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FINAL REPORT

Study Title:

13-Week Dietary Toxicity Study with T-5180, Ammonium
Perfluorooctanoate (CAS No. 3825-26-1)
in Male Rats

Data Requirement:
Guideline 82-1

Author:

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Date:

May 17, 1993

Performing Laboratory:

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Madison, Wisconsin 53704

Laboratory Project Identification:

HWI 6329-100

VOLUME I OF II

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COMPLIANCE STATEMENT

13-Week Dietary Toxicity Study with T-5180, Ammonium
Perfluorooctanoate (CAS No. 3825-26-1)
in Male Rats

All aspects of this study that were carried out by Hazleton Wisconsin, Inc., and
Hazleton Washington, Inc., were in accordance with the Environmental Protection
Agency Good Laboratory Practice Standards, 40 CFR 160.

Matthew J. Palazzolo

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Director
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Hazleton Wisconsin, Inc.

5/17/93

Date

To the best of my knowledge, the above statement is complete and accurate.

Sponsor's Representative
3M

Date

To the best of my knowledge, this report is complete and unaltered.

Applicant
3M

Date

HWI 6329-100

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QUALITY ASSURANCE STATEMENT

13-Week Dietary Toxicity Study with T-5180,
Ammonium Perfluorooctanoate (CAS No. 3825-26-1) in Male Rats

The report for this study, with the exception of Appendix E, has been reviewed by the Quality Assurance Unit of Hazleton Wisconsin, Inc., in accordance with the Good Laboratory Practice Standards as set forth in 40 CFR 160.35 (b) (6) (7). The report identifies and/or describes the authorized methods and Standard Operating Procedures followed in the conduct of the study. The Quality Assurance Unit has also conducted the following inspections of the testing facilities used in the conduct of this study and has submitted written reports of these inspections to the Study Director. Written status reports of inspections and findings are submitted to Management according to Hazleton Wisconsin, Inc., Standard Operating Procedures.

<u>Date of Inspection</u>	<u>Type of Inspection</u>	<u>Date Issued to Study Director</u>
02/20/90	Protocol Review	02/20/90
03/02/90	Protocol Amendment Review	03/07/90
12/27/90	Body Weight Measurement	12/27/90
12/27/90	Food Consumption Measurement	12/27/90
12/27/90	Animal Observation	12/27/90
01/02/91	Test Material Preparation	01/02/91
01/02/91	Sample Analysis	01/02/91
01/02/91	Test Material Administration	01/02/91
01/02/91	Prepared Test Material Dispensation	01/02/91
01/14/91	Protocol Amendment Review	01/14/91
01/21/91	Protocol Amendment Review	01/21/91
01/24/91	Clinical/Pharmacokinetic Sampling	01/24/91
02/12/91	Necropsy	02/12/91
03/25/91	Clinical/Pharmacokinetic Sampling	03/25/91
04/29/91	Data Review	04/30/91
04/30/91	Data Review	04/30/91
05/16/91	Necropsy	05/16/91

QUALITY ASSURANCE STATEMENT

<u>Date of Inspection</u>	<u>Type of Inspection</u>	<u>Date Issued to Study Director</u>
05/23/91	Histology Operation	05/23/91
07/22-26,29-31, 08/01,02,05-07/91	Data Review	08/07/91
09/13/91	Special Analysis	09/18/91
11/18-12/04/91	Data Review	12/05/91
11/20-12/04/91	Report Review	12/04/91
09/28/92	Protocol Amendment Review	09/28/92
02/19-24/93	Report Review	02/24/93
03/23/93	Protocol Amendment Review	03/23/93
04/08/93	Report Review	04/08/93

John D. Bolling
John D. Bolling
Representative, Quality Assurance Unit

5/17/93
Date

STUDY IDENTIFICATION

13-Week Dietary Toxicity Study with T-5180, Ammonium
Perfluorooctanoate (CAS No. 3825-26-1)
in Male Rats

Test Material	T-5180, Ammonium Perfluorooctanoate (CAS No. 3825-26-1)
Sponsor	3M Toxicology Services Building 220-2E-02, 3M Center St. Paul, Minnesota 55144-1000
Study Monitor	Roger G. Perkins, PhD, DABT 3M Toxicology Services Building 220-2E-02, 3M Center St. Paul, Minnesota 55144-1000
Study Director	Matthew J. Palazzolo, PhD, DABT Hazleton Wisconsin, Inc. P.O. Box 7545 Madison, Wisconsin 53707 (608) 242-2622
Study Location	Hazleton Wisconsin, Inc. 3301 Kinsman Boulevard Madison, Wisconsin 53704
Study Timetable	
In-Life (Experimental) Start Date	December 20, 1990
In-Life Termination Date	May 17, 1991
Experimental Termination Date	May 17, 1993

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ABSTRACT

The purposes of this study was to assess the subchronic toxicity of T-5180, Ammonium Perfluorooctanoate, when fed to rats for at least 13 weeks and to evaluate reversibility of any toxic effects after approximately 8 weeks without treatment. There were 320 male Crl:CD®BR rats assigned at random to six groups (55/group in Groups 1 through 5, 45/group in Group 6) and fed diets containing 0 (nonpair-fed control), 1, 10, 30, 100, or 0 ppm (control group pair-fed to the group fed 100 ppm) for up to 13 weeks. In addition, 10 animals/sex/group in Groups 1 through 5 (designated as recovery animals) were fed basal diet for 8 weeks posttreatment.

The animals were observed at least twice daily. Body weights were recorded once before initiation of treatment, weekly thereafter, and on the day of necropsy. Food consumption was recorded weekly for animals given 1, 10, or 30 ppm and for the nonpair-fed control group. Food consumption was recorded daily for the pair-fed groups (animals given 0 or 100 ppm). Food consumption was recorded weekly for all groups during recovery.

There were 15 animals/group sacrificed after 4, 7, or 13 weeks of treatment; 10 animals/group in Groups 1 through 5 were sacrificed after 13 weeks of treatment and 8 weeks without treatment. Hepatic CoA Oxidase activity was determined for five animals/group at each scheduled sacrifice.

Serum samples from 10 animals/group were collected at each scheduled sacrifice during treatment and from 5 animals/group during recovery for hormone analysis. Nonfasted rats were anesthetized with methoxyflurane and blood was collected from the descending vena cava. These samples were analyzed for estradiol, testosterone (total) and luteinizing hormones, and for test material content.

One animal given 100 ppm was sacrificed during Week 4 due to severe neck sores; all other animals survived to scheduled sacrifice. There were no test material-related effects on antemortem observations. Body weight and cumulative body weight gain for the 100-ppm animals were consistently significantly lower than those of the nonpair-fed control group throughout treatment.

Animals fed 100 ppm consumed significantly less food than the nonpair-fed control group at Weeks 1 and 2. Overall, there was no significant difference in mean food consumption between the pair-fed and nonpair-fed groups.

Dietary administration of the test material resulted in higher hepatic palmitoyl CoA oxidase activity that was statistically significant at dose levels of 30, and 100 ppm at Weeks 5, 8, and 14. Animals given 10 ppm had transiently higher hepatic palmitoyl CoA oxidase activity that was statistically significant at Week 5. The mean enzyme activities for animals given 10, 30, or 100 ppm were highest at Week 8. No difference in hepatic palmitoyl CoA oxidase activity was seen at Week 22; that is after 8 weeks recovery following the 13 weeks of dietary administration of the test material. The effect was dose-dependent and reversible.

Administration of the test material caused increased absolute and relative liver weights and hepatocellular hypertrophy in the livers of animals given 10, 30, or 100 ppm after at least 4, 7, and 13 weeks of treatment. The progression of hepatocellular hypertrophy did not appear to be affected by the length of treatment. The changes observed are suggestive of a test material effect on intracellular metabolism and may be associated with peroxisome proliferation. At the end of recovery, these changes were not observed in animals, indicating that the test material-related increases in absolute and relative liver weights were reversible.

There was no consistent pattern for the hormone determinations which could be attributed to the test material over the entire course of the study. None of the hormone levels were significantly different between groups although there appeared to be some indication of elevated estradiol for the 100 ppm group at the Week 5 determination.

Based on the results of this study, the no-observable-adverse-effect level for T-5180 when fed *ad libitum* to rats for at least 13 weeks is 100 ppm; the no-effect level is 1.0 ppm.

OBJECTIVE

The purposes of this study was to assess the subchronic toxicity of T-5180, Ammonium Perfluorooctanoate (CAS No. 3825-26-1) when fed to rats for at least 13 weeks and to evaluate reversibility of any toxic effects after approximately 8 weeks.

REGULATORY COMPLIANCE

All aspects of this study that were carried out by Hazleton Wisconsin (HWI) and Hazleton Washington (HWA) were in accordance with the Environmental Protection Agency Good Laboratory Practice Standards, 40 CFR 160.

MAINTENANCE OF RAW DATA, RECORDS, AND SPECIMENS

Original paper data, magnetically encoded records, and a copy of the final report will be retained in the archives of HWI. Specimens will be transferred to the Sponsor and are to be retained in accordance with 40 CFR 160.195.

TEST MATERIAL

Identification and Characterization

The test material, T-5180, Ammonium Perfluorooctanoate (CAS No. 3825-26-1), Lot No. 115, is a light colored powder. It was received at HWI on November 7, 1990, and was assigned HWI Sample No. 0058A1.

Information on synthesis methods, composition, or other characteristics that define the test material is on file with the Sponsor.

Storage Conditions

The test material was stored at room temperature.

Reserve Samples

Reserve samples of the test material were taken and stored in a freezer. These samples were returned to the Sponsor on December 18, 1991 to be retained in accordance with 40 CFR 160.195. Any remaining test material was returned to the Sponsor on December 18, 1991.

Safety Precautions

Personnel involved with the study wore the apparel required by the Material Safety Data Sheet (MSDS) provided by the Sponsor. HWI SOPs applied for any apparel not covered by the MSDS.

TEST SYSTEM

Test Animal

Male Crl:CD®BR rats were obtained from the Portage, Michigan, facility of Charles River Laboratories, Inc. (Wilmington, Massachusetts), on December 7, 1990. The animals were approximately 41 days old at initiation of treatment and weighed 180.7 to 229.1 g.

The rat is frequently used in safety evaluation studies as a representative of a rodent species. Male rats were used to characterize the effects of the test material on testicular physiology.

Identification

Each animal was assigned a temporary number upon arrival. Before initiation of treatment, each animal was assigned a permanent number and identified with an ear tag. All data for an animal are recorded under one of these numbers.

STUDY DESIGN

Animals were assigned to the study using a computer-generated randomization according to the following design:

<u>Group</u>	<u>Dose Level (ppm)</u>	<u>Number of Males^a</u>
1	0	55
2	1	55
3	10	55
4	30	55
5	100	55
6	0 ^b	45

- a 10 animals for Groups 1 through 5 (designated as recovery animals) were treated for at least 13 weeks, then treatment was discontinued (animals were fed the basal diet) and they were observed for reversibility, persistence, or delayed occurrence of toxic effects for at least 8 weeks posttreatment.
- b Animals in Group 6 were pair-fed with the high-dose animals (Group 5) throughout treatment. Due to the pair-feeding requirements, the pair-fed control animals (Group 6) were initiated on test one day after all other groups.

Individual body weights at the time of randomization were within ± 2 standard deviations of the mean body weight and group mean body weights were not statistically different at the 5.0% probability level (Winer, 1971).

PROCEDURES

This study was conducted in accordance with HWI Protocol TP9321 dated November 30, 1990, and Amendment Nos. 1 through 3. The protocol, protocol amendments, protocol deviations, and MSDS are in Appendix A. Unless otherwise indicated, all procedures were done in accordance with the above-referenced documents, HWI SOPs, or both.

Dose Preparation

Carrier. Certified Rodent Chow® #5002 was used as supplied.

Test Material. Dietary concentrations were based on the test material as supplied. Diets were prepared weekly.

A specified amount of carrier (basal diet) was weighed into a labeled Hobart® mixing bowl from which approximately 200 g were removed and placed in a Waring blender; the required amount of test material was then weighed and added to the Waring blender and overlaid with approximately 50 g of carrier, then thoroughly blended; this premix was transferred to the mixing bowl. The contents of the mixing bowl were mixed for approximately 15 minutes to prepare the base diet. Diets were made for Groups 2, 3, 4, and 5 by placing a specified amount of basal diet into a labeled Hobart® mixing bowl. A specified amount of base diet was added to the mixing bowl. The contents of the mixing bowl were mixed for approximately 15 minutes.

Beginning at Week 3, the mixing procedure for Group 2 was modified. A specified amount of basal diet was placed into a labeled Hobart® mixing bowl and a specified amount of the Group 3 diet was added to the mixing bowl. The contents of the mixing bowl were mixed for approximately 30 minutes.

The diets were stored at room temperature (Weeks 1 through 8) or in a refrigerator (Weeks 9 through 14) in containers until diet administration.

Retention Samples

Samples of each mixed batch were stored in a freezer for at least 6 months for possible future analysis.

Dose Analyses

Assays for the test material in the basal diet were done by HWI using an analytical method developed and validated by HWI (Appendix G).

Homogeneity was determined for all concentrations at Week 1. Homogeneity was also determined for the low-dose (1 ppm) concentration at Week 2. Samples taken from the top, bottom, and two opposing sides of the mix were assayed in duplicate for test material content.

To evaluate the stability of the test material in the basal diet, four sets of samples were taken from each dose preparation mixed for Week 1. One set was analyzed on the day of mixing, one set was analyzed after storage for 1 day in a refrigerator and 7 days at room temperature; and the remaining sets were analyzed after being stored in a freezer for 2 or 7 weeks.

A second stability was done at Week 12 to evaluate the actual storage conditions during the first eight weeks of the study. Two sets of samples were taken from each dose preparation; one set was analyzed on the day of mixing and the second set was analyzed after storage at room temperature for 8 days.

