | 15- 22 | 22- 29 | 29- 36 | 36- 41 | 41- 42a               |
| 19501 |                | 131. | 114.  | 129.   | b      | 124.   | 92.    | 18.                   |
| 19502 |                | 131. | 123.  | 128.   | 119.   | 107.   | 81.    | 19.                   |
| 19503 |                | 138. | 145.  | 150.   | 128.   | 141.   | 100.   | 23.                   |
| 19504 |                | 144. | 147.  | 152.   | 140.   | 141.   | 95.    | 20.                   |
| 19505 |                | 144. | b     | 140.   | b      | 143.   | 90.    | 22.                   |
| 19506 |                | 147. | b     | 147.   | 133.   | 122.   | b      | 24.                   |
| 19507 |                | 141. | b     | b      | 146.   | 148.   | 97.    | 19.                   |
| 19508 |                | 124. | 131.  | 144.   | 129.   | 130.   | b      | 21.                   |
| 19509 |                | 123. | 128.  | 127.   | 121.   | 120.   | b      | 23.                   |
| 19510 |                | 161. | b     | b      | b      | 132.   | b      | 18.                   |
| 19511 |                | 149. | b     | 150.   | 150.   | 140.   | 99.    | 22.                   |
| 19512 |                | 126. | 124.  | 131.   | 133.   | 120.   | 93.    | 16.                   |
| 19513 |                | b    | 149.  | 167.   | b      | 158.   | 114.   | b                     |
| 19514 |                | 156. | 144.  | 140.   | 141.   | 131.   | 92.    | b                     |
| 19515 |                | 120. | 120.  | 138.   | 107.   | 106.   | 88.    | c                     |
| 19516 |                | 130. | 122.  | 123.   | 120.   | 135.   | 87.    | 14.                   |

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 incorrectly recorded and was excluded from group averages and statistical analyses.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 16 (PAGE 2): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA

| RAT # | DOSAGE GROUP II |       |        |        |        |        |         |
|-------|-----------------|-------|--------|--------|--------|--------|---------|
|       | 0.1 MG/KG/DAY   |       |        |        |        |        |         |
| DAYS  | 1- 8            | 8- 15 | 15- 22 | 22- 29 | 29- 36 | 36- 41 | 41- 42a |
| 19517 | 127.            | 116.  | 119.   | 126.   | 109.   | 87.    | 11.     |
| 19518 | 143.            | 139.  | 137.   | 135.   | 129.   | 98.    | 21.     |
| 19519 | 128.            | 128.  | 130.   | 128.   | 125.   | 83.    | 16.     |
| 19520 | 122.            | 115.  | 125.   | 132.   | 132.   | 87.    | 15.     |
| 19521 | 148.            | 143.  | 149.   | 152.   | 143.   | 115.   | 16.     |
| 19522 | 138.            | 126.  | 125.   | b      | 124.   | 87.    | 19.     |
| 19523 | 120.            | b     | 150.   | 119.   | 120.   | 83.    | 18.     |
| 19524 | 140.            | 150.  | 149.   | 153.   | 127.   | 99.    | 18.     |
| 19525 | 121.            | 119.  | 123.   | 108.   | 114.   | 73.    | 17.     |
| 19526 | 140.            | 148.  | 146.   | 148.   | 151.   | 97.    | 18.     |
| 19527 | 145.            | 138.  | 144.   | 124.   | 121.   | 82.    | 23.     |
| 19528 | 137.            | 124.  | 128.   | 126.   | 111.   | 84.    | 16.     |
| 19529 | 146.            | 131.  | 127.   | 117.   | 112.   | 88.    | 20.     |
| 19530 | 129.            | 135.  | 145.   | 140.   | 128.   | 94.    | 19.     |
| 19531 | 154.            | 142.  | 153.   | 144.   | 143.   | 102.   | 20.     |
| 19532 | 133.            | 121.  | 133.   | 136.   | 135.   | 85.    | 14.     |

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 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 16 (PAGE 3): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA

| RAT # | DOSAGE GROUP III |       |        |        |        |        |         |
|-------|------------------|-------|--------|--------|--------|--------|---------|
|       | 0.4 MG/KG/DAY    |       |        |        |        |        |         |
| DAYS  | 1- 8             | 8- 15 | 15- 22 | 22- 29 | 29- 36 | 36- 41 | 41- 42a |
| 19533 | 125.             | 108.  | 122.   | 113.   | 126.   | 88.    | 17.     |
| 19534 | 151.             | 131.  | 152.   | 141.   | 129.   | 94.    | 23.     |
| 19535 | 115.             | 103.  | 122.   | 117.   | 118.   | 84.    | 15.     |
| 19536 | 124.             | 123.  | 125.   | 122.   | 121.   | 79.    | 20.     |
| 19537 | 130.             | 118.  | 118.   | 109.   | 122.   | 80.    | 20.     |
| 19538 | 129.             | 115.  | 118.   | 117.   | 115.   | 87.    | 17.     |
| 19539 | 117.             | 105.  | 114.   | 110.   | 115.   | 79.    | 15.     |
| 19540 | 122.             | 122.  | 132.   | 133.   | 133.   | 87.    | 18.     |
| 19541 | 112.             | 112.  | 117.   | 112.   | 127.   | 85.    | b       |
| 19542 | 144.             | 135.  | 132.   | c      | 123.   | 87.    | c       |
| 19543 | 149.             | 138.  | c      | 150.   | 126.   | 101.   | c       |
| 19544 | 138.             | 135.  | 140.   | 133.   | 130.   | 97.    | 24.     |
| 19545 | 130.             | 123.  | 128.   | c      | 124.   | 94.    | 19.     |
| 19546 | 146.             | c     | 168.   | 162.   | 158.   | c      | 21.     |
| 19547 | 127.             | 124.  | 126.   | 134.   | 139.   | 96.    | 21.     |
| 19548 | 146.             | 131.  | 134.   | 123.   | 118.   | 78.    | 16.     |

DAYS = DAYS OF STUDY

ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Last value recorded before cohabitation.

b. Value was incorrectly recorded and was excluded from group averages and statistical analyses.

c. Spilled feed precluded the calculation of this value.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 16 (PAGE 4): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA

| RAT # | DOSAGE GROUP IV |       |        |        |        |        |         |
|-------|-----------------|-------|--------|--------|--------|--------|---------|
|       | 1.6 MG/KG/DAY   |       |        |        |        |        |         |
| DAYS  | 1- 8            | 8- 15 | 15- 22 | 22- 29 | 29- 36 | 36- 41 | 41- 42a |
| 19549 | 127.            | 121.  | b      | 118.   | 124.   | 92.    | 18.     |
| 19550 | 146.            | b     | 123.   | 107.   | 108.   | 75.    | 15.     |
| 19551 | 141.            | 142.  | 137.   | 126.   | 125.   | 74.    | 16.     |
| 19552 | 121.            | 103.  | 108.   | 105.   | 104.   | 82.    | 17.     |
| 19553 | 131.            | 145.  | 116.   | b      | 122.   | b      | 17.     |
| 19554 | 141.            | 147.  | b      | b      | 139.   | 96.    | 18.     |
| 19555 | b               | 123.  | 141.   | 138.   | 122.   | 89.    | 13.     |
| 19556 | 127.            | 130.  | 135.   | 125.   | 111.   | 77.    | 15.     |
| 19557 | 124.            | 124.  | 124.   | 111.   | 108.   | 72.    | c       |
| 19558 | 144.            | 143.  | 140.   | 140.   | 140.   | 98.    | b       |
| 19559 | 137.            | 122.  | b      | b      | 115.   | 92.    | b       |
| 19560 | 132.            | 122.  | 115.   | 118.   | 121.   | 85.    | 12.     |
| 19561 | 109.            | 118.  | 119.   | 116.   | 111.   | 87.    | 10.     |
| 19562 | 140.            | 119.  | 129.   | 123.   | 120.   | 84.    | 16.     |
| 19563 | 143.            | 138.  | 137.   | 134.   | 142.   | 105.   | 21.     |
| 19564 | 120.            | 111.  | 109.   | 105.   | 105.   | 77.    | 9.      |

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 incorrectly recorded and was excluded from group averages and statistical analyses.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 16 (PAGE 5): FEED CONSUMPTION VALUES - PRECOHABITATION - INDIVIDUAL DATA

| RAT # | DOSAGE GROUP V |       |        |        |        |        |         |
|-------|----------------|-------|--------|--------|--------|--------|---------|
|       | 3.2 MG/KG/DAY  |       |        |        |        |        |         |
| DAYS  | 1- 8           | 8- 15 | 15- 22 | 22- 29 | 29- 36 | 36- 41 | 41- 42a |
| 19565 | 118.           | 109.  | 102.   | 104.   | 100.   | 68.    | 11.     |
| 19566 | 143.           | 119.  | 124.   | 106.   | 103.   | 78.    | 17.     |
| 19567 | 125.           | 101.  | 105.   | 101.   | 97.    | 72.    | 14.     |
| 19568 | 132.           | 123.  | 125.   | 117.   | 114.   | 81.    | 18.     |
| 19569 | 141.           | 117.  | 114.   | 100.   | 113.   | 67.    | 10.     |
| 19570 | 139.           | 128.  | 144.   | 120.   | 118.   | 84.    | 17.     |
| 19571 | 140.           | 122.  | 115.   | 112.   | 95.    | 73.    | 15.     |
| 19572 | 117.           | 118.  | 111.   | 112.   | 93.    | 73.    | 19.     |
| 19573 | 132.           | 113.  | 110.   | 98.    | 117.   | 73.    | b       |
| 19574 | 157.           | b     | b      | 117.   | 113.   | b      | b       |
| 19575 | 144.           | 125.  | 114.   | 115.   | 97.    | 77.    | c       |
| 19576 | 141.           | 121.  | 116.   | 122.   | 126.   | 82.    | 9.      |
| 19577 | 126.           | 128.  | 103.   | 76.    | 90.    | 68.    | 10.     |
| 19578 | 135.           | 123.  | 111.   | 116.   | 103.   | 77.    | 15.     |
| 19579 | 128.           | 90.   | b      | 91.    | b      | 80.    | 13.     |
| 19580 | 127.           | 103.  | 111.   | 112.   | 106.   | 74.    | 13.     |

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 incorrectly recorded and was excluded from group averages and statistical analyses.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 17 (PAGE 1): MATERNAL FEED CONSUMPTION VALUES - PRESUMED GESTATION - INDIVIDUAL DATA

| RAT #                                                                | DOSAGE GROUP I |                                                        |       |       |       |       |       |       |       |       |        |         |         |         | 0 (VEHICLE) MG/KG/DAY |  |  |
|----------------------------------------------------------------------|----------------|--------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|-----------------------|--|--|
| PREGNANCY                                                            |                |                                                        |       |       |       |       |       |       |       |       |        |         |         |         |                       |  |  |
| STATUS                                                               | DAYS           | 0 - 1                                                  | 1 - 2 | 2 - 3 | 3 - 4 | 4 - 5 | 5 - 6 | 6 - 7 | 7 - 8 | 8 - 9 | 9 - 10 | 10 - 11 | 11 - 12 | 12 - 13 |                       |  |  |
| 19501                                                                | P              | 17.                                                    | 20.   | 22.   | 22.   | 24.   | 23.   | 22.   | 24.   | 22.   | 23.    | 23.     | 18.     | 24.     |                       |  |  |
| 19502                                                                | NP             | 21.                                                    | 22.   | 22.   | 23.   | 22.   | 23.   | 23.   | 21.   | 19.   | 24.    | 22.     | 21.     | 24.     |                       |  |  |
| 19503                                                                | P              | NO CONFIRMED MATING DATE; DELIVERED ON DAY 66 OF STUDY |       |       |       |       |       |       |       |       |        |         |         |         |                       |  |  |
| 19504                                                                | P              | 23.                                                    | 24.   | 22.   | 22.   | 27.   | 21.   | 24.   | 25.   | 24.   | 24.    | 28.     | 28.     | 23.     |                       |  |  |
| 19505                                                                | P              | 22.                                                    | 21.   | 24.   | 23.   | 24.   | 25.   | 22.   | 22.   | 23.   | 26.    | 25.     | 26.     | 25.     |                       |  |  |
| 19506                                                                | P              | 24.                                                    | 29.   | 28.   | 23.   | 25.   | 26.   | 23.   | 23.   | 27.   | 26.    | 18.     | 28.     | 24.     |                       |  |  |
| 19507                                                                | P              | 27.                                                    | 32.   | 27.   | 21.   | 28.   | 25.   | 20.   | 17.   | 25.   | 24.    | 24.     | 24.     | 22.     |                       |  |  |
| 19508                                                                | P              | 21.                                                    | 23.   | 26.   | 24.   | 23.   | 24.   | 24.   | 21.   | 25.   | 25.    | 25.     | 29.     | 26.     |                       |  |  |
| 19509                                                                | P              | 20.                                                    | 22.   | 23.   | 23.   | 24.   | 27.   | 22.   | 21.   | 25.   | 25.    | 25.     | 26.     | 23.     |                       |  |  |
| 19510                                                                | P              | 16.                                                    | 25.   | 23.   | 26.   | 45.   | 30.   | 27.   | 23.   | 27.   | 29.    | 28.     | 26.     | 29.     |                       |  |  |
| 19511                                                                | P              | 18.                                                    | 23.   | 23.   | 24.   | 25.   | 23.   | 26.   | 22.   | 22.   | 22.    | 21.     | 22.     | 24.     |                       |  |  |
| 19512                                                                | P              | 24.                                                    | 21.   | 23.   | 24.   | 21.   | 24.   | 19.   | 21.   | 21.   | 22.    | 19.     | 23.     | 22.     |                       |  |  |
| 19513                                                                | P              | 22.                                                    | 21.   | 25.   | 29.   | 27.   | 28.   | 29.   | 24.   | 25.   | 28.    | 26.     | 26.     | 29.     |                       |  |  |
| 19514                                                                | NP             | 21.                                                    | 13.   | 21.   | 24.   | 24.   | 26.   | 27.   | 24.   | 28.   | 28.    | 26.     | 27.     | 29.     |                       |  |  |
| 19515                                                                | P              | 22.                                                    | 21.   | 22.   | 22.   | 23.   | 23.   | 24.   | 22.   | 24.   | 23.    | 23.     | 27.     | 21.     |                       |  |  |
| 19516                                                                | P              | 20.                                                    | 26.   | 22.   | 24.   | 24.   | 24.   | 17.   | 24.   | 20.   | 23.    | 25.     | 28.     | 26.     |                       |  |  |
| DAYS 13 - 14 14 - 15 15 - 16 16 - 17 17 - 18 18 - 19 19 - 20 20 - 21 |                |                                                        |       |       |       |       |       |       |       |       |        |         |         |         |                       |  |  |
| 19501                                                                | P              | 23.                                                    | 18.   |       |       |       |       |       |       |       |        |         |         |         |                       |  |  |
| 19502                                                                | NP             | 19.                                                    | 16.   |       |       |       |       |       |       |       |        |         |         |         |                       |  |  |
| 19503                                                                | P              | NO CONFIRMED MATING DATE; DELIVERED ON DAY 66 OF STUDY |       |       |       |       |       |       |       |       |        |         |         |         |                       |  |  |
| 19504                                                                | P              | 25.                                                    | 20.   | 25.   | 28.   | 27.   | 24.   | 33.   | 26.   |       |        |         |         |         |                       |  |  |
| 19505                                                                | P              | 26.                                                    | 23.   | 23.   | 29.   | 28.   | 28.   | 27.   | 24.   |       |        |         |         |         |                       |  |  |
| 19506                                                                | P              | 21.                                                    | 25.   | 22.   | 25.   | 28.   | 25.   | 22.   | 23.   |       |        |         |         |         |                       |  |  |
| 19507                                                                | P              | 21.                                                    | 17.   | 22.   | 27.   | 28.   | 27.   | 16.   | 23.   |       |        |         |         |         |                       |  |  |
| 19508                                                                | P              | 23.                                                    | 25.   |       |       |       |       |       |       |       |        |         |         |         |                       |  |  |
| 19509                                                                | P              | 20.                                                    | 25.   | 18.   | 20.   | 25.   | 23.   | 24.   | 11.   |       |        |         |         |         |                       |  |  |
| 19510                                                                | P              | 25.                                                    | 18.   |       |       |       |       |       |       |       |        |         |         |         |                       |  |  |
| 19511                                                                | P              | 21.                                                    | 17.   |       |       |       |       |       |       |       |        |         |         |         |                       |  |  |
| 19512                                                                | P              | 20.                                                    | 17.   | 28.   | 24.   | 24.   | 23.   | 25.   | 17.   |       |        |         |         |         |                       |  |  |
| 19513                                                                | P              | 26.                                                    | 23.   |       |       |       |       |       |       |       |        |         |         |         |                       |  |  |
| 19514                                                                | NP             | 26.                                                    | 22.   |       |       |       |       |       |       |       |        |         |         |         |                       |  |  |
| 19515                                                                | P              | 24.                                                    | 20.   |       |       |       |       |       |       |       |        |         |         |         |                       |  |  |
| 19516                                                                | P              | 27.                                                    | 23.   | 24.   | 31.   | 26.   | 30.   | 26.   | 25.   |       |        |         |         |         |                       |  |  |

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)  
DAYS = DAYS OF PRESUMED GESTATION  
ALL WEIGHTS WERE RECORDED IN GRAMS (G).



PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 17 (PAGE 2): MATERNAL FEED CONSUMPTION VALUES - PRESUMED GESTATION - INDIVIDUAL DATA

| RAT #                                                                | DOSAGE GROUP II<br>0.1 MG/KG/DAY                                                             |       |       |       |       |       |       |       |       |       |        |         |         |         |
|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|
| PREGNANCY<br>STATUS                                                  | DAYS                                                                                         | 0 - 1 | 1 - 2 | 2 - 3 | 3 - 4 | 4 - 5 | 5 - 6 | 6 - 7 | 7 - 8 | 8 - 9 | 9 - 10 | 10 - 11 | 11 - 12 | 12 - 13 |
| 19517 NP                                                             |                                                                                              | 21.   | 12.   | 16.   | 19.   | 18.   | 15.   | 18.   | 16.   | 16.   | 14.    | 17.     | 21.     | 18.     |
| 19518 P                                                              |                                                                                              | 26.   | 24.   | 26.   | 23.   | 24.   | 28.   | 25.   | 25.   | 25.   | 23.    | 26.     | 27.     | 25.     |
| 19519 P                                                              |                                                                                              | 19.   | 23.   | 15.   | 23.   | 21.   | 24.   | 27.   | 20.   | 25.   | 24.    | 26.     | 21.     | 26.     |
| 19520                                                                | MORIBUND SACRIFICED ON DAY 0 OF PRESUMED GESTATION; PREGNANCY STATUS COULD NOT BE DETERMINED |       |       |       |       |       |       |       |       |       |        |         |         |         |
| 19521 P                                                              |                                                                                              | 25.   | 23.   | 25.   | 19.   | 21.   | 22.   | 15.   | 24.   | 24.   | 25.    | 22.     | 23.     | 25.     |
| 19522 P                                                              |                                                                                              | 17.   | 23.   | 20.   | 22.   | 23.   | 23.   | 24.   | 19.   | 25.   | 22.    | 23.     | 24.     | 25.     |
| 19523 P                                                              |                                                                                              | 22.   | 21.   | 25.   | 23.   | 24.   | 24.   | 21.   | 22.   | 25.   | 25.    | 24.     | 26.     | 26.     |
| 19524 P                                                              |                                                                                              | 23.   | 24.   | 29.   | 27.   | 29.   | 28.   | 25.   | 26.   | 27.   | 32.    | 29.     | 26.     | 27.     |
| 19525 P                                                              |                                                                                              | 16.   | 21.   | 19.   | 21.   | 19.   | 19.   | 22.   | 20.   | 19.   | 18.    | 20.     | 21.     | 23.     |
| 19526 P                                                              |                                                                                              | 20.   | 25.   | 23.   | 26.   | 23.   | 23.   | 28.   | 22.   | 24.   | 25.    | 23.     | 24.     | 26.     |
| 19527 P                                                              |                                                                                              | 20.   | 19.   | 20.   | 21.   | 18.   | 24.   | 26.   | 18.   | 22.   | 19.    | 19.     | 27.     | 20.     |
| 19528 P                                                              |                                                                                              | 25.   | 24.   | 28.   | 28.   | 26.   | 26.   | 30.   | 26.   | 29.   | 24.    | 30.     | 24.     | 30.     |
| 19529 P                                                              |                                                                                              | 21.   | 23.   | 20.   | 26.   | 22.   | 21.   | 24.   | 18.   | 24.   | 21.    | 22.     | 20.     | 26.     |
| 19530 P                                                              |                                                                                              | 22.   | 27.   | 23.   | 29.   | 25.   | 30.   | 24.   | 26.   | 28.   | 27.    | 25.     | 24.     | 28.     |
| 19531 P                                                              |                                                                                              | 16.   | 21.   | 24.   | 28.   | 24.   | 24.   | 25.   | 22.   | 28.   | 26.    | 26.     | 28.     | 29.     |
| 19532 P                                                              |                                                                                              | 20.   | 23.   | 20.   | 23.   | 23.   | 25.   | 22.   | 23.   | 27.   | 24.    | 22.     | 25.     | 28.     |
| DAYS 13 - 14 14 - 15 15 - 16 16 - 17 17 - 18 18 - 19 19 - 20 20 - 21 |                                                                                              |       |       |       |       |       |       |       |       |       |        |         |         |         |
| 19517 NP                                                             |                                                                                              | 11.   | a     |       |       |       |       |       |       |       |        |         |         |         |
| 19518 P                                                              |                                                                                              | 22.   | a     | 27.   | 25.   | 32.   | 28.   | 28.   | 28.   |       |        |         |         |         |
| 19519 P                                                              |                                                                                              | 21.   | 22.   | 26.   | 28.   | 25.   | 29.   | 22.   | 12.   |       |        |         |         |         |
| 19520                                                                | MORIBUND SACRIFICED ON DAY 0 OF PRESUMED GESTATION; PREGNANCY STATUS COULD NOT BE DETERMINED |       |       |       |       |       |       |       |       |       |        |         |         |         |
| 19521 P                                                              |                                                                                              | 20.   | 17.   | 28.   | 29.   | 25.   | 26.   | 26.   | 18.   |       |        |         |         |         |
| 19522 P                                                              |                                                                                              | 21.   | 22.   |       |       |       |       |       |       |       |        |         |         |         |
| 19523 P                                                              |                                                                                              | 26.   | 18.   | 21.   | 23.   | 26.   | 28.   | 24.   | 20.   |       |        |         |         |         |
| 19524 P                                                              |                                                                                              | 24.   | 22.   | 27.   | 26.   | 28.   | 30.   | 28.   | 26.   |       |        |         |         |         |
| 19525 P                                                              |                                                                                              | 22.   | 18.   |       |       |       |       |       |       |       |        |         |         |         |
| 19526 P                                                              |                                                                                              | 25.   | 18.   |       |       |       |       |       |       |       |        |         |         |         |
| 19527 P                                                              |                                                                                              | 19.   | a     |       |       |       |       |       |       |       |        |         |         |         |
| 19528 P                                                              |                                                                                              | 21.   | 19.   | 4.    | 16.   | 16.   | 28.   | 26.   | 23.   |       |        |         |         |         |
| 19529 P                                                              |                                                                                              | 20.   | 21.   | 27.   | 26.   | 25.   | 31.   | 24.   | 23.   |       |        |         |         |         |
| 19530 P                                                              |                                                                                              | 23.   | 15.   |       |       |       |       |       |       |       |        |         |         |         |
| 19531 P                                                              |                                                                                              | 22.   | 17.   |       |       |       |       |       |       |       |        |         |         |         |
| 19532 P                                                              |                                                                                              | 24.   | 21.   |       |       |       |       |       |       |       |        |         |         |         |