All diets were assayed each week for the first 4 weeks. Each week thereafter, a sample of the control diet and one test material dietary concentration was selected sequentially for analysis. These samples were analyzed as a group approximately every 4 weeks. All samples were stored in a freezer until analyzed.

Dose Administration

Dietary admixture was used to compare data with other studies dosed in a similar fashion.

The test material was administered *ad libitum* for at least 13 weeks. After 13 weeks of treatment, 10 males (designated as recovery animals) from all groups, except the pair-fed control group (Group 6), were fed basal diet for at least 8 weeks posttreatment.

Acclimation

The animals were received on December 7, 1990, and were acclimated in Animal Room 315 for 13 days before initiation of treatment. During acclimation, the animals were observed daily for abnormalities indicative of health problems.

Housing and Maintenance

Animal Room 315 was used for this study. Environmental controls for the animal room were set to maintain a temperature of 72°F $\pm$ 6°, a relative humidity of 50% $\pm$ 20%, and a 12-hour light/12-hour dark cycle. Variations from these conditions were documented and were considered to have had no effect on the outcome of the study.

The animals were housed individually (except for the first week of acclimation) in stainless steel, screen-bottom cages. When animal health status warranted, selected animals were individually housed in polycarbonate cages with hardwood chip bedding. Animal husbandry and housing at HWI comply with standards outlined in the Guide for the Care and Use of Laboratory Animals (NIH Publ. No. 86-23, 1985).

Certified Rodent Chow® #5002 (Purina Mills, Inc.) was provided *ad libitum*. The lot numbers are recorded. The diet is routinely analyzed by the manufacturer for nutritional components and environmental contaminants.

Water was provided *ad libitum*. Samples of the water are analyzed by HWI for total dissolved solids, hardness, and specified microbiological content and for selected elements, heavy metals, organophosphates, and chlorinated hydrocarbons. The results are on file with HWI.

There were no known contaminants in the food or water that would have interfered with this study.

Antemortem Observations

The animals were observed twice daily (a.m. and p.m.) for mortality, moribundity, and signs of toxicity. At least once weekly, each animal was removed from its cage and a detailed examination was done.

Body Weights

Individual body weight data were recorded for randomization, on the first day of treatment, weekly thereafter, and on the day of necropsy (except for two animals that were not weighed before exsanguination).

Food Consumption

Individual food consumption data were recorded daily for animals that were pair-fed (Groups 5 and 6) and weekly for all other animals during treatment. During recovery, food consumption was recorded weekly for all animals.

Hormone Analysis

Serum samples were collected from 10 animals/group at each scheduled sacrifice during treatment and from 5 animals/group during recovery. Nonfasted rats were anesthetized with methoxyflurane, and blood was collected from the descending vena cava and stored on ice until centrifugation. Serum samples were stored at approximately -70°C (except storage location for 3 collection dates cannot be verified), then packed on dry ice, and shipped to Hazleton Washington for analysis. Serum samples were analyzed for estradiol and testosterone (total) and luteinizing hormones.

Test Material Residue Analysis

Samples of liver, testes, lungs, and subcutaneous adipose tissue were collected from all animals at necropsy and stored frozen for possible analysis. Serum samples collected from up to 10 animals/group at each scheduled sacrifice during treatment and from 5 animals/group during recovery were analyzed for test material residue.

Clinical Pathology

A section of liver was obtained from all animals at each scheduled sacrifice and flash frozen in liquid nitrogen. A section of liver from 5 animals/group at each scheduled sacrifice was assayed for the level of palmitoyl CoA oxidase as an indicator of peroxisome proliferation.

Anatomical Pathology

A necropsy was done on the animal that was sacrificed in a moribund condition. After 4, 7, or 13 weeks of treatment, nonfasted animals were anesthetized with methoxyflurane, weighed, exsanguinated, and necropsied between 7:00 a.m. and 10:00 a.m. (except for three animals that were necropsied after 10:00). Recovery animals were sacrificed after 8 weeks without treatment.

The necropsy included a macroscopic examination of the external surface of the body; all orifices; the cranial cavity; the external surfaces of the brain and spinal cord; the nasal cavity and paranasal sinuses; and the thoracic, abdominal, and pelvic cavities and viscera.

At the scheduled necropsy, the following organs (when present) were weighed; paired organs were weighed separately:

Brain
Liver
Lungs

Testes (one testis)
Accessory sex organs (seminal vesicle,
prostate, coagulating gland, urethra)

Organ-to-body weight percentages and organ-to-brain weight ratios were calculated.

The following (when present) or representative samples were collected from scheduled sacrifice animals and preserved in 10% phosphate-buffered formalin, unless otherwise specified:

Lesions
Brain
Liver
Lungs

Testes (one testis)
Accessory sex organs (seminal vesicle,
prostate, coagulating gland, urethra)

The above (as appropriate) were embedded in paraffin, sectioned, stained with hematoxylin and eosin, and examined microscopically from all animals from which they were collected.

At the scheduled necropsy samples of the following tissues were preserved in glutaraldehyde for possible electron microscopic evaluation:

Brain
Liver
Lungs

Testes (one testis)
Accessory sex organs (seminal vesicle,
prostate)

Statistical Analyses

The statistical methods used are described below. Levene's test (Levene, 1960) was done to test for variance homogeneity. In the case of heterogeneity of variance at $p \leq 0.05$, transformations were used to stabilize the variance.

Analysis of variance [ANOVA (Winer, 1971)] was done on the homogeneous or transformed data. If the ANOVA was significant, Games and Howell Modified Tukey-Kramer test (Games and Howell, 1976) was used for pairwise comparisons between groups.

One-way ANOVA was used to analyze body weights, cumulative body weight gains, food consumption, clinical chemistry, hormone values, organ weights, organ-to-body weight percentages, and organ-to-brain weight ratios. Body weights, cumulative body weight gains, and food consumption values were analyzed for all groups (except Group 6) using the SAS program according to HWI methods.

Group comparisons were evaluated at the 5.0% two-tailed probability level.

RESULTS

Groups 2, 3, 4, and 5 were compared with Group 1; Group 6 was compared with Group 5.

Dose Analyses

Results of test diet assays to confirm method validation, homogeneity, and stability and to verify dose levels for T-5180 are in Tables 36 through 39.

Method validation results indicated that the method developed was suitable for the range of dietary concentration in the study.

Mean homogeneity results for diets containing 30 ppm and 100 ppm were within 10% of the theoretical levels; these results indicated that the mixing procedure produced a homogeneous distribution of T-5180 in the diet at these levels. Mean homogeneity results for diets containing 1 ppm and 10 ppm T-5180 were within 19% and 18% of the theoretical values, respectively.

All test diets were considered stable under the storage conditions specified. The lower values of the theoretical (i.e., 78% for the sample stored refrigerated 1 day, than at room temperature 7 days, 75% for the sample stored at room temperature 8 days, and 77% for the sample stored frozen for 2 weeks before analysis) were consistent with the variability of the assay at the 1 ppm level.

Dose preparation analysis results indicated that the appropriate dietary concentrations were achieved during the study. The assay results ranged from 70.0%-119%, 90.1%-116%, 87.0%-116% and 90.1%-111% of the theoretical dose levels of 1, 10, 30, and 100 ppm.

Acclimation

For this study, 370 males were received and acclimated. In general, animals in this shipment appeared healthy. The animals were released from acclimation by the laboratory animal veterinarian on December 17, 1990. One animal was excluded from study consideration due to small testes. There were 369 males in the randomization for assignment to groups (55/group for Groups 1, 2, 3, 4, and 5; 45/group for Group 6). Animals not selected for the study were sacrificed and discarded on December 21, 1990.

Survival

One animal given 100 ppm was sacrificed during Week 4 due to severe neck sores. All other animals survived until scheduled sacrifice.

Antemortem Observations

Antemortem observations are summarized in Table 1; individual data are in Appendix B.

There were no test material-related antemortem observations.

Body Weights

Body weight data are summarized in Table 2; individual data are in Appendix B.

Body weights for the 100-ppm animals were significantly lower than the pair-fed control group (Group 6) at study initiation and were consistently significantly lower than the nonpair-fed control group (Group 1) throughout treatment (Weeks 1 through 13). During recovery, there were no statistical differences in body weights noted. There were no significant body weight changes for animals at 1, 10, or 30 ppm levels.

Mean Body Weight Gains

Mean body weight gain data are summarized in Table 3.

Mean body weight gains for the 100-ppm animals were significantly higher than the pair-fed control group (Group 6) at Week 1 and were consistently significantly lower than the nonpair-fed control group (Group 1) throughout treatment (Weeks 1 through 13). Mean body weight gains were significantly lower than the nonpair-fed control group (Group 1) for animals given 10 or 30 ppm at Week 2. During recovery, there were no statistical differences in mean body weight gains noted.

Food Consumption

Food consumption data are summarized in Table 4 ; individual data are in Appendix B.

Animals fed 100 ppm (Group 5) consumed significantly less food than the nonpair-fed control group (Group 1) at Weeks 1 and 2. Overall, there was no significant difference in mean food consumption between the pair-fed and nonpair-fed groups.

Compound Consumption

Compound consumption data are summarized in Table 5.

Animals were fed diets containing 1, 10, 30, or 100 ppm of the test material. The amount of T-5180 consumed by the animals on a mg/kg of body weight/day basis was proportional to the dose as follows:

	T-5180 (mg/kg/day)			
	Diet Concentration (ppm)			
	<u>1</u>	<u>10</u>	<u>30</u>	<u>100</u>
Overall Mean	0.06	0.64	1.94	6.50
SD	0.013	0.138	0.408	1.214

Hormone Analysis

Hormone analysis data are summarized in Table 34; individual data are in Appendix E. There were no statistically significant differences between groups.

There was no consistent pattern for the hormone determinations which could be attributed to the test material over the entire course of the study. None of the hormone levels were significantly different between groups although there appeared to be some indication of elevated estradiol for the 100 ppm group at the Week 5 determination.

Test Material Residue Analysis

Results of test material serum analysis are summarized in Table 35; individual data are in Appendix F. Serum levels of T-5180 increased proportionally with dietary exposure concentration but there was no increase in serum T-5180 over the course of exposure.

Clinical Pathology

Hepatic Palmitoyl CoA Oxidase data are summarized in Tables 6 through 9; individual data are in Appendix C. The Pathology Report contains a complete discussion of the data.

Dietary administration of the test material, T-5180, caused higher hepatic palmitoyl CoA oxidase activity at dose levels of 30 and 100 ppm that was statistically significant. The effect was dose-dependent and reversible. Animals given 10 ppm had transiently higher hepatic palmitoyl CoA oxidase activity that was statistically significant at Week 5 only. The mean enzyme activities for animals given 10, 30, or 100 ppm were highest at Week 8.

Anatomical Pathology

Organ weights, organ-to-body weight percentages, and organ-to-brain weight ratios are summarized in Tables 10 through 21; macroscopic and microscopic findings are summarized in Tables 22 through 29; incidence of severity of microscopic observations are in Tables 30 through 33; all individual data are in Appendix D. The Pathology Report contains a complete discussion of the data.

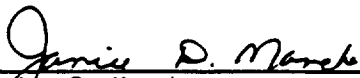
Administration of the test material, T-5180, caused increased absolute and relative liver weights and hepatocellular hypertrophy in the livers of animals after at least 4, 7, and 13 weeks of treatment. Absolute liver weights and relative liver weights for animals fed 100 ppm were significantly higher than the pair-fed controls after 4, 7, and 13 weeks of treatment. The changes observed are suggestive of a test material effect on intracellular metabolism and may be

associated with peroxisome proliferation. During recovery, these changes were not observed in animals that were treated for at least 13 weeks and untreated for at least 8 weeks, indicating that the test material-related changes were reversible.

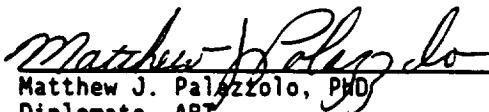
CONCLUSIONS

Based on the results of this study, the no-observable-adverse effect level for T-5180 when fed *ad libitum* to rats for at least 13 weeks is 100 ppm; the no-effect level is 1.0 ppm.

SIGNATURES


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5/17/93
Date


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Diplomate, ABT
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Director
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by and for Hazleton Wisconsin, Inc.

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PATHOLOGY REPORT

SUMMARY

Dietary administration of T-5180 caused higher hepatic palmitoyl CoA oxidase activity at dose levels of 30 and 100 ppm that was statistically significant. The effect was dose-dependent and reversible. Animals given 10 ppm had transiently higher hepatic palmitoyl CoA oxidase activity that was statistically significant at Week 5. The mean enzyme activities for animals given 10, 30, or 100 ppm were highest at Week 8.

Administration of the test material, also caused increased absolute and relative liver weights and hepatocellular hypertrophy in the livers of animals after at least 4, 7, and 13 weeks of treatment. The changes observed are suggestive of a test material effect on intracellular metabolism and may be associated with peroxisome proliferation. In the recovery phase, these changes were not observed in animals that were treated for at least 13 weeks and untreated for at least 8 weeks, indicating that the test material-related changes were reversible.

INTRODUCTION

The purposes of this study were to assess the subchronic toxicity of the test material, T-5180 (Ammonium Perfluorooctanoate), when fed to rats for at least 13 weeks and to evaluate reversibility of any toxic effects. Four groups of male Cr1:CD®BR rats (55/group) were fed diets containing the test material at levels of 1, 10, 30, or 100 ppm. Two control groups received no test material; one control group was pair-fed with the high-dose group throughout treatment. Ten animals were designated as recovery animals from each group except for the pair-fed controls. After at least 13 weeks of treatment, these animals were observed for reversibility, persistence, or delayed occurrence of toxic effects for at least 8 weeks posttreatment.

During Weeks 5, 8, 14, and 22, animals were sacrificed and necropsied; macroscopic observations were recorded, organ weights were obtained, and tissues were preserved in fixatives as required by the protocol. One animal, sacrificed due to poor health during Week 4, was also necropsied. At the scheduled sacrifices, serum samples were collected for hormone analysis, tissue samples were collected and frozen for possible analysis for test material residue, and sections of liver were obtained for assaying hepatic palmitoyl CoA oxidase activity as an indicator of peroxisome proliferation. Microscopic examinations were performed on lesions, brain, liver, lungs, left testis, and accessory sex organs from all animals.

Statistical comparisons were made between the treated groups and the nonpair-fed control group and between the high-dose group and the pair-fed control group.

RESULTS

Clinical Pathology

Individual values for hepatic palmitoyl CoA oxidase activity are in Appendix C. Mean values for each dose group and the results of statistical comparisons are in Tables 6 through 9.

Week 5. Animals given 10, 30, or 100 ppm had statistically significantly higher hepatic palmitoyl CoA oxidase activity than the nonpair-fed control animals. Animals given 100 ppm also had statistically significantly higher enzyme activity than the pair-fed control animals. Enzyme activity increased as dose levels increased.

Week 8. Animals given 30 or 100 ppm had statistically significantly higher hepatic palmitoyl CoA oxidase activity than the nonpair-fed control animals. Animals given 10 ppm had an apparently higher enzyme activity than the nonpair-fed control animals, but the difference was not statistically significant. Animals given 100 ppm also had statistically significantly higher enzyme activity than the pair-fed control animals. Enzyme activity increased as dose levels increased, and the activities for animals given 10, 30, or 100 ppm were higher at this interval than at Week 5.

Week 14. Animals given 30 or 100 ppm had statistically significantly higher hepatic palmitoyl CoA oxidase activity than the nonpair-fed control animals. Animals given 100 ppm also had statistically significantly higher enzyme activity than the pair-fed control animals. Enzyme activity for animals given 30 or 100 ppm were lower at this interval than at Weeks 5 or 8.

Week 22. There were no differences for hepatic palmitoyl CoA oxidase activity between the nonpair-fed control and treated groups.

Anatomical Pathology

Individual anatomical pathology data are in Appendix D. Individual terminal body weights, absolute organ weights, organ-to-body weight percentages, and organ-to-brain weight ratios are also in Appendix D. Mean weight values for each group are in Tables 10 through 21. Incidence summaries of the macroscopic and microscopic findings are in Tables 22 through 29.

Scheduled Sacrifices. After 4 weeks of treatment, animals given 100 ppm had significantly lower terminal body weights when compared with nonpair-fed control animals. After 4, 7, or 13 weeks of treatment, absolute and relative liver weights were significantly higher for animals given 100 ppm when compared with those of either group of control animals. These liver weights were also significantly higher in animals given 30 ppm after 4 or 7 weeks of treatment. Liver-to-body weight percentages were significantly higher in the animals given 10 ppm after 4 weeks of treatment and in the animals given 30 ppm after 13 weeks of treatment. After 13 weeks of treatment, other significant organ weight changes included lower liver-to-body weight percentages in animals given 1 ppm and higher testes-to-body weight percentages (when compared with those of the nonpair-fed controls) in animals given 100 ppm.

Macroscopically, there were few observations and no major differences in incidence between control and treated animals after 4, 7, or 13 weeks of treatment.

Microscopically, minimal-to-slight hepatocellular hypertrophy was observed in the liver from animals given 10, 30, or 100 ppm after 4, 7, or 13 weeks of treatment. This change was characterized by an accentuated centrilobular pattern in which the hepatocytes appeared to have a more homogeneous cytoplasm, and the cell borders were rounded giving the cells a more plump appearance. Except for the enlarged appearance, the cells were otherwise unremarkable. The incidence and severity of this change increased with dose, but neither appeared to be affected by the length of treatment (Tables 30 through 33). All other observations were considered incidental findings.

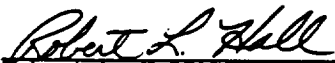
Recovery Sacrifice. Animals given 1 ppm had significantly higher absolute brain weights. There were no other significant changes in the remaining organ weight data. Macroscopically and microscopically, there were few observations and no major differences in incidence between control and treated animals after 13 weeks of treatment and after 8 weeks without treatment.

DISCUSSION

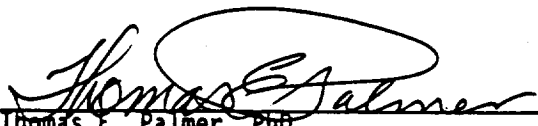
Dietary administration of the test material caused higher hepatic palmitoyl CoA oxidase activity at dose levels of 30 or 100 ppm that was statistically significant. The effect was dose-dependent and reversible. Animals given 10 ppm had transiently higher hepatic palmitoyl CoA oxidase activity that was statistically significant at Week 5. The mean enzyme activities for animals given 10, 30, or 100 ppm were highest at Week 8. Elevation of hepatic palmitoyl CoA oxidase activity indicates that the test material causes hepatocellular peroxisome proliferation.

Dietary administration of the test material caused an increase in absolute and relative liver weights after at least 4, 7, or 13 weeks of treatment. Animals treated for at least 13 weeks and untreated for at least 8 weeks had no significant changes in liver weights. Microscopically, minimal-to-slight hepatocellular hypertrophy was observed in the livers from treated animals. These liver sections had an accentuated centrilobulated pattern in which the hepatocytes around the central vein appeared to be more plump and larger. In comparison with similar cells from the control animals, the cytoplasm of the affected cells appeared to be more homogeneous and lacking intracellular vacuoles. The cell borders were more distinct and the cells appeared to be more rounded. There was no evidence of any degenerative changes or abnormalities associated with the hypertrophy. The severity of the cellular enlargement did not appear to increase with length of treatment, and the absence of similar changes in the recovery animals is indicative of reversibility. The changes observed in the liver are possibly from peroxisome proliferation or an increase in intracellular metabolism, increased storage of metabolic products, or both. All other organ weight changes and all macroscopic and microscopic observations were considered incidental findings and unrelated to ingestion of the test material.

SIGNATURES


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Date

(6329-100.1hm)
081092

COMMENTS ON THE DATA

Various computers and computer programs were used to analyze data in this study. Because different programs round off or truncate numbers differently, values in some tables (e.g., means, standard deviations, or individual values) may differ slightly from those in other tables, from individual calculated data, or from statistical analysis data. Neither the integrity nor the interpretation of the data was affected by these differences.

The test material, T-5180, Ammonium Perfluorooctanoate (CAS No. 3825-26-1) is also referenced as FC-143 in the data for test material serum analysis.

The "Study Day" for the PATHTOX computer system and the in-life data collection will always be 1 day different. The PATHTOX system considers the study initiation day as "Day 1," but for all in-life data collected manually or on a data capture system (e.g., HAZTOX), the study initiation day is "Day 0."

The calculation for test material consumption is:

$$\text{Test material consumption} = \frac{(\text{Dose Level} \times \text{Food Consumption})}{7 \times [(\text{Body Weight at Start of Week}) + (\text{Body Weight Gain for Week} + 2)]}$$

CODES, ABBREVIATIONS, AND UNITS

**General Codes and Abbreviations
Abbreviations and Units for Clinical Chemistry
Codes for Anatomical Pathology**

Note: The following lists of codes, abbreviations, and units are used by HWI. Some, but not necessarily all, of this information may be needed for this report.

General Codes and Abbreviations

N	Number of measurements in a group.
Mean	Arithmetic mean.
SD; S.D.; STAND DEV	Standard deviation.
A	Group mean is significantly different from the mean of the nonpair-fed control group (Group 1) at $p \leq 0.05$.
B	Group mean is significantly different from the mean of the pair-fed control group (Group 6) at $p \leq 0.05$.
-	Not applicable; No value.
#	Number in group.
CV	Coefficient of Variance.

Abbreviations and Units for Clinical Chemistry

<u>Test</u>	<u>Abbreviation (Units)</u>
Glucose	GLU (MG/DL)
Urea nitrogen	UN (MG/DL)
Creatinine	CREAT (MG/DL)
Total protein	T PRO (G/DL)
Albumin	ALB (G/DL)
Globulin	GLOB (G/DL)
Albumin/globulin ratio	A/G RATIO
Total bilirubin	T BILI (MG/DL)
Direct bilirubin	D BILI (MG/DL)
Indirect bilirubin	I BILI (MG/DL)
Cholesterol	CHOL (MG/DL)
High-density lipoprotein cholesterol	HDL (MG/DL)
Low-density lipoprotein cholesterol	LDL (MG/DL)
Triglyceride	TRIG (MG/DL)
Uric acid	UA (MG/DL)
Aspartate aminotransferase	AST/SGOT (IU/L)
Alanine aminotransferase	ALT/SGPT (IU/L)
Alkaline phosphatase	ALK PHOS (IU/L)
Gamma glutamyl transferase	GGT (IU/L)
Sorbitol dehydrogenase	SDH (IU/L)
Bromsulphalein clearance	BSP (MG/DL)
Lactate dehydrogenase	LDH (IU/L)
Creatine kinase	CK (IU/L)
Amylase	AMYL (IU/L)
Palmitoyl CoA oxidase	PCOAO (IU/G)
Calcium	CA (MG/DL)
Inorganic phosphorus	I PHOS (MG/DL)
Sodium	NA (MMOL/L)
Potassium	K (MMOL/L)
Chloride	CL (MMOL/L)
Magnesium	MG (MEQ/L)
Zinc	ZN (MG/L or PPM)
Strontium	SR (MG/L or PPM)
Total carbon dioxide	TCO ₂ (MMOL/L)
Bicarbonate	BICARB (MMOL/L)
Iron	FE (UG/DL)
Total iron binding capacity	TIBC (UG/DL)
Unbound iron binding capacity	UIBC (UG/DL)
Percent iron saturation	FE %SAT (%)
Plasma cholinesterase	CHEP (MU/ML)
Red blood cell cholinesterase	CHER (MU/ML)
Brain cholinesterase	CHEB (MU/ML)

Abbreviations and Units for Clinical Chemistry

<u>Test</u>	<u>Abbreviation (Units)</u>
Electrophoresis	
Albumin	E ALB (G/DL)
Alpha-1-globulin	E A-1 (G/DL)
Alpha-2-globulin	E A-2 (G/DL)
Beta globulin	E BETA (G/DL)
Gamma globulin	E GAMMA (G/DL)
Insulin	INSULIN (UU/ML)
Adrenocorticotrophic hormone	ACTH (PG/ML)
Cortisol	CORTISOL (UG/ML)
Glucagon	GLUCAGON (PG/ML)
Triiodothyronine	T3 (NG/DL)
Thyroxine	T4 (UG/DL)
Electrophoresis	
High-density lipoprotein	E-HDL (%)
Low-density lipoprotein	E-LDL (%)
Very-low-density lipoprotein	E-VLDL (%)

Codes for Anatomical Pathology

CodeDefinition

ANIMAL DEATH CODES

1-2	Interim sacrifices 1 and 2
T	Terminal sacrifice
U	Postrecovery sacrifice #1
M	Sacrificed moribund

MACROSCOPIC CODES

EX	Indicates that organ is excluded from calculations
NOT TAKEN	Organ weight not taken; explanation given in necropsy notes
MISSING	Organ missing or lost
UNSUITABLE	Organ technically unsuitable for weighing
AUTOLYTIC	Organ autolytic and could not be weighed
EXCLUDE	Weight has been taken, but will be excluded from all calculations

MICROSCOPIC CODES

Codes Prefacing Neoplastic Findings

B-	Primary, benign neoplasm
M-	Primary, malignant neoplasm
N-	Metastatic neoplasm
I-	Locally invasive neoplasm
X-	Other neoplasm (see comment)

Distribution of Findings (n = Severity Grade)

n	Not specified
nF	Focal
nD	Diffuse
nM	Multifocal

Codes for Anatomical Pathology

CodeDefinition

MICROSCOPIC CODES (Continued)

Grades for Severity or Amount

1	Minimal - the least amount of change that can be observed with the light microscope
2	Slight - less than average amount of change, but readily discernible as abnormal
3	Moderate - the average amount of change that is expected for a lesion
4	Moderately severe (marked) - a marked amount of change with possible loss of function of the affected cells/organs
5	Severe - a great amount of change with probable loss of function of the affected cell/organs and frequently involves large areas of the organ

Table 1
Summary of Antemortem Observations^a

Observation	T-5180 (ppm)					
	0	1	10	30	100	0
Hunched posture	0	0	0	0	1	0
Thin	0	0	0	0	2	0
Malocclusion	4	4	8	5	6	2
Hind legs, not used	0	0	0	0	1	0
Crooked, tip of tail	0	0	0	0	1	0
Stiff, tail	0	0	0	0	1	0
Soft feces	0	2	0	0	1	0
Few or no feces	0	0	0	0	1	0
Rhinorrhea	0	0	0	1	0	0
Epistaxis	0	0	1	1	0	0
Alopecia	11	9	5	9	13	1
Sores						
Back	0	1	1	0	0	0
Head	0	1	2	0	0	0
Neck	1	1	1	1	1	0
Bloody crust						
Back	0	2	1	0	0	0
Head	0	2	2	1	1	0
Left foreleg	0	1	0	0	1	0
Right foreleg	0	1	0	0	0	0
Neck	3	3	2	1	3	0
Right forepaw	0	0	0	1	1	0
Tail	0	0	0	0	1	0
Abdomen	0	1	0	0	0	0
Squinting	0	0	0	1	0	0
Chromodacryorrhea	1	0	0	1	0	1
Swollen						
Both forepaws	0	0	0	0	1	0
Both hind paws	0	0	0	0	1	0
Left hind paw	0	0	0	1	0	0
Right forepaw	0	0	0	0	1	0
Tail	0	0	1	0	0	1
Necrotic, tail	0	0	0	0	1	0
Missing						
Teeth	0	1	1	0	0	0
Tip of tail	0	0	0	0	1	0

^a This table indicates the number of animals for which a condition was observed without regard to the specific nature, severity, reversibility, number of incidences per animal, or length of time the condition persisted.