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 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 17 (PAGE 3): MATERNAL FEED CONSUMPTION VALUES - PRESUMED GESTATION - INDIVIDUAL DATA

| RAT #                                                                | DOSAGE GROUP III<br>0.4 MG/KG/DAY                                                            |       |       |       |       |       |       |       |       |       |        |         |         |         |
|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|
| PREGNANCY<br>STATUS                                                  | DAYS                                                                                         | 0 - 1 | 1 - 2 | 2 - 3 | 3 - 4 | 4 - 5 | 5 - 6 | 6 - 7 | 7 - 8 | 8 - 9 | 9 - 10 | 10 - 11 | 11 - 12 | 12 - 13 |
| 19533 P                                                              |                                                                                              | 19.   | 17.   | 17.   | 20.   | 19.   | 19.   | 19.   | 19.   | 18.   | 18.    | 21.     | 18.     | 22.     |
| 19534 P                                                              |                                                                                              | 24.   | 27.   | 23.   | 24.   | 22.   | 26.   | a     | 21.   | 23.   | 25.    | 24.     | 25.     | 29.     |
| 19535 P                                                              |                                                                                              | 8.    | 17.   | 17.   | 21.   | 18.   | 20.   | a     | 20.   | 21.   | 22.    | 20.     | 21.     | 27.     |
| 19536 P                                                              |                                                                                              | 16.   | 21.   | 21.   | 21.   | 21.   | 17.   | 21.   | 22.   | 19.   | 17.    | 25.     | 21.     | 22.     |
| 19537 P                                                              |                                                                                              | 16.   | 16.   | 19.   | 21.   | 22.   | 20.   | a     | 18.   | 21.   | 20.    | 19.     | 21.     | 23.     |
| 19538 P                                                              |                                                                                              | 19.   | 18.   | 19.   | 18.   | 17.   | 22.   | 16.   | 18.   | 20.   | 19.    | 18.     | 24.     | 19.     |
| 19539 P                                                              |                                                                                              | 18.   | 17.   | 20.   | 22.   | 20.   | 22.   | a     | 25.   | 22.   | 20.    | 22.     | 22.     | 23.     |
| 19540 P                                                              |                                                                                              | 17.   | 24.   | 20.   | 24.   | 23.   | 25.   | a     | 21.   | 27.   | 24.    | 22.     | 22.     | 28.     |
| 19541                                                                | MORIBUND SACRIFICED ON DAY 0 OF PRESUMED GESTATION; PREGNANCY STATUS COULD NOT BE DETERMINED |       |       |       |       |       |       |       |       |       |        |         |         |         |
| 19542 P                                                              |                                                                                              | 25.   | 20.   | 22.   | 21.   | 24.   | 24.   | 20.   | 21.   | 20.   | 23.    | 24.     | 26.     | 26.     |
| 19543 P                                                              |                                                                                              | 27.   | 23.   | 25.   | 26.   | 23.   | 26.   | 24.   | 24.   | 25.   | 26.    | 25.     | 26.     | 28.     |
| 19544 P                                                              |                                                                                              | 24.   | 28.   | 19.   | 25.   | 24.   | 22.   | a     | 24.   | 24.   | 30.    | 21.     | 27.     | 28.     |
| 19545 NP                                                             | MATING NOT CONFIRMED                                                                         |       |       |       |       |       |       |       |       |       |        |         |         |         |
| 19546 P                                                              |                                                                                              | 12.   | 22.   | 24.   | 27.   | 26.   | 30.   | a     | 25.   | 29.   | 26.    | 25.     | 24.     | 32.     |
| 19547 P                                                              |                                                                                              | 21.   | 23.   | 23.   | 25.   | 21.   | 23.   | a     | 21.   | 22.   | 23.    | 23.     | 23.     | 27.     |
| 19548 NP                                                             |                                                                                              | 16.   | 21.   | 20.   | 21.   | 20.   | 17.   | a     | 21.   | 23.   | 22.    | 23.     | 20.     | 24.     |
| DAYS 13 - 14 14 - 15 15 - 16 16 - 17 17 - 18 18 - 19 19 - 20 20 - 21 |                                                                                              |       |       |       |       |       |       |       |       |       |        |         |         |         |
| 19533 P                                                              |                                                                                              | 19.   | 16.   | 22.   | 25.   | 25.   | 23.   | 22.   | 19.   |       |        |         |         |         |
| 19534 P                                                              |                                                                                              | 26.   | 11.   | 24.   | 17.   | 17.   | 25.   | 30.   | 23.   |       |        |         |         |         |
| 19535 P                                                              |                                                                                              | 22.   | 19.   |       |       |       |       |       |       |       |        |         |         |         |
| 19536 P                                                              |                                                                                              | 21.   | 10.   | 21.   | 20.   | 25.   | 26.   | 28.   | 24.   |       |        |         |         |         |
| 19537 P                                                              |                                                                                              | 20.   | 17.   |       |       |       |       |       |       |       |        |         |         |         |
| 19538 P                                                              |                                                                                              | 17.   | 9.    |       |       |       |       |       |       |       |        |         |         |         |
| 19539 P                                                              |                                                                                              | 22.   | 18.   |       |       |       |       |       |       |       |        |         |         |         |
| 19540 P                                                              |                                                                                              | 22.   | 14.   |       |       |       |       |       |       |       |        |         |         |         |
| 19541                                                                | MORIBUND SACRIFICED ON DAY 0 OF PRESUMED GESTATION; PREGNANCY STATUS COULD NOT BE DETERMINED |       |       |       |       |       |       |       |       |       |        |         |         |         |
| 19542 P                                                              |                                                                                              | 22.   | b     |       |       |       |       |       |       |       |        |         |         |         |
| 19543 P                                                              |                                                                                              | 23.   | 19.   | 39.   | 27.   | 28.   | 23.   | 28.   | 20.   |       |        |         |         |         |
| 19544 P                                                              |                                                                                              | 24.   | 21.   |       |       |       |       |       |       |       |        |         |         |         |
| 19545 NP                                                             | MATING NOT CONFIRMED                                                                         |       |       |       |       |       |       |       |       |       |        |         |         |         |
| 19546 P                                                              |                                                                                              | 26.   | 20.   | 31.   | 21.   | 31.   | 34.   | 27.   | 21.   |       |        |         |         |         |
| 19547 P                                                              |                                                                                              | 22.   | 18.   |       |       |       |       |       |       |       |        |         |         |         |
| 19548 NP                                                             |                                                                                              | 20.   | 19.   | 18.   | 18.   | 20.   | 18.   | 20.   | 19.   |       |        |         |         |         |

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)

DAYS = DAYS OF PRESUMED GESTATION

ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Value not recorded.

b. Spilled feed precluded the calculation of this value.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 17 (PAGE 4): MATERNAL FEED CONSUMPTION VALUES - PRESUMED GESTATION - INDIVIDUAL DATA

| RAT #                                                                | DOSAGE GROUP IV                                                |       |       |       |       |       |       |       |       |       |        |         |         |         | 1.6 MG/KG/DAY |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------|----------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|---------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| PREGNANCY                                                            |                                                                |       |       |       |       |       |       |       |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STATUS                                                               | DAYS                                                           | 0 - 1 | 1 - 2 | 2 - 3 | 3 - 4 | 4 - 5 | 5 - 6 | 6 - 7 | 7 - 8 | 8 - 9 | 9 - 10 | 10 - 11 | 11 - 12 | 12 - 13 |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19549 NP                                                             | MATING NOT CONFIRMED                                           |       |       |       |       |       |       |       |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19550 P                                                              | 14.                                                            | 16.   | 16.   |       | 16.   | 18.   | 20.   | a     | 17.   | 23.   | 22.    | 23.     | 25.     | 21.     |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19551 NP                                                             | MATING NOT CONFIRMED                                           |       |       |       |       |       |       |       |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19552 NP                                                             | MATING NOT CONFIRMED                                           |       |       |       |       |       |       |       |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19553 P                                                              | 15.                                                            | 16.   | 20.   |       | 21.   | 18.   | 17.   | a     | 19.   | 22.   | 21.    | 23.     | 24.     | 28.     |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19554 P                                                              | b                                                              | 17.   | 15.   |       | 19.   | 23.   | 22.   | a     | 23.   | 22.   | 21.    | 22.     | 19.     | 26.     |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19555 NP                                                             | 19.                                                            | 20.   | 18.   |       | 24.   | 18.   | 16.   | a     | 17.   | 19.   | 15.    | 20.     | 20.     | 23.     |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19556 NP                                                             | 19.                                                            | 11.   | 18.   |       | 16.   | 15.   | 11.   | 17.   | 18.   | 18.   | 15.    | 19.     | 22.     | 16.     |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19557                                                                | MORIBUND SACRIFICED ON DAY 43 OF STUDY (DAY 2 OF COHABITATION) |       |       |       |       |       |       |       |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19558 P                                                              | 14.                                                            | 22.   | 22.   |       | 22.   | 20.   | 18.   | a     | 23.   | 25.   | 24.    | 25.     | 23.     | 27.     |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19559 NP                                                             | 15.                                                            | 18.   | 18.   |       | 19.   | 20.   | 21.   | 21.   | 20.   | 20.   | 21.    | 23.     | 20.     | 16.     |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19560 P                                                              | 24.                                                            | 23.   | 21.   |       | 22.   | 23.   | 18.   | 16.   | 21.   | 17.   | 22.    | 21.     | 20.     | 26.     |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19561c                                                               | 18.                                                            | 20.   | 18.   |       | 17.   | 20.   | 18.   | a     | 19.   | 20.   | 20.    | 21.     | 15.     | 13.     |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19562 P                                                              | 18.                                                            | 21.   | 19.   |       | 20.   | 21.   | 21.   | 17.   | 20.   | 23.   | 23.    | 25.     | 25.     | 23.     |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19563 P                                                              | 19.                                                            | 23.   | 21.   |       | 21.   | 19.   | 18.   | a     | 18.   | 22.   | 22.    | 22.     | 23.     | 24.     |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19564 P                                                              | 13.                                                            | 18.   | 16.   |       | 20.   | 18.   | 20.   | a     | 17.   | 20.   | 20.    | 20.     | 17.     | 22.     |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DAYS 13 - 14 14 - 15 15 - 16 16 - 17 17 - 18 18 - 19 19 - 20 20 - 21 |                                                                |       |       |       |       |       |       |       |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19549 NP                                                             | MATING NOT CONFIRMED                                           |       |       |       |       |       |       |       |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19550 P                                                              | 20.                                                            | 16.   |       |       |       |       |       |       |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19551 NP                                                             | MATING NOT CONFIRMED                                           |       |       |       |       |       |       |       |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19552 NP                                                             | MATING NOT CONFIRMED                                           |       |       |       |       |       |       |       |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19553 P                                                              | 20.                                                            | 18.   |       |       |       |       |       |       |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19554 P                                                              | 21.                                                            | 18.   |       |       |       |       |       |       |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19555 NP                                                             | 17.                                                            | 17.   |       |       |       |       |       |       |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19556 NP                                                             | 14.                                                            | b     | 21.   | 20.   | 14.   | 19.   | 18.   | 15.   |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19557                                                                | MORIBUND SACRIFICED ON DAY 43 OF STUDY (DAY 2 OF COHABITATION) |       |       |       |       |       |       |       |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19558 P                                                              | 23.                                                            | 15.   |       |       |       |       |       |       |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19559 NP                                                             | 8.                                                             | b     | 13.   | 14.   | 14.   | 17.   | 20.   | 17.   |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19560 P                                                              | 17.                                                            | 24.   | 28.   | 26.   | 27.   | 27.   | 29.   | 22.   |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19561c                                                               | 18.                                                            | 13.   |       |       |       |       |       |       |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19562 P                                                              | 25.                                                            | 21.   | 22.   | 33.   | 25.   | 28.   | 26.   | 21.   |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19563 P                                                              | 22.                                                            | 18.   |       |       |       |       |       |       |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19564 P                                                              | 19.                                                            | 15.   |       |       |       |       |       |       |       |       |        |         |         |         |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)

DAYS = DAYS OF PRESUMED GESTATION

ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Value not recorded.

b. Spilled feed precluded the calculation of this value.

c. Necropsy and Caesarean-section observations were not recorded for rat 19561.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 17 (PAGE 5): MATERNAL FEED CONSUMPTION VALUES - PRESUMED GESTATION - INDIVIDUAL DATA

| RAT #     | DOSAGE GROUP V |                      |       |       |       |       |       |       |       |       |        |         |         |         | 3.2 MG/KG/DAY |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------|----------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|---------------|---------|---------|---------|---------|---------|---------|---------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| PREGNANCY |                |                      |       |       |       |       |       |       |       |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| STATUS    | DAYS           | 0 - 1                | 1 - 2 | 2 - 3 | 3 - 4 | 4 - 5 | 5 - 6 | 6 - 7 | 7 - 8 | 8 - 9 | 9 - 10 | 10 - 11 | 11 - 12 | 12 - 13 |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19565     | P              | 6.                   | 9.    | 12.   | 10.   | 15.   | 14.   | a     | 26.   | 21.   | 19.    | 21.     | 20.     | 23.     |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19566     | P              | 19.                  | 17.   | 17.   | 13.   | 10.   | 13.   | 14.   | 14.   | 20.   | 22.    | 21.     | 27.     | 27.     |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19567     | P              | 10.                  | 15.   | 17.   | 15.   | 18.   | 21.   | 20.   | 19.   | 22.   | 22.    | 21.     | 24.     | 24.     |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19568     | P              | 13.                  | 16.   | 17.   | 17.   | 17.   | 17.   | a     | 19.   | 20.   | 19.    | 21.     | 19.     | 24.     |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19569     | P              | 16.                  | 14.   | 15.   | 13.   | 19.   | 17.   | 15.   | 10.   | 14.   | 18.    | 21.     | 19.     | 20.     |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19570     | P              | 16.                  | 15.   | 15.   | 14.   | 22.   | 22.   | 23.   | 14.   | 21.   | 19.    | 17.     | 22.     | 24.     |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19571     | P              | 18.                  | 15.   | 19.   | 22.   | 19.   | 18.   | 11.   | 16.   | 21.   | 22.    | 21.     | 24.     | 22.     |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19572     | P              | 19.                  | 18.   | 18.   | 13.   | 18.   | 17.   | 33.   | 14.   | 20.   | 18.    | 19.     | 24.     | 20.     |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19573     | P              | 4.                   | 8.    | b     | 19.   | 22.   | 20.   | a     | 15.   | 20.   | 19.    | 21.     | 20.     | 24.     |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19574     | P              | 15.                  | 18.   | 21.   | 23.   | 18.   | 21.   | a     | 18.   | 20.   | 23.    | 24.     | 22.     | 27.     |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19575     | P              | 7.                   | 12.   | b     | b     | 19.   | 20.   | a     | 13.   | 20.   | 23.    | 22.     | 22.     | 28.     |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19576     | NP             | MATING NOT CONFIRMED |       |       |       |       |       |       |       |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19577     | P              | 13.                  | 14.   | 11.   | 6.    | 2.    | 6.    | a     | b     | 18.   | 20.    | 23.     | 21.     | 26.     |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19578     | NP             | MATING NOT CONFIRMED |       |       |       |       |       |       |       |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19579     | P              | 9.                   | 13.   | 6.    | 30.   | 27.   | 16.   | 10.   | 17.   | 16.   | 23.    | 19.     | 16.     | 18.     |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19580     | P              | 9.                   | 16.   | 15.   | 13.   | 18.   | 15.   | a     | 15.   | 17.   | 17.    | 21.     | 20.     | 21.     |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DAYS      |                |                      |       |       |       |       |       |       |       |       |        |         |         |         | 13 - 14       | 14 - 15 | 15 - 16 | 16 - 17 | 17 - 18 | 18 - 19 | 19 - 20 | 20 - 21 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19565     | P              | 18.                  | 14.   |       |       |       |       |       |       |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19566     | P              | 20.                  | b     |       |       |       |       |       |       |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19567     | P              | 22.                  | b     |       |       |       |       |       |       |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19568     | P              | 21.                  | 17.   | 20.   | 23.   | 25.   | 26.   | 24.   | 23.   |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19569     | P              | 14.                  | 17.   | 24.   | 22.   | 24.   | 17.   | 21.   | 11.   |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19570     | P              | 21.                  | b     |       |       |       |       |       |       |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19571     | P              | 21.                  | 19.   | 25.   | 27.   | 25.   | 29.   | 24.   | 23.   |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19572     | P              | 18.                  | 14.   | 25.   | 25.   | 31.   | 26.   | 23.   | 30.   |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19573     | P              | 22.                  | 16.   |       |       |       |       |       |       |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19574     | P              | 20.                  | 19.   |       |       |       |       |       |       |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19575     | P              | 25.                  | 20.   |       |       |       |       |       |       |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19576     | NP             | MATING NOT CONFIRMED |       |       |       |       |       |       |       |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19577     | P              | 18.                  | 20.   | 23.   | 17.   | 22.   | 24.   | 23.   | 18.   |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19578     | NP             | MATING NOT CONFIRMED |       |       |       |       |       |       |       |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19579     | P              | 17.                  | 15.   | 19.   | 23.   | 24.   | 18.   | 15.   | 19.   |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19580     | P              | 18.                  | 15.   |       |       |       |       |       |       |       |        |         |         |         |               |         |         |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)

DAYS = DAYS OF PRESUMED GESTATION

ALL WEIGHTS WERE RECORDED IN GRAMS (G).

a. Value not recorded.

b. Spilled feed precluded the calculation of this value.

PROTOCOL 418 013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 18 (PAGE 1): CAESAREAN-SECTIONING OBSERVATIONS - INDIVIDUAL DATA

| RATS CAESAREAN-SECTION ON DAY 15 OF PRESUMED GESTATION |                |           |       |                   |           |       |                    |           |       |               |            |       |
|--------------------------------------------------------|----------------|-----------|-------|-------------------|-----------|-------|--------------------|-----------|-------|---------------|------------|-------|
| RAT #                                                  | VIABLE EMBRYOS |           |       | NONVIABLE EMBRYOS |           |       | IMPLANTATION SITES |           |       | CORPORA LUTEA |            |       |
|                                                        | RIGHT HORN     | LEFT HORN | TOTAL | RIGHT HORN        | LEFT HORN | TOTAL | RIGHT HORN         | LEFT HORN | TOTAL | RIGHT OVARY   | LEFT OVARY | TOTAL |
| DOSAGE GROUP I 0 (VEHICLE) MG/KG/DAY                   |                |           |       |                   |           |       |                    |           |       |               |            |       |
| 19501                                                  | 5              | 9         | 14    | 1                 | 0         | 1     | 6                  | 9         | 15    | 9             | 10         | 19    |
| 19502                                                  | NOT PREGNANT   |           |       |                   |           |       |                    |           |       |               |            |       |
| 19508                                                  | 9              | 7         | 16    | 0                 | 0         | 0     | 9                  | 7         | 16    | 9             | 7          | 16    |
| 19510                                                  | 5              | 6         | 11    | 1                 | 1         | 2     | 6                  | 7         | 13    | 6             | 7          | 13    |
| 19511                                                  | 8              | 11        | 19    | 0                 | 0         | 0     | 8                  | 11        | 19    | 11            | 12         | 23    |
| 19513                                                  | 10             | 6         | 16    | 0                 | 0         | 0     | 10                 | 6         | 16    | 10            | 6          | 16    |
| 19514                                                  | NOT PREGNANT   |           |       |                   |           |       |                    |           |       |               |            |       |
| 19515                                                  | 7              | 6         | 13    | 2                 | 1         | 3     | 9                  | 7         | 16    | 10            | 7          | 17    |
| DOSAGE GROUP II 0.1 MG/KG/DAY                          |                |           |       |                   |           |       |                    |           |       |               |            |       |
| 19517                                                  | NOT PREGNANT   |           |       |                   |           |       |                    |           |       |               |            |       |
| 19522                                                  | 8              | 7         | 15    | 0                 | 0         | 0     | 8                  | 7         | 15    | 9             | 8          | 17    |
| 19525                                                  | 4              | 2         | 6     | 0                 | 1         | 1     | 4                  | 3         | 7     | 7             | 9          | 16    |
| 19526                                                  | 5              | 5         | 10    | 0                 | 0         | 0     | 5                  | 5         | 10    | 10            | 9          | 19    |
| 19527                                                  | 8              | 9         | 17    | 0                 | 1         | 1     | 8                  | 10        | 18    | 10            | 10         | 20    |
| 19530                                                  | 4              | 7         | 11    | 4                 | 0         | 4     | 8                  | 7         | 15    | 9             | 9          | 18    |
| 19531                                                  | 8              | 7         | 15    | 1                 | 0         | 1     | 9                  | 7         | 16    | 9             | 11         | 20    |
| 19532                                                  | 8              | 4         | 12    | 1                 | 0         | 1     | 9                  | 4         | 13    | 10            | 6          | 16    |
| DOSAGE GROUP III 0.4 MG/KG/DAY                         |                |           |       |                   |           |       |                    |           |       |               |            |       |
| 19535                                                  | 4              | 3         | 7     | 1                 | 1         | 2     | 5                  | 4         | 9     | 8             | 7          | 15    |
| 19537                                                  | 0              | 3         | 3     | 1                 | 2         | 3     | 1                  | 5         | 6     | 4             | 8          | 12    |
| 19538                                                  | 8              | 4         | 12    | 0                 | 0         | 0     | 8                  | 4         | 12    | 9             | 6          | 15    |
| 19539                                                  | 7              | 6         | 13    | 2                 | 0         | 2     | 9                  | 6         | 15    | 9             | 9          | 18    |
| 19540                                                  | 9              | 7         | 16    | 0                 | 0         | 0     | 9                  | 7         | 16    | 11            | 7          | 18    |
| 19542                                                  | 8              | 8         | 16    | 0                 | 0         | 0     | 8                  | 8         | 16    | 9             | 10         | 19    |
| 19544                                                  | 6              | 5         | 11    | 2                 | 1         | 3     | 8                  | 6         | 14    | 12            | 10         | 22    |
| 19547                                                  | 5              | 11        | 16    | 0                 | 0         | 0     | 5                  | 11        | 16    | 6             | 12         | 18    |

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 18 (PAGE 2): CAESAREAN-SECTIONING OBSERVATIONS - INDIVIDUAL DATA

| RATS CAESAREAN-SECTION ON DAY 15 OF PRESUMED GESTATION |                                                               |               |       |                   |           |       |                    |           |       |               |            |       |
|--------------------------------------------------------|---------------------------------------------------------------|---------------|-------|-------------------|-----------|-------|--------------------|-----------|-------|---------------|------------|-------|
| RAT #                                                  | VIABLE EMBRYOS                                                |               |       | NONVIABLE EMBRYOS |           |       | IMPLANTATION SITES |           |       | CORPORA LUTEA |            |       |
|                                                        | RIGHT HORN                                                    | LEFT HORN     | TOTAL | RIGHT HORN        | LEFT HORN | TOTAL | RIGHT HORN         | LEFT HORN | TOTAL | RIGHT OVARY   | LEFT OVARY | TOTAL |
| DOSAGE GROUP IV                                        |                                                               | 1.6 MG/KG/DAY |       |                   |           |       |                    |           |       |               |            |       |
| 19550                                                  | 9                                                             | 5             | 14    | 0                 | 0         | 0     | 9                  | 5         | 14    | 9             | 10         | 19    |
| 19553                                                  | 6                                                             | 7             | 13    | 1                 | 0         | 1     | 7                  | 7         | 14    | 10            | 10         | 20    |
| 19554                                                  | 9                                                             | 5             | 14    | 0                 | 1         | 1     | 9                  | 6         | 15    | 10            | 7          | 17    |
| 19555                                                  | NOT PREGNANT                                                  |               |       |                   |           |       |                    |           |       |               |            |       |
| 19558                                                  | 7                                                             | 6             | 13    | 3                 | 0         | 3     | 10                 | 6         | 16    | 10            | 8          | 18    |
| 19561                                                  | NECROPSY AND CAESAREAN-SECTION OBSERVATIONS WERE NOT RECORDED |               |       |                   |           |       |                    |           |       |               |            |       |
| 19563                                                  | 5                                                             | 7             | 12    | 1                 | 1         | 2     | 6                  | 8         | 14    | 8             | 11         | 19    |
| 19564                                                  | 7                                                             | 4             | 11    | 0                 | 1         | 1     | 7                  | 5         | 12    | 13            | 13         | 26    |
| DOSAGE GROUP V                                         |                                                               | 3.2 MG/KG/DAY |       |                   |           |       |                    |           |       |               |            |       |
| 19565                                                  | 2                                                             | 4             | 6     | 0                 | 0         | 0     | 2                  | 4         | 6     | 6             | 7          | 13    |
| 19566                                                  | 7                                                             | 5             | 12    | 1                 | 0         | 1     | 8                  | 5         | 13    | 9             | 8          | 17    |
| 19567                                                  | 8                                                             | 5             | 13    | 0                 | 0         | 0     | 8                  | 5         | 13    | 9             | 8          | 17    |
| 19570                                                  | 6                                                             | 9             | 15    | 1                 | 1         | 2     | 7                  | 10        | 17    | 7             | 10         | 17    |
| 19573                                                  | 5                                                             | 9             | 14    | 0                 | 1         | 1     | 5                  | 10        | 15    | 5             | 10         | 15    |
| 19574                                                  | 7                                                             | 6             | 13    | 0                 | 0         | 0     | 7                  | 6         | 13    | 10            | 10         | 20    |
| 19575                                                  | 7                                                             | 6             | 13    | 0                 | 4         | 4     | 7                  | 10        | 17    | 8             | 11         | 19    |
| 19580                                                  | 7                                                             | 8             | 15    | 0                 | 0         | 0     | 7                  | 8         | 15    | 11            | 10         | 21    |