Table 1
Summary of Antemortem Observations^a

Observation	T-5180 (ppm)					
	0	1	10	30	100	0
Hunched posture	0	0	0	0	1	0
Thin	0	0	0	0	2	0
Malocclusion	4	4	8	5	7	2
Hind legs, not used	0	0	0	0	1	0
Crooked, tip of tail	0	0	0	0	1	0
Stiff, tail	0	0	0	0	1	0
Soft feces	0	2	0	0	1	0
Few or no feces	0	0	0	0	1	0
Rhinorrhea	0	0	0	1	0	0
Epistaxis	0	0	1	1	0	0
Alopecia	11	9	5	9	13	1
Sores						
Back	0	1	1	0	0	0
Head	0	1	2	0	0	0
Neck	1	1	1	1	1	0
Bloody crust						
Back	0	2	1	0	0	0
Head	0	2	2	1	1	0
Left foreleg	0	1	0	0	1	0
Right foreleg	0	1	0	0	0	0
Neck	3	3	2	1	3	0
Right forepaw	0	0	0	1	1	0
Tail	0	0	0	0	1	0
Abdomen	0	1	0	0	0	0
Squinting	0	0	0	1	0	0
Chromodacryorrhea	1	0	0	1	0	1
Swollen						
Both forepaws	0	0	0	0	1	0
Both hind paws	0	0	0	0	1	0
Left hind paw	0	0	0	1	0	0
Right forepaw	0	0	0	0	1	0
Tail	0	0	1	0	0	1
Necrotic, tail	0	0	0	0	1	0
Missing						
Teeth	0	1	1	0	0	0
Tip of tail	0	0	0	0	1	0

^a This table indicates the number of animals for which a condition was observed without regard to the specific nature, severity, reversibility, number of incidences per animal, or length of time the condition persisted.

Table 1 (Continued)
Summary of Antemortem Observations^a

<u>Observation</u>	<u>T-5180 (ppm)</u>					
	<u>0</u>	<u>1</u>	<u>10</u>	<u>30</u>	<u>100</u>	<u>0</u>
Small movable tissue mass	1	0	0	3	0	0
Wart-like lesion	1	0	0	1	0	0
Moribund sacrifice	0	0	0	0	1	0
Interim sacrifice	30	30	30	30	29	30
Terminal sacrifice	15	15	15	15	15	15
Recovery sacrifice	10	10	10	10	10	NA

^a This table indicates the number of animals for which a condition was observed without regard to the specific nature, severity, reversibility, number of incidences per animal, or length of time the condition persisted.

Table 2

MEAN BODY WEIGHTS AND STANDARD DEVIATIONS (G)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

GROUP AND
DOSE LEVEL
(PPM)

LEVEL	WEEK: START	1	2	3	4	5	6	7	8	9	10	11	12	13	
(PM)															

		MALES													
1	MEAN	204.1	262.5	312.9	351.6	388.2	418.6	437.7	457.3	475.2	493.6	506.4	518.5	527.8	541.2
	S.D.	8.89	11.14	14.12	18.77	20.68	22.35	26.46	28.60	31.11	34.00	37.58	38.64	43.08	41.28
.000	N	55	55	55	55	55	48	40	40	25	25	25	25	25	25
2	MEAN	206.4	264.2	313.4	352.6	388.5	418.7	440.1	460.9	476.9	496.3	509.5	523.5	533.8	548.2
	S.D.	10.60	14.13	17.52	20.60	23.42	25.93	26.11	29.56	28.78	30.21	31.89	33.53	35.88	37.31
1.000	N	55	55	55	55	55	43	40	40	25	25	25	25	25	25
3	MEAN	202.9	260.2	302.6	347.4	382.6	416.9	438.2	458.2	479.3	497.9	511.8	526.0	539.7	551.4
	S.D.	11.18	15.30	24.50	21.60	24.89	27.24	27.85	29.71	35.42	39.04	39.37	41.32	44.60	42.37
10.000	N	55	55	55	55	55	44	40	40	25	25	25	25	25	25
4	MEAN	203.7	261.9	303.6	346.3	380.3	407.6	426.0	447.6	468.9	483.3	494.4	509.4	519.3	531.3
	S.D.	10.89	14.15	23.04	21.70	26.64	28.72	29.27	30.75	35.80	38.56	39.43	42.52	44.22	45.85
30.000	N	55	55	55	55	55	45	40	40	25	25	25	25	25	25

HWI 6329-100

42

GROUP AND
DOSE LEVEL
(PPM)

DOSE LEVEL (PPM)		WEEK:	START	1	2	3	4	5	6	7	8	9	10	11	12	13
		MALES														
5		MEAN	204.5 ^B	253.3 ^A	295.4 ^A	328.4 ^A	358.4 ^A	387.5 ^A	410.9 ^A	432.2 ^A	439.1 ^A	454.3 ^A	461.5 ^A	473.2 ^A	483.3 ^A	494.0 ^A
100.000		S.D.	11.50	13.61	17.44	22.04	27.32	32.04	37.09	39.23	46.33	49.71	58.70	57.67	61.33	64.18
		N	55	55	55	55	54	44	40	40	25	25	25	25	25	25
6		MEAN	213.1	255.2	295.3	334.8	365.2	396.3	416.7	434.5	447.8	464.3	470.0	482.3	492.9	508.5
0.000		S.D.	10.31	8.36	8.54	10.10	10.81	13.69	15.84	19.28	18.06	18.39	18.67	19.26	20.50	22.27
		N	45	45	45	45	45	30	30	30	15	15	15	15	15	10

TABLE 2 (CONTINUED)
 MEAN BODY WEIGHTS AND STANDARD DEVIATIONS (G)
 13 WK DIETARY TOXICITY STUDY WITH T-5180

GROUP AND DOSE LEVEL (PPM)	WEEK:	14 15 16 17 18 19 20 21							

		MALES							
5 100.000	MEAN	506.2	516.6	531.6	536.7	542.0	550.4	548.9	523.3
	S.D.	42.93	43.83	51.67	48.10	48.84	51.43	72.78	77.74
	N	10	10	10	10	10	10	10	5
6 0.000	MEAN	-	-	-	-	-	-	-	-
	S.D.	-	-	-	-	-	-	-	-
	N	-	-	-	-	-	-	-	-

Table 3
MEAN BODY WEIGHT GAIN (G)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329100

GROUP AND DOSE LEVEL (PPM)	WEEK	0-1	0-2	0-3	0-4	0-5	0-6	0-7	0-8	0-9	0-10	0-11	0-12	0-13	0-14
MALES															
1 .000	MEAN	58.3	108.7	147.4	184.0	215.0	233.9	253.5	272.5	291.0	303.7	315.8	325.2	338.5	330.8
	S.D.	4.59	9.35	12.70	16.76	18.16	21.67	23.80	24.04	26.75	30.21	31.59	35.86	34.06	36.85
	N	55	55	55	55	48	40	40	25	25	25	25	25	25	10
2 1.000	MEAN	57.8	107.1	146.2	182.2	212.7	234.0	254.8	271.4	290.8	304.0	318.0	328.3	342.7	341.5
	S.D.	5.53	9.75	13.59	16.84	20.57	22.18	25.69	24.01	25.60	27.31	28.84	31.70	33.14	41.96
	N	55	55	55	55	43	40	40	25	25	25	25	25	25	10
3 10.000	MEAN	57.3	99.7 ^A	144.4	179.8	212.8	234.0	254.1	278.0	294.5	308.5	322.7	336.3	348.1	369.1
	S.D.	5.87	21.16	14.31	18.20	21.18	22.40	24.54	30.54	34.01	34.20	36.43	38.83	37.78	49.40
	N	55	55	55	55	44	40	40	25	25	25	25	25	25	10
4 30.000	MEAN	58.2	100.0 ^A	142.6	176.7	203.2	222.0	243.6	264.8	279.2	290.3	305.3	315.2	327.2	329.7
	S.D.	4.93	19.32	14.80	20.87	21.92	23.92	25.69	30.59	33.97	34.86	38.19	40.17	42.19	37.53
	N	55	55	55	55	45	40	40	25	25	25	25	25	25	10

Table 3 (Continued)
 MEAN BODY WEIGHT GAIN (G)
 13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6320100

GROUP AND DOSE LEVEL (PPM)	WEEK	0-15	0-16	0-17	0-18	0-19	0-20	0-21

MALES								
1	MEAN	340.4	349.8	359.1	359.7	368.2	372.7	378.8
	S.D.	38.39	41.08	40.08	40.08	43.89	48.33	50.30
.000	N	10	10	10	10	10	10	5
2	MEAN	351.9	362.1	371.0	374.2	385.0	389.4	384.8
	S.D.	42.15	47.90	50.01	51.42	53.09	57.21	53.08
1.000	N	10	10	10	10	10	10	5
3	MEAN	379.1	388.7	398.4	398.4	407.2	418.0	393.3
	S.D.	53.30	55.43	57.50	68.12	69.24	70.33	77.07
10.000	N	10	10	10	10	10	10	5
4	MEAN	338.7	348.4	357.8	361.8	374.0	380.3	378.3
	S.D.	38.98	39.21	41.10	42.21	42.88	48.58	28.25
30.000	N	10	10	10	10	10	10	5

TABLE 3 (CONTINUED)
 MEAN BODY WEIGHT GAIN (G)
 13 WK DIETARY TOXICITY STUDY WITH T-5180

GROUP AND DOSE LEVEL (PPM)		WEEK: 0-1 0-2 0-3 0-4 0-5 0-6 0-7 0-8 0-9 0-10 0-11 0-12 0-13 0-14														
		MALES														
5 100.000	MEAN	47.0 ^B	89.0 ^A	123.9 ^A	153.8 ^A	182.7 ^A	206.2 ^A	227.6 ^A	234.9 ^A	250.0 ^A	257.2 ^A	269.0 ^A	279.0 ^A	289.7 ^A	303.4	
	S.D.	15.05	18.31	17.41	23.62	26.43	30.84	32.96	38.10	41.43	50.62	49.96	53.93	57.40	43.09	
	N	55	55	55	54	44	40	40	25	25	25	25	25	25	25	10
6 0.000	MEAN	42.0	84.4	121.7	152.0	182.1	202.5	219.6	235.2	251.8	257.4	269.8	273.7	295.9	-	
	S.D.	5.16	17.34	8.73	8.58	10.73	12.79	16.55	16.45	16.06	16.60	17.07	24.92	17.76	-	
	N	45	45	45	45	45	30	30	15	15	15	15	15	15	10	-

TABLE 3 (CONTINUED)
 MEAN BODY WEIGHT GAIN (G)
 13 WK DIETARY TOXICITY STUDY WITH T-5180

GROUP AND DOSE LEVEL (PPM)	WEEK:	0-15	0-16	0-17	0-18	0-19	0-20	0-21
5								
100.000								
	MEAN	313.8	328.8	331.6	336.9	345.3	343.8	313.0
	S.D.	43.94	52.73	48.28	48.94	51.39	73.38	78.57
	N	10	10	10	10	10	10	5
	MALES							

Table 4

MEAN FOOD CONSUMPTION AND STANDARD DEVIATIONS (G/WK)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

GROUP AND DOSE LEVEL (PPM)	WEEK:	1	2	3	4	5	6	7	8	9	10	11	12	13	14

	MALES														
1	MEAN	188.6	180.7	186.1	193.8	198.5	195.3	192.9	188.5	193.8	189.5	184.7	183.4	180.6	175.8
.000	S.D.	10.55	13.04	18.95	14.36	14.32	14.78	14.83	17.98	16.43	16.18	20.08	20.64	14.86	16.49
	N	54	53	53	51	43	35	38	24	24	24	23	22	20	8
2	MEAN	167.2	178.3	188.2	186.0	201.4	187.0	195.4	191.5	196.8	190.4	190.2	187.2	180.5	172.2
1.000	S.D.	10.95	13.44	14.45	15.10	14.87	14.30	15.81	13.13	12.20	12.41	15.77	15.73	18.17	19.08
	N	54	55	52	52	38	33	36	24	23	24	23	23	22	10
3	MEAN	186.5	179.2	183.8	191.0	199.6	194.4	194.4	189.0	193.1	190.9	189.2	188.1	181.9	181.6
10.000	S.D.	12.88	19.78	17.25	16.74	14.82	14.63	14.39	14.22	16.41	15.21	15.64	15.55	16.61	17.75
	N	53	53	50	49	40	37	39	23	24	23	24	22	23	9
4	MEAN	188.6	183.3	178.7	190.2	203.0	193.6	193.0	188.8	191.9	187.3	188.9	185.6	178.6	174.6
30.000	S.D.	10.67	24.70	33.72	17.56	20.77	16.11	15.69	15.53	15.81	14.15	14.98	16.73	16.68	10.39
	N	54	54	52	52	39	37	37	23	24	22	24	24	23	9

HWI 6329-100

GROUP AND DOSE LEVEL (PPM)		WEEK:						
		15	16	17	18	19	20	21
		MALES						
1	MEAN	180.2	174.8	170.2	191.4	182.4	181.8	190.5
	S.D.	11.56	13.67	9.50	15.78	20.45	19.48	11.90
.000	N	10	10	10	9	10	10	5
2	MEAN	178.7	177.3	176.1	191.1	187.2	182.8	188.0
	S.D.	18.60	17.29	21.40	17.28	19.12	20.56	25.32
1.000	N	10	10	10	10	10	10	5
3	MEAN	185.9	183.6	183.9	186.3	189.1	189.6	188.1
	S.D.	17.16	15.82	16.48	30.04	21.95	18.12	18.69
10.000	N	10	10	10	9	10	10	5
4	MEAN	177.1	181.2	183.8	189.1	193.9	189.1	192.8
	S.D.	9.35	12.37	9.35	8.55	8.32	9.92	11.86
30.000	N	10	9	9	9	9	9	5