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 18 (PAGE 3): CAESAREAN-SECTIONING OBSERVATIONS - INDIVIDUAL DATA

| RATS CAESAREAN-SECTIONED ON DAY 21 OF PRESUMED GESTATION                                           |     |   |            |    |                       |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
|----------------------------------------------------------------------------------------------------|-----|---|------------|----|-----------------------|--------------|---|-------|-------------------|---|------------------|------------|--------------------|-------|------------|---------------|-------|------------|----|-------|
| VIABLE FETUSES                                                                                     |     |   |            |    |                       | DEAD FETUSES |   |       | EARLY RESORPTIONS |   | LATE RESORPTIONS |            | IMPLANTATION SITES |       |            | CORPORA LUTEA |       |            |    |       |
| RAT #                                                                                              | SEX |   | RIGHT LEFT |    | TOTAL                 | RIGHT LEFT   |   | TOTAL | RIGHT LEFT        |   | TOTAL            | RIGHT LEFT |                    | TOTAL | RIGHT LEFT |               | TOTAL | RIGHT LEFT |    | TOTAL |
|                                                                                                    | M   | F | HORN       |    |                       | HORN         |   |       | HORN              |   |                  | HORN       |                    |       | HORN       |               |       | HORN       |    |       |
| DOSAGE GROUP I                                                                                     |     |   |            |    | 0 (VEHICLE) MG/KG/DAY |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| 19503 NO CONFIRMED MATING DATE; DELIVERED ON DAY 66 OF STUDY                                       |     |   |            |    |                       |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| 19504                                                                                              | 8   | 4 | 5          | 7  | 12                    | 0            | 0 | 0     | 2                 | 3 | 5                | 0          | 0                  | 0     | 7          | 10            | 17    | 10         | 13 | 23    |
| 19505                                                                                              | 8   | 9 | 4          | 13 | 17                    | 0            | 0 | 0     | 0                 | 2 | 2                | 0          | 0                  | 0     | 4          | 15            | 19    | 4          | 16 | 20    |
| 19506                                                                                              | 4   | 9 | 5          | 8  | 13                    | 0            | 0 | 0     | 1                 | 0 | 1                | 0          | 0                  | 0     | 6          | 8             | 14    | 7          | 8  | 15    |
| 19507                                                                                              | 7   | 7 | 9          | 5  | 14                    | 0            | 0 | 0     | 0                 | 1 | 1                | 0          | 0                  | 0     | 9          | 6             | 15    | 13         | 12 | 25    |
| 19509                                                                                              | 5   | 7 | 6          | 6  | 12                    | 0            | 0 | 0     | 1                 | 0 | 1                | 0          | 0                  | 0     | 7          | 6             | 13    | 7          | 8  | 15    |
| 19512                                                                                              | 7   | 7 | 4          | 10 | 14                    | 0            | 0 | 0     | 0                 | 0 | 0                | 0          | 0                  | 0     | 4          | 10            | 14    | 4          | 11 | 15    |
| 19516                                                                                              | 5   | 9 | 6          | 8  | 14                    | 0            | 0 | 0     | 0                 | 0 | 0                | 0          | 0                  | 0     | 6          | 8             | 14    | 8          | 9  | 17    |
| DOSAGE GROUP II                                                                                    |     |   |            |    | 0.1 MG/KG/DAY         |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| 19518 6 5 6 5 11 0 0 0 2 0 2 0 0 0 0 8 5 13 8 7 15                                                 |     |   |            |    |                       |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| 19519 9 7 9 7 16 0 0 0 0 0 0 0 0 0 0 9 7 16 10 7 17                                                |     |   |            |    |                       |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| 19520 MORIBUND SACRIFICED ON DAY 0 OF PRESUMED GESTATION; PREGNANCY STATUS COULD NOT BE DETERMINED |     |   |            |    |                       |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| 19521 7 8 9 6 15 0 0 0 0 0 0 0 0 0 0 9 6 15 9 6 15                                                 |     |   |            |    |                       |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| 19523 3 7 8 2 10 0 0 0 1 1 2 1 1 2 10 4 14 10 4 14                                                 |     |   |            |    |                       |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| 19524 12 4 8 8 16 0 0 0 0 1 1 0 0 0 0 8 9 17 9 12 21                                               |     |   |            |    |                       |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| 19528 3 2 1 4 5 0 0 0 1 2 3 0 0 0 2 6 8 6 9 15                                                     |     |   |            |    |                       |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| 19529 6 8 7 7 14 0 0 0 1 0 1 0 0 0 8 7 15 8 8 16                                                   |     |   |            |    |                       |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| DOSAGE GROUP III                                                                                   |     |   |            |    | 0.4 MG/KG/DAY         |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| 19533 8 4 4 8 12 0 0 0 0 0 0 0 0 0 4 8 12 4 12 16                                                  |     |   |            |    |                       |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| 19534 8 6 7 7 14 0 0 0 0 0 0 0 0 0 7 7 14 13 15 28                                                 |     |   |            |    |                       |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| 19536 5 13 6 12 18 0 0 0 0 0 0 0 0 0 6 12 18 7 12 19                                               |     |   |            |    |                       |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| 19541 MORIBUND SACRIFICED ON DAY 0 OF PRESUMED GESTATION; PREGNANCY STATUS COULD NOT BE DETERMINED |     |   |            |    |                       |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| 19543 11 6 10 7 17 0 0 0 1 1 2 0 0 0 11 8 19 11 10 21                                              |     |   |            |    |                       |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| 19545 MATING NOT CONFIRMED                                                                         |     |   |            |    |                       |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| 19546 4 1 4 1 5 0 0 0 1 3 4 0 0 0 5 4 9 14 11 25                                                   |     |   |            |    |                       |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |
| 19548 NOT PREGNANT                                                                                 |     |   |            |    |                       |              |   |       |                   |   |                  |            |                    |       |            |               |       |            |    |       |

M = MALE F = FEMALE

PLACENTAE APPEARED NORMAL UNLESS NOTED OTHERWISE.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 18 (PAGE 4): CAESAREAN-SECTIONING OBSERVATIONS - INDIVIDUAL DATA

| RATS CAESAREAN-SECTIONED ON DAY 21 OF PRESUMED GESTATION |                                                               |    |            |    |               |            |   |                   |            |                  |       |                    |   |       |               |    |       |            |    |       |
|----------------------------------------------------------|---------------------------------------------------------------|----|------------|----|---------------|------------|---|-------------------|------------|------------------|-------|--------------------|---|-------|---------------|----|-------|------------|----|-------|
| VIABLE FETUSES                                           |                                                               |    |            |    | DEAD FETUSES  |            |   | EARLY RESORPTIONS |            | LATE RESORPTIONS |       | IMPLANTATION SITES |   |       | CORPORA LUTEA |    |       |            |    |       |
| RAT #                                                    | SEX                                                           |    | RIGHT LEFT |    | TOTAL         | RIGHT LEFT |   | TOTAL             | RIGHT LEFT |                  | TOTAL | RIGHT LEFT         |   | TOTAL | RIGHT LEFT    |    | TOTAL | RIGHT LEFT |    | TOTAL |
|                                                          | M                                                             | F  | HORN       |    |               | HORN       |   |                   | HORN       |                  |       | HORN               |   |       | HORN          |    |       | HORN       |    |       |
| DOSAGE GROUP IV                                          |                                                               |    |            |    | 1.6 MG/KG/DAY |            |   |                   |            |                  |       |                    |   |       |               |    |       |            |    |       |
| 19549                                                    | MATING NOT CONFIRMED                                          |    |            |    |               |            |   |                   |            |                  |       |                    |   |       |               |    |       |            |    |       |
| 19551                                                    | MATING NOT CONFIRMED                                          |    |            |    |               |            |   |                   |            |                  |       |                    |   |       |               |    |       |            |    |       |
| 19552                                                    | MATING NOT CONFIRMED                                          |    |            |    |               |            |   |                   |            |                  |       |                    |   |       |               |    |       |            |    |       |
| 19556                                                    | NOT PREGNANT                                                  |    |            |    |               |            |   |                   |            |                  |       |                    |   |       |               |    |       |            |    |       |
| 19557                                                    | MORBUND SACRIFICED ON DAY 43 OF STUDY (DAY 2 OF COHABITATION) |    |            |    |               |            |   |                   |            |                  |       |                    |   |       |               |    |       |            |    |       |
| 19559                                                    | NOT PREGNANT                                                  |    |            |    |               |            |   |                   |            |                  |       |                    |   |       |               |    |       |            |    |       |
| 19560                                                    | 5                                                             | 7  | 9          | 3  | 12            | 0          | 0 | 0                 | 0          | 0                | 0     | 0                  | 0 | 0     | 9             | 3  | 12    | 12         | 7  | 19    |
| 19562                                                    | 10                                                            | 10 | 8          | 12 | 20            | 0          | 0 | 0                 | 0          | 2                | 2     | 0                  | 0 | 0     | 8             | 14 | 22    | 8          | 14 | 22    |
| DOSAGE GROUP V                                           |                                                               |    |            |    | 3.2 MG/KG/DAY |            |   |                   |            |                  |       |                    |   |       |               |    |       |            |    |       |
| 19568                                                    | 6                                                             | 0  | 6          | 0  | 6             | 0          | 0 | 0                 | 0          | 3                | 3     | 0                  | 0 | 0     | 6             | 3  | 9     | 8          | 11 | 19    |
| 19569                                                    | 6                                                             | 7  | 9          | 4  | 13            | 0          | 0 | 0                 | 0          | 0                | 0     | 0                  | 0 | 0     | 9             | 4  | 13    | 10         | 6  | 16    |
| 19571                                                    | DELIVERED ON DAY 21 OF GESTATION                              |    |            |    |               |            |   |                   |            |                  |       |                    |   |       |               |    |       |            |    |       |
| 19572                                                    | 6                                                             | 6  | 7          | 5  | 12            | 0          | 0 | 0                 | 1          | 2                | 3     | 0                  | 0 | 0     | 8             | 7  | 15    | 8          | 9  | 17    |
| 19576                                                    | MATING NOT CONFIRMED                                          |    |            |    |               |            |   |                   |            |                  |       |                    |   |       |               |    |       |            |    |       |
| 19577                                                    | 1                                                             | 3  | 4          | 0  | 4             | 0          | 0 | 0                 | 1          | 0                | 1     | 0                  | 0 | 0     | 5             | 0  | 5     | 8          | 5  | 13    |
| 19578                                                    | MATING NOT CONFIRMED                                          |    |            |    |               |            |   |                   |            |                  |       |                    |   |       |               |    |       |            |    |       |
| 19579                                                    | DELIVERED ON DAY 21 OF GESTATION                              |    |            |    |               |            |   |                   |            |                  |       |                    |   |       |               |    |       |            |    |       |
| M = MALE F = FEMALE                                      |                                                               |    |            |    |               |            |   |                   |            |                  |       |                    |   |       |               |    |       |            |    |       |
| PLACENTAE APPEARED NORMAL UNLESS NOTED OTHERWISE.        |                                                               |    |            |    |               |            |   |                   |            |                  |       |                    |   |       |               |    |       |            |    |       |



PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 19 (PAGE 1): LITTER OBSERVATIONS (CAESAREAN-DELIVERED EMBRYOS OR FETUSES) - INDIVIDUAL DATA

| RATS CAESAREAN-SECTIONED ON DAY 15 OF GESTATION |                        |             |   |      |
|-------------------------------------------------|------------------------|-------------|---|------|
| RAT #                                           | NUMBER OF LIVE EMBRYOS | CONCEPTUSES |   |      |
|                                                 | TOTAL                  | N           | N | %    |
| DOSAGE GROUP I 0 (VEHICLE) MG/KG/DAY            |                        |             |   |      |
| 19501                                           | 14                     | 15          | 1 | 6.7  |
| 19502                                           | NOT PREGNANT           |             |   |      |
| 19508                                           | 16                     | 16          | 0 | 0.0  |
| 19510                                           | 11                     | 13          | 2 | 15.4 |
| 19511                                           | 19                     | 19          | 0 | 0.0  |
| 19513                                           | 16                     | 16          | 0 | 0.0  |
| 19514                                           | NOT PREGNANT           |             |   |      |
| 19515                                           | 13                     | 16          | 3 | 18.8 |
| DOSAGE GROUP II 0.1 MG/KG/DAY                   |                        |             |   |      |
| 19517                                           | NOT PREGNANT           |             |   |      |
| 19522                                           | 15                     | 15          | 0 | 0.0  |
| 19525                                           | 6                      | 7           | 1 | 14.3 |
| 19526                                           | 10                     | 10          | 0 | 0.0  |
| 19527                                           | 17                     | 18          | 1 | 5.6  |
| 19530                                           | 11                     | 15          | 4 | 26.7 |
| 19531                                           | 15                     | 16          | 1 | 6.2  |
| 19532                                           | 12                     | 13          | 1 | 7.7  |
| DOSAGE GROUP III 0.4 MG/KG/DAY                  |                        |             |   |      |
| 19535                                           | 7                      | 9           | 2 | 22.2 |
| 19537                                           | 3                      | 6           | 3 | 50.0 |
| 19538                                           | 12                     | 12          | 0 | 0.0  |
| 19539                                           | 13                     | 15          | 2 | 13.3 |
| 19540                                           | 16                     | 16          | 0 | 0.0  |
| 19542                                           | 16                     | 16          | 0 | 0.0  |
| 19544                                           | 11                     | 14          | 3 | 21.4 |
| 19547                                           | 16                     | 16          | 0 | 0.0  |

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 19 (PAGE 2): LITTER OBSERVATIONS (CAESAREAN-DELIVERED EMBRYOS OR FETUSES) - INDIVIDUAL DATA

| RATS CAESAREAN-SECTIONED ON DAY 15 OF GESTATION |                                |                                |   |      |
|-------------------------------------------------|--------------------------------|--------------------------------|---|------|
| RAT #                                           | NUMBER OF LIVE EMBRYOS         | CONCEPTUSES NONVIABLE          |   |      |
|                                                 | TOTAL                          | N                              | N | %    |
| DOSAGE GROUP IV 1.6 MG/KG/DAY                   |                                |                                |   |      |
| 19550                                           | 14                             | 14                             | 0 | 0.0  |
| 19553                                           | 13                             | 14                             | 1 | 7.1  |
| 19554                                           | 14                             | 15                             | 1 | 6.7  |
| 19555                                           | NOT PREGNANT                   |                                |   |      |
| 19558                                           | 13                             | 16                             | 3 | 18.8 |
| 19561                                           | NECROPSY AND CAESAREAN-SECTION | OBSERVATIONS WERE NOT RECORDED |   |      |
| 19563                                           | 12                             | 14                             | 2 | 14.3 |
| 19564                                           | 11                             | 12                             | 1 | 8.3  |
| DOSAGE GROUP V 3.2 MG/KG/DAY                    |                                |                                |   |      |
| 19565                                           | 6                              | 6                              | 0 | 0.0  |
| 19566                                           | 12                             | 13                             | 1 | 7.7  |
| 19567                                           | 13                             | 13                             | 0 | 0.0  |
| 19570                                           | 15                             | 17                             | 2 | 11.8 |
| 19573                                           | 14                             | 15                             | 1 | 6.7  |
| 19574                                           | 13                             | 13                             | 0 | 0.0  |
| 19575                                           | 13                             | 17                             | 4 | 23.5 |
| 19580                                           | 15                             | 15                             | 0 | 0.0  |

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 19 (PAGE 3): LITTER OBSERVATIONS (CAESAREAN-DELIVERED EMBRYOS OR FETUSES) - INDIVIDUAL DATA

| RATS CAESAREAN-SECTIONED ON DAY 21 OF GESTATION |                                                                                              |        |       |                               |        |         |                                    |   |      |
|-------------------------------------------------|----------------------------------------------------------------------------------------------|--------|-------|-------------------------------|--------|---------|------------------------------------|---|------|
| RAT #                                           | NUMBER OF LIVE FETUSES                                                                       |        |       | AVERAGE FETAL BODY WEIGHT (G) |        |         | ---- CONCEPTUSES -----<br>RESORBED |   |      |
|                                                 | MALE                                                                                         | FEMALE | TOTAL | MALE                          | FEMALE | TOTAL a | N                                  | N | %    |
| DOSAGE GROUP I 0 (VEHICLE) MG/KG/DAY            |                                                                                              |        |       |                               |        |         |                                    |   |      |
| 19503                                           | NO CONFIRMED DATE OF MATING; DELIVERED ON DAY 66 OF STUDY                                    |        |       |                               |        |         |                                    |   |      |
| 19504                                           | 8                                                                                            | 4      | 12    | 4.75                          | 4.44   | 4.64    | 17                                 | 5 | 29.4 |
| 19505                                           | 8                                                                                            | 9      | 17    | 5.13                          | 5.10   | 5.12    | 19                                 | 2 | 10.5 |
| 19506                                           | 4                                                                                            | 9      | 13    | 5.66                          | 5.48   | 5.54    | 14                                 | 1 | 7.1  |
| 19507                                           | 7                                                                                            | 7      | 14    | 5.47                          | 5.21   | 5.34    | 15                                 | 1 | 6.7  |
| 19509                                           | 5                                                                                            | 7      | 12    | 5.34                          | 5.14   | 5.22    | 13                                 | 1 | 7.7  |
| 19512                                           | 7                                                                                            | 7      | 14    | 5.14                          | 4.87   | 5.01    | 14                                 | 0 | 0.0  |
| 19516                                           | 5                                                                                            | 9      | 14    | 5.17                          | 4.87   | 4.98    | 14                                 | 0 | 0.0  |
| DOSAGE GROUP II 0.1 MG/KG/DAY                   |                                                                                              |        |       |                               |        |         |                                    |   |      |
| 19518                                           | 6                                                                                            | 5      | 11    | 4.80                          | 4.52   | 4.67    | 13                                 | 2 | 15.4 |
| 19519                                           | 9                                                                                            | 7      | 16    | 5.29                          | 5.16   | 5.23    | 16                                 | 0 | 0.0  |
| 19520                                           | MORIBUND SACRIFICED ON DAY 0 OF PRESUMED GESTATION; PREGNANCY STATUS COULD NOT BE DETERMINED |        |       |                               |        |         |                                    |   |      |
| 19521                                           | 7                                                                                            | 8      | 15    | 5.12                          | 4.79   | 4.94    | 15                                 | 0 | 0.0  |
| 19523                                           | 3                                                                                            | 7      | 10    | 5.47                          | 5.28   | 5.34    | 14                                 | 4 | 28.6 |
| 19524                                           | 12                                                                                           | 4      | 16    | 5.51                          | 5.11   | 5.41    | 17                                 | 1 | 5.9  |
| 19528                                           | 3                                                                                            | 2      | 5     | 6.45                          | 5.06   | 5.89    | 8                                  | 3 | 37.5 |
| 19529                                           | 6                                                                                            | 8      | 14    | 5.87                          | 5.54   | 5.68    | 15                                 | 1 | 6.7  |
| DOSAGE GROUP III 0.4 MG/KG/DAY                  |                                                                                              |        |       |                               |        |         |                                    |   |      |
| 19533                                           | 8                                                                                            | 4      | 12    | 5.30                          | 4.89   | 5.16    | 12                                 | 0 | 0.0  |
| 19534                                           | 8                                                                                            | 6      | 14    | 5.00                          | 4.82   | 4.92    | 14                                 | 0 | 0.0  |
| 19536                                           | 5                                                                                            | 13     | 18    | 5.31                          | 5.05   | 5.12    | 18                                 | 0 | 0.0  |
| 19541                                           | MORIBUND SACRIFICED ON DAY 0 OF PRESUMED GESTATION; PREGNANCY STATUS COULD NOT BE DETERMINED |        |       |                               |        |         |                                    |   |      |
| 19543                                           | 11                                                                                           | 6      | 17    | 5.18                          | 4.72   | 5.02    | 19                                 | 2 | 10.5 |
| 19545                                           | MATING NOT CONFIRMED                                                                         |        |       |                               |        |         |                                    |   |      |
| 19546                                           | 4                                                                                            | 1      | 5     | 5.18                          | 4.70   | 5.09    | 9                                  | 4 | 44.4 |
| 19548                                           | NOT PREGNANT                                                                                 |        |       |                               |        |         |                                    |   |      |

a. TOTAL = SUM OF FETAL WEIGHTS/NUMBER OF LIVE FETUSES.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 19 (PAGE 4): LITTER OBSERVATIONS (CAESAREAN-DELIVERED EMBRYOS OR FETUSES) - INDIVIDUAL DATA

| RATS CAESAREAN-SECTIONED ON DAY 21 OF GESTATION |                                                                |        |       |                               |        |                    |                                    |   |      |
|-------------------------------------------------|----------------------------------------------------------------|--------|-------|-------------------------------|--------|--------------------|------------------------------------|---|------|
| RAT #                                           | NUMBER OF LIVE FETUSES                                         |        |       | AVERAGE FETAL BODY WEIGHT (G) |        |                    | ---- CONCEPTUSES -----<br>RESORBED |   |      |
|                                                 | MALE                                                           | FEMALE | TOTAL | MALE                          | FEMALE | TOTAL <sup>a</sup> | N                                  | N | %    |
| DOSAGE GROUP IV 1.6 MG/KG/DAY                   |                                                                |        |       |                               |        |                    |                                    |   |      |
| 19549                                           | MATING NOT CONFIRMED                                           |        |       |                               |        |                    |                                    |   |      |
| 19551                                           | MATING NOT CONFIRMED                                           |        |       |                               |        |                    |                                    |   |      |
| 19552                                           | MATING NOT CONFIRMED                                           |        |       |                               |        |                    |                                    |   |      |
| 19556                                           | NOT PREGNANT                                                   |        |       |                               |        |                    |                                    |   |      |
| 19557                                           | MORIBUND SACRIFICED ON DAY 43 OF STUDY (DAY 2 OF COHABITATION) |        |       |                               |        |                    |                                    |   |      |
| 19559                                           | NOT PREGNANT                                                   |        |       |                               |        |                    |                                    |   |      |
| 19560                                           | 5                                                              | 7      | 12    | 5.26                          | 5.06   | 5.14               | 12                                 | 0 | 0.0  |
| 19562                                           | 10                                                             | 10     | 20    | 4.97                          | 4.84   | 4.91               | 22                                 | 2 | 9.1  |
| DOSAGE GROUP V 3.2 MG/KG/DAY                    |                                                                |        |       |                               |        |                    |                                    |   |      |
| 19568                                           | 6                                                              | 0      | 6     | 4.50                          | ----   | 4.50               | 9                                  | 3 | 33.3 |
| 19569                                           | 6                                                              | 7      | 13    | 4.84                          | 4.50   | 4.66               | 13                                 | 0 | 0.0  |
| 19571                                           | DELIVERED ON DAY 21 OF GESTATION                               |        |       |                               |        |                    |                                    |   |      |
| 19572                                           | 6                                                              | 6      | 12    | 4.78                          | 4.57   | 4.68               | 15                                 | 3 | 20.0 |
| 19576                                           | MATING NOT CONFIRMED                                           |        |       |                               |        |                    |                                    |   |      |
| 19577                                           | 1                                                              | 3      | 4     | 5.18                          | 5.00   | 5.04               | 5                                  | 1 | 20.0 |
| 19578                                           | MATING NOT CONFIRMED                                           |        |       |                               |        |                    |                                    |   |      |
| 19579                                           | DELIVERED ON DAY 21 OF GESTATION                               |        |       |                               |        |                    |                                    |   |      |

a. TOTAL = SUM OF FETAL WEIGHTS/NUMBER OF LIVE FETUSES.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 20 (PAGE 1): EMBRYONAL VITAL STATUS OR FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

| RATS CAESAREAN-SECTIONED ON DAY 15 OF PRESUMED GESTATION                                                 |       |              |   |                       |     |     |     |   |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
|----------------------------------------------------------------------------------------------------------|-------|--------------|---|-----------------------|-----|-----|-----|---|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|
| EMBRYO #                                                                                                 | 1     | 2            | 3 | 4                     | 5   | 6   | 7   | 8 | 9   | 10  | 11  | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| DOSAGE GROUP I                                                                                           |       |              |   | 0 (VEHICLE) MG/KG/DAY |     |     |     |   |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
| RAT #                                                                                                    | CLs   |              |   |                       |     |     |     |   |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
| 19501                                                                                                    | 9/10  | E            | A | A                     | A   | A   | A / | A | A   | A   | A   | A  | A  | A  | A  | A  |    |    |    |    |    |    |    |
| 19502                                                                                                    |       | NOT PREGNANT |   |                       |     |     |     |   |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
| 19508                                                                                                    | 9/ 7  | A            | A | A                     | A   | A   | A   | A | A / | A   | A   | A  | A  | A  | A  | A  | A  |    |    |    |    |    |    |
| 19510                                                                                                    | 6/ 7  | E            | A | A                     | A   | A   | A / | A | A   | A   | A   | A  | E  | A  |    |    |    |    |    |    |    |    |    |
| 19511                                                                                                    | 11/12 | A            | A | A                     | A   | A   | A   | A | A / | A   | A   | A  | A  | A  | A  | A  | A  | A  | A  | A  |    |    |    |
| 19513                                                                                                    | 10/ 6 | A            | A | A                     | A   | A   | A   | A | A   | A   | A / | A  | A  | A  | A  | A  | A  |    |    |    |    |    |    |
| 19514                                                                                                    |       | NOT PREGNANT |   |                       |     |     |     |   |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
| 19515                                                                                                    | 10/ 7 | E            | A | A                     | E   | A   | A   | A | A   | A / | A   | A  | E  | A  | A  | A  | A  |    |    |    |    |    |    |
| DOSAGE GROUP II                                                                                          |       |              |   | 0.1 MG/KG/DAY         |     |     |     |   |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
| 19517                                                                                                    |       | NOT PREGNANT |   |                       |     |     |     |   |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
| 19522                                                                                                    | 9/ 8  | A            | A | A                     | A   | A   | A   | A | A / | A   | A   | A  | A  | A  | A  | A  |    |    |    |    |    |    |    |
| 19525                                                                                                    | 7/ 9  | A            | A | A                     | A / | E   | A   | A |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
| 19526                                                                                                    | 10/ 9 | A            | A | A                     | A   | A / | A   | A | A   | A   | A   |    |    |    |    |    |    |    |    |    |    |    |    |
| 19527                                                                                                    | 10/10 | A            | A | A                     | A   | A   | A   | A | A / | A   | A   | E  | A  | A  | A  | A  | A  | A  | A  |    |    |    |    |
| 19530                                                                                                    | 9/ 9  | E            | A | E                     | A   | A   | E   | A | E / | A   | A   | A  | A  | A  | A  | A  |    |    |    |    |    |    |    |
| 19531                                                                                                    | 9/11  | A            | A | A                     | A   | A   | A   | A | A   | E / | A   | A  | A  | A  | A  | A  | A  |    |    |    |    |    |    |
| 19532                                                                                                    | 10/ 6 | A            | E | A                     | A   | A   | A   | A | A   | A / | A   | A  | A  | A  |    |    |    |    |    |    |    |    |    |
| A = VIABLE EMBRYO    E = NONVIABLE EMBRYO    "/" DENOTES POSITION OF CERVIX<br>CLs = CORPORA LUTEA/OVARY |       |              |   |                       |     |     |     |   |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |

A = VIABLE EMBRYO E = NONVIABLE EMBRYO "/" DENOTES POSITION OF CERVIX  
CLs = CORPORA LUTEA/OVARY

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 20 (PAGE 2): EMBRYONAL VITAL STATUS OR FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

| RATS CAESAREAN-SECTIONED ON DAY 15 OF PRESUMED GESTATION |              |               |   |   |   |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
|----------------------------------------------------------|--------------|---------------|---|---|---|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|
| EMBRYO #                                                 | 1            | 2             | 3 | 4 | 5 | 6   | 7   | 8   | 9   | 10  | 11  | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| DOSAGE GROUP III                                         |              | 0.4 MG/KG/DAY |   |   |   |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
| RAT #                                                    | CLs          |               |   |   |   |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
| 19535                                                    | 8/ 7         | A             | E | A | A | A / | E   | A   | A   | A   |     |    |    |    |    |    |    |    |    |    |    |    |    |
| 19537                                                    | 4/ 8         | E /           | E | A | A | A   | E   |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
| 19538                                                    | 9/ 6         | A             | A | A | A | A   | A   | A   | A / | A   | A   | A  | A  |    |    |    |    |    |    |    |    |    |    |
| 19539                                                    | 9/ 9         | A             | A | A | A | E   | E   | A   | A   | A / | A   | A  | A  | A  | A  |    |    |    |    |    |    |    |    |
| 19540                                                    | 11/ 7        | A             | A | A | A | A   | A   | A   | A   | A / | A   | A  | A  | A  | A  | A  |    |    |    |    |    |    |    |
| 19542                                                    | 9/10         | A             | A | A | A | A   | A   | A   | A / | A   | A   | A  | A  | A  | A  | A  | A  |    |    |    |    |    |    |
| 19544                                                    | 12/10        | E             | A | A | A | A   | A   | A   | E / | A   | A   | A  | A  | E  | A  |    |    |    |    |    |    |    |    |
| 19547                                                    | 6/12         | A             | A | A | A | A / | A   | A   | A   | A   | A   | A  | A  | A  | A  | A  | A  |    |    |    |    |    |    |
| DOSAGE GROUP IV                                          |              | 1.6 MG/KG/DAY |   |   |   |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
| 19550                                                    | 9/10         | A             | A | A | A | A   | A   | A   | A   | A / | A   | A  | A  | A  | A  |    |    |    |    |    |    |    |    |
| 19553                                                    | 10/10        | A             | A | A | A | E   | A   | A / | A   | A   | A   | A  | A  | A  | A  |    |    |    |    |    |    |    |    |
| 19554                                                    | 10/ 7        | A             | A | A | A | A   | A   | A   | A   | A / | A   | A  | A  | E  | A  | A  |    |    |    |    |    |    |    |
| 19555                                                    | NOT PREGNANT |               |   |   |   |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
| 19558                                                    | 10/ 8        | E             | E | E | A | A   | A   | A   | A   | A   | A / | A  | A  | A  | A  | A  | A  |    |    |    |    |    |    |
| 19561a                                                   |              |               |   |   |   |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
| 19563                                                    | 8/11         | A             | E | A | A | A   | A / | A   | A   | E   | A   | A  | A  | A  | A  |    |    |    |    |    |    |    |    |
| 19564                                                    | 13/13        | A             | A | A | A | A   | A   | A / | A   | E   | A   | A  | A  |    |    |    |    |    |    |    |    |    |    |

A = VIABLE EMBRYO E = NONVIABLE EMBRYO \*/\* DENOTES POSITION OF CERVIX

CLs = CORPORA LUTEA/OVARY

a. Necropsy and Caesarean-section observations were not recorded for rat 19561.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 20 (PAGE 3): EMBRYONAL VITAL STATUS OR FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

| RATS CAESAREAN-SECTIONED ON DAY 15 OF PRESUMED GESTATION                                                 |       |               |     |   |   |     |   |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----------------------------------------------------------------------------------------------------------|-------|---------------|-----|---|---|-----|---|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| EMBRYO #                                                                                                 | 1     | 2             | 3   | 4 | 5 | 6   | 7 | 8   | 9   | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| DOSAGE GROUP V                                                                                           |       | 3.2 MG/KG/DAY |     |   |   |     |   |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| RAT #                                                                                                    | CLs   |               |     |   |   |     |   |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 19565                                                                                                    | 6/ 7  | A             | A / | A | A | A   | A |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 19566                                                                                                    | 9/ 8  | E             | A   | A | A | A   | A | A   | A / | A  | A  | A  | A  | A  |    |    |    |    |    |    |    |    |    |
| 19567                                                                                                    | 9/ 8  | A             | A   | A | A | A   | A | A   | A / | A  | A  | A  | A  | A  |    |    |    |    |    |    |    |    |    |
| 19570                                                                                                    | 7/10  | A             | A   | A | A | A   | A | E / | E   | A  | A  | A  | A  | A  | A  | A  | A  | A  |    |    |    |    |    |
| 19573                                                                                                    | 5/10  | A             | A   | A | A | A / | A | A   | E   | A  | A  | A  | A  | A  | A  | A  |    |    |    |    |    |    |    |
| 19574                                                                                                    | 10/10 | A             | A   | A | A | A   | A | A / | A   | A  | A  | A  | A  | A  |    |    |    |    |    |    |    |    |    |
| 19575                                                                                                    | 8/11  | A             | A   | A | A | A   | A | A / | A   | A  | E  | E  | A  | A  | E  | E  | A  | A  |    |    |    |    |    |
| 19580                                                                                                    | 11/10 | A             | A   | A | A | A   | A | A / | A   | A  | A  | A  | A  | A  | A  | A  |    |    |    |    |    |    |    |
| A = VIABLE EMBRYO    E = NONVIABLE EMBRYO    "/" DENOTES POSITION OF CERVIX<br>CLs = CORPORA LUTEA/OVARY |       |               |     |   |   |     |   |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

A = VIABLE EMBRYO E = NONVIABLE EMBRYO "/" DENOTES POSITION OF CERVIX  
CLs = CORPORA LUTEA/OVARY

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 20 (PAGE 4): EMBRYONAL VITAL STATUS OR FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

| RATS CAESAREAN-SECTIONED ON DAY 21 OF PRESUMED GESTATION |       |                                                                                              |      |      |      |      |      |      |      |      |      |                       |      |      |      |      |      |      |      |      |    |    |    |
|----------------------------------------------------------|-------|----------------------------------------------------------------------------------------------|------|------|------|------|------|------|------|------|------|-----------------------|------|------|------|------|------|------|------|------|----|----|----|
| FETUS #                                                  | 1     | 2                                                                                            | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12                    | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21 | 22 | 23 |
| DOSAGE GROUP I                                           |       |                                                                                              |      |      |      |      |      |      |      |      |      | 0 (VEHICLE) MG/KG/DAY |      |      |      |      |      |      |      |      |    |    |    |
| RAT #                                                    | CLs   | NO CONFIRMED MATING DATE; DELIVERED ON DAY 66 OF STUDY                                       |      |      |      |      |      |      |      |      |      |                       |      |      |      |      |      |      |      |      |    |    |    |
| 19503                                                    |       |                                                                                              |      |      |      |      |      |      |      |      |      |                       |      |      |      |      |      |      |      |      |    |    |    |
| 19504                                                    | 10/13 | FA                                                                                           | E    | MA   | E    | MA   | MA   | MA / | E    | MA   | E    | MA                    | FA   | MA   | E    | FA   | MA   | FA   |      |      |    |    |    |
|                                                          |       | 4.29                                                                                         |      | 4.79 |      | 4.76 | 4.62 | 4.71 |      | 5.10 |      | 4.01                  | 4.84 | 5.21 |      | 3.80 | 4.77 | 4.83 |      |      |    |    |    |
| 19505                                                    | 4/16  | FA                                                                                           | FA   | MA   | FA / | MA   | FA   | MA   | E    | FA   | MA   | MA                    | FA   | MA   | MA   | MA   | E    | FA   | FA   | FA   |    |    |    |
|                                                          |       | 5.04                                                                                         | 5.46 | 5.37 | 5.41 | 5.47 | 4.69 | 4.15 |      | 5.13 | 5.21 | 4.81                  | 5.12 | 5.31 | 5.36 | 5.38 |      | 4.78 | 5.34 | 4.93 |    |    |    |
| 19506                                                    | 7/ 8  | E                                                                                            | FA   | MA   | FA   | MA   | MA / | FA   | FA   | FA   | MA   | FA                    | FA   | FA   | FA   |      |      |      |      |      |    |    |    |
|                                                          |       |                                                                                              | 5.53 | 5.93 | 5.66 | 5.31 | 5.43 | 5.40 | 5.68 | 5.64 | 5.95 | 4.67                  | 5.87 | 5.22 | 5.70 |      |      |      |      |      |    |    |    |
| 19507                                                    | 13/12 | MA                                                                                           | FA   | MA   | MA   | MA   | MA   | FA   | FA   | FA / | E    | FA                    | MA   | MA   | FA   | FA   |      |      |      |      |    |    |    |
|                                                          |       | 5.48                                                                                         | 5.42 | 5.34 | 5.53 | 5.47 | 5.64 | 5.06 | 5.06 | 5.28 |      | 5.32                  | 5.32 | 5.49 | 5.18 | 5.13 |      |      |      |      |    |    |    |
| 19509                                                    | 7/ 8  | FA                                                                                           | FA   | FA   | FA   | MA   | FA   | E /  | MA   | MA   | FA   | FA                    | MA   | MA   |      |      |      |      |      |      |    |    |    |
|                                                          |       | 5.03                                                                                         | 5.31 | 4.90 | 5.51 | 5.12 | 5.14 |      | 5.44 | 5.31 | 5.12 | 4.98                  | 5.27 | 5.54 |      |      |      |      |      |      |    |    |    |
| 19512                                                    | 4/11  | MA                                                                                           | FA   | FA   | FA / | MA   | FA   | MA   | MA   | MA   | MA   | FA                    | FA   | FA   | MA   |      |      |      |      |      |    |    |    |
|                                                          |       | 5.45                                                                                         | 4.87 | 4.76 | 5.07 | 4.78 | 4.54 | 4.82 | 5.29 | 5.21 | 4.98 | 5.30                  | 5.00 | 4.58 | 5.47 |      |      |      |      |      |    |    |    |
| 19516                                                    | 8/ 9  | MA                                                                                           | FA   | FA   | FA   | FA   | FA / | MA   | MA   | MA   | FA   | FA                    | FA   | MA   | FA   |      |      |      |      |      |    |    |    |
|                                                          |       | 5.34                                                                                         | 4.85 | 4.87 | 5.03 | 5.46 | 4.92 | 4.84 | 5.38 | 5.06 | 3.84 | 5.13                  | 4.91 | 5.23 | 4.85 |      |      |      |      |      |    |    |    |
| DOSAGE GROUP II                                          |       |                                                                                              |      |      |      |      |      |      |      |      |      | 0.1 MG/KG/DAY         |      |      |      |      |      |      |      |      |    |    |    |
| 19518                                                    | 8/ 7  | FA                                                                                           | E    | MA   | FA   | FA   | E    | FA   | FA / | MA   | MA   | MA                    | MA   | MA   |      |      |      |      |      |      |    |    |    |
|                                                          |       | 4.21                                                                                         |      | 4.70 | 4.78 | 4.52 |      | 4.53 | 4.56 | 4.76 | 4.70 | 4.85                  | 4.72 | 5.07 |      |      |      |      |      |      |    |    |    |
| 19519                                                    | 10/ 7 | FA                                                                                           | MA   | FA   | FA   | MA   | FA   | FA   | MA   | MA / | FA   | MA                    | MA   | MA   | FA   | MA   | MA   |      |      |      |    |    |    |
|                                                          |       | 4.99                                                                                         | 5.31 | 5.48 | 5.14 | 5.63 | 5.06 | 4.63 | 5.31 | 5.83 | 5.59 | 5.16                  | 4.98 | 4.88 | 5.22 | 5.00 | 5.51 |      |      |      |    |    |    |
| 19520                                                    |       | MORIBUND SACRIFICED ON DAY 0 OF PRESUMED GESTATION; PREGNANCY STATUS COULD NOT BE DETERMINED |      |      |      |      |      |      |      |      |      |                       |      |      |      |      |      |      |      |      |    |    |    |
| 19521                                                    | 9/ 6  | FA                                                                                           | FA   | FA   | MA   | FA   | FA   | MA   | MA   | MA / | FA   | FA                    | MA   | FA   | MA   | MA   |      |      |      |      |    |    |    |
|                                                          |       | 4.89                                                                                         | 4.74 | 4.62 | 4.66 | 4.90 | 4.81 | 4.92 | 4.92 | 5.28 | 4.49 | 4.86                  | 5.20 | 4.98 | 5.45 | 5.42 |      |      |      |      |    |    |    |
| 19523                                                    | 10/ 4 | E                                                                                            | FA   | L    | FA   | FA   | FA   | FA   | FA   | MA   | MA / | MA                    | E    | FA   | L    |      |      |      |      |      |    |    |    |
|                                                          |       |                                                                                              | 4.80 |      | 5.52 | 5.42 | 5.23 | 5.57 | 4.81 | 5.58 | 5.32 | 5.52                  |      | 5.62 |      |      |      |      |      |      |    |    |    |
| 19524                                                    | 9/12  | FA                                                                                           | MA   | MA   | MA   | MA   | FA   | MA   | MA / | MA   | MA   | E                     | MA   | MA   | MA   | FA   | MA   | FA   |      |      |    |    |    |
|                                                          |       | 5.16                                                                                         | 5.37 | 5.51 | 5.64 | 5.54 | 5.11 | 5.70 | 5.55 | 5.00 | 5.49 |                       | 5.73 | 5.32 | 5.56 | 5.16 | 5.72 | 5.00 |      |      |    |    |    |
| 19528                                                    | 6/ 9  | E                                                                                            | MA / | MA   | E    | E    | FA   | MA   | FA   |      |      |                       |      |      |      |      |      |      |      |      |    |    |    |
|                                                          |       |                                                                                              | 6.86 | 6.59 |      |      | 4.83 | 5.89 | 5.30 |      |      |                       |      |      |      |      |      |      |      |      |    |    |    |
| 19529                                                    | 8/ 8  | FA                                                                                           | MA   | FA   | MA   | E    | FA   | FA   | MA / | FA   | MA   | FA                    | MA   | FA   | MA   | FA   |      |      |      |      |    |    |    |
|                                                          |       | 5.13                                                                                         | 5.87 | 5.63 | 5.97 |      | 5.54 | 5.64 | 5.19 | 5.68 | 6.11 | 5.27                  | 6.25 | 5.71 | 5.81 | 5.74 |      |      |      |      |    |    |    |

M = MALE F = FEMALE A = ALIVE E = EARLY RESORPTION L = LATE RESORPTION "/" DENOTES POSITION OF CERVIX  
CLs = CORPORA LUTEA/OVARY FETAL BODY WEIGHTS WERE RECORDED IN GRAMS (G).



**Caesarean-Sectioning Observations - Day 21 Presumed Gestation:**

All remaining female rats in each dosage group will be Caesarean-sectioned on day 21 of presumed gestation. The gravid uterus will be excised and weighed. Individual placental weights will be recorded. The fetuses will be removed from the uterus, weighed and placed in individual containers. The female rats (pregnant dams) will be examined for number and distribution of:

Corpora Lutea.

Implantation Sites.

[Placentae that appear abnormal (size, color or shape) will be noted in the raw data].

Live and Dead Fetuses.

(A live fetus is defined as one that responds to stimuli; a dead fetus is defined as a term fetus that does not respond to stimuli and that is not markedly autolyzed; dead fetuses demonstrating marked to extreme autolysis are considered to be late resorptions.)

Early and Late Resorptions.

(A conceptus is defined as a late resorption if it is grossly evident that organogenesis has occurred; if this is not the case, the conceptus is defined as an early resorption.)

**Fetal Observations:**

Caps and labeled tubes will be weighed (combined weight, to the nearest .001 gram) before and after retention of pooled fetal samples for subsequent use in pharmacokinetic analyses. These weights will be documented in the raw data, and copies of these weights will be included with the packing list prior to shipment.

**Placental Samples and Amniotic Fluid:**

Samples of the amniotic fluid (when possible) and the placenta of each fetus will be collected, individually pooled (per litter), frozen and stored (-70°C or below) until shipment to the Sponsor for analysis.

**Gross External Alterations, Sex, Body Weights and Identification:**

Fetuses will be examined for sex and for gross external alterations. Late resorptions and dead fetuses will be examined for gross external alterations to the extent possible. The individual body weight of each fetus will be recorded. Only body weights of live fetuses will be used to determine litter fetal body weight averages. Representative photographs of fetal gross external alterations will be taken.

**Blood Samples:**

Blood samples will be collected from each pup via decapitation, pooled (per litter) and transferred into serum separator tubes. The samples will be spun in a refrigerated centrifuge. The serum will be transferred into polypropylene tubes labeled with the study number, animal identification, date of collection, study day and collection timepoint. All samples will be immediately frozen on dry ice and maintained frozen (-70°C or below) until shipment to the Sponsor for analysis.

**Liver Samples:**

The liver of each fetus will be collected, pooled (per litter), frozen and stored (-70°C or below) until shipment to the Sponsor for analysis.

**Fetal Carcasses:**

The remaining carcass (and head) of each fetus will be collected, frozen and stored (-70°C or below) until shipment to the Sponsor for analysis.

**Shipping Instructions:**

All samples will be maintained frozen (-70°C or below) until shipment for analysis. Samples will be shipped frozen on dry ice via overnight mail. A packing list will be included with the samples and sent 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.

**METHOD OF SACRIFICE:**

Rats will be sacrificed by carbon dioxide asphyxiation. Live fetuses will be sacrificed via decapitation.

**NECROPSY:**

Gross lesions will be retained in neutral buffered 10% formalin for possible future evaluation (a table of random units will be used to select one control group rat from which all tissues examined at necropsy will be retained, in order to provide control tissues for any possible histopathological evaluations of gross lesions). Unless specifically cited below, all other tissues will be discarded.

**Scheduled Sacrifice:**

On either day 15 of presumed gestation or day 21 of presumed gestation, following the final collection interval for urine and fecal samples and blood sample collection, female rats will be sacrificed, and a gross necropsy of the thoracic, abdominal and pelvic viscera will be performed. The number and distribution of implantation sites will be recorded. A liver section (right lateral lobe) and the milk-secreting glands from the axillary, thoracic, abdominal and inguinal regions of each dam (left side only) will be collected, frozen and stored (-70°C or below) until shipment to the Sponsor for analysis. Uteri of apparently nonpregnant rats will be stained with 10% ammonium sulfide to confirm the absence of implantation sites<sup>(5)</sup>.

**Rats Found Dead or Moribund:**

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. A liver section (right lateral lobe) and the milk-secreting glands from the axillary, thoracic, abdominal and inguinal regions of each dam (left side only) will be collected, frozen and stored (-70°C or below) until shipment to the Sponsor for analysis. Pregnancy status and uterine contents of female rats will be recorded. Aborted fetuses and/or delivered pups will be examined to the extent possible, using the same methods described for term fetuses. Uteri of apparently nonpregnant rats will be stained with 10% ammonium sulfide to confirm the absence of implantation sites<sup>(5)</sup>.

**Shipping Instructions:**

All samples will be maintained frozen (-70°C or below) until shipment for analysis. Samples will be shipped frozen on dry ice via overnight mail. A packing list will be included with the samples and sent 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.

**STATISTICAL EVALUATION:**

Averages and percentages will be calculated. Litter values will be used where appropriate. Additional procedures and/or analyses may be performed, if deemed appropriate.

**DATA ACQUISITION, VERIFICATION AND STORAGE:**

Data will be hand- and/or computer-recorded. 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 Article, 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.  
Tissue and Sample Collection, Processing and Shipment.  
Cap and Labeled Tube Weights.  
Body Weights.  
Feed Consumption Values.  
Caesarean-Sectioning and Fetal Observations.  
Gross Necropsy Observations.  
Organ Weights.  
Photographs (if required).  
Study Maintenance (room and environmental records).  
Feed, Water and Bedding 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 Laboratory Operations: John F. Barnett, B.S.  
Director of Study Management: Valerie A. Sharper, M.S.  
Manager of Animal Operations and Member, Institutional Animal Care and Use Committee: Dena C. Lebo, V.M.D.  
Director of Operations and Compliance: Barbara J. Patterson, B.A.  
Consultant, Veterinary Pathology: W. Ray Brown, D.V.M., Ph.D., ACVP

**FINAL REPORT:**

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.

**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 CrI: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. Salewski, E. (1964). Färbemethode zum makroskopischen Nachweis von Implantationsstellen am Uterus der Ratte. Arch. Pathol. Exp. Pharmacol. 247:367.

**PROTOCOL APPROVAL:**

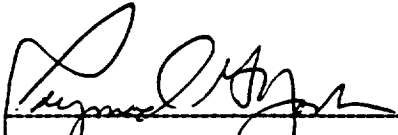
**FOR THE TESTING FACILITY**



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

09-NOV-98

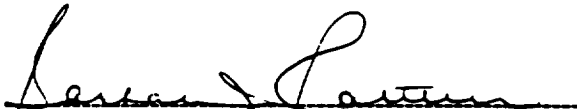
Date



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

09-NOV-98

Date

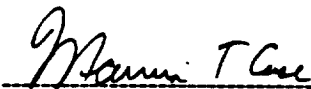


Barbara J. Patterson, B.A.  
Chairperson, Institutional Animal Care and  
Use Committee

09-NOV-98

Date

**FOR THE SPONSOR**



Marvin T. Case, D.V.M., Ph.D.  
Study Monitor

10 Nov 98

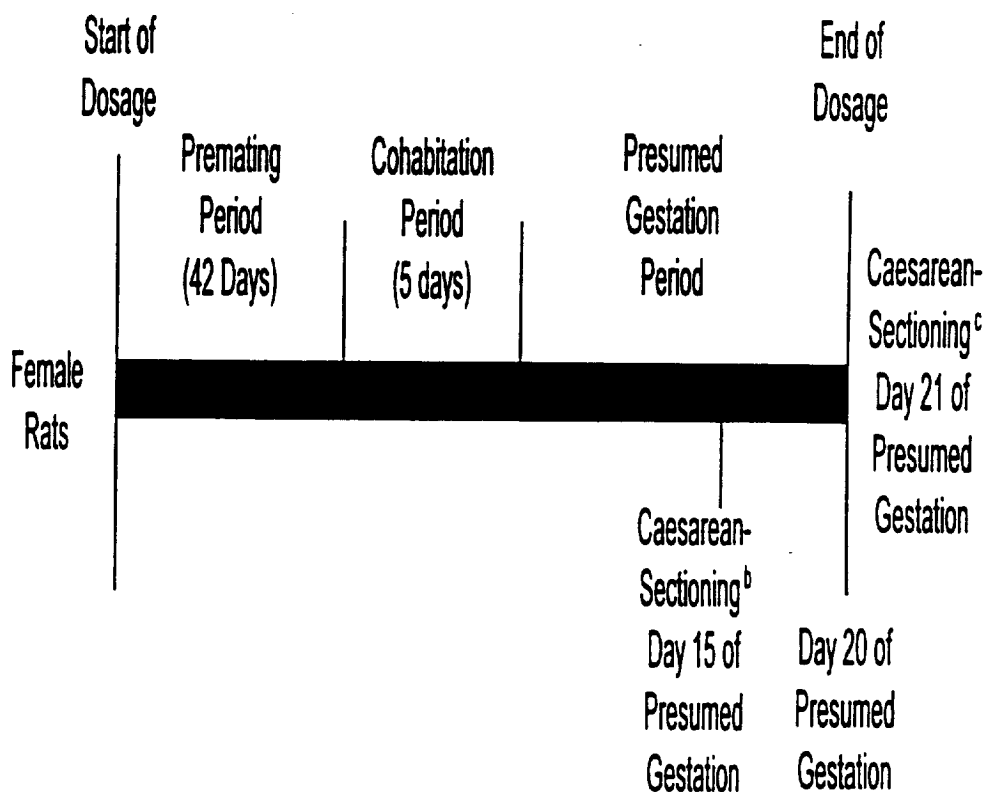
Date

**ATTACHMENT 1**

**SCHEMATIC OF STUDY DESIGN AND STUDY SCHEDULE**



**STUDY SCHEMATIC**  
**PHARMACOKINETIC STUDY<sup>a</sup>**



**■ Dosage Period.**

- a. For additional details see "Tests, Analyses and Measurements" section of the protocol.
- b. Evaluation of corpora lutea, implantation sites and viable and nonviable embryos.
- c. Fetal evaluations (all fetuses - external examinations).

**SCHEDULE\***

|                             |                                                                                                       |
|-----------------------------|-------------------------------------------------------------------------------------------------------|
| 10 NOV 98                   | Animals Arrive - Acclimation Begins.                                                                  |
| 16 NOV 98 - 21 JAN 99       | Dosage Period - Female Rats (42 days prior to cohabitation until day 14 or 20 of presumed gestation). |
| 27 DEC 98 PM - 01 JAN 99 AM | Cohabitation Period.                                                                                  |
| 28 DEC 98 - 01 JAN 99       | Day 0 of Presumed Gestation.                                                                          |
| 12 JAN 99 - 16 JAN 99       | Caesarean-Sectioning Period (Day 15 of presumed gestation).                                           |
| 18 JAN 99 - 22 JAN 99       | Caesarean-Sectioning Period (Day 21 of presumed gestation).                                           |
| 26 MAY 99                   | Draft Final Report.                                                                                   |

- 
- a. The study initiation date is the day the Study Director signs the protocol.

**ATTACHMENT 2**  
**MATERIAL SAFETY DATA SHEET**

# MATERIAL SAFETY DATA SHEET

**3M  
3M Center  
St. Paul, Minnesota  
55144-1000  
1-800-364-3577 or (612) 737-6501 (24 hours)**

Copyright, 1998, Minnesota Mining and Manufacturing Company.  
All rights reserved. Copying and/or downloading of this  
information for the purpose of properly utilizing 3M products  
is allowed provided that:

- 1) the information is copied in full with no changes unless prior agreement is obtained from SM, and
- 2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

**DIVISION: 3M CHEMICALS**

**TRADE NAME:**

**FC-95 FLUORAD Brand Fluorochemical Surfactant**

**ID NUMBER/U.P.C.:**

98-0207-0103-7 00-51135-09054-1 98-0207-0104-5 00-51135-09055-8

98-0211-0888-5 00-51135-09362-7 98-0211-3916-1 00-51135-02311-2

**ZF-0002-1044-1**

**ISSUED: January 29, 1998**

**SUPERSEDES: November 05, 1997**

**DOCUMENT: 10-3796-9**

| 1. INGREDIENT                           | C.A.S. NO. | PERCENT |
|-----------------------------------------|------------|---------|
| POTASSIUM PERFLUOROALKYL SULFONATE..... | 2795-39-3  | 82 - 86 |
| POTASSIUM PERFLUOROALKYL SULFONATE..... | 3871-99-6  | 3 - 8   |
| POTASSIUM PERFLUOROALKYL SULFONATE..... | 29420-49-3 | 3 - 7   |
| POTASSIUM PERFLUOROALKYL SULFONATE..... | 60270-55-5 | 2 - 6   |
| POTASSIUM PERFLUOROALKYL SULFONATE..... | 3872-25-1  | 1 - 3   |

## 2. PHYSICAL DATA

|                           |                           |
|---------------------------|---------------------------|
| BOILING POINT:.....       | N/A                       |
| VAPOR PRESSURE:.....      | N/A                       |
| VAPOR DENSITY:.....       | N/A                       |
| EVAPORATION RATE:.....    | N/A                       |
| SOLUBILITY IN WATER:..... | slight                    |
| SPECIFIC GRAVITY:.....    | ca. 0.6 Water=1<br>(Bulk) |
| PERCENT VOLATILE:.....    | 0 %                       |
| PH:.....                  | 7 - 8<br>(0.1% Aqueous)   |
| VISCOSITY:.....           | N/D                       |
| MELTING POINT:.....       | N/D                       |

**APPEARANCE AND ODOR:**

Light colored, free flowing powder.