TABLE 4 (CONTINUED)
 MEAN FOOD CONSUMPTION (G/WK)
 13 WK DIETARY TOXICITY STUDY WITH T-5180

GROUP AND DOSE LEVEL (PPM)	WEEK:	1	2	3	4	5	6	7	8	9	10	11	12	13
		MALES												
5 100.000	MEAN	155.0 ^A	165.1 ^A	179.3	185.3	193.1	190.3	187.7	181.8	185.2	176.5	172.9	177.2	171.7
	SD	9.54	11.36	15.59	15.76	17.26	17.91	17.56	18.48	19.78	26.25	26.56	23.40	26.04
	N	55	55	55	54	47	39	37	29	25	24	24	25	25
6 0.000	MEAN	153.8	164.8	178.0	183.0	187.9	183.5	178.6	176.3	179.5	171.4	170.0	171.5	166.8
	SD	2.13	0.74	4.57	4.23	10.17	11.00	12.30	9.11	8.43	6.05	4.74	7.65	5.86
	N	45	44	43	43	23	25	30	14	15	12	14	15	8

TABLE 4 (CONTINUED)
 MEAN FOOD CONSUMPTION (G/WK)
 13 WK DIETARY TOXICITY STUDY WITH T-5180

GROUP AND DOSE LEVEL (PPM)	WEEK:								
	14	15	16	17	18	19	20	21	

	MALES								
5	MEAN	164.8	170.8	176.0	172.6	170.8	177.6	164.5	174.9
100.000	SD	22.52	19.02	22.12	18.40	17.16	16.15	41.88	15.95
	N	10	10	10	10	10	10	10	10

Table 5

MEAN COMPOUND CONSUMPTION (MG/KG/DAY)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

GROUP AND DOSE LEVEL (PPM)	WEEK:	1	2	3	4	5	6	7	8	9	10	11	12
	MALES												
1 .000	MEAN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	S.D.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	N	54	53	53	51	43	35	38	24	24	24	23	22
2 1.000	MEAN	.09	.08	.08	.07	.07	.06	.06	.06	.06	.05	.05	.05
	S.D.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	N	54	55	52	52	38	33	36	24	23	24	23	23
3 10.000	MEAN	.91	.85	.75	.71	.68	.63	.60	.56	.56	.53	.51	.50
	S.D.	.04	.13	.05	.03	.03	.03	.02	.02	.03	.02	.02	.02
	N	53	53	50	49	40	37	39	23	24	23	24	22
4 30.000	MEAN	2.75	2.59	2.20	2.14	2.13	1.96	1.85	1.72	1.71	1.61	1.58	1.52
	S.D.	.10	.33	.39	.15	.15	.13	.08	.07	.08	.07	.07	.08
	N	54	54	52	52	39	37	37	23	24	22	24	24

Table 5 (Continued)
 MEAN COMPOUND CONSUMPTION (MG/KG/DAY)
 13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

GROUP AND DOSE LEVEL (PPM)	WEEK:	13
1 000	MEAN	.00
	S.D.	.00
	N	20
2 1.000	MEAN	.05
	S.D.	.00
	N	22
3 10.000	MEAN	.47
	S.D.	.03
	N	23
4 30.000	MEAN	1.44
	S.D.	.10
	N	23

TABLE 5 (CONTINUED)
 MEAN COMPOUND CONSUMPTION (MG/KG/DAY)
 13 WK DIETARY TOXICITY STUDY WITH T-5180

GROUP AND DOSE LEVEL (PPM)	WEEK: 1 2 3 4 5 6 7 8 9 10 11 12 13													
	MALES													
5 100.000	MEAN	8.75	7.99	7.80	7.39	7.13	6.64	6.21	5.88	5.84	5.46	5.23	5.25	4.97
	S.D.	0.34	0.35	0.43	0.40	0.38	0.36	0.32	0.35	0.39	0.47	0.48	0.41	0.43
	N	55	55	55	54	42	39	37	25	25	24	24	25	25
6 0.000	MEAN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	S.D.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	N	45	45	45	45	30	30	30	15	15	15	15	15	9

Table 6

HWI 6329100

SUMMARY OF CLINICAL CHEMISTRY DATA
 MALES WEEK 5

DOSE PPM		PCOAO IU/G

0	MEAN	8
	S.D.	.5
	N	5
1	MEAN	9
	S.D.	1.7
	N	5
10	MEAN	14 A
	S.D.	3.6
	N	5
30	MEAN	24 A
	S.D.	11.4
	N	5
100	MEAN	37 AB
	S.D.	14.6
	N	5
0	MEAN	8
	S.D.	.4
	N	5

Table 7

HWI 6329100

SUMMARY OF CLINICAL CHEMISTRY DATA
 MALES WEEK 8

DOSE PPM		PCOAO IU/G
0	MEAN	7
	S.D.	1.5
	N	5
1	MEAN	7
	S.D.	1.8
	N	5
10	MEAN	18
	S.D.	5.5
	N	5
30	MEAN	32 A
	S.D.	12.2
	N	5
100	MEAN	54 AB
	S.D.	35.3
	N	5
0	MEAN	7
	S.D.	1.5
	N	5

Table 8
SUMMARY OF CLINICAL CHEMISTRY DATA
MALES WEEK 14

DOSE PPM		PCOAO IU/G
0	MEAN	6
	S.D.	5.9
	N	5
1	MEAN	8
	S.D.	1.9
	N	5
10	MEAN	10
	S.D.	2.1
	N	5
30	MEAN	14 ^A
	S.D.	3.4
	N	5
100	MEAN	17 ^{AB}
	S.D.	4.5
	N	5
0	MEAN	5
	S.D.	1.1
	N	5

Table 9

SUMMARY OF CLINICAL CHEMISTRY DATA
 MALES WEEK 22

DOSE PPM		PCOAO IU/G

0	MEAN	7
	S.D.	5.7
	N	5
1	MEAN	7
	S.D.	1.6
	N	5
10	MEAN	7
	S.D.	1.1
	N	5
30	MEAN	7
	S.D.	1.1
	N	5
100	MEAN	7
	S.D.	4
	N	5

TABLE 10
SUMMARY OF ABSOLUTE ORGAN WEIGHT DATA (G)
5 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-91
TABLE PAGE: 10.1

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=1; SUBSET=ALL

SEX GROUP NUMBER	1 15	2 15	3 15	4 15	5 14	6 15
MALE						
# IN GRP	15	15	15	15	14A	15
M E A N	411.1	413.9	398.4	403.3	378.4	388.9
STAND DEV	21.7	34.5	32.0	35.5	18.4	11.1
>>> TERMINAL BODY WEIGHT (g) <<<						
# IN GRP	15	15	15	15	14	15
M E A N	2.0732	2.0275	2.0452	2.0804	2.0437	2.0172
STAND DEV	.0812	.0842	.0966	.0759	.0906	.0857
>>> BR - BRAIN <<<						
# IN GRP	15	15	15	15A	14AB	15
M E A N	16.3408	15.4495	17.8942	23.2303	25.4377	15.8344
STAND DEV	2.1378	1.7139	2.1294	2.8382	1.9900	1.1305
>>> LI - LIVER <<<						
# IN GRP	15	15	15	15	14	15
M E A N	1.5138	1.5312	1.4426	1.4932	1.4140	1.5376
STAND DEV	.2006	.0989	.1122	.1231	.0828	.1266
>>> LU - LUNG <<<						
# IN GRP	15	15	15	15	14	15
M E A N	1.6442	1.6222	1.6454	1.5874	1.5794	1.6102
STAND DEV	.1250	.1410	.1241	.0916	.1704	.1234
>>> TEO - LF. TESTIS <<<						

TABLE 10
SUMMARY OF ABSOLUTE ORGAN WEIGHT DATA (G)
5 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-81
TABLE PAGE: 10.2

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=1; SUBSET=ALL

SEX:	MALE					
GROUP:	1	2	3	4	5	6
NUMBER:	15	15	15	15	14	15
>>> TE1 - RT. TESTIS <<<						
# IN GRP.:	15	15	15	15	14	15
M E A N:	1.6523	1.6168	1.6520	1.5804	1.6260	1.6001
STAND DEV:	.1273	.1243	.1058	.1085	.1013	.1212
>>> SO - ACCESS/SEX ORG <<<						
# IN GRP.:	15	15	15	15	14	15
M E A N:	2.6801	2.6799	2.8350	2.6973	2.6319	2.4898
STAND DEV:	.2257	.3592	.4086	.3136	.2548	.3579

TABLE 11
SUMMARY OF ABSOLUTE ORGAN WEIGHT DATA (G)
8 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-91
TABLE PAGE: 11.1

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=2; SUBSET=ALL

SEX: GROUP NUMBER	1 15	2 15	3 15	4 15	5 15	6 15
---MALE---						
>>> TERMINAL BODY WEIGHT (g) <<<						
# IN GRP:	15	15	15	15	15	15
M E A N:	473.1	484.0	470.9	466.8	459.0	449.3
STAND DEV:	28.0	38.6	28.6	28.7	34.2	24.9
>>> BR - BRAIN <<<						
# IN GRP:	15	15	15	15	15	15
M E A N:	2.0923	2.0739	2.0852	2.1032	2.0855	2.0882
STAND DEV:	.0896	.0649	.0881	.0850	.0808	.0907
>>> LI - LIVER <<<						
# IN GRP:	15	15	15	15A	15AB	15
M E A N:	17.7610	17.6798	18.4195	24.0814	27.7557	16.9078
STAND DEV:	2.1244	2.7374	2.0972	3.5798	3.5077	2.2232
>>> LU - LUNG <<<						
# IN GRP:	15	15	15	15	15	15
M E A N:	1.5829	1.6178	1.5339	1.4902	1.5208	1.5615
STAND DEV:	.1077	.1110	.1297	.1217	.1904	.1317
>>> TEO - LF. TESTIS <<<						
# IN GRP:	15	15	15	15	15	15
M E A N:	1.6808	1.6866	1.6664	1.7163	1.6885	1.6305
STAND DEV:	.1110	.0821	.2296	.1649	.1265	.1177

HWI 6328-100

TABLE 11
SUMMARY OF ABSOLUTE ORGAN WEIGHT DATA (G)
8 WEEK SACRIFICE

PRINTED: 15-OCT-91
TABLE PAGE: 11.2

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

TABLE INCLUDES:
SEX=ALL GROUP=ALL WEEKS=ALL
DEATH=2 SUBSET=ALL

SEX GROUP NUMBER	MALE					
	1 15	2 15	3 15	4 15	5 15	6 15
>>> TE1 - RT. TESTIS <<<						
# IN GRP	15	15	15	15	15	14
MEAN	1.7038	1.6875	1.6904	1.7911	1.6533	1.6335
STAND DEV	.1052	.1078	.1397	.2401	.1070	.1111
>>> SO - ACCESS/SEX ORG <<<						
# IN GRP	15	15	15	15	15	15
MEAN	3.0873	3.0990	3.4448	3.1306	2.8512	2.8808
STAND DEV	.3617	.4021	.3649	.3184	.2775	.4391

TABLE 12

HWI 6329-100

SUMMARY OF ABSOLUTE ORGAN WEIGHT DATA (G)

14 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.PRINTED: 11-OCT-91
TABLE PAGE: 12.1TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=T; SUBSET=ALL

SEX	-----MALE-----					
GROUP	1	2	3	4	5	6
NUMBER	15	15	15	15	15	15
*** TERMINAL BODY WEIGHT (g) ***						
# IN GRP.	15	14	15	15	14	15
M E A N	558.7	555.1	552.7	538.2	489.1	503.5
STAND DEV	41.1	42.0	40.7	58.8	79.0	23.7
*** BR - BRAIN ***						
# IN GRP.	15	14	15	15	14	15
M E A N	2.1914	2.2279	2.1740	2.1081	2.1342	2.1364
STAND DEV	.1183	.2745	.0898	.0724	.1044	.0594
*** LI - LIVER ***						
# IN GRP.	15	14	15	15	14 A B	15
M E A N	19.7299	18.0355	20.4416	22.7387	26.7846	16.3033
STAND DEV	2.2290	2.8120	2.8657	4.2128	5.4675	1.6241
*** LU - LUNG ***						
# IN GRP.	15	14	15	15	14	15
M E A N	1.6543	1.6008	1.5803	1.6101	1.5123	1.5875
STAND DEV	.1403	.1886	.2250	.1316	.1401	.1018
*** TED - LF. TESTIS ***						
# IN GRP.	15	14	15	15	14	15
M E A N	1.7591	1.7329	1.7767	1.7771	1.7576	1.7117
STAND DEV	.1174	.2279	.1017	.1216	.1547	.1381

TABLE 12
SUMMARY OF ABSOLUTE ORGAN WEIGHT DATA (G)
14 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 11-OCT-91
TABLE PAGE: 12.2

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=T; SUBSET=ALL

SEX:	MALE					
GROUP:	1	2	3	4	5	6
NUMBER:	15	15	15	15	15	15
>>> TE1 - RT. TESTIS <<<						
# IN GRP:	15	14	15	15	14	15
M E A N:	1.7572	1.8289	1.7519	1.7759	1.7373	1.6903
STAND DEV:	.1126	.2499	.0772	.1197	.1460	.1204
>>> SO - ACCESS/SEX ORG <<<						
# IN GRP:	15	14	15	15	14	15
M E A N:	3.5217	3.4797	3.5435	3.3780	3.3847	3.2597
STAND DEV:	.4974	.4298	.5535	.4782	.6309	.6635