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

MSDS: FC-95 FLUORAD Brand Fluorochemical Surfactant  
January 29, 1998

PAGE 2

-----  
**3. FIRE AND EXPLOSION HAZARD DATA**  
-----

FLASH POINT:..... None  
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 Sulfur, Hydrogen Fluoride, Toxic Vapors, Gases or Particulates.

-----  
**5. ENVIRONMENTAL INFORMATION**  
-----

**SPILL RESPONSE:**

Observe precautions from other sections. Vacuum, use wet sweeping compound or water to avoid dusting. CAUTION! A vacuum cleaner could be an ignition source. Clean up residue with water. Place in an approved metal container. Seal the container.

**RECOMMENDED DISPOSAL:**

Do not release to waterways or sewer. Do not use in products or processes that could result in aquatic concentrations greater than 1/10 of the lowest EC50 or LC50 concentration. Incinerate in an industrial or commercial facility in the presence of a combustible material. Combustion products will include HF. Disposal alternative: Dispose of waste product in a facility permitted to

-----  
Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

MSDS: FC-95 FLUORAD Brand Fluorochemical Surfactant  
January 29, 1998

PAGE 3

-----  
5. ENVIRONMENTAL INFORMATION (continued)  
-----

accept chemical waste.

ENVIRONMENTAL DATA:

96-Hr. Aquatic Fish LC50, Fathead Minnow (*Pimephales promelas*) = 38 mg/l,  
Bluegill Sunfish (*Lepomis macrochirus*) = 68 mg/l, Rainbow Trout (*Salmo*  
*gairdneri*) = 11 mg/l; 48-Hr. EC50, *Daphnia Magna* = 50 mg/l; COD = .004  
g/g; BOD20 = Nil.

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).

This product complies with the chemical registration requirements of  
TSCA, EINECS, CDSL, AICS, MITI and Korea.

EPCRA HAZARD CLASS:

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:

Immediately flush skin with large amounts of water. Remove  
contaminated clothing. If irritation persists, call a physician. Wash  
contaminated clothing before reuse.

INHALATION:

If signs/symptoms occur, remove person to fresh air. If  
signs/symptoms continue, call a physician.

IF SWALLOWED:

Drink two glasses of water. Call a physician.

-----  
7. PRECAUTIONARY INFORMATION  
-----

EYE PROTECTION:

Avoid eye contact. Wear vented goggles.

-----  
Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

**MSDS: FC-95 FLUORAD Brand Fluorochemical Surfactant**  
**January 29, 1998**

**PAGE 4**

-----  
**7. PRECAUTIONARY INFORMATION (continued)**  
 -----

**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).

**RECOMMENDED VENTILATION:**

Use with appropriate local exhaust ventilation. Use in a well-ventilated area. 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 dust. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: half-mask dust and mist respirator, half-mask supplied air respirator, full-face dust and mist 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:**

Keep container dry. Keep container closed when not in use.

**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 section 4 of this MSDS.

**HMIS HAZARD RATINGS:** HEALTH: 2 FLAMMABILITY: 0 REACTIVITY: 0  
 PERSONAL PROTECTION: X (See precautions, section 7.)

**EXPOSURE LIMITS**

| INGREDIENT                            | VALUE | UNIT  | TYPE | AUTH | SKIN* |
|---------------------------------------|-------|-------|------|------|-------|
| POTASSIUM PERFLUOROALKYL SULFONATE... | 0.1   | MG/M3 | TWA  | 3M   | Y     |
| POTASSIUM PERFLUOROALKYL SULFONATE... | 0.1   | MG/M3 | TWA  | 3M   | Y     |
| POTASSIUM PERFLUOROALKYL SULFONATE... | 0.1   | MG/M3 | TWA  | 3M   | Y     |
| POTASSIUM PERFLUOROALKYL SULFONATE... | 0.1   | MG/M3 | TWA  | 3M   | Y     |

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

MSDS: FC-95 FLUORAD Brand Fluorochemical Surfactant  
January 29, 1998

PAGE 5

## EXPOSURE LIMITS (continued)

| INGREDIENT                            | VALUE | UNIT  | TYPE | AUTH | SKIN* |
|---------------------------------------|-------|-------|------|------|-------|
| POTASSIUM PERFLUOROALKYL SULFONATE... | 0.1   | MG/M3 | TWA  | 3M   | Y     |

\* 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

## 8. HEALTH HAZARD DATA

## EYE CONTACT:

Mild Eye Irritation: signs/symptoms can include redness, swelling, pain, and tearing.

## 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 persist in the body for an extended time.

## INHALATION:

May be harmful if inhaled.

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.

## IF SWALLOWED:

Ingestion is not a likely route of exposure to this product.

Illness may result from a single swallowing of a moderate quantity of this material.

May be harmful if swallowed.

## MUTAGENICITY:

Mutagenicity assays indicate the product is not mutagenic.

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately



**MSDS: FC-95 FLUORAD Brand Fluorochemical Surfactant**  
**January 29, 1998**

PAGE 6

-----  
**8. HEALTH HAZARD DATA (continued)**  
-----

**REPRODUCTIVE/DEVELOPMENTAL TOXINS:**

Not teratogenic in the rat at oral doses below maternally toxic levels.

**OTHER HEALTH HAZARD INFORMATION:**

This product is not known to contain any substances regulated under California Proposition 65.

A Product Toxicity Summary Sheet is available.

-----  
**SECTION CHANGE DATES**  
-----

| HEADING | SECTION CHANGED SINCE November 05, 1997 | ISSUE |
|---------|-----------------------------------------|-------|
|---------|-----------------------------------------|-------|

-----  
Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately  
-----

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.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the MSDS available directly from 3M.

**ATTACHMENT 3**

**TEST ARTICLE AND VEHICLE PREPARATION PROCEDURE**

## ATTACHMENT 3

Protocol 418-013  
Version: 418-013 (05 NOV 98)  
Page 1 of 3

## TEST ARTICLE AND VEHICLE PREPARATION PROCEDURE

Test Article: PFOS

Vehicle: 0.5% Tween® 80 in R.O. Deionized Water

A. Purpose: The purpose of this procedure is to provide a method for the preparation of dosage suspensions of PFOS and the vehicle for oral administration to rats on Argus Study 418-013.

B. General Information:

1. All suspension containers will be labeled and color coded. Each label will specify the protocol number, test article identification, Argus batch number, concentration, dosage level, preparation date, expiration date and storage conditions.
- 2a. Suspensions will be prepared:  
☒ Daily      ☐ Weekly      ☐ For  days of use
- 2b. Vehicle will be prepared:  
☐ Daily      ☒ Weekly      ☐ For  days of use
3. Suspensions will be prepared at a final dosage volume of 5 mL/kg.
4. Safety:  
☒ Gloves, lab coat, goggles or safety glasses and faceshield  
☒ Dust-Mist Respirator  
☐ Half-Face Respirator  
☐ Full-Face Respirator/Positive Pressure Hood  
☐ Tyvek Suit/Apron
5. Dosage suspensions adjusted for Free base and % Purity.  
☐ Yes      ☒ No (Calculations based on 100%)  
☐ Free Base      ☐ Purity
6. Sampling requirements: Cited in protocol.
7. Storage: Cited in protocol.

## ATTACHMENT 3

Protocol 418-013  
Version: 418-013 (05 NOV 98)  
Page 2 of 3

**TEST ARTICLE AND VEHICLE PREPARATION PROCEDURE**

**NOTE:** Test article will be prepared as a serial dilution from the high dosage to the low dosage. Once the final volumes are achieved, stir bars are to be added to the containers; mixing should occur during sampling and/or administration.

**C. Preparation of Vehicle**

1. Add the required amount of R.O. deionized water to an appropriately labeled container. Heat the water to 50°C,  $\pm 5^\circ\text{C}$ , add the required amount of Tween® 80 and mix until uniform (See TEST ARTICLE CALCULATIONS).

**D. Test Article Suspension Preparation:**

1. To prepare the 0.64 mg/mL, Group V suspension, add the required amount of test article (See TEST ARTICLE CALCULATIONS) into an appropriately sized, labeled container. QS ad to the required amount with vehicle and heat the mixture to 80°C  $\pm 5^\circ\text{C}$  for approximately 30 minutes or until the TA/S dissolves.
2. Once the test article has dissolved; spin while the suspension cools. (Be sure there is a visible vortex, this will achieve the desired emulsion. This may be prepared the day before use.)
3. To prepare the 0.32 mg/mL, Group IV suspension, remove the required amount of stock suspension (Group V) (See TEST ARTICLE CALCULATIONS), QS ad with the vehicle and mix.
4. To prepare the 0.08 mg/mL, Group III suspension, remove the required amount of stock suspension (Group IV) (See TEST ARTICLE CALCULATIONS), QS ad with the vehicle and mix.
5. To prepare the 0.02 mg/mL, Group II suspension, remove the required amount of stock suspension (Group III) (See TEST ARTICLE CALCULATIONS), QS ad with the vehicle and mix.

ATTACHMENT 3

Protocol 418-013

Version: 418-013 (05 NOV 98)

Page 3 of 3

## TEST ARTICLE AND VEHICLE PREPARATION PROCEDURE

6. To prepare the 0 mg/mL, Group I suspension, add required amount of vehicle to an appropriately sized, labeled container (See TEST ARTICLE CALCULATIONS) and mix.

Written by:

*[Signature]*

Approved by:

*[Signature]* Date: 09-nov-98Clarification: ☒ No ☐ Yes (See attached clarification form.)

Initials/Date :

ML 2-2-99



Argus Research Laboratories, Inc.  
905 Sheehy Drive, Building A  
Horsham, PA 19044  
Telephone: (215) 443-8710  
Telefax: (215) 443-8587

---

PROTOCOL 418-013

Oral (Gavage) Pharmacokinetic Study of PFOS in Rats

SPONSOR'S STUDY NUMBER: T-6295.12

Amendment 1 – 6 January 1999

- 
1. Caesarean-Sectioning Observations - Day 21 Presumed Gestation (pages 12 and 13 of the protocol) and Necropsy (page 14 of the protocol):

At Caesarean-sectioning on day 21 of presumed gestation, lung and liver samples will be collected from three fetuses per litter from five litters per dosage group. These collections will occur after weighing and examination for sex and gross external alterations.

One half of the lungs and one lateral lobe of the liver will be individually retained in neutral buffered 10% formalin in scintillation vials. Prior to fixation, several (minimum of two) sections (approximately 1 mm thick) of this half of the lungs and this lobe of the liver will be removed using a scalpel and will be retained in McDowell-Trump's Fixative (stored under refrigeration in scintillation vials) for future evaluation. The other half of the lungs and the other lateral lobe of the liver will be flash frozen in liquid nitrogen and stored in heat-sealable pouches on dry ice. The procedure for collecting and flash freezing these tissues will be available in the raw data. The liver of each of the remaining fetuses, plus any remaining liver from the three selected fetuses, will be collected, pooled (per litter), frozen and stored (-70°C or below) until shipment to the Sponsor for analysis as described on page 13 of the protocol.

The lung and liver sections in McDowell-Trump's Fixative and the lung and liver samples in neutral buffered formalin will be shipped (on cold packs and ambient conditions, respectively), for possible future evaluation by electron microscopy or light microscopy, respectively, to:

Protocol 418-013  
Amendment 1  
Page 2

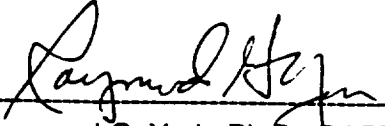
Jeanne deWard  
Pathology Associates International  
4915 D Prospectus Drive  
Durham, North Carolina 27713  
Telephone: (919) 544-5257  
Telefax: (919) 544-3218

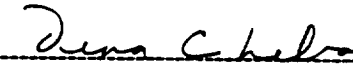
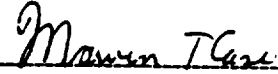
The frozen samples will be shipped (on dry ice) to Kris J. Hansen, Ph.D., at the address cited in the protocol for possible future biochemical evaluation.

All recipients will be notified in advance of sample shipment.

Reason for Change:

The Sponsor has requested that these additional samples be retained for continued evaluation of the reasons for reduced pup survival observed in previous studies.

|                                                                                     |                 |                                                                                      |                  |
|-------------------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------------|------------------|
|  | <u>6-JAN-99</u> |  | <u>06-JAN-99</u> |
| Alan M. Hoberman, Ph.D., DABT                                                       | Date            | Raymond G. York, Ph.D., DABT                                                         | Date             |
| Director of Research                                                                |                 | Associate Director of Research                                                       |                  |
|                                                                                     |                 | Study Director                                                                       |                  |

|                                                                                     |                 |                                                                                      |                  |
|-------------------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------------|------------------|
|  | <u>6-Jan 99</u> |  | <u>06 Jan 99</u> |
| Dena C. Lebo, V.M.D.                                                                | Date            | Marvin T. Case, D.V.M., Ph.D.                                                        | Date             |
| Chairperson, Institutional Animal Care and                                          |                 | Study Monitor                                                                        |                  |
| Use Committee                                                                       |                 |                                                                                      |                  |

## **APPENDIX D**

### **DEVIATIONS FROM THE PROTOCOL AND THE STANDARD OPERATING PROCEDURES OF THE TESTING FACILITY**



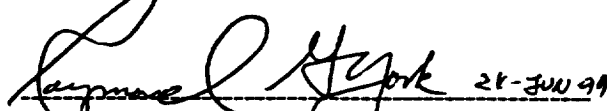
**DEVIATION FROM THE PROTOCOL AND THE STANDARD  
OPERATING PROCEDURES OF THE TESTING FACILITY**

1. Eighty virgin female rats were randomly assigned to the study and received the test article for forty-two days prior to cohabitation, rather than 120 virgin females assigned to study, dosed, mated and then assigned as the population for the study.

Female rats with confirmed date of mating were randomly selected for gestation day 15 (DG 15) Cesarean-sectioning. All remaining rats (with and without confirmed dates of mating) were assigned to DG 21 Cesarean-sectioning. Rats with no confirmed date of mating were Cesarean-sectioned on their estimated DG 21.

These deviations did not adversely affect the outcome or interpretation of the study because sufficient rats were available to collect the pharmacokinetic data.

All deviations are documented in the raw data.

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

## **APPENDIX E**

### **TEMPERATURE AND RELATIVE HUMIDITY REPORTS**

## ARGUS

**Temperature and Relative Humidity Report**  
**Location: Room 04**

**Protocol Number: 418-013**

**Range of Dates: 10-Nov-1998 15:00 to 23-Nov-1998 15:49**

| <b>Target Range:</b><br><b>Species: Rat</b>                                                          | <b>Temperature</b><br><b>64°F to 79°F</b> | <b>Relative Humidity</b><br><b>30% to 70%</b> |
|------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------|
| <b>Total Number of Days:</b><br><b>Total Number of Hours:</b><br><b>Total Number of Data Points:</b> | <b>14</b><br><b>312.75</b><br><b>312</b>  | <b>14</b><br><b>312.75</b><br><b>312</b>      |
| <b>Mean (± SD):</b>                                                                                  | <b>69.1      (± 2.5)</b>                  | <b>58.5      (± 1.7)</b>                      |
| <b>Maximum:</b>                                                                                      | <b>76.4</b>                               | <b>64.4</b>                                   |
| <b>Median:</b>                                                                                       | <b>68.3</b>                               | <b>58.6</b>                                   |
| <b>Minimum:</b>                                                                                      | <b>66.8</b>                               | <b>53.6</b>                                   |
| <b>Number of Points in Range (%):</b>                                                                | <b>312      (100.0)</b>                   | <b>312      (100.0)</b>                       |
| <b>Number of Points High (%):</b>                                                                    | <b>0      (0.0)</b>                       | <b>0      (0.0)</b>                           |
| <b>Number of Points Low (%):</b>                                                                     | <b>0      (0.0)</b>                       | <b>0      (0.0)</b>                           |

**Report Generated: 03-Feb-1999 at 13:44**

**COMMENTS:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**REVIEWED BY:** *Joseph Lee* **DATE:** 2/3/99

## ARGUS

|                                                                                                                                                         |                                                                                             |                                                                                                 |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--|
| <b>Temperature and Relative Humidity Report</b><br><b>Location: Room 27</b><br><br><b>Protocol Number: 418-013</b>                                      |                                                                                             |                                                                                                 |  |
| <b>Range of Dates: 23-Nov-1998 15:49 to 22-Jan-1999 16:00</b>                                                                                           |                                                                                             |                                                                                                 |  |
| <b>Target Range:</b><br><b>Species: Rat</b><br><br><b>Total Number of Days:</b><br><b>Total Number of Hours:</b><br><b>Total Number of Data Points:</b> | <b>Temperature</b><br><b>64°F to 79°F</b><br><br><b>61</b><br><b>1439.74</b><br><b>1442</b> | <b>Relative Humidity</b><br><b>30% to 70%</b><br><br><b>61</b><br><b>1439.74</b><br><b>1442</b> |  |
| <b>Mean (± SD):</b>                                                                                                                                     | <b>70.7      (± 0.7)</b>                                                                    | <b>54.1      (± 8.2)</b>                                                                        |  |
| <b>Maximum:</b>                                                                                                                                         | <b>72.6</b>                                                                                 | <b>69.8</b>                                                                                     |  |
| <b>Median:</b>                                                                                                                                          | <b>70.8</b>                                                                                 | <b>56.1</b>                                                                                     |  |
| <b>Minimum:</b>                                                                                                                                         | <b>69.0</b>                                                                                 | <b>14.9</b>                                                                                     |  |
| <b>Number of Points in Range (%):</b>                                                                                                                   | <b>1442      (100.0)</b>                                                                    | <b>1418      (98.3)</b>                                                                         |  |
| <b>Number of Points High (%):</b>                                                                                                                       | <b>0      (0.0)</b>                                                                         | <b>0      (0.0)</b>                                                                             |  |
| <b>Number of Points Low (%):</b>                                                                                                                        | <b>0      (0.0)</b>                                                                         | <b>24      (1.7)</b>                                                                            |  |

Report Generated: 03-Feb-1999 at 13:48

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

REVIEWED BY: *[Signature]* DATE: 2/3/99

## ARGUS

**Relative Humidity Deviations Report**  
**Location: Room 27**

**Protocol Number: 418-013**

**Range of Dates: 23-Nov-1998 15:49 to 22-Jan-1999 16:00**

**Humidity Target Range:**  
**Species: Rat**

**30% to 70%**

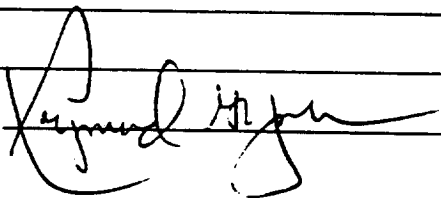
| <b>Date</b> | <b>Time</b> | <b>R.H.</b> | <b>Date</b> | <b>Time</b> | <b>R.H.</b> |
|-------------|-------------|-------------|-------------|-------------|-------------|
| 04-Jan-1999 | 16:00       | 29.1 L      | 14-Jan-1999 | 02:00       | 28.6 L      |
| 05-Jan-1999 | 23:00       | 26.1 L      | 14-Jan-1999 | 03:00       | 27.8 L      |
| 06-Jan-1999 | 00:00       | 23.7 L      | 14-Jan-1999 | 04:00       | 27.5 L      |
| 06-Jan-1999 | 01:00       | 23.3 L      | 14-Jan-1999 | 05:00       | 26.3 L      |
| 06-Jan-1999 | 02:00       | 20.1 L      | 14-Jan-1999 | 06:00       | 27.0 L      |
| 06-Jan-1999 | 03:00       | 18.4 L      | 14-Jan-1999 | 07:00       | 26.3 L      |
| 06-Jan-1999 | 04:00       | 17.6 L      | 14-Jan-1999 | 08:00       | 25.8 L      |
| 06-Jan-1999 | 05:00       | 16.9 L      |             |             |             |
| 06-Jan-1999 | 06:00       | 14.9 L      |             |             |             |
| 06-Jan-1999 | 07:00       | 27.0 L      |             |             |             |
| 11-Jan-1999 | 11:00       | 27.9 L      |             |             |             |
| 11-Jan-1999 | 12:00       | 29.1 L      |             |             |             |
| 11-Jan-1999 | 13:00       | 26.1 L      |             |             |             |
| 11-Jan-1999 | 14:00       | 28.6 L      |             |             |             |
| 11-Jan-1999 | 15:00       | 26.9 L      |             |             |             |
| 11-Jan-1999 | 16:00       | 28.7 L      |             |             |             |
| 14-Jan-1999 | 00:00       | 29.6 L      |             |             |             |

H = Value out of range - High    L = Value out of range - Low  
 R.H. = Relative Humidity (%)

**Report Generated: 03-Feb-1999 at 13:57**

☒ 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: 17-Feb-99

**APPENDIX F**  
**HISTORICAL CONTROL DATA**

### SUMMARY OF REPRODUCTIVE INDICES

| PERIOD                                             | JUNE 1996 - JUNE 1998 |                          |
|----------------------------------------------------|-----------------------|--------------------------|
| NUMBER OF STUDIES                                  | 105                   |                          |
| NUMBER OF RATS:                                    |                       |                          |
| TESTED                                             | 2233                  |                          |
| PREGNANT                                           | 2065                  |                          |
| FOUND DEAD                                         | 4                     |                          |
| ABORTED                                            | 0                     |                          |
| DELIVERED                                          | 0                     |                          |
| NUMBER OF RATS PREGNANT AT<br>CAESAREAN-SECTIONING | 2052                  |                          |
| NUMBER OF RATS WITH SINGLE<br>CONCEPTUS LITTER:    |                       |                          |
| LIVE                                               | 6                     |                          |
| RESORBED                                           | 1                     |                          |
| ABORTED                                            | 0                     |                          |
|                                                    | MEAN or %             | RANGE/STUDY<br>MEAN or % |
| % PREGNANT                                         | 92.8                  | (64.0-100)               |
| AVERAGE # CORPORA LUTEA                            | 16.9                  | (14.0-21.0)              |
| AVERAGE # IMPLANTATIONS                            | 15.3                  | (12.9-18.0)              |
| AVERAGE LITTER SIZE                                |                       |                          |
| AVERAGE # LIVE FETUSES                             | 14.5                  | (11.8-16.9)              |
| AVERAGE # DEAD FETUSES                             | 0.1                   | (0-1.4)                  |
| AVERAGE # RESORPTIONS                              | 0.7                   | (0-2.0)                  |
| AVERAGE # EARLY RESORPTIONS                        | 0.7                   | (0-1.9)                  |
| AVERAGE # LATE RESORPTIONS                         | 0.0                   | (0-0.1)                  |

**SUMMARY OF REPRODUCTIVE INDICES  
CD RAT**

|                                                  | MEAN or % | RANGE/STUDY<br>MEAN or % |
|--------------------------------------------------|-----------|--------------------------|
| AVERAGE % DAMS WITH ANY<br>RESORPTIONS           | 46.1      | (0-87.5)                 |
| AVERAGE % DAMS WITH ALL<br>CONCEPTUSES RESORBED  | 0.1       | (0-4.5)                  |
| AVERAGE % DAMS WITH ONE OR<br>MORE LIVE FETUSES  | 99.8      | (95.4-100)               |
| AVERAGE SEX RATIO,<br>(% MALES/LITTER)           | 50.2      | (42.8-57.0)              |
| AVERAGE FETAL BODY WEIGHT (G)                    | 3.48      | (3.10-3.78)              |
| AVERAGE FOR MALES (G)                            | 3.58      | (3.17-3.90)              |
| AVERAGE FOR FEMALES (G)                          | 3.39      | (2.98-3.67)              |
| AVERAGE % DEAD OR RESORBED<br>CONCEPTUSES/LITTER | 4.7       | (0-12.4)                 |



# SUMMARY OF MATERNAL NECROPSY OBSERVATIONS CD RAT

|                             |                       |
|-----------------------------|-----------------------|
| PERIOD                      | JUNE 1996 - JUNE 1998 |
| # STUDIES                   | 124                   |
| # RATS TESTED               | 2668                  |
| # RATS PREGNANT             | 2480*                 |
| # RATS DIED                 | 8**                   |
| # RATS ABORTED              | 0                     |
| # RATS DELIVERED            | 431                   |
| # RATS WITH 100% RESORPTION | 3                     |

| EXTERNAL<br>OBSERVATIONS                                  | N | MEAN<br>% | RANGE /STUDY<br>N % |
|-----------------------------------------------------------|---|-----------|---------------------|
| Red substance around<br>nose and/or mouth                 | 2 | 0.07      | 0-1 (0-12.5)        |
| White substance present<br>in anterior chamber of<br>eyes | 1 | 0.04      | 0-1 (0-4.2)         |
| Red perivaginal substance                                 | 1 | 0.04      | 0-1 (0-4.0)         |

## GROSS LESIONS

### ESOPHAGUS

|                                               |   |      |             |
|-----------------------------------------------|---|------|-------------|
| Tom( attributed to an<br>intubation accident) | 1 | 0.04 | 0-1 (0-4.0) |
|-----------------------------------------------|---|------|-------------|

### LUNGS

|                                                    |   |      |             |
|----------------------------------------------------|---|------|-------------|
| Dark red (attributed to an<br>intubation accident) | 1 | 0.04 | 0-1 (0-4.0) |
|----------------------------------------------------|---|------|-------------|

### THORACIC CAVITY

|                                              |   |      |             |
|----------------------------------------------|---|------|-------------|
| Filled with light red or<br>cloudy red fluid | 2 | 0.07 | 0-1 (0-4.0) |
|----------------------------------------------|---|------|-------------|

### THYMUS

|       |   |      |             |
|-------|---|------|-------------|
| Large | 1 | 0.04 | 0-1 (0-4.0) |
|-------|---|------|-------------|

### AXILLA

|                                      |   |      |             |
|--------------------------------------|---|------|-------------|
| Mass present                         | 1 | 0.04 | 0-1 (0-4.0) |
| Lymph nodes enlarged<br>on left side | 1 | 0.04 | 0-1 (0-4.2) |

\* Pregnancy status for one dam could not be determined

\*\* One was a moribund sacrifice and one was attributed to an intubation accident

**SUMMARY OF MATERNAL NECROPSY OBSERVATIONS  
CD RAT**

| GROSS LESIONS                                                                                              |    | MEAN | RANGE /STUDY |          |
|------------------------------------------------------------------------------------------------------------|----|------|--------------|----------|
|                                                                                                            | N  | %    | N            | %        |
| <b>LIVER</b>                                                                                               |    |      |              |          |
| Adhesion between left lateral lobe and left lateral abdominal wall                                         | 1  | 0.04 | 0-1          | (0-4.0)  |
| Right lateral and median lobes protruded through diaphragm                                                 | 1  | 0.04 | 0-1          | (0-4.0)  |
| <b>STOMACH/INTESTINE</b>                                                                                   |    |      |              |          |
| Stomach and intestines distended with gas                                                                  | 1  | 0.04 | 0-1          | (0-4.0)  |
| Cecum contained a black substance                                                                          | 1  | 0.04 | 0-1          | (0-4.0)  |
| Stomach contained a dark red, granular substance                                                           | 1  | 0.04 | 0-1          | (0-4.2)  |
| <b>BACK</b>                                                                                                |    |      |              |          |
| Spine, protrusion of bone on dorsal thoracic portion                                                       | 1  | 0.04 | 0-1          | (0-4.0)  |
| <b>KIDNEY(S)</b>                                                                                           |    |      |              |          |
| Pelvis, slight/moderate dilation with or without fluid                                                     | 16 | 0.60 | 0-2          | (0-12.5) |
| Pelvis, marked/extreme dilation                                                                            | 7  | 0.26 | 0-1          | (0-4.0)  |
| Mottled                                                                                                    | 1  | 0.04 | 0-1          | (0-4.0)  |
| Large                                                                                                      | 2  | 0.07 | 0-1          | (0-4.0)  |
| Small                                                                                                      | 1  | 0.04 | 0-1          | (0-4.0)  |
| Cortex pitted                                                                                              | 1  | 0.04 | 0-1          | (0-3.4)  |
| Left, pelvis contained yellow fluid                                                                        | 1  | 0.04 | 0-1          | (0-4.0)  |
| Bilateral, pelvis contained numerous calculi                                                               | 1  | 0.04 | 0-1          | (0-4.0)  |
| Right, indentation                                                                                         | 1  | 0.04 | 0-1          | (0-4.0)  |
| Pale                                                                                                       | 1  | 0.04 | 0-1          | (0-12.5) |
| Left, small; right, enlarged cortex with numerous pinpoint yellow areas and viscous yellow fluid in pelvis | 1  | 0.04 | 0-1          | (0-4.0)  |
| <b>ADRENAL GLAND(S)</b>                                                                                    |    |      |              |          |
| Large                                                                                                      | 1  | 0.04 | 0-1          | (0-4.0)  |

**SUMMARY OF MATERNAL NECROPSY OBSERVATIONS  
CD RAT**

| GROSS LESIONS    |                                                                                  | MEAN | RANGE /STUDY |             |
|------------------|----------------------------------------------------------------------------------|------|--------------|-------------|
|                  |                                                                                  | N    | %            | N           |
| ABDOMINAL CAVITY |                                                                                  |      |              |             |
|                  | Filled with light red fluid                                                      | 1    | 0.04         | 0-1 (0-4.0) |
| SPLEEN           |                                                                                  |      |              |             |
|                  | Two white areas on serosal surface                                               | 1    | 0.04         | 0-1 (0-4.0) |
|                  | Large                                                                            | 2    | 0.07         | 0-2 (0-8.0) |
| BLADDER          |                                                                                  |      |              |             |
|                  | Wall thick and contained one calculus                                            | 1    | 0.04         | 0-1 (0-4.0) |
| URETERS          |                                                                                  |      |              |             |
|                  | Distended with clear fluid                                                       | 2    | 0.07         | 0-1 (0-4.0) |
| VAGINA/CERVIX    |                                                                                  |      |              |             |
|                  | Cervix contained a dark red, gelatinous substance                                | 1    | 0.04         | 0-1 (0-4.0) |
|                  | Cervix contained green, viscous fluid                                            | 1    | 0.04         | 0-1 (0-4.0) |
|                  | Vagina contained brown, viscous fluid                                            | 1    | 0.04         | 0-1 (0-2.1) |
| UTERUS           |                                                                                  |      |              |             |
|                  | Contained red-brown fluid                                                        | 1    | 0.04         | 0-1 (0-4.0) |
|                  | Right horn, absent                                                               | 1    | 0.04         | 0-1 (0-4.0) |
|                  | Right horn, threadlike                                                           | 1    | 0.04         | 0-1 (0-2.1) |
|                  | Left horn, lumen absent on cervical end; ovarian end, distended with clear fluid | 1    | 0.04         | 0-1 (0-4.0) |
|                  | Right horn, clear masses containing gelatinous substance present                 | 1    | 0.04         | 0-1 (0-4.0) |
|                  | Portion of left uterine horn prolapsed                                           | 1    | 0.04         | 0-1 (0-4.0) |
| OVARIES          |                                                                                  |      |              |             |
|                  | Right contained a red, fluid-filled bursal cyst                                  | 1    | 0.04         | 0-1 (0-4.0) |

### SUMMARY OF FETAL GROSS EXTERNAL ALTERATIONS CD RAT

**PERIOD** **JUNE 1996 - JUNE 1998**

|                         |       |
|-------------------------|-------|
| # STUDIES INCLUDED      | 84    |
| # LITTERS EXAMINED      | 1652  |
| # LIVE FETUSES EXAMINED | 23689 |

| ALTERATION |                                       |   | N | %    | RANGE | /STUDY   |
|------------|---------------------------------------|---|---|------|-------|----------|
|            |                                       |   |   |      | N     | %        |
| HEAD       | Exencephaly                           | L | 4 | 0.24 | 0-1   | (0-4.2)  |
|            |                                       | F | 4 | 0.02 | 0-1   | (0-0.3)  |
|            | Hematoma                              | L | 1 | 0.06 | 0-1   | (0-2.2)  |
|            |                                       | F | 1 | 0.00 | 0-1   | (0-0.2)  |
|            | Microcephaly                          | L | 1 | 0.06 | 0-1   | (0-4.0)  |
|            |                                       | F | 1 | 0.00 | 0-1   | (0-0.3)  |
| EYE(S)     | Eye bulges depressed                  | L | 9 | 0.54 | 0-2   | (0-12.5) |
|            |                                       | F | 9 | 0.04 | 0-2   | (0-0.9)  |
|            | Eyelids open                          | L | 2 | 0.12 | 0-1   | (0-4.2)  |
|            |                                       | F | 2 | 0.01 | 0-1   | (0-0.3)  |
|            | Microphthalmia                        | L | 1 | 0.06 | 0-1   | (0-4.0)  |
|            |                                       | F | 1 | 0.00 | 0-1   | (0-0.3)  |
| EARS       | Low set                               | L | 1 | 0.06 | 0-1   | (0-12.5) |
|            |                                       | F | 1 | 0.00 | 0-1   | (0-0.9)  |
| SNOUT      | Short                                 | L | 2 | 0.12 | 0-1   | (0-4.2)  |
|            |                                       | F | 2 | 0.01 | 0-1   | (0-0.3)  |
| TONGUE     | Absent                                | L | 1 | 0.06 | 0-1   | (0-4.0)  |
|            |                                       | F | 1 | 0.00 | 0-1   | (0-0.3)  |
|            | Protrudes                             | L | 1 | 0.06 | 0-1   | (0-4.2)  |
|            |                                       | F | 1 | 0.00 | 0-1   | (0-0.3)  |
|            | Fused to lower margin of oral opening | L | 1 | 0.06 | 0-1   | (0-4.8)  |
|            |                                       | F | 1 | 0.00 | 0-1   | (0-0.4)  |

L: LITTER INCIDENCE  
F: FETAL INCIDENCE

**SUMMARY OF FETAL GROSS EXTERNAL ALTERATIONS  
CD RAT**

| ALTERATION         |   |   |      | RANGE /STUDY |          |
|--------------------|---|---|------|--------------|----------|
|                    |   | N | %    | N            | %        |
| <b>JAWS</b>        |   |   |      |              |          |
| Micrognathia       | L | 2 | 0.12 | 0-1          | (0-4.5)  |
|                    | F | 2 | 0.01 | 0-1          | (0-0.3)  |
| Agnathia           | L | 1 | 0.06 | 0-1          | (0-12.5) |
|                    | F | 1 | 0.00 | 0-1          | (0-0.9)  |
| Cleft              | L | 1 | 0.06 | 0-1          | (0-4.8)  |
|                    | F | 1 | 0.00 | 0-1          | (0-0.4)  |
| <b>BODY</b>        |   |   |      |              |          |
| Edema              | L | 2 | 0.12 | 0-1          | (0-4.3)  |
|                    | F | 2 | 0.01 | 0-1          | (0-0.3)  |
| Umbilical hernia   | L | 5 | 0.30 | 0-1          | (0-4.3)  |
|                    | F | 5 | 0.02 | 0-1          | (0-0.3)  |
| Spina bifida       | L | 1 | 0.06 | 0-1          | (0-4.2)  |
|                    | F | 1 | 0.00 | 0-1          | (0-0.3)  |
| Hematoma           | L | 2 | 0.12 | 0-1          | (0-4.0)  |
|                    | F | 2 | 0.01 | 0-1          | (0-0.3)  |
| Conjoined twin     | L | 1 | 0.06 | 0-1          | (0-4.0)  |
|                    | F | 1 | 0.00 | 0-1          | (0-0.3)  |
| <b>HINDLIMBS</b>   |   |   |      |              |          |
| Third limb present | L | 1 | 0.06 | 0-1          | (0-14.3) |
|                    | F | 1 | 0.00 | 0-1          | (0-0.9)  |
| <b>ANUS</b>        |   |   |      |              |          |
| No opening present | L | 1 | 0.06 | 0-1          | (0-2.6)  |
|                    | F | 1 | 0.00 | 0-1          | (0-0.2)  |
| <b>TAIL</b>        |   |   |      |              |          |
| Threadlike         | L | 5 | 0.30 | 0-1          | (0-12.5) |
|                    | F | 5 | 0.02 | 0-1          | (0-0.9)  |
| Agenesis           | L | 2 | 0.12 | 0-1          | (0-4.5)  |
|                    | F | 2 | 0.01 | 0-1          | (0-0.3)  |
| Short              | L | 1 | 0.06 | 0-1          | (0-2.4)  |
|                    | F | 1 | 0.00 | 0-1          | (0-0.2)  |
| Constricted        | L | 1 | 0.06 | 0-1          | (0-2.4)  |
|                    | F | 1 | 0.00 | 0-1          | (0-0.2)  |

L: LITTER INCIDENCE

F: FETAL INCIDENCE

**SUMMARY OF FETAL SOFT TISSUE ALTERATIONS  
CD RAT**

**PERIOD** JUNE 1996 - JUNE 1998  
**# STUDIES INCLUDED** 36  
**# LITTERS EXAMINED** 830  
**# FETUSES EXAMINED** 5753

| ALTERATION                                               |   | RANGE/STUDY |      |     |         |
|----------------------------------------------------------|---|-------------|------|-----|---------|
|                                                          |   | N           | %    | N   | %       |
| BRAIN                                                    |   |             |      |     |         |
| Lateral ventricles,<br>moderate dilation                 | L | 1           | 0.12 | 0-1 | (0-4.3) |
|                                                          | F | 1           | 0.02 | 0-1 | (0-0.6) |
| Lateral ventricles,<br>marked dilation                   | L | 2           | 0.24 | 0-1 | (0-4.3) |
|                                                          | F | 2           | 0.03 | 0-1 | (0-0.6) |
| Third ventricle,<br>marked dilation                      | L | 1           | 0.12 | 0-1 | (0-4.2) |
|                                                          | F | 1           | 0.02 | 0-1 | (0-0.6) |
| Lateral and third vent-<br>ricles, irregularly<br>shaped | L | 1           | 0.12 | 0-1 | (0-4.2) |
|                                                          | F | 1           | 0.02 | 0-1 | (0-0.6) |
| Irregularly shaped                                       | L | 1           | 0.12 | 0-1 | (0-4.2) |
|                                                          | F | 1           | 0.02 | 0-1 | (0-0.6) |
| EYES                                                     |   |             |      |     |         |
| Microphthalmia                                           | L | 3           | 0.36 | 0-1 | (0-4.3) |
|                                                          | F | 3           | 0.05 | 0-1 | (0-0.7) |
| TONGUE                                                   |   |             |      |     |         |
| Absent                                                   | L | 1           | 0.12 | 0-1 | (0-4.0) |
|                                                          | F | 1           | 0.02 | 0-1 | (0-0.6) |
| JAW                                                      |   |             |      |     |         |
| Micrognathia                                             | L | 1           | 0.12 | 0-1 | (0-4.0) |
|                                                          | F | 1           | 0.02 | 0-1 | (0-0.6) |
| HEART                                                    |   |             |      |     |         |
| Septal defect                                            | L | 1           | 0.12 | 0-1 | (0-4.0) |
|                                                          | F | 1           | 0.02 | 0-1 | (0-0.6) |
| VESSELS                                                  |   |             |      |     |         |
| Innominate, absent                                       | L | 6           | 0.72 | 0-2 | (0-8.3) |
|                                                          | F | 6           | 0.10 | 0-2 | (0-1.2) |

**L: LITTER INCIDENCE**  
**F: FETAL INCIDENCE**

**SUMMARY OF FETAL SOFT TISSUE ALTERATIONS  
CD RAT**

| ALTERATION                                                                 |   |  | N  | %    | RANGE/STUDY |         |
|----------------------------------------------------------------------------|---|--|----|------|-------------|---------|
|                                                                            |   |  |    |      | N           | %       |
| VESSELS (CONT.)                                                            |   |  |    |      |             |         |
| Innominate, arises on left                                                 | L |  | 1  | 0.12 | 0-1         | (0-4.0) |
|                                                                            | F |  | 1  | 0.02 | 0-1         | (0-0.6) |
| Umbilical artery, descends to left of urinary bladder                      | L |  | 15 | 1.81 | 0-2         | (0-8.7) |
|                                                                            | F |  | 16 | 0.28 | 0-2         | (0-1.4) |
| Situs inversus                                                             | L |  | 1  | 0.12 | 0-1         | (0-4.2) |
|                                                                            | F |  | 1  | 0.02 | 0-1         | (0-0.6) |
| Aorta, descends to right                                                   | L |  | 1  | 0.12 | 0-1         | (0-4.0) |
|                                                                            | F |  | 1  | 0.02 | 0-1         | (0-0.6) |
| Pulmonary artery, descends to right behind aorta                           | L |  | 1  | 0.12 | 0-1         | (0-4.0) |
|                                                                            | F |  | 1  | 0.02 | 0-1         | (0-0.6) |
| LUNGS                                                                      |   |  |    |      |             |         |
| Right apical, cardiac and diaphragmatic lobes appear as one                | L |  | 1  | 0.12 | 0-1         | (0-4.0) |
|                                                                            | F |  | 1  | 0.02 | 0-1         | (0-0.6) |
| Intermediate lobe, absent                                                  | L |  | 1  | 0.12 | 0-1         | (0-4.0) |
|                                                                            | F |  | 1  | 0.02 | 0-1         | (0-0.6) |
| BODY                                                                       |   |  |    |      |             |         |
| Edema                                                                      | L |  | 1  | 0.12 | 0-1         | (0-4.0) |
|                                                                            | F |  | 1  | 0.02 | 0-1         | (0-0.6) |
| ABDOMINAL CAVITY                                                           |   |  |    |      |             |         |
| Situs inversus of liver, intestines, stomach, spleen, pancreas and kidneys | L |  | 1  | 0.12 | 0-1         | (0-4.0) |
|                                                                            | F |  | 1  | 0.02 | 0-1         | (0-0.6) |
| KIDNEY(S)                                                                  |   |  |    |      |             |         |
| Pelvis, slight dilation                                                    | L |  | 2  | 0.24 | 0-2         | (0-8.7) |
|                                                                            | F |  | 2  | 0.03 | 0-2         | (0-1.3) |
| Pelvis, moderate dilation                                                  | L |  | 1  | 0.12 | 0-1         | (0-4.3) |
|                                                                            | F |  | 1  | 0.02 | 0-1         | (0-0.6) |
| ADRENAL(S)                                                                 |   |  |    |      |             |         |
| Dark red                                                                   | L |  | 2  | 0.24 | 0-1         | (0-4.3) |
|                                                                            | F |  | 2  | 0.03 | 0-1         | (0-0.6) |

L: LITTER INCIDENCE  
F: FETAL INCIDENCE

**SUMMARY OF FETAL SKELETAL ALTERATIONS  
CD RAT**

|                           |                              |
|---------------------------|------------------------------|
| <b>PERIOD</b>             | <b>JUNE 1996 - JUNE 1998</b> |
| <b># STUDIES INCLUDED</b> | <b>36</b>                    |
| <b># LITTERS EXAMINED</b> | <b>816</b>                   |
| <b># FETUSES EXAMINED</b> | <b>6151</b>                  |

|           |                                           | ALTERATION |    | N    | % | RANGE/STUDY |          |
|-----------|-------------------------------------------|------------|----|------|---|-------------|----------|
| SKULL     |                                           |            |    |      |   | N           | %        |
|           | Frontal(s): incompletely or not ossified  | L          | 2  | 0.24 |   | 0-1         | (0-4.2)  |
|           |                                           | F          | 2  | 0.03 |   | 0-1         | (0-0.6)  |
|           | Parietal(s): incompletely or not ossified | L          | 2  | 0.24 |   | 0-1         | (0-4.2)  |
|           |                                           | F          | 2  | 0.03 |   | 0-1         | (0-0.6)  |
|           | Nasal(s): short                           | L          | 3  | 0.37 |   | 0-1         | (0-4.2)  |
|           |                                           | F          | 3  | 0.05 |   | 0-1         | (0-0.6)  |
|           | Sphenoid: incompletely ossified           | L          | 1  | 0.12 |   | 0-1         | (0-4.2)  |
|           |                                           | F          | 1  | 0.02 |   | 0-1         | (0-0.6)  |
|           | Maxillae and Premaxillae: short           | L          | 3  | 0.37 |   | 0-1         | (0-4.2)  |
|           |                                           | F          | 3  | 0.05 |   | 0-1         | (0-0.6)  |
|           | Skull: incompletely or not ossified       | L          | 1  | 0.12 |   | 0-1         | (0-4.2)  |
|           |                                           | F          | 2  | 0.03 |   | 0-2         | (0-1.2)  |
| VERTEBRAE |                                           |            |    |      |   |             |          |
|           | Thoracic: Centrum, bifid                  | L          | 67 | 8.21 |   | 0-5         | (0-20.8) |
|           |                                           | F          | 74 | 1.20 |   | 0-6         | (0-3.4)  |
|           | : Centra, unilateral ossification         | L          | 6  | 0.74 |   | 0-2         | (0-8.0)  |
|           |                                           | F          | 6  | 0.10 |   | 0-2         | (0-1.0)  |
|           | : Centrum, incompletely or not ossified   | L          | 3  | 0.37 |   | 0-2         | (0-8.3)  |
|           |                                           | F          | 4  | 0.06 |   | 0-3         | (0-1.8)  |
|           | : Centra, fused                           | L          | 1  | 0.12 |   | 0-1         | (0-4.2)  |
|           |                                           | F          | 1  | 0.02 |   | 0-1         | (0-0.5)  |
|           | : Arch, small                             | L          | 1  | 0.12 |   | 0-1         | (0-4.0)  |
|           |                                           | F          | 1  | 0.02 |   | 0-1         | (0-0.6)  |
|           | Lumbar: Centrum, bifid                    | L          | 1  | 0.12 |   | 0-1         | (0-4.3)  |
|           |                                           | F          | 1  | 0.02 |   | 0-1         | (0-0.6)  |
|           | : Centrum, incompletely or not ossified   | L          | 2  | 0.24 |   | 0-2         | (0-8.3)  |
|           |                                           | F          | 3  | 0.05 |   | 0-3         | (0-1.8)  |
|           | : Arches, incompletely or not ossified    | L          | 12 | 1.47 |   | 0-3         | (0-12.0) |
|           |                                           | F          | 17 | 0.28 |   | 0-4         | (0-2.1)  |
|           | : Centra, unilateral ossification         | L          | 2  | 0.24 |   | 0-1         | (0-4.2)  |
|           |                                           | F          | 2  | 0.03 |   | 0-1         | (0-0.6)  |

L: LITTER INCIDENCE  
F: FETAL INCIDENCE



**SUMMARY OF FETAL SKELETAL ALTERATIONS  
CD RAT**

| ALTERATION                                                        |   | N   | %     | RANGE/STUDY  |   |
|-------------------------------------------------------------------|---|-----|-------|--------------|---|
|                                                                   |   | N   | %     | N            | % |
| RIBS                                                              |   |     |       |              |   |
| Cervical Rib(s) present                                           | L | 23  | 2.82  | 0-4 (0-17.4) |   |
|                                                                   | F | 26  | 0.42  | 0-5 (0-2.9)  |   |
| One or more, wavy                                                 | L | 32  | 3.92  | 0-4 (0-33.3) |   |
|                                                                   | F | 52  | 0.84  | 0-8 (0-5.1)  |   |
| One or more, incompletely ossified (hypoplastic), or not ossified | L | 22  | 2.70  | 0-2 (0-9.1)  |   |
|                                                                   | F | 36  | 0.58  | 0-5 (0-2.6)  |   |
| Extra ribs, 14th, unilateral                                      | L | 4   | 0.49  | 0-4 (0-16.0) |   |
|                                                                   | F | 4   | 0.06  | 0-4 (0-2.2)  |   |
| Extra ribs, 14th, bilateral                                       | L | 1   | 0.12  | 0-1 (0-4.0)  |   |
|                                                                   | F | 1   | 0.02  | 0-1 (0-0.6)  |   |
| STERNEBRAE                                                        |   |     |       |              |   |
| One or more incompletely ossified or not ossified                 | L | 109 | 13.36 | 0-9 (0-36.0) |   |
|                                                                   | F | 150 | 2.44  | 0-12 (0-6.7) |   |
| Fused                                                             | L | 1   | 0.12  | 0-1 (0-4.2)  |   |
|                                                                   | F | 1   | 0.02  | 0-1 (0-0.6)  |   |
| Asymmetric                                                        | L | 1   | 0.12  | 0-1 (0-4.2)  |   |
|                                                                   | F | 1   | 0.02  | 0-1 (0-0.5)  |   |
| SCAPULAE                                                          |   |     |       |              |   |
| Bent                                                              | L | 1   | 0.12  | 0-1 (0-4.2)  |   |
|                                                                   | F | 1   | 0.02  | 0-1 (0-0.5)  |   |
| PELVIS                                                            |   |     |       |              |   |
| Pubis(es) and/or Ischium(a): incompletely or not ossified         | L | 116 | 14.22 | 0-7 (0-30.4) |   |
|                                                                   | F | 180 | 2.93  | 0-16 (0-9.5) |   |
| Pubis(es): incompletely ossified                                  | L | 96  | 11.76 | 0-7 (0-30.4) |   |
|                                                                   | F | 147 | 2.39  | 0-16 (0-9.5) |   |
| Pubis(es): not ossified                                           | L | 3   | 0.37  | 0-1 (0-4.2)  |   |
|                                                                   | F | 3   | 0.05  | 0-1 (0-0.6)  |   |
| Ischium(a): incompletely or not ossified                          | L | 39  | 4.78  | 0-4 (0-16.7) |   |
|                                                                   | F | 58  | 0.94  | 0-9 (0-4.7)  |   |
| FORELIMB(S)                                                       |   |     |       |              |   |
| Radius and Ulna: Bent                                             | L | 1   | 0.12  | 0-1 (0-4.2)  |   |
|                                                                   | F | 1   | 0.02  | 0-1 (0-0.6)  |   |

L: LITTER INCIDENCE  
F: FETAL INCIDENCE

SUMMARY OF FETAL OSSIFICATION SITES  
SKELETAL AVERAGES  
CD RAT  
(CAESAREAN-SECTIONED DAY 20 GESTATION)

PERIOD: JUNE 1996 - JUNE 1998  
# STUDIES INCLUDED 35  
# LITTERS EXAMINED 793  
# FETUSES EXAMINED 5961

| SKELETAL AVERAGES                            | FETUS/LITTER |               |
|----------------------------------------------|--------------|---------------|
|                                              | MEAN         | RANGE/STUDY   |
| HYOID                                        | 0.86         | (0.69-0.98)   |
| VERTEBRAE                                    |              |               |
| CERVICAL                                     | 7.00         | —             |
| THORACIC                                     | 13.04        | (13.00-13.15) |
| LUMBAR                                       | 5.95         | (5.85-5.99)   |
| SACRAL                                       | 3.00         | (2.96-3.01)   |
| CAUDAL                                       | 4.82         | (4.35-5.16)   |
| RIBS (pairs)                                 | 13.03        | (13.00-13.09) |
| STERNUM                                      |              |               |
| MANUBRIUM                                    | 1.00         | (0.98-1.01)   |
| STERNAL CENTERS                              | 3.61         | (3.26-3.75)   |
| XIPHOID                                      | 0.99         | (0.94-1.00)   |
| FOREPAWS (Calculated as<br>average per limb) |              |               |
| CARPALS                                      | 0.00         | —             |
| METACARPALS                                  | 3.54         | (3.33-3.74)   |
| DIGITS                                       | 5.00         | —             |
| PHALANGES                                    | 5.04         | (4.90-5.27)   |
| HINDPAWS (Calculated as<br>average per limb) |              |               |
| TARSALS                                      | 0.00         | —             |
| METATARSALS                                  | 3.99         | (3.93-4.03)   |
| DIGITS                                       | 5.00         | —             |
| PHALANGES                                    | 4.98         | (4.82-5.08)   |

**FETAL OSSIFICATION SITES**  
**SKELETAL AVERAGES**  
**CD RAT**  
**(CAESAREAN-SECTIONED DAY 21 GESTATION)**

|                                |              |
|--------------------------------|--------------|
| <b>STUDY #</b>                 | <b>580</b>   |
| <b># LITTERS EXAMINED</b>      | <b>23</b>    |
| <b># FETUSES EXAMINED</b>      | <b>190</b>   |
| <b>SKELETAL AVERAGES</b>       |              |
| <b>HYOID</b>                   | <b>0.96</b>  |
| <b>VERTEBRAE</b>               |              |
| <b>CERVICAL</b>                | <b>7.00</b>  |
| <b>THORACIC</b>                | <b>13.06</b> |
| <b>LUMBAR</b>                  | <b>5.94</b>  |
| <b>SACRAL</b>                  | <b>3.00</b>  |
| <b>CAUDAL</b>                  | <b>7.23</b>  |
| <b>RIBS (pairs)</b>            | <b>13.05</b> |
| <b>STERNUM</b>                 |              |
| <b>MANUBRIUM</b>               | <b>1.00</b>  |
| <b>STERNAL CENTERS</b>         | <b>3.97</b>  |
| <b>XIPHOID</b>                 | <b>1.00</b>  |
| <b>FOREPAWS (Calculated as</b> |              |
| <b>average per limb)</b>       |              |
| <b>CARPALS</b>                 | <b>0.00</b>  |
| <b>METACARPALS</b>             | <b>3.99</b>  |
| <b>DIGITS</b>                  | <b>5.00</b>  |
| <b>PHALANGES</b>               | <b>7.53</b>  |
| <b>HINDPAWS (Calculated as</b> |              |
| <b>average per limb)</b>       |              |
| <b>TARSALS</b>                 | <b>0.02</b>  |
| <b>METATARSALS</b>             | <b>4.62</b>  |
| <b>DIGITS</b>                  | <b>5.00</b>  |
| <b>PHALANGES</b>               | <b>5.78</b>  |

**APPENDIX G**

**STATEMENT OF THE STUDY DIRECTOR**



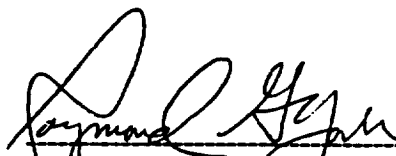
Argus Research Laboratories, Inc.  
905 Sheehy Drive, Building A  
Horsham, PA 19044  
Telephone: (215) 443-8710  
Telefax: (215) 443-8587

---

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF  
PFOS IN RATS  
SPONSOR'S STUDY NUMBER: T-6295.12

**STATEMENT OF THE STUDY DIRECTOR**

This final report accurately reflects the raw data obtained during the performance of the study. No deviations from the U.S. Food and Drug Administration (FDA) Good Laboratory Practice Regulations; Final Rule<sup>a</sup>, the Japanese Ministry of Health and Welfare (MHW) *Good Laboratory Practice Standard for Safety Studies on Drugs*<sup>b</sup> and the European Economic Community (EEC) *Council decision on 28 July 1989 on the acceptance by the European Economic Community of an OECD decision/recommendation on compliance with principles of good laboratory practice*<sup>c</sup> occurred that affected the quality or integrity of the study.