TABLE 13

HWI 6329-100

SUMMARY OF ABSOLUTE ORGAN WEIGHT DATA (G)

22 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.PRINTED: 11-OCT-81
TABLE PAGE: 13.1TABLE INCLUDES:
SEX=ALL, GROUP=1,2,3,4,5; WEEKS=ALL
DEATH=U; SUBSET=ALL

SEX:	MALE				
GROUP:	1	2	3	4	5
NUMBER:	10	10	10	10	10
>>> TERMINAL BODY WEIGHT (g) <<<					
# IN GRP:	10	10	10	10	10
MEAN:	578.1	607.1	629.2	601.8	556.0
STAND DEV:	61.6	58.1	73.4	51.2	69.8
>>> BR - BRAIN <<<					
# IN GRP:	10	10	10	10	10
MEAN:	2.1328	2.2485	2.2042	2.1822	2.1345
STAND DEV:	.0822	.0496	.0774	.0863	.0909
>>> LI - LIVER <<<					
# IN GRP:	10	10	10	10	10
MEAN:	18.6432	18.4373	18.9203	20.7334	18.6190
STAND DEV:	3.0867	1.7410	2.2968	1.8916	2.4465
>>> LU - LUNG <<<					
# IN GRP:	10	10	10	10	10
MEAN:	1.5961	1.7415	1.6800	1.6937	1.5919
STAND DEV:	.1050	.1548	.1827	.1476	.1130
>>> TEO - LF. TESTIS <<<					
# IN GRP:	10	10	10	10	10
MEAN:	1.6934	1.7559	1.7398	1.7055	1.7590
STAND DEV:	.1536	.1607	.2194	.2248	.1509

TABLE 13

HWI 6329-100

SUMMARY OF ABSOLUTE ORGAN WEIGHT DATA (G)

22 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.PRINTED: 11-OCT-91
TABLE PAGE 13.2

TABLE INCLUDES:

SEX=ALL; GROUP=1,2,3,4,5; WEEKS=ALL
DEATH=U; SUBSET=ALL

SEX:	-----MALE-----				
GROUP:	1	2	3	4	5
NUMBER:	10	10	10	10	10
--->>> TEI - RT. TESTIS <<<---					
# IN GRP:	10	10	10	10	10
MEAN:	1.7544	1.7592	1.7991	1.7913	1.7355
STAND DEV:	.1811	.1739	.1834	.1655	.1110
--->>> SO - ACCESS/SEX ORG <<<---					
# IN GRP:	10	10	10	10	10
MEAN:	3.5540	3.6582	3.5891	3.9577	3.6939
STAND DEV:	.5410	.5408	.2931	.4056	.6923

TABLE 14
SUMMARY OF ORGAN-TO-BODY WEIGHT PERCENTAGES
5 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 11-OCT-91
TABLE PAGE: 14.1

TABLE INCLUDES:
SEX=ALL GROUP=ALL WEEKS=ALL
DEATH=1 SUBSET=ALL

SEX:	-----MALE-----					
GROUP:	1	2	3	4	5	6
NUMBER:	15	15	15	15	14	15
--->>> BR - BRAIN <<<---						
# IN GRP:	15	15	15	15	14	15
MEAN:	.5053	.4927	.5182	.5142	.5409	.5188
STAND DEV:	.0280	.0416	.0474	.0444	.0305	.0207
--->>> LI - LIVER <<<---						
# IN GRP:	15	15	15A	15A	14A B	15
MEAN:	3.9680	3.7297	4.4846	5.7682	6.7292	4.0714
STAND DEV:	.3714	.2293	.3162	.6020	.4938	.2734
--->>> LU - LUNG <<<---						
# IN GRP:	15	15	15	15	14	15
MEAN:	.3676	.3710	.3625	.3713	.3739	.3955
STAND DEV:	.0413	.0216	.0162	.0278	.0181	.0319
--->>> TEO - LF. TESTIS <<<---						
# IN GRP:	15	15	15	15	14	15
MEAN:	.4007	.3933	.4142	.3962	.4179	.4139
STAND DEV:	.0332	.0350	.0310	.0391	.0475	.0288
--->>> TE1 - RT. TESTIS <<<---						
# IN GRP:	15	15	15	15	14	15
MEAN:	.4025	.3922	.4160	.3944	.4308	.4113
STAND DEV:	.0309	.0350	.0290	.0414	.0359	.0274

TABLE 14

HWI 6329-100

SUMMARY OF ORGAN-TO-BODY WEIGHT PERCENTAGES

5 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 11-OCT-91
TABLE PAGE: 14.2

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=1; SUBSET=ALL

SEX:	MALE					
GROUP:	1	2	3	4	5	6
NUMBER:	15	15	15	15	14	15
>>> SO - ACCESS/SEX ORG <<<						
# IN GRP:	15	15	15	15	14	15
MEAN:	.6530	.6472	.7122	.6710	.6956	.6408
STAND DEV:	.0545	.0657	.0910	.0768	.0579	.0943

TABLE 15
SUMMARY OF ORGAN-TO-BODY WEIGHT PERCENTAGES
8 WEEK SACRIFICE

MWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 11-OCT-91
TABLE PAGE: 15.1

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=2; SUBSET=ALL

SEX: GROUP NUMBER	1 15	2 15	3 15	4 15	5 15	6 15
	MALE					
	>>> BR - BRAIN <<<					
# IN GRP.	15	15	15	15	15	15
M E A N	.4436	.4304	.4445	.4519	.4505	.4654
STAND DEV	.0311	.0298	.0349	.0274	.0374	.0292
	>>> LI - LIVER <<<					
# IN GRP.	15	15	15	15A	15AB	15
M E A N	3.7451	3.6394	4.1240	5.1384	6.0587	3.7548
STAND DEV	.2850	.3334	.3702	.5317	.7189	.3705
	>>> LU - LUNG <<<					
# IN GRP.	15	15	15	15	15	15
M E A N	.3352	.3355	.3261	.3198	.3321	.3483
STAND DEV	.0249	.0281	.0246	.0271	.0415	.0325
	>>> TE0 - LF. TESTIS <<<					
# IN GRP.	15	15	15	15	15	15
M E A N	.3561	.3501	.3536	.3682	.3699	.3636
STAND DEV	.0291	.0283	.0429	.0342	.0404	.0279
	>>> TE1 - RT. TESTIS <<<					
# IN GRP.	15	15	15	15	15	14
M E A N	.3609	.3503	.3592	.3851	.3620	.3641
STAND DEV	.0258	.0323	.0242	.0598	.0342	.0254

TABLE 15

HWI 6329-100

SUMMARY OF ORGAN-TO-BODY WEIGHT PERCENTAGES

8 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.PRINTED: 11-OCT-91
TABLE PAGE 15.2TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=2; SUBSET=ALL

SEX:	MALE					
GROUP:	1	2	3	4	5	6
NUMBER:	15	15	15	15	15	15
>>> SO - ACCESS/SEX ORG <<<						
# IN GRP :	15	15	15	15	15	15
M E A N :	.6471	.6419	.7340	.6720	.6225	.6439
STAND DEV:	.0557	.0839	.0900	.0725	.0562	.1090

TABLE 16
SUMMARY OF ORGAN-TO-BODY WEIGHT PERCENTAGES
14 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 11-OCT-91
TABLE PAGE: 16.1

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=T; SUBSET=ALL

SEX: GROUP NUMBER	1 15	2 15	3 15	4 15	5 15	6 15
	-----MALE-----					
	>>> BR - BRAIN <<<					
# IN GRP.	15	14	15	15	14	15
M E A N	.3944	.4037	.3951	.3954	.4488	.4250
STAND DEV	.0377	.0613	.0286	.0401	.0713	.0181
	>>> LI - LIVER <<<					
# IN GRP.	15	14 A	15	15 A	14 A B	15
M E A N	3.5293	3.2358	3.8883	4.2108	5.4847	3.2347
STAND DEV	.2808	.3001	.3238	.5609	.8403	.2274
	>>> LU - LUNG <<<					
# IN GRP.	15	14	15	15	14	15
M E A N	.2968	.2892	.2856	.3018	.3136	.3159
STAND DEV	.0239	.0329	.0329	.0348	.0357	.0247
	>>> TEO - LF. TESTIS <<<					
# IN GRP.	15	14	15	15	14 A	15
M E A N	.3182	.3124	.3234	.3327	.3853	.3400
STAND DEV	.0282	.0368	.0343	.0322	.0488	.0224
	>>> TE1 - RT. TESTIS <<<					
# IN GRP.	15	14	15	15	14 A	15
M E A N	.3160	.3295	.3189	.3325	.3610	.3380
STAND DEV	.0286	.0392	.0305	.0321	.0464	.0218

HWI 6329-100

PRINTED: 11-OCT-91
TABLE PAGE: 16.2

SEX GROUP NUMBER	-MALE-					
	1 15	2 15	3 15	4 15	5 15	6 15
0 IN GRP	15	14	15	15	14	15
MEAN	.6327	.6273	.6454	.6381	.6910	.6470
STAND DEV	.0937	.0641	.1221	.1240	.0946	.1241

TABLE 17
SUMMARY OF ORGAN-TO-BODY WEIGHT PERCENTAGES
22 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-91
TABLE PAGE: 17.1

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=U; SUBSET=ALL

SEX GROUP NUMBER	MALE				
	1	2	3	4	5
	10	10	10	10	10
>>> BR - BRAIN <<<					
# IN GRP.	10	10	10	10	10
MEAN	.3720	.3727	.3543	.3647	.3904
STAND DEV	.0338	.0311	.0397	.0320	.0624
>>> LI - LIVER <<<					
# IN GRP.	10	10	10	10	10
MEAN	3.2077	3.0416	3.0169	3.4881	3.3842
STAND DEV	.1978	.1717	.2878	.4278	.3538
>>> LU - LUNG <<<					
# IN GRP.	10	10	10	10	10
MEAN	.2778	.2875	.2701	.2821	.2908
STAND DEV	.0187	.0169	.0408	.0214	.0447
>>> TEO - LF. TESTIS <<<					
# IN GRP.	10	10	10	10	10
MEAN	.2946	.2904	.2781	.2850	.3210
STAND DEV	.0288	.0266	.0345	.0431	.0499
>>> TE1 - RT. TESTIS <<<					
# IN GRP.	10	10	10	10	10
MEAN	.3054	.2912	.2874	.2998	.3187
STAND DEV	.0357	.0306	.0259	.0375	.0455

TABLE 17

HWI 6329-100

SUMMARY OF ORGAN-TO-BODY WEIGHT PERCENTAGES

22 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.PRINTED: 15-OCT-91
TABLE PAGE: 17.2

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=U; SUBSET=ALL

SEX:	-----MALE-----				
GROUP:	1	2	3	4	5
NUMBER:	10	10	10	10	10

	>>> SO - ACCESS/SEX ORG <<<				
# IN GRP:	10	10	10	10	10
M E A N:	.6145	.6057	.5784	.6590	.6792
STAND DEV:	.0714	.0989	.0879	.0594	.1950

TABLE 18
SUMMARY OF ORGAN-TO-BRAIN WEIGHT RATIOS
5 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 11-OCT-91
TABLE PAGE: 18.1

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=1; SUBSET=ALL

SEX: GROUP NUMBER	1 15	2 15	3 15	4 15	5 14	6 15
	MALE					
	>>> BR - BRAIN <<<					
# IN GRP	15	15	15	15	14	15
MEAN	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
STAND DEV	.0000	.0000	.0000	.0000	.0000	.0000
	>>> LI - LIVER <<<					
# IN GRP	15	15	15	15A	14A B	15
MEAN	7.8802	7.6323	8.7711	11.2764	12.4713	7.8858
STAND DEV	.9350	.9170	1.1310	1.3499	1.0998	.8950
	>>> LU - LUNG <<<					
# IN GRP	15	15	15	15	14	15
MEAN	.7309	.7584	.7063	.7242	.6925	.7631
STAND DEV	.0969	.0575	.0573	.0452	.0383	.0659
	>>> TEO - LF. TESTIS <<<					
# IN GRP	15	15	15	15	14	15
MEAN	.7832	.8015	.8084	.7713	.7734	.8000
STAND DEV	.0541	.0794	.0739	.0513	.0852	.0767
	>>> TE1 - RT. TESTIS <<<					
# IN GRP	15	15	15	15	14	15
MEAN	.7871	.7990	.8095	.7879	.7971	.7951
STAND DEV	.0562	.0742	.0644	.0580	.0604	.0771

TABLE 18
SUMMARY OF ORGAN-TO-BRAIN WEIGHT RATIOS
5 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 11-OCT-91
TABLE PAGE: 18.2

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=1; SUBSET=ALL

SEX:	-----MALE-----					
GROUP:	1	2	3	4	5	6
NUMBER:	15	15	15	15	14	15

>>> SO - ACCESS/SEX ORG <<<						
# IN GRP :	15	15	15	15	14	15
M E A N :	1.2925	1.3224	1.3897	1.3098	1.2900	1.2333
STAND DEV:	.0910	.1743	.2163	.1497	.1328	.1678

TABLE 19
SUMMARY OF ORGAN-TO-BRAIN WEIGHT RATIOS
8 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 11-OCT-91
TABLE PAGE: 19.1