  
Raymond G. York, Ph.D., DABT      24-JUN-99  
Associate Director of Research  
and Study Director

- 
- a. U.S. Food and Drug Administration. Good Laboratory Practice Regulations; Final Rule. 21 CFR Part 58.
- b. Japanese Ministry of Health and Welfare (1988). *Good Laboratory Practice Standard for Safety Studies on Drugs*, MHW Ordinance Number 21, March 26, 1997.
- c. European Economic Community (1989). *Council decision on 28 July 1989 on the acceptance by the European Economic Community of an OECD decision/recommendation on compliance with principles of good laboratory practice*. Official Journal of the European Communities: Legislation. 32(No. L 315; 28 October): 1-17.

## **APPENDIX H**

### **QUALITY ASSURANCE UNIT FINAL REPORT STATEMENT**



Argus Research Laboratories, Inc.  
905 Sheehy Drive, Building A  
Horsham, PA 19044  
Telephone: (215) 443-8710  
Telefax: (215) 443-8587

---

## QUALITY ASSURANCE UNIT FINAL REPORT STATEMENT

Study Director: Raymond G. York, Ph.D., DABT

Executive Director of Research: Mildred S. Christian, Ph.D., Fellow, ATS

Protocol 418-013: Oral (Gavage) Pharmacokinetic Study of PFOS in Rats  
Sponsor's Study Number: T-6295.12

The draft protocol for this study was audited for adherence to U.S. Food and Drug Administration (FDA) Good Laboratory Practice Regulations, Japanese Ministry of Health and Welfare (MHW); Good Laboratory Practice Standard for Safety Studies on Drugs, and European Economic Community (1989) council decision on 28 July 1989 on the acceptance by the European Economic Community of an OECD decision/recommendation on compliance with principles of good laboratory practice on 18 OCT 98.

Critical phases of this study were inspected six times; study information and raw data were audited twice (see tables 1 and 2 for dates and phases/data)

The draft final report and the raw data for this study were compared and audited for accuracy, for adherence to protocol requirements, and for adherence to U.S. Food and Drug Administration (FDA) Good Laboratory Practice Regulations, Japanese Ministry of Health and Welfare (MHW); Good Laboratory Practice Standard for Safety Studies on Drugs, and European Economic Community (1989) council decision on 28 July 1989 on the acceptance by the European Economic Community of an OECD decision/recommendation on compliance with principles of good laboratory practice between 25 APR 99 and 26 MAY 99, and for revisions requested by the Sponsor 17 JUN and 18 JUN 99 and for finalization on 24 JUN 99.

This study was conducted according to U.S. Food and Drug Administration (FDA) Good Laboratory Practice Regulations, Japanese Ministry of Health and Welfare (MHW); Good Laboratory Practice Standard for Safety Studies on Drugs, and European Economic Community (1989) council decision on 28 July 1989 on the acceptance by the European Economic Community of an OECD decision/recommendation on compliance with principles of good laboratory practice.

|                             |                  |                                                             |                   |
|-----------------------------|------------------|-------------------------------------------------------------|-------------------|
| <u>Nancy J. Gongliewski</u> | <u>24 Jun 99</u> | <u>Lina M. Bach</u>                                         | <u>24 June 99</u> |
| Nancy J. Gongliewski        | Date             | for Lisa A. Zaborowski, B.S.                                | Date              |
| Quality Assurance Manager   |                  | Senior Quality Assurance Associate<br>and Principal Auditor |                   |



TABLE 1  
CRITICAL PHASES INSPECTED

Test Article Preparation

Date of inspection: 19 NOV 98

Date results reported to the Study Director and Management:  
20 NOV 98

Test Article Administration - Gavage

Date of inspection: 19 NOV 98

Date results reported to the Study Director and Management: 20 NOV 98

Cohabitation

Date of Inspection: 28 DEC 98

Date results reported to the Study Director and Management:  
31 DEC 98

Blood Collection

Date of inspection: 04 JAN 99

Date results reported to the Study Director and Management:  
04 JAN 99

Urine and Fecal Collection

Date of inspection: 04 JAN 99

Date results reported to the Study Director and Management:  
04 JAN 99

Caesarean-Sectioning

Date of inspection: 13 JAN 99

Date results reported to the Study Director and Management:  
19 JAN 99

## TABLE 2

## RAW DATA AUDIT(S)

The following study information and raw data were audited from 18 MAR 99 to 25 MAR 99:

- Protocol.
- Protocol amendment.
- List of personnel and computer operator codes.
- Error codes and codes for clinical sign observations.
- Animal receipt, randomization, physical examination and acclimation.
- In-life transaction record.
- Feed consumption.
- Cohabitation.
- Caesarean-sectioning.
- Maternal gross observations.
- Fetal gross observations.
- Necropsy.
- Gravid uterine weights.
- Placental weights.
- Tissue packing lists.
- Male breeder colony records.
- General comments.
- Study maintenance records.
- Temperature and relative humidity reports.
- Feed and water analyses.
- Edit requests.
- Randomizations.
- Dosage volumes.
- Deviations.
- Data review pages.
- Blood and liver collection data and packing lists.
- Maternal packing lists for liver/glands.
- Fetal liver/lung tissue packing lists.
- Pooled liver, placenta, liver and lung packing lists.
- Fecal/urine collection data and packing lists.
- Embryo/placenta collection and packing lists.
- Fetal carcass packing lists.
- Amniotic fluid collection and packing lists.

The results of this audit were reported to the Study Director and Management on 26 MAR 99.

The following study information and raw data were audited on 25 MAR 99:

- Vehicle/Control article receipt, preparation and use.
- Test article/substance receipt, preparation and use.
- Test article/substance packing lists.
- Test article/substance analysis.

The results of this audit were reported to the Study Director and Management on 29 MAR 99.

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 20 (PAGE 5): EMBRYONAL VITAL STATUS OR FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

| RATS CAESAREAN-SECTIONED ON DAY 21 OF PRESUMED GESTATION                                              |       |                                                                                              |      |      |         |         |         |      |         |         |      |               |      |      |      |      |      |      |      |      |      |    |    |
|-------------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------|------|------|---------|---------|---------|------|---------|---------|------|---------------|------|------|------|------|------|------|------|------|------|----|----|
| FETUS #                                                                                               | 1     | 2                                                                                            | 3    | 4    | 5       | 6       | 7       | 8    | 9       | 10      | 11   | 12            | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 22 | 23 |
| DOSAGE GROUP III                                                                                      |       |                                                                                              |      |      |         |         |         |      |         |         |      | 0.4 MG/KG/DAY |      |      |      |      |      |      |      |      |      |    |    |
| RAT #                                                                                                 | CLs   |                                                                                              |      |      |         |         |         |      |         |         |      |               |      |      |      |      |      |      |      |      |      |    |    |
| 19533                                                                                                 | 4/12  | MA                                                                                           | MA   | FA   | MA / FA | FA      | MA      | MA   | MA      | MA      | MA   | FA            |      |      |      |      |      |      |      |      |      |    |    |
|                                                                                                       |       | 5.19                                                                                         | 5.23 | 4.92 | 5.42    | 4.80    | 5.01    | 5.13 | 5.09    | 5.57    | 5.40 | 5.35          | 4.82 |      |      |      |      |      |      |      |      |    |    |
| 19534                                                                                                 | 13/15 | FA                                                                                           | MA   | MA   | MA      | MA      | FA / FA | FA   | MA      | MA      | FA   | FA            | MA   |      |      |      |      |      |      |      |      |    |    |
|                                                                                                       |       | 4.08                                                                                         | 4.80 | 4.80 | 4.79    | 5.20    | 5.06    | 5.24 | 4.78    | 5.00    | 5.12 | 4.87          | 4.60 | 5.22 | 5.32 |      |      |      |      |      |      |    |    |
| 19536                                                                                                 | 7/12  | MA                                                                                           | FA   | FA   | FA      | MA      | FA / FA | FA   | FA      | FA      | MA   | FA            | FA   | FA   | MA   | FA   | FA   | MA   |      |      |      |    |    |
|                                                                                                       |       | 5.57                                                                                         | 5.15 | 5.13 | 4.97    | 5.89    | 5.36    | 4.88 | 5.22    | 5.08    | 4.93 | 5.16          | 4.82 | 4.74 | 5.23 | 4.46 | 5.12 | 4.97 | 5.46 |      |      |    |    |
| 19541                                                                                                 |       | MORIBUND SACRIFICED ON DAY 0 OF PRESUMED GESTATION; PREGNANCY STATUS COULD NOT BE DETERMINED |      |      |         |         |         |      |         |         |      |               |      |      |      |      |      |      |      |      |      |    |    |
| 19543                                                                                                 | 11/10 | E                                                                                            | FA   | MA   | FA      | MA      | MA      | FA   | MA      | MA      | FA   | MA / FA       | E    | MA   | MA   | MA   | MA   | MA   | FA   |      |      |    |    |
|                                                                                                       |       | 4.83                                                                                         | 5.07 | 4.60 | 5.10    | 5.26    | 4.66    | 5.08 | 5.19    | 4.47    | 5.51 | 4.60          | 4.74 | 5.41 | 5.48 | 5.38 | 4.71 | 5.17 |      |      |      |    |    |
| 19545                                                                                                 |       | MATING NOT CONFIRMED                                                                         |      |      |         |         |         |      |         |         |      |               |      |      |      |      |      |      |      |      |      |    |    |
| 19546                                                                                                 | 14/11 | MA                                                                                           | MA   | FA   | E       | MA / MA | E       | E    | E       |         |      |               |      |      |      |      |      |      |      |      |      |    |    |
|                                                                                                       |       | 5.04                                                                                         | 5.56 | 4.70 | 5.30    | 4.84    |         |      |         |         |      |               |      |      |      |      |      |      |      |      |      |    |    |
| 19548                                                                                                 |       | NOT PREGNANT                                                                                 |      |      |         |         |         |      |         |         |      |               |      |      |      |      |      |      |      |      |      |    |    |
| DOSAGE GROUP IV                                                                                       |       |                                                                                              |      |      |         |         |         |      |         |         |      | 1.6 MG/KG/DAY |      |      |      |      |      |      |      |      |      |    |    |
| 19549                                                                                                 |       | MATING NOT CONFIRMED                                                                         |      |      |         |         |         |      |         |         |      |               |      |      |      |      |      |      |      |      |      |    |    |
| 19551                                                                                                 |       | MATING NOT CONFIRMED                                                                         |      |      |         |         |         |      |         |         |      |               |      |      |      |      |      |      |      |      |      |    |    |
| 19552                                                                                                 |       | MATING NOT CONFIRMED                                                                         |      |      |         |         |         |      |         |         |      |               |      |      |      |      |      |      |      |      |      |    |    |
| 19556                                                                                                 |       | NOT PREGNANT                                                                                 |      |      |         |         |         |      |         |         |      |               |      |      |      |      |      |      |      |      |      |    |    |
| 19557                                                                                                 |       | MORIBUND SACRIFICED ON DAY 43 OF STUDY (DAY 2 OF COHABITATION)                               |      |      |         |         |         |      |         |         |      |               |      |      |      |      |      |      |      |      |      |    |    |
| 19559                                                                                                 |       | NOT PREGNANT                                                                                 |      |      |         |         |         |      |         |         |      |               |      |      |      |      |      |      |      |      |      |    |    |
| 19560                                                                                                 | 12/ 7 | FA                                                                                           | FA   | MA   | MA      | MA      | FA      | FA   | FA      | MA / MA | FA   | FA            |      |      |      |      |      |      |      |      |      |    |    |
|                                                                                                       |       | 5.17                                                                                         | 5.13 | 5.20 | 5.43    | 5.44    | 5.12    | 5.27 | 4.70    | 5.13    | 5.08 | 4.85          | 5.15 |      |      |      |      |      |      |      |      |    |    |
| 19562                                                                                                 | 8/14  | MA                                                                                           | MA   | FA   | FA      | FA      | FA      | MA   | FA / FA | FA      | E    | MA            | E    | MA   | FA   | MA   | FA   | MA   | FA   | MA   | MA   | MA | MA |
|                                                                                                       |       | 5.50                                                                                         | 5.70 | 4.75 | 5.27    | 5.28    | 4.61    | 4.84 | 4.78    | 4.97    | 4.74 | 4.79          | 4.95 | 4.93 | 4.94 | 4.37 | 4.75 | 4.73 | 5.04 | 4.77 | 4.43 |    |    |
| M = MALE F = FEMALE A = ALIVE E = EARLY RESORPTION L = LATE RESORPTION "/" DENOTES POSITION OF CERVIX |       |                                                                                              |      |      |         |         |         |      |         |         |      |               |      |      |      |      |      |      |      |      |      |    |    |
| CLs = CORPORA LUTEA/OVARY FETAL BODY WEIGHTS WERE RECORDED IN GRAMS (G).                              |       |                                                                                              |      |      |         |         |         |      |         |         |      |               |      |      |      |      |      |      |      |      |      |    |    |

M = MALE F = FEMALE A = ALIVE E = EARLY RESORPTION L = LATE RESORPTION "/" DENOTES POSITION OF CERVIX  
CLs = CORPORA LUTEA/OVARY FETAL BODY WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 20 (PAGE 6): EMBRYONAL VITAL STATUS OR FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

| RATS CAESAREAN-SECTIONED ON DAY 21 OF PRESUMED GESTATION                                                                                                                                            |       |                                  |      |      |      |      |      |      |      |      |      |               |      |      |      |      |    |    |    |    |    |    |    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------------|------|------|------|------|------|------|------|------|------|---------------|------|------|------|------|----|----|----|----|----|----|----|
| FETUS #                                                                                                                                                                                             | 1     | 2                                | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12            | 13   | 14   | 15   | 16   | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| DOSAGE GROUP V                                                                                                                                                                                      |       |                                  |      |      |      |      |      |      |      |      |      | 3.2 MG/KG/DAY |      |      |      |      |    |    |    |    |    |    |    |
| RAT #                                                                                                                                                                                               | CLs   |                                  |      |      |      |      |      |      |      |      |      |               |      |      |      |      |    |    |    |    |    |    |    |
| 19568                                                                                                                                                                                               | 8/11  | MA                               | MA   | MA   | MA   | MA   | MA / | E    | E    | E    |      |               |      |      |      |      |    |    |    |    |    |    |    |
|                                                                                                                                                                                                     |       | 4.12                             | 3.73 | 4.16 | 5.19 | 4.98 | 4.84 |      |      |      |      |               |      |      |      |      |    |    |    |    |    |    |    |
| 19569                                                                                                                                                                                               | 10/ 6 | FA                               | MA   | FA   | MA   | FA   | FA   | MA   | MA   | FA / | MA   | FA            | FA   | MA   |      |      |    |    |    |    |    |    |    |
|                                                                                                                                                                                                     |       | 4.33                             | 4.85 | 3.43 | 5.12 | 4.78 | 4.33 | 4.81 | 4.86 | 4.66 | 5.12 | 5.34          | 4.61 | 4.30 |      |      |    |    |    |    |    |    |    |
| 19571                                                                                                                                                                                               |       | DELIVERED ON DAY 21 OF GESTATION |      |      |      |      |      |      |      |      |      |               |      |      |      |      |    |    |    |    |    |    |    |
| 19572                                                                                                                                                                                               | 8/ 9  | FA-                              | MA   | FA   | MA   | MA   | E    | MA   | FA / | FA   | E    | FA            | E    | FA   | MA   | MA   |    |    |    |    |    |    |    |
|                                                                                                                                                                                                     |       | 4.51                             | 4.56 | 4.55 | 5.02 | 4.96 |      | 4.31 | 4.76 | 4.39 |      | 4.67          |      | 4.55 | 4.67 | 5.15 |    |    |    |    |    |    |    |
| 19576                                                                                                                                                                                               |       | MATING NOT CONFIRMED             |      |      |      |      |      |      |      |      |      |               |      |      |      |      |    |    |    |    |    |    |    |
| 19577                                                                                                                                                                                               | 8/ 5  | FA                               | E    | FA   | MA   | FA / |      |      |      |      |      |               |      |      |      |      |    |    |    |    |    |    |    |
|                                                                                                                                                                                                     |       | 4.98                             |      | 5.15 | 5.18 | 4.87 |      |      |      |      |      |               |      |      |      |      |    |    |    |    |    |    |    |
| 19578                                                                                                                                                                                               |       | MATING NOT CONFIRMED             |      |      |      |      |      |      |      |      |      |               |      |      |      |      |    |    |    |    |    |    |    |
| 19579                                                                                                                                                                                               |       | DELIVERED ON DAY 21 OF GESTATION |      |      |      |      |      |      |      |      |      |               |      |      |      |      |    |    |    |    |    |    |    |
| M = MALE    F = FEMALE    A = ALIVE    E = EARLY RESORPTION    L = LATE RESORPTION    "/" DENOTES POSITION OF CERVIX<br>CLs = CORPORA LUTEA/OVARY    FETAL BODY WEIGHTS WERE RECORDED IN GRAMS (G). |       |                                  |      |      |      |      |      |      |      |      |      |               |      |      |      |      |    |    |    |    |    |    |    |

M = MALE F = FEMALE A = ALIVE E = EARLY RESORPTION L = LATE RESORPTION \*/\* DENOTES POSITION OF CERVIX  
CLs = CORPORA LUTEA/OVARY FETAL BODY WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 21 (PAGE 1): PLACENTAL WEIGHTS - INDIVIDUAL DATA

| RATS CAESAREAN-SECTIONED ON DAY 21 OF GESTATION |                                                                                              |                 |      |      |      |      |      |      |      |      |      |      |      |                       |      |      |      |      |      |      |    |    |    |
|-------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|-----------------------|------|------|------|------|------|------|----|----|----|
| FETUS #                                         | 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 (VEHICLE) MG/KG/DAY |      |      |      |      |      |      |    |    |    |
| 19503                                           | NO CONFIRMED MATING DATE; DELIVERED ON DAY 66 OF STUDY                                       |                 |      |      |      |      |      |      |      |      |      |      |      |                       |      |      |      |      |      |      |    |    |    |
| 19504                                           |                                                                                              | FA              | E    | MA   | E    | MA   | MA   | MA / | E    | MA   | E    | MA   | FA   | MA                    | E    | FA   | MA   | FA   |      |      |    |    |    |
|                                                 | 0.58                                                                                         | 0.52            |      | 0.47 |      | 0.59 | 0.59 | 0.64 |      | 0.45 |      | 0.61 | 0.60 | 0.69                  |      | 0.65 | 0.64 | 0.50 |      |      |    |    |    |
| 19505                                           |                                                                                              | FA              | FA   | MA   | FA / | MA   | FA   | MA   | E    | FA   | MA   | MA   | FA   | MA                    | MA   | MA   | E    | FA   | FA   | FA   |    |    |    |
|                                                 | 0.44                                                                                         | 0.53            | 0.48 | 0.52 | 0.47 | 0.48 | 0.43 | 0.40 |      | 0.37 | 0.47 | 0.38 | 0.41 | 0.41                  | 0.48 | 0.41 |      | 0.38 | 0.46 | 0.43 |    |    |    |
| 19506                                           |                                                                                              | E               | FA   | MA   | FA   | MA   | MA / | FA   | FA   | FA   | MA   | FA   | FA   | FA                    | FA   |      |      |      |      |      |    |    |    |
|                                                 | 0.54                                                                                         |                 | 0.63 | 0.48 | 0.63 | 0.41 | 0.61 | 0.55 | 0.53 | 0.52 | 0.65 | 0.46 | 0.53 | 0.45                  | 0.51 |      |      |      |      |      |    |    |    |
| 19507                                           |                                                                                              | MA              | FA   | MA   | MA   | MA   | MA   | FA   | FA   | FA / | E    | FA   | MA   | MA                    | FA   | FA   |      |      |      |      |    |    |    |
|                                                 | 0.41                                                                                         | 0.41            | 0.44 | 0.38 | 0.39 | 0.38 | 0.44 | 0.32 | 0.35 | 0.38 |      | 0.43 | 0.37 | 0.44                  | 0.44 | 0.52 |      |      |      |      |    |    |    |
| 19509                                           |                                                                                              | FA              | FA   | FA   | FA   | MA   | FA   | E /  | MA   | MA   | FA   | FA   | MA   | MA                    |      |      |      |      |      |      |    |    |    |
|                                                 | 0.53                                                                                         | 0.46            | 0.53 | 0.56 | 0.53 | 0.55 | 0.45 |      | 0.57 | 0.54 | 0.57 | 0.54 | 0.55 | 0.47                  |      |      |      |      |      |      |    |    |    |
| 19512                                           |                                                                                              | MA              | FA   | FA   | FA / | MA   | FA   | MA   | MA   | MA   | MA   | FA   | FA   | FA                    | MA   |      |      |      |      |      |    |    |    |
|                                                 | 0.49                                                                                         | 0.56            | 0.54 | 0.54 | 0.54 | 0.53 | 0.36 | 0.46 | 0.47 | 0.51 | 0.40 | 0.48 | 0.51 | 0.47                  | 0.53 |      |      |      |      |      |    |    |    |
| 19516                                           |                                                                                              | MA              | FA   | FA   | FA   | FA   | FA / | MA   | MA   | MA   | FA   | FA   | FA   | MA                    | FA   |      |      |      |      |      |    |    |    |
|                                                 | 0.51                                                                                         | 0.60            | 0.46 | 0.49 | 0.63 | 0.63 | 0.47 | 0.44 | 0.48 | 0.57 | 0.33 | 0.61 | 0.42 | 0.59                  | 0.42 |      |      |      |      |      |    |    |    |
| RAT #                                           | MEAN                                                                                         | DOSAGE GROUP II |      |      |      |      |      |      |      |      |      |      |      | 0.1 MG/KG/DAY         |      |      |      |      |      |      |    |    |    |
| 19518                                           |                                                                                              | FA              | E    | MA   | FA   | FA   | E    | FA   | FA / | MA   | MA   | MA   | MA   | MA                    |      |      |      |      |      |      |    |    |    |
|                                                 | 0.51                                                                                         | 0.49            |      | 0.53 | 0.55 | 0.54 |      | 0.53 | 0.42 | 0.66 | 0.44 | 0.41 | 0.46 | 0.54                  |      |      |      |      |      |      |    |    |    |
| 19519                                           |                                                                                              | FA              | MA   | FA   | FA   | MA   | FA   | FA   | MA   | MA / | FA   | MA   | MA   | MA                    | FA   | MA   | MA   |      |      |      |    |    |    |
|                                                 | 0.45                                                                                         | 0.43            | 0.48 | 0.47 | 0.47 | 0.47 | 0.42 | 0.38 | 0.46 | 0.43 | 0.44 | 0.50 | 0.45 | 0.55                  | 0.38 | 0.45 | 0.49 |      |      |      |    |    |    |
| 19520                                           | MORIBUND SACRIFICED ON DAY 0 OF PRESUMED GESTATION; PREGNANCY STATUS COULD NOT BE DETERMINED |                 |      |      |      |      |      |      |      |      |      |      |      |                       |      |      |      |      |      |      |    |    |    |
| 19521                                           |                                                                                              | FA              | FA   | FA   | MA   | FA   | FA   | MA   | MA   | MA / | FA   | FA   | MA   | FA                    | MA   | MA   |      |      |      |      |    |    |    |
|                                                 | 0.45                                                                                         | 0.44            | 0.46 | 0.40 | 0.44 | 0.49 | 0.49 | 0.48 | 0.42 | 0.46 | 0.37 | 0.47 | 0.41 | 0.48                  | 0.42 | 0.50 |      |      |      |      |    |    |    |
| 19523                                           |                                                                                              | E               | FA   | L    | FA   | FA   | FA   | FA   | FA   | MA   | MA / | MA   | E    | FA                    | L    |      |      |      |      |      |    |    |    |
|                                                 | 0.53                                                                                         |                 | 0.49 |      | 0.55 | 0.56 | 0.44 | 0.55 | 0.55 | 0.56 | 0.49 | 0.52 |      | 0.59                  |      |      |      |      |      |      |    |    |    |
| 19524                                           |                                                                                              | FA              | MA   | MA   | MA   | MA   | FA   | MA   | MA / | MA   | MA   | E    | MA   | MA                    | MA   | FA   | MA   | FA   |      |      |    |    |    |
|                                                 | 0.53                                                                                         | 0.60            | 0.52 | 0.58 | 0.67 | 0.47 | 0.55 | 0.52 | 0.58 | 0.46 | 0.46 |      | 0.67 | 0.54                  | 0.53 | 0.40 | 0.49 | 0.42 |      |      |    |    |    |
| 19528                                           |                                                                                              | E               | MA / | MA   | E    | E    | FA   | MA   | FA   |      |      |      |      |                       |      |      |      |      |      |      |    |    |    |
|                                                 | 0.66                                                                                         |                 | 1.08 | 0.53 |      |      | 0.63 | 0.52 | 0.54 |      |      |      |      |                       |      |      |      |      |      |      |    |    |    |
| 19529                                           |                                                                                              | FA              | MA   | FA   | MA   | E    | FA   | FA   | MA / | FA   | MA   | FA   | MA   | FA                    | MA   | FA   |      |      |      |      |    |    |    |
|                                                 | 0.62                                                                                         | 0.93            | 0.77 | 0.54 | 0.63 |      | 0.56 | 0.67 | 0.69 | 0.49 | 0.51 | 0.50 | 0.59 | 0.68                  | 0.53 | 0.58 |      |      |      |      |    |    |    |

M = MALE F = FEMALE A = ALIVE E = EARLY RESORPTION L = LATE RESORPTION "/" DENOTES POSITION OF CERVIX  
CLs = CORPORA LUTEA/OVARY PLACENTAL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 21 (PAGE 2) : PLACENTAL WEIGHTS - INDIVIDUAL DATA

| RATS CAESAREAN-SECTIONED ON DAY 21 OF GESTATION                                                       |      |                                                                                              |      |      |         |         |         |         |         |         |      |         |      |               |      |      |      |      |      |      |      |      |      |
|-------------------------------------------------------------------------------------------------------|------|----------------------------------------------------------------------------------------------|------|------|---------|---------|---------|---------|---------|---------|------|---------|------|---------------|------|------|------|------|------|------|------|------|------|
| FETUS #                                                                                               | 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                                                                             |      |      |         |         |         |         |         |         |      |         |      | 0.4 MG/KG/DAY |      |      |      |      |      |      |      |      |      |
| 19533                                                                                                 |      | MA                                                                                           | MA   | FA   | MA / FA | FA      | MA      | MA      | MA      | MA      | MA   | FA      |      |               |      |      |      |      |      |      |      |      |      |
|                                                                                                       | 0.45 | 0.52                                                                                         | 0.38 | 0.34 | 0.44    | 0.42    | 0.46    | 0.40    | 0.43    | 0.47    | 0.58 | 0.50    | 0.47 |               |      |      |      |      |      |      |      |      |      |
| 19534                                                                                                 |      | FA                                                                                           | MA   | MA   | MA      | MA      | MA      | FA / FA | FA      | MA      | MA   | FA      | FA   | MA            |      |      |      |      |      |      |      |      |      |
|                                                                                                       | 0.57 | 0.49                                                                                         | 0.58 | 0.50 | 0.51    | 0.60    | 0.61    | 0.62    | 0.50    | 0.61    | 0.53 | 0.65    | 0.61 | 0.53          | 0.64 |      |      |      |      |      |      |      |      |
| 19536                                                                                                 |      | MA                                                                                           | FA   | FA   | FA      | MA      | FA / FA | FA      | FA      | FA      | MA   | FA      | FA   | FA            | MA   | FA   | FA   | MA   | FA   | MA   |      |      |      |
|                                                                                                       | 0.46 | 0.45                                                                                         | 0.48 | 0.50 | 0.54    | 0.53    | 0.40    | 0.38    | 0.54    | 0.42    | 0.39 | 0.49    | 0.47 | 0.45          | 0.47 | 0.33 | 0.48 | 0.46 | 0.47 |      |      |      |      |
| 19541                                                                                                 |      | MORIBUND SACRIFICED ON DAY 0 OF PRESUMED GESTATION; PREGNANCY STATUS COULD NOT BE DETERMINED |      |      |         |         |         |         |         |         |      |         |      |               |      |      |      |      |      |      |      |      |      |
| 19543                                                                                                 |      | E                                                                                            | FA   | MA   | FA      | MA      | MA      | FA      | MA      | MA      | FA   | MA / FA | E    | MA            | MA   | MA   | MA   | MA   | MA   | FA   |      |      |      |
|                                                                                                       | 0.41 |                                                                                              | 0.50 | 0.39 | 0.44    | 0.37    | 0.49    | 0.38    | 0.42    | 0.43    | 0.41 | 0.42    | 0.28 |               | 0.38 | 0.43 | 0.43 | 0.40 | 0.39 | 0.42 |      |      |      |
| 19545                                                                                                 |      | MATING NOT CONFIRMED                                                                         |      |      |         |         |         |         |         |         |      |         |      |               |      |      |      |      |      |      |      |      |      |
| 19546                                                                                                 |      | MA                                                                                           | MA   | FA   | E       | MA / MA | E       | E       | E       |         |      |         |      |               |      |      |      |      |      |      |      |      |      |
|                                                                                                       | 0.51 | 0.44                                                                                         | 0.47 | 0.36 |         | 0.49    | 0.79    |         |         |         |      |         |      |               |      |      |      |      |      |      |      |      |      |
| 19548                                                                                                 |      | NOT PREGNANT                                                                                 |      |      |         |         |         |         |         |         |      |         |      |               |      |      |      |      |      |      |      |      |      |
| RAT #                                                                                                 | MEAN | DOSAGE GROUP IV                                                                              |      |      |         |         |         |         |         |         |      |         |      | 1.6 MG/KG/DAY |      |      |      |      |      |      |      |      |      |
| 19549                                                                                                 |      | MATING NOT CONFIRMED                                                                         |      |      |         |         |         |         |         |         |      |         |      |               |      |      |      |      |      |      |      |      |      |
| 19551                                                                                                 |      | MATING NOT CONFIRMED                                                                         |      |      |         |         |         |         |         |         |      |         |      |               |      |      |      |      |      |      |      |      |      |
| 19552                                                                                                 |      | MATING NOT CONFIRMED                                                                         |      |      |         |         |         |         |         |         |      |         |      |               |      |      |      |      |      |      |      |      |      |
| 19556                                                                                                 |      | NOT PREGNANT                                                                                 |      |      |         |         |         |         |         |         |      |         |      |               |      |      |      |      |      |      |      |      |      |
| 19557                                                                                                 |      | MORIBUND SACRIFICED ON DAY 43 OF STUDY (DAY 2 OF COHABITATION)                               |      |      |         |         |         |         |         |         |      |         |      |               |      |      |      |      |      |      |      |      |      |
| 19559                                                                                                 |      | NOT PREGNANT                                                                                 |      |      |         |         |         |         |         |         |      |         |      |               |      |      |      |      |      |      |      |      |      |
| 19560                                                                                                 |      | FA                                                                                           | FA   | MA   | MA      | MA      | FA      | FA      | FA      | MA / MA | FA   | FA      |      |               |      |      |      |      |      |      |      |      |      |
|                                                                                                       | 0.54 | 0.48                                                                                         | 0.54 | 0.59 | 0.67    | 0.74    | 0.54    | 0.50    | 0.53    | 0.39    | 0.56 | 0.44    | 0.50 |               |      |      |      |      |      |      |      |      |      |
| 19562                                                                                                 |      | MA                                                                                           | MA   | FA   | FA      | FA      | FA      | MA      | FA / FA | FA      | E    | MA      | E    | MA            | FA   | MA   | FA   | MA   | FA   | MA   | MA   | MA   | MA   |
|                                                                                                       | 0.44 | 0.46                                                                                         | 0.54 | 0.43 | 0.43    | 0.41    | 0.45    | 0.49    | 0.54    | 0.53    | 0.38 |         | 0.57 |               | 0.39 | 0.34 | 0.39 | 0.43 | 0.45 | 0.41 | 0.49 | 0.48 | 0.32 |
| M = MALE F = FEMALE A = ALIVE E = EARLY RESORPTION L = LATE RESORPTION "/" DENOTES POSITION OF CERVIX |      |                                                                                              |      |      |         |         |         |         |         |         |      |         |      |               |      |      |      |      |      |      |      |      |      |
| CLS = CORPORA LUTEA/OVARY PLACENTAL WEIGHTS WERE RECORDED IN GRAMS (G).                               |      |                                                                                              |      |      |         |         |         |         |         |         |      |         |      |               |      |      |      |      |      |      |      |      |      |

M = MALE F = FEMALE A = ALIVE E = EARLY RESORPTION L = LATE RESORPTION "/" DENOTES POSITION OF CERVIX  
CLs = CORPORA LUTEA/OVARY PLACENTAL WEIGHTS WERE RECORDED IN GRAMS (G).

PROTOCOL 418-013: ORAL (GAVAGE) PHARMACOKINETIC STUDY OF PFOS IN RATS (SPONSOR'S STUDY NUMBER: T-6295.12)

TABLE 21 (PAGE 3) : PLACENTAL WEIGHTS - INDIVIDUAL DATA

| RATS CAESAREAN-SECTIONED ON DAY 21 OF GESTATION |      |                                  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |    |    |    |    |    |    |
|-------------------------------------------------|------|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----|----|----|----|----|----|
| FETUS #                                         | 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 3.2 MG/KG/DAY     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |    |    |    |    |    |    |
| 19568                                           |      | MA                               | MA   | MA   | MA   | MA   | MA / | E    | E    | E    |      |      |      |      |      |      |    |    |    |    |    |    |    |
|                                                 | 0.62 | 0.71                             | 0.54 | 0.76 | 0.59 | 0.59 | 0.54 |      |      |      |      |      |      |      |      |      |    |    |    |    |    |    |    |
| 19569                                           |      | FA                               | MA   | FA   | MA   | FA   | FA   | MA   | MA   | FA / | MA   | FA   | FA   | MA   |      |      |    |    |    |    |    |    |    |
|                                                 | 0.50 | 0.54                             | 0.45 | 0.47 | 0.55 | 0.51 | 0.44 | 0.48 | 0.50 | 0.58 | 0.42 | 0.56 | 0.53 | 0.48 |      |      |    |    |    |    |    |    |    |
| 19571                                           |      | DELIVERED ON DAY 21 OF GESTATION |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |    |    |    |    |    |    |
| 19572                                           |      | FA                               | MA   | FA   | MA   | MA   | E    | MA   | FA / | FA   | E    | FA   | E    | FA   | MA   | MA   |    |    |    |    |    |    |    |
|                                                 | 0.42 | 0.38                             | 0.38 | 0.39 | 0.58 | 0.56 |      | 0.39 | 0.42 | 0.38 |      | 0.51 |      | 0.36 | 0.42 | 0.30 |    |    |    |    |    |    |    |
| 19576                                           |      | MATING NOT CONFIRMED             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |    |    |    |    |    |    |
| 19577                                           |      | FA                               | E    | FA   | MA   | FA / |      |      |      |      |      |      |      |      |      |      |    |    |    |    |    |    |    |
|                                                 | 0.67 | 0.69                             |      | 0.68 | 0.68 | 0.63 |      |      |      |      |      |      |      |      |      |      |    |    |    |    |    |    |    |
| 19578                                           |      | MATING NOT CONFIRMED             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |    |    |    |    |    |    |
| 19579                                           |      | DELIVERED ON DAY 21 OF GESTATION |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |    |    |    |    |    |    |

M = MALE F = FEMALE A = ALIVE E = EARLY RESORPTION L = LATE RESORPTION "/" DENOTES POSITION OF CERVIX  
CLs = CORPORA LUTEA/OVARY PLACENTAL WEIGHTS WERE RECORDED IN GRAMS (G).



**APPENDIX C**  
**PROTOCOL AND AMENDMENT**



Argus Research Laboratories, Inc.  
905 Sheehy Drive, Building A  
Horsham, PA 19044  
Telephone: (215) 443-8710  
Telefax: (215) 443-8587

---

**PROTOCOL 418-013**

**SPONSOR'S STUDY NUMBER: T-6295.12**

**STUDY TITLE:** Oral (Gavage) Pharmacokinetic Study of PFOS in Rats

**PURPOSE:** The purpose of this study is to evaluate the pharmacokinetics of PFOS in Fo generation dams and F1 generation fetuses following PFOS treatment of Cr:CD@BR VAF/Plus@ female rats during premating and gestation.

**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

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

**STUDY MONITOR:** Marvin T. Case, D.V.M., Ph.D.  
Telephone: (651) 733-5180  
Telefax: (651) 733-1773

**ALTERNATE  
STUDY MONITOR:** Andrew M. Seacat, Ph.D.  
Telephone: (651) 575-3161  
Telefax: (651) 733-1773

**REGULATORY CITATIONS:**

U.S. Food and Drug Administration (1994). International Conference on Harmonisation; Guideline on detection of toxicity to reproduction for medicinal products. *Federal Register*, September 22, 1994, Vol. 59, No. 183.

U.S. Food and Drug Administration. Good Laboratory Practice Regulations; Final Rule. 21 CFR Part 58.

Japanese Ministry of Health and Welfare (1997). *Good Laboratory Practice Standard for Safety Studies on Drugs*, MHW Ordinance Number 21, March 26, 1997.

European Economic Community (1989). *Council decision on 28 July 1989 on the acceptance by the European Economic Community of an OECD decision/recommendation on compliance with principles of good laboratory practice*. Official Journal of the European Communities: Legislation. 32 (No. L 315; 28 October): 1-17.

**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 Quality Assurance Unit (QAU) will audit the protocol, the raw data and the report, and will inspect critical phases of the study in accordance with the Standard Operating Procedures of Argus Research Laboratories, Inc.

The final report will include a 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 ARTICLE AND VEHICLE:****Identification:****Test Article:**

|                       |                        |
|-----------------------|------------------------|
| Name:                 | PFOS (Synonym: FC-95). |
| Physical Description: | Light-colored powder.  |
| Lot/Batch Number:     | 217.                   |
| Specific Gravity:     | ~0.6.                  |
| Purity:               | 98.9%.                 |
| Expiration Date:      | May 2000.              |

Information on the identity, composition, strength and purity of the test article is on file with the Sponsor.

**Vehicle:**

0.5% Tween® 80 in Reverse Osmosis Membrane Processed Deionized Water (R.O. Deionized Water). Supplier and lot identification of Tween® 80 to be documented in the raw data.

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, mask, appropriate eye protection and a uniform/lab coat are to be worn during formulation preparation and administration. The Material Safety Data Sheet (MSDS) is attached to the protocol (ATTACHMENT 2).

**Storage:**

|                        |                   |
|------------------------|-------------------|
| Bulk Test Article:     | Room temperature. |
| Vehicle Components:    | Room temperature. |
| Prepared Vehicle:      | Room temperature. |
| Prepared Formulations: | Room temperature. |

All test article shipments to the Testing Facility should be addressed to the attention of Julian Gulbinski, Manager of Formulations, at the previously cited 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 (suspensions) will be prepared daily at the Testing Facility. Data verifying the stability of the test article in the vehicle for 48 hours under the conditions of administration are on file with the Sponsor.

Detailed preparation procedures are attached to this protocol (ATTACHMENT 3).

**Adjustment for Purity:**

The test article will be considered 100% pure for the purpose of dosage calculations.

**Testing Facility Reserve Samples:**

The Sponsor will reserve a sample (1 g) of each lot of the bulk test article used during the course of this study. The Testing Facility will reserve a sample (5 mL) of each lot of the vehicle components used during the course of this study. Samples will be stored under the previously cited conditions.

**ANALYSES:**

Samples additional to those described below may be taken if deemed necessary during the course of the study.

**Bulk Test Article Sampling:**

No analyses of the bulk test article will be conducted during the course of this study. Information on the stability of the bulk test article is on file with the Sponsor.

**Analyses of Prepared Formulations:**

Homogeneity and stability of prepared formulations is on file with the Sponsor. However, records will be maintained to document how the test article formulations were prepared.

**Concentration of Test Article Formulations:**

Concentration of the prepared formulations will be verified during the course of this study. Duplicate samples (2 mL each) will be taken from the first and last preparation on the day prepared. One sample of each set will be shipped for analysis; the remaining samples will be retained at the Testing Facility as backup samples. Backup samples will be stored frozen (-70°C or below) and discarded at the Testing Facility upon request of the Sponsor.

**Shipping Instructions:**

Samples to be analyzed will be shipped (frozen on dry ice) to:

Kris J. Hansen, Ph.D.  
3M Environmental Technology and Safety Services  
935 Bush Avenue  
Building 2-3E-09  
St. Paul, Minnesota 55133-3331  
Telephone: (612) 778-6018  
Telefax: (612) 778-6176

The recipient will be notified in advance of sample shipment.

**DISPOSITION:**

Prepared formulations will be discarded at the Testing Facility. All remaining bulk test article will be returned to the Study Monitor at the previously cited address upon completion of all work with the test article.

**TEST SYSTEM:****Species/Strain and Reason for Selection:**

The CrI:CD®BR VAF/Plus® (Sprague-Dawley) rat was selected as the Test System because: 1) this strain of rat was used in the reproductive and developmental toxicity studies; 2) historical data and experience exist at the Testing Facility<sup>(1-3)</sup>; and 3) the test article is pharmacologically active in the species and strain.

**Number:**

|                                |                                             |
|--------------------------------|---------------------------------------------|
| Initial population acclimated: | 120 virgin female rats.                     |
| Population selected for study: | 80 mated female rats (16 per dosage group). |

**Body Weight and Age:**

Female rats will be ordered to have body weights of 200 g to 225 g each at receipt, at which time they will be expected to be at least 60 days of age. Actual body weights 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:**

Female rats will be given the test article. Male rats of the same source and strain will be used only as breeders and are not considered part of the Test System.

**Source:**

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.

**Identification:**

Rats are permanently identified using Monel® self-piercing ear tags (Gey Band and Tag Co., Inc., No. MSPT 20101). Male rats are given unique permanent identification numbers upon assignment to the Testing Facility's breeder male rat population. Female rats are assigned temporary numbers at receipt and given unique permanent identification numbers when assigned to the study.

**ANIMAL HUSBANDRY:**

All cage sizes and housing conditions are in compliance with the *Guide for the Care and Use of Laboratory Animals*<sup>(4)</sup>.

**Housing:**

Female rats will be individually housed in stainless steel, wire-bottomed cages, except during the cohabitation period and during collection intervals for urine and fecal samples. During cohabitation, each pair of rats will be housed in the male rat's cage. During collection intervals for urine and fecal samples, the female rats will be housed individually in metabolism cages. No nesting materials will be supplied because the female rats will be sacrificed before parturition is expected.

**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 (Airo Clean® room). Room temperature will be maintained at 64°F (18°C) to 79°F (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 or the drinking water 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.

**RANDOMIZATION AND COHABITATION:**

Upon arrival, male and female rats will be assigned to individual housing on the basis of computer-generated random units. After acclimation, virgin female rats will be selected for study on the basis of physical appearance and body weights recorded during acclimation. The female 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 female rats to cohabitation with breeder male rats, one male rat per female rat. The cohabitation period will consist of a maximum of five 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.

A table of random units or a computer-generated randomization procedure will be used to select eight female rats per dosage group for Cesarean-section examinations on day 15 of presumed gestation. The remaining female rats in each dosage group will be examined on day 21 of presumed gestation.

### **ADMINISTRATION:**

#### **Route and Reason for Choice:**

The oral (gavage) route was selected for use because: 1) this was the route of administration in the developmental and reproductive toxicology studies; and 2) it is one of the possible routes of human exposure.

#### **Method and Frequency:**

Female rats will be given the test article or vehicle once daily beginning 42 days prior to cohabitation through either day 14 of presumed gestation or day 20 of presumed gestation. Dosages will be adjusted daily for body weight changes and given at approximately the same time each day.

#### **Rationale for Dosage Selection:**

Dosages were selected on the basis of a previous study conducted with the test article (Argus Research Laboratories, Inc., Protocol 418-008).

#### **Dosage Levels, Concentrations and Volumes:**

| Dosage Group | Number of Female Rats | Dosage (mg/kg/day) | Concentration (mg/mL) | Dosage Volume (mL/kg) | Argus Batch Number          |
|--------------|-----------------------|--------------------|-----------------------|-----------------------|-----------------------------|
| I            | 16                    | 0 (Vehicle)        | 0                     | 5                     | B-418-013-A(Day.Month.Year) |
| II           | 16                    | 0.1                | 0.02                  | 5                     | B-418-013-B(Day.Month.Year) |
| III          | 16                    | 0.4                | 0.08                  | 5                     | B-418-013-C(Day.Month.Year) |
| IV           | 16                    | 1.6                | 0.32                  | 5                     | B-418-013-D(Day.Month.Year) |
| V            | 16                    | 3.2                | 0.64                  | 5                     | B-418-013-E(Day.Month.Year) |

The test article will be considered 100% pure for the purpose of dosage calculations.

**TESTS, ANALYSES AND MEASUREMENTS:****Viability:**

All Periods: At least twice daily.

**Clinical Observations and/or General Appearance:**

Acclimation Period: At least once.

Dosage Period: Twice daily. Prior to administration and once approximately one hour postdosage.

Postdosage Period: Once prior to sacrifice.

Clinical observations may be recorded more frequently than cited above, if deemed appropriate by the Study Director and/or Study Monitor.

**Body Weights:**

Acclimation Period: At least once.

Dosage Period: Daily.

Sacrifice: Terminal weight.

**Feed Consumption Values (recorded and tabulated):**

Acclimation Period: At least once.

Dosage Period: Weekly to cohabitation and daily during presumed gestation.

Feed consumption values may be recorded more frequently if it is necessary to replenish the feed. These intervals will not be tabulated.

**Mating Performance:**

Mating will be evaluated daily during the cohabitation period and confirmed by observation of spermatozoa in a smear of the vaginal contents and/or a copulatory plug observed *in situ*.

**Pharmacokinetic Sample Collection:****Urine and Fecal Samples:**

Female rats will be housed individually in metabolism cages for collection of urine and fecal samples for the following intervals: one day prior to initiation of cohabitation to the following morning and days 6 to 7, 14 to 15 and 20 to 21 of presumed gestation. Following each 24-hour collection interval, samples will be collected into centrifuge tubes, placed on dry ice and stored frozen (-70°C or below) until shipment for analysis.

In the event that a dam begins to deliver before completion of urine and fecal sample collection (day 20 to day 21 of presumed gestation), the dam will be removed from the metabolism cage and placed in a nesting box with sufficient bedding until sacrifice.

**Blood Samples:**

Blood samples will be collected from each of the female rats following removal from metabolism caging (prior to administration) on each of the following days: on the day cohabitation is initiated (prior to cohabitation) and on days 7 and 15 of presumed gestation, as well as day 21 of presumed gestation. The time of blood collection will be recorded in the raw data.

On all days of collection except days 15 and 21 of presumed gestation (dams at their terminal collection interval), blood samples (approximately 1 mL each) will be collected from the orbital sinus. If necessary, whole blood may be collected from an alternate site; if so, the alternate site will be documented in the raw data. On day 21 of presumed gestation, blood samples (approximately 4 mL each) will be collected via the inferior vena cava. If blood collection on day 15 of presumed gestation will be a final bleed for the respective dam (i.e., the dam will be Caesarean-sectioned that day), the sample will be approximately 4 mL and will be collected via the inferior vena cava.

Blood will be collected and transferred into serum separator tubes. The samples will be spun in a refrigerated centrifuge. The serum will be transferred into polypropylene tubes labeled with the study number, animal identification, date of collection, study day and collection timepoint. All samples will be immediately frozen on dry ice and maintained frozen (-70°C or below) until shipment to the Sponsor for analysis.

**Shipping Instructions:**

All samples will be maintained frozen (-70°C or below) until shipment for analysis. Samples will be shipped frozen on dry ice via overnight mail. A packing list will be included with the samples and sent 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.

**Caesarean-Sectioning Observations - Day 15 Presumed Gestation:**

Eight randomly selected female rats per dosage group will be Caesarean-sectioned on day 15 of presumed gestation. The gravid uterus will be excised and weighed. Placentae that appear abnormal (size, color or shape) will be noted in the raw data. The female rats (pregnant dams) will be examined for number and distribution of:

Corpora Lutea.

Implantation Sites.

Viable and Nonviable Embryos.

(A viable embryo is oval or crescent shaped, pink, firm and enclosed in an amniotic sac filled with clear fluid. A nonviable embryo is amorphous, small, pale pink to tan or deep red to black, soft and enclosed in an amniotic sac filled with clear, cloudy or opaque fluid.)

**Sample Collection:**

Caps and labeled tubes will be weighed (combined weight, to the nearest .001 gram) before and after retention of pooled embryonic samples for subsequent use in pharmacokinetic analyses. These weights will be documented in the raw data, and copies of these weights will be included with the packing list prior to shipment.

Samples of the amniotic fluid of each viable embryo will be collected, pooled (per litter), frozen and stored (-70°C or below) until shipment to the Sponsor for analysis.

Each viable embryo will be removed from the uterus with the attached placenta, pooled (per litter), frozen and stored (-70°C or below) until shipment to the Sponsor.

**Shipping Instructions:**

All samples will be maintained frozen (-70°C or below) until shipment for analysis. Samples will be shipped frozen on dry ice via overnight mail. A packing list will be included with the samples and sent 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.