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=2; SUBSET=ALL

SEX: GROUP NUMBER	1 15	2 15	3 15	4 15	5 15	6 15
	MALE					
# IN GRP.	15	15	15	15	15	15
M E A N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
STAND DEV	.0000	.0000	.0000	.0000	.0000	.0000
	>>> BR - BRAIN <<<					
# IN GRP.	15	15	15	15	15	15
M E A N	8.4890	8.5253	9.3301	11.4408	13.3008	8.1176
STAND DEV	1.0685	1.2877	1.1031	1.5808	1.5175	1.1411
	>>> LI - LIVER <<<					
# IN GRP.	15	15	15	15	15	15
M E A N	.7571	.7799	.7377	.7083	.7295	.7485
STAND DEV	.0536	.0455	.0795	.0518	.0929	.0556
	>>> LU - LUNG <<<					
# IN GRP.	15	15	15	15	15	15
M E A N	.8042	.8136	.8004	.8172	.8111	.7831
STAND DEV	.0614	.0395	.1154	.0864	.0722	.0672
	>>> TE0 - LF. TESTIS <<<					
# IN GRP.	15	15	15	15	15	14
M E A N	.8153	.8140	.8117	.8543	.7939	.7823
STAND DEV	.0608	.0517	.0727	.1342	.0604	.0727
	>>> TE1 - RT. TESTIS <<<					

TABLE 19
SUMMARY OF ORGAN-TO-BRAIN WEIGHT RATIOS
8 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 11-OCT-91
TABLE PAGE: 19 2

TABLE INCLUDES:
SEX-ALL; GROUP-ALL; WEEKS-ALL
DEATH-2; SUBSET-ALL

SEX: GROUP: NUMBER:	-----MALE-----					
	1	2	3	4	5	6
	15	15	15	15	15	15
--->>> SO - ACCESS/SEX ORG <<<---						
# IN GRP :	15	15	15	15	15	15
M E A N :	1.4672	1.4939	1.6524	1.4905	1.3085	1.3084
STAND DEV :	.1780	.1883	.1631	.1662	.1361	.2390

TABLE 20
SUMMARY OF ORGAN-TO-BRAIN WEIGHT RATIOS
14 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-91
TABLE PAGE: 20.1

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=T; SUBSET=ALL

SEX GROUP NUMBER	1 15	2 15	3 15	4 15	5 15	6 15
	-----MALE-----					
# IN GRP.	15	14	15	15	14	15
M E A N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
STAND DEV	.0000	.0000	.0000	.0000	.0000	.0000
	>>> BR - BRAIN <<<					
# IN GRP.	15	14	15	15	14	15
M E A N	9.0327	8.1901	8.4115	10.7811	12.6121	7.8352
STAND DEV	1.2007	1.5593	1.3310	1.9614	2.8823	.7740
	>>> LI - LIVER <<<					
# IN GRP.	15	14	15	15	14	15
M E A N	.7557	.7259	.7264	.7632	.7096	.7433
STAND DEV	.0809	.1075	.0982	.0498	.0888	.0482
	>>> LU - LUNG <<<					
# IN GRP.	15	14	15	15	14	15
M E A N	.8053	.7844	.8191	.8430	.8255	.8008
STAND DEV	.0723	.1209	.0655	.0498	.0849	.0544
	>>> TE0 - LF. TESTIS <<<					
# IN GRP.	15	14	15	15	14	15
M E A N	.8044	.8300	.8074	.8428	.8154	.7908
STAND DEV	.0708	.1528	.0532	.0555	.0759	.0441
	>>> TE1 - RT. TESTIS <<<					

HWI 6329-100

PRINTED: 15-OCT-91
TABLE PAGE: 20.2

SEX GROUP NUMBER	1 15	2 15	3 15	MALE 4 15	5 15	6 15
N IN GRP.	15	14	15	15	14	15
M E A N	1.6064	1.5785	1.6281	1.6014	1.5840	1.5281
S T A N D D E V	.2047	.2402	.2354	.2198	.3327	.3019

TABLE 21
SUMMARY OF ORGAN-TO-BRAIN WEIGHT RATIOS
22 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-91
TABLE PAGE: 21.1

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=U; SUBSET=ALL

SEX:	MALE				
GROUP:	1	2	3	4	5
NUMBER:	10	10	10	10	10
>>> BR - BRAIN <<<					
# IN GRP:	10	10	10	10	10
MEAN:	1.0000	1.0000	1.0000	1.0000	1.0000
STAND DEV:	.0000	.0000	.0000	.0000	.0000
>>> LI - LIVER <<<					
# IN GRP:	10	10	10	10	10
MEAN:	8.7277	8.2047	8.5888	9.5071	8.7300
STAND DEV:	1.3187	.7112	1.0599	.8621	1.1471
>>> LU - LUNG <<<					
# IN GRP:	10	10	10	10	10
MEAN:	.7490	.7751	.7826	.7763	.7458
STAND DEV:	.0512	.0645	.0835	.0818	.0434
>>> TEO - LF. TESTIS <<<					
# IN GRP:	10	10	10	10	10
MEAN:	.7952	.7815	.7903	.7828	.8242
STAND DEV:	.0799	.0680	.1042	.1097	.0627
>>> TE1 - RT. TESTIS <<<					
# IN GRP:	10	10	10	10	10
MEAN:	.8243	.7830	.8188	.8229	.8140
STAND DEV:	.0966	.0746	.0852	.0917	.0563

TABLE 21
SUMMARY OF ORGAN-TO-BRAIN WEIGHT RATIOS
22 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-91
TABLE PAGE: 21 2

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=U; SUBSET=ALL

SEX:	MALE				
GROUP:	1	2	3	4	5
NUMBER:	10	10	10	10	10
>>> SO - ACCESS/SEX ORG <<<					
N IN GRP:	10	10	10	10	10
M E A N:	1.6634	1.6271	1.6320	1.6158	1.7299
STAND DEV:	.2255	.2294	.1649	.1973	.3198

TABLE 22
INCIDENCE OF MACROSCOPIC OBSERVATIONS
5 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-91
TABLE PAGE: 22.1

TABLE INCLUDES:		--- NUMBER - OF - ANIMALS - AFFECTED ---						
SEX=ALL;GROUP=ALL;WEEKS=ALL		SEX:	-----MALE-----					
DEATH=1;SUBSET=ALL		GROUP:	-1-	-2-	-3-	-4-	-5-	-6-
ORGAN AND KEYWORD(S) OR PHRASE		NUMBER:	15	15	15	15	14	15
-----			0-	0-	0-	0-	0-	0-
** TOP OF LIST **								
GENERAL COMMENT (GC)		NUMBER EXAMINED:	15	15	15	15	14	15
ALL TISSUES/ORGANS NORMAL			14	13	14	13	11	13
BRAIN (BR)		NUMBER EXAMINED:	15	15	15	15	14	15
		NOT REMARKABLE:	15	15	15	15	14	15
LUNG (LU)		NUMBER EXAMINED:	15	15	15	15	14	15
		NOT REMARKABLE:	15	15	15	15	14	15
LIVER (LI)		NUMBER EXAMINED:	15	15	15	15	14	15
		NOT REMARKABLE:	15	15	15	15	14	15
LF. TESTIS (TEO)		NUMBER EXAMINED:	15	15	15	15	14	15
		NOT REMARKABLE:	15	15	15	15	13	15
CONTAINS FLUID			0	0	0	0	1	0
PROSTATE (PR)		NUMBER EXAMINED:	15	15	15	15	14	15
		NOT REMARKABLE:	15	15	15	15	14	14
NODULAR			0	0	0	0	0	1

TABLE 22
INCIDENCE OF MACROSCOPIC OBSERVATIONS
5 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-91
TABLE PAGE: 22.2

TABLE INCLUDES: SEX=ALL; GROUP=ALL; WEEKS=ALL DEATH=1; SUBSET=ALL		--- NUMBER - OF - ANIMALS - AFFECTED ---						
		SEX:	-----MALE-----					
		GROUP:	-1-	-2-	-3-	-4-	-5-	-6-
ORGAN AND KEYWORD(S) OR PHRASE		NUMBER:	15	15	15	15	14	15
-----			---	---	---	---	---	---
SEMINAL VESICLE (SV)		NUMBER EXAMINED:	15	15	15	15	14	15
		NOT REMARKABLE:	15	15	15	15	14	15
COAGULATING GLD (CG)		NUMBER EXAMINED:	15	15	15	15	14	15
		NOT REMARKABLE:	15	15	15	15	14	15
URETHRA (UR)		NUMBER EXAMINED:	15	15	15	15	14	15
		NOT REMARKABLE:	15	15	15	15	14	15
SKIN (SK)		NUMBER EXAMINED:	15	15	15	15	14	15
		NOT REMARKABLE:	15	15	14	15	14	15
CRUSTED AREA(S)			0	0	1	0	0	0
KIDNEY(S) (KD)		NUMBER EXAMINED:	15	15	15	15	14	15
		NOT REMARKABLE:	14	13	15	13	11	14
LARGE PELVIS(ES)			1	2	0	2	3	1
SEMIFLUID MATERIAL-PELVIS			0	0	0	0	1	0
SPLÉEN (SP)		NUMBER EXAMINED:	15	15	15	15	14	15
		NOT REMARKABLE:	15	15	15	14	14	15
RAISED FOCUS(I)/AREA(S)			0	0	0	1	0	0

TABLE 22
INCIDENCE OF MACROSCOPIC OBSERVATIONS
5 WEEK SACRIFICE

HWI 6328-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-91
TABLE PAGE: 22.3

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=1; SUBSET=ALL

TABLE INCLUDES: SEX=ALL; GROUP=ALL; WEEKS=ALL DEATH=1; SUBSET=ALL		--- N U M B E R - O F - A N I M A L S - A F F E C T E D ---						
		SEX:	-----MALE-----					
		GROUP:	-1-	-2-	-3-	-4-	-5-	-6-
ORGAN AND KEYWORD(S) OR PHRASE		NUMBER:	15	15	15	15	14	15
-----			15	15	15	15	14	15
MESENTERIC LN (MS)		NUMBER EXAMINED:	15	15	15	15	14	15
		NOT REMARKABLE:	15	15	15	15	14	15
MANDIB/CERV LN (MN)		NUMBER EXAMINED:	15	15	15	15	14	15
		NOT REMARKABLE:	15	15	15	15	14	15
LUMBAR/ILIAC LN (LM)		NUMBER EXAMINED:	15	15	15	15	14	15
		NOT REMARKABLE:	15	15	15	15	14	15

** END OF LIST **

TABLE 23
INCIDENCE OF MACROSCOPIC OBSERVATIONS
8 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-91
TABLE PAGE: 23.1

TABLE INCLUDES:		--- NUMBER - OF - ANIMALS - AFFECTED ---						
SEX=ALL; GROUP=ALL; WEEKS=ALL		SEX: -----MALE-----						
DEATH=2; SUBSET=ALL								
ORGAN AND KEYWORD(S) OR PHRASE		GROUP:	-1-	-2-	-3-	-4-	-5-	-6-
** TOP OF LIST **		NUMBER:	15	15	15	15	15	15
GENERAL COMMENT (GC)		NUMBER EXAMINED:	15	15	15	15	15	15
ALL TISSUES/ORGANS NORMAL			14	13	12	13	14	14
MALOCCLUSION			0	0	1	0	0	0
BRAIN (BR)		NUMBER EXAMINED:	15	15	15	15	15	15
		NOT REMARKABLE:	15	15	15	15	15	15
LUNG (LU)		NUMBER EXAMINED:	15	15	15	15	15	15
		NOT REMARKABLE:	14	15	15	15	15	15
MOTTLED			1	0	0	0	0	0
LIVER (LI)		NUMBER EXAMINED:	15	15	15	15	15	15
		NOT REMARKABLE:	15	15	15	15	14	15
DIFFUSELY DARK			0	0	0	0	1	0
LF. TESTIS (TEO)		NUMBER EXAMINED:	15	15	15	15	15	15
		NOT REMARKABLE:	15	15	14	15	15	15
SMALL			0	0	1	0	0	0
PROSTATE (PR)		NUMBER EXAMINED:	15	15	15	15	15	15
		NOT REMARKABLE:	15	15	15	15	15	15

TABLE 23
INCIDENCE OF MACROSCOPIC OBSERVATIONS
8 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-91
TABLE PAGE: 23.2

TABLE INCLUDES: SEX=ALL; GROUP=ALL; WEEKS=ALL DEATH=2; SUBSET=ALL		--- NUMBER - OF - ANIMALS - AFFECTED ---					
		SEX: -----MALE-----					
		GROUP:	-1-	-2-	-3-	-4-	-5-
ORGAN AND KEYWORD(S) OR PHRASE	NUMBER:	-----					
		15	15	15	15	15	15
SEMINAL VESICLE (SV)	NUMBER EXAMINED:	15	15	15	15	15	15
	NOT REMARKABLE:	15	15	15	15	15	15
COAGULATING GLD (CG)	NUMBER EXAMINED:	15	15	15	15	15	15
	NOT REMARKABLE:	15	15	15	15	15	15
URETHRA (UR)	NUMBER EXAMINED:	15	15	15	15	15	15
	NOT REMARKABLE:	15	15	15	15	15	15
SKIN (SK)	NUMBER EXAMINED:	15	15	15	15	15	15
	NOT REMARKABLE:	15	15	15	15	15	15
KIDNEY(S) (KD)	NUMBER EXAMINED:	15	15	15	15	15	15
	NOT REMARKABLE:	15	15	14	15	15	15
LARGE PELVIS(ES)		0	0	1	0	0	0
SPLEEN (SP)	NUMBER EXAMINED:	15	15	15	15	15	15
	NOT REMARKABLE:	15	15	15	15	15	15

TABLE 23
INCIDENCE OF MACROSCOPIC OBSERVATIONS
8 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-91
TABLE PAGE: 23.3

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=2; SUBSET=ALL

		--- NUMBER - OF - ANIMALS - AFFECTED ---					
		SEX:	-----MALE-----				
		GROUP:	-1-	-2-	-3-	-4-	-5-
		NUMBER:	15	15	15	15	15
ORGAN AND KEYWORD(S) OR PHRASE							
MESENTERIC LN (MS)		NUMBER EXAMINED:	15	15	15	15	15
		NOT REMARKABLE:	15	15	15	14	15
	MOTTLED		0	0	0	1	0
MANDIB/CERV LN (MN)		NUMBER EXAMINED:	15	15	15	15	15
		NOT REMARKABLE:	15	13	15	14	15
	LARGE		0	2	0	1	0
LUMBAR/ILIAC LN (LM)		NUMBER EXAMINED:	15	15	15	15	15
		NOT REMARKABLE:	15	15	15	15	15

** END OF LIST **

TABLE 24
INCIDENCE OF MACROSCOPIC OBSERVATIONS
14 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-91
TABLE PAGE: 24.1

TABLE INCLUDES:		--- NUMBER - OF - ANIMALS - AFFECTED ---						
SEX=ALL; GROUP=ALL; WEEKS=ALL		SEX:	-----MALE-----					
DEATH=T; SUBSET=ALL		GROUP:	-1-	-2-	-3-	-4-	-5-	-6-
ORGAN AND KEYWORD(S) OR PHRASE		NUMBER:	15	15	15	15	15	15
** TOP OF LIST **			---	---	---	---	---	---
GENERAL COMMENT (GC)		NUMBER EXAMINED:	15	15	15	15	15	15
ALL TISSUES/ORGANS NORMAL			14	14	15	13	13	15
BRAIN (BR)		NUMBER EXAMINED:	15	15	15	15	15	15
		NOT REMARKABLE:	15	15	15	15	15	15
LUNG (LU)		NUMBER EXAMINED:	15	15	15	15	15	15
		NOT REMARKABLE:	15	15	15	15	15	15
LIVER (LI)		NUMBER EXAMINED:	15	15	15	15	15	15
		NOT REMARKABLE:	15	15	15	15	15	15
LF. TESTIS (TEO)		NUMBER EXAMINED:	15	15	15	15	15	15
		NOT REMARKABLE:	15	14	15	15	15	15
SMALL			0	1	0	0	0	0
PROSTATE (PR)		NUMBER EXAMINED:	15	15	15	15	15	15
		NOT REMARKABLE:	15	15	15	14	15	15
MASS(ES)			0	0	0	1	0	0

TABLE 24
INCIDENCE OF MACROSCOPIC OBSERVATIONS
14 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-91
TABLE PAGE: 24.2

TABLE INCLUDES:		--- NUMBER - OF - ANIMALS - AFFECTED ---						
SEX-ALL; GROUP-ALL; WEEKS-ALL		SEX:	-----MALE-----					
DEATH-T; SUBSET-ALL		GROUP:	-1-	-2-	-3-	-4-	-5-	-6-
ORGAN AND KEYWORD(S) OR PHRASE		NUMBER:	15	15	15	15	15	15
-----			---	---	---	---	---	---
SEMINAL VESICLE (SV)	NUMBER EXAMINED:	15	15	15	15	15	15	15
	NOT REMARKABLE:	15	15	15	15	15	15	15
COAGULATING GLD (CG)	NUMBER EXAMINED:	15	15	15	15	15	15	15
	NOT REMARKABLE:	15	15	15	15	15	15	15
URETHRA (UR)	NUMBER EXAMINED:	15	15	15	15	15	15	15
	NOT REMARKABLE:	15	15	15	15	15	15	15
SKIN (SK)	NUMBER EXAMINED:	15	15	15	15	15	15	15
	NOT REMARKABLE:	15	15	15	15	15	15	15
KIDNEY(S) (KD)	NUMBER EXAMINED:	15	15	15	15	15	15	15
	NOT REMARKABLE:	15	15	15	14	14	15	
LARGE PELVIS(ES)		0	0	0	1	1	0	
SPLEEN (SP)	NUMBER EXAMINED:	15	15	15	15	15	15	15
	NOT REMARKABLE:	15	15	15	15	15	15	15
MESENTERIC LN (MS)	NUMBER EXAMINED:	15	15	15	15	15	15	15
	NOT REMARKABLE:	15	15	15	15	15	15	15

TABLE 24
INCIDENCE OF MACROSCOPIC OBSERVATIONS
14 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-81
TABLE PAGE: 24.3

TABLE INCLUDES:
SEX-ALL; GROUP-ALL; WEEKS-ALL
DEATH-T; SUBSET-ALL

		--- NUMBER - OF - ANIMALS - AFFECTED ---					
		SEX: -----MALE-----					
		GROUP: -1- -2- -3- -4- -5- -6-					
ORGAN AND KEYWORD(S) OR PHRASE		NUMBER:	15	15	15	15	15
MANDIB/CERV LN (MN)		NUMBER EXAMINED:	15	15	15	15	15
LARGE		NOT REMARKABLE:	14	15	15	14	15
LUMBAR/ILIAC LN (LM)			1	0	0	1	0
		NUMBER EXAMINED:	15	15	15	15	15
		NOT REMARKABLE:	15	15	15	15	15

** END OF LIST **

TABLE 25
INCIDENCE OF MACROSCOPIC OBSERVATIONS
22 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-91
TABLE PAGE: 25.1

		--- N U M B E R - O F - A N I M A L S - A F F E C T E D ---				
		SEX: -----MALE-----				
		GROUP: -1- -2- -3- -4- -5-				
ORGAN AND KEYWORD(S) OR PHRASE		NUMBER:	10	10	10	10
** TOP OF LIST **			---	---	---	---
GENERAL COMMENT (GC)		NUMBER EXAMINED:	10	10	10	10
ALL TISSUES/ORGANS NORMAL			8	10	9	9
ANIMAL THIN			0	0	0	0
ANIMAL OBESE			0	0	1	0
BRAIN (BR)		NUMBER EXAMINED:	10	10	10	10
		NOT REMARKABLE:	10	10	10	10
LUNG (LU)		NUMBER EXAMINED:	10	10	10	10
		NOT REMARKABLE:	10	10	10	10
LIVER (LI)		NUMBER EXAMINED:	10	10	10	10
		NOT REMARKABLE:	10	10	10	10
LF. TESTIS (TEO)		NUMBER EXAMINED:	10	10	10	10
		NOT REMARKABLE:	10	10	10	10
PROSTATE (PR)		NUMBER EXAMINED:	10	10	10	10
		NOT REMARKABLE:	10	10	10	9
MASS(ES)			0	0	0	1

TABLE 25
INCIDENCE OF MACROSCOPIC OBSERVATIONS
22 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-91
TABLE PAGE: 25.2

		--- NUMBER - OF - ANIMALS - AFFECTED ---					
		SEX:	-----MALE-----				
		GROUP:	-1-	-2-	-3-	-4-	-5- -6-
ORGAN AND KEYWORD(S) OR PHRASE		NUMBER:	10	10	10	10	10 0
SEMINAL VESICLE (SV)		NUMBER EXAMINED:	10	10	10	10	10 0
		NOT REMARKABLE:	10	10	10	10	10 0
COAGULATING GLD (CG)		NUMBER EXAMINED:	10	10	10	10	10 0
		NOT REMARKABLE:	10	10	10	10	10 0
URETHRA (UR)		NUMBER EXAMINED:	10	10	10	10	10 0
		NOT REMARKABLE:	10	10	10	10	10 0
SKIN (SK)		NUMBER EXAMINED:	10	10	10	10	10 0
		NOT REMARKABLE:	9	10	10	10	10 0
ABRASION(S)/ULCERATION(S)			1	0	0	0	0 0
KIDNEY(S) (KD)		NUMBER EXAMINED:	10	10	10	10	10 0
		NOT REMARKABLE:	10	10	10	9	10 0
LARGE PELVIS(ES)			0	0	0	1	0 0
SEMIFLUID MATERIAL-PELVIS			0	0	0	1	0 0
SPLEEN (SP)		NUMBER EXAMINED:	10	10	10	10	10 0
		NOT REMARKABLE:	9	10	10	10	10 0
CYST(S)			1	0	0	0	0 0

TABLE 25
INCIDENCE OF MACROSCOPIC OBSERVATIONS
22 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 15-OCT-91
TABLE PAGE: 25.3

TABLE INCLUDES:
SEX-ALL; GROUP-ALL; WEEKS-ALL
DEATH-U; SUBSET-ALL

		--- N U M B E R - O F - A N I M A L S - A F F E C T E D ---					
		SEX:	-----MALE-----				
		GROUP:	-1-	-2-	-3-	-4-	-5- -6-
ORGAN AND KEYWORD(S) OR PHRASE		NUMBER:	10	10	10	10	10 0
			--	--	--	--	--
MESENTERIC LN (MS)	NUMBER EXAMINED:	10	10	10	10	10	0
	NOT REMARKABLE:	10	10	10	10	10	0
MANDIB/CERV LN (MN)	NUMBER EXAMINED:	10	10	10	10	10	0
	NOT REMARKABLE:	10	10	10	10	9	0
LARGE		0	0	0	0	1	0
LUMBAR/ILIAC LN (LM)	NUMBER EXAMINED:	10	10	10	10	10	0
	NOT REMARKABLE:	10	10	10	10	9	0
LARGE		1					
** END OF LIST **		0	0	0	0	1	0

TABLE 28
INCIDENCE OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

5 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 26.1

		--- NUMBER - OF - ANIMALS - AFFECTED ---					
		SEX: -----MALE-----					
		GROUP: -1- -2- -3- -4- -5- -6-					
ORGAN AND FINDING DESCRIPTION		NUMBER:	15	15	15	15	14 15
** TOP OF LIST **							
BRAIN (BR)	NUMBER EXAMINED:	15	15	15	15	14	15
	NOT REMARKABLE:	15	15	15	15	14	15
LUNG (LU)	NUMBER EXAMINED:	15	15	15	14	14	15
	NOT REMARKABLE:	15	15	15	14	14	15
LIVER (LI)	NUMBER EXAMINED:	15	15	15	15	14	15
	NOT REMARKABLE:	9	7	2	0	0	10
--INFILTRATES, MONONUCLEAR CELL		5	7	4	5	5	4
--INFLAMMATION, GRANULOMATOUS		1	1	1	1	0	0
--NECROSIS, COAGULATIVE		0	0	0	1	2	1
--FATTY CHANGE		0	0	0	0	0	1
--HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".		0	0	12	15	14	0
--HYPERPLASIA, BILE DUCT		0	0	0	0	0	0
LF: TESTIS (TEO)	NUMBER EXAMINED:	15	15	15	15	14	15
	NOT REMARKABLE:	15	15	15	15	13	15
--ATROPHY/DEGENERATION		0	0	0	0	1	0
--INFLAMMATION, GRANULOMATOUS		0	0	0	0	0	0

TABLE 28
INCIDENCE OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

5 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 26.2

TABLE INCLUDES:		--- NUMBER - OF - ANIMALS - AFFECTED ---					
SEX=ALL; GROUP=ALL; SCREEN=ALL; WEEKS=ALL DEATH=1; FIND=ALL; SUBSET=ALL		SEX: -----MALE-----					
ORGAN AND FINDING DESCRIPTION	GROUP:	NUMBER: 15 15 15 15 14 15					
		15	15	15	15	14	15
PROSTATE (PR)	NUMBER EXAMINED:	15	15	14	15	14	15
	NOT REMARKABLE:	15	15	14	15	14	13
--INFLAMMATION, CHRONIC ACTIVE		0	0	0	0	0	2
SEMINAL VESICLE (SV)	NUMBER EXAMINED:	15	15	14	15	14	15
	NOT REMARKABLE:	15	15	14	15	14	15
COAGULATING GLD (CG)	NUMBER EXAMINED:	15	15	14	15	14	15
	NOT REMARKABLE:	15	15	14	15	14	15
URETHRA (UR)	NUMBER EXAMINED:	15	15	14	15	14	14
	NOT REMARKABLE:	15	15	14	15	14	14
KIDNEY(S) (KD)	NUMBER EXAMINED:	1	2	0	2	3	1
	NOT REMARKABLE:	0	0	0	0	0	0
--DILATATION, PELVIC		1	2	0	2	3	1
SKIN (SK)	NUMBER EXAMINED:	0	0	1	0	0	0
	NOT REMARKABLE:	0	0	0	0	0	0
--DERMATITIS		0	0	1	0	0	0
--ULCERATION		0	0	0	0	0	0

TABLE 28
INCIDENCE OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

5 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 26.3

		--- N U M B E R - O F - A N I M A L S - A F F E C T E D ---					
		SEX: -----MALE-----					
		GROUP: -1-	-2-	-3-	-4-	-5-	-6-
ORGAN AND FINDING DESCRIPTION		NUMBER:	15	15	15	14	15
SPLEEN (SP)		NUMBER EXAMINED:	0	0	0	1	0
		NOT REMARKABLE:	0	0	0	1	0
--CYST, SEROSAL			0	0	0	0	0
MANDIB/CERV LN (MN)		NUMBER EXAMINED:	0	0	0	0	0
		NOT REMARKABLE:	0	0	0	0	0
--HYPERPLASIA, LYMPHORETICULAR CELL			0	0	0	0	0
MESENTERIC LN (MS)		NUMBER EXAMINED:	0	0	0	0	0
		NOT REMARKABLE:	0	0	0	0	0
LUMBAR/ILIAC LN (LM)		NUMBER EXAMINED:	0	0	0	0	0
		NOT REMARKABLE:	0	0	0	0	0
--HYPERPLASIA, LYMPHORETICULAR CELL			0	0	0	0	0
** END OF LIST **			0	0	0	0	0

TABLE 27
INCIDENCE OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

8 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 27.1

TABLE INCLUDES:		--- NUMBER - OF - ANIMALS - AFFECTED ---						
SEX=ALL; GROUP=ALL; SCREEN=ALL; WEEKS=ALL DEATH=2; FIND=ALL; SUBSET=ALL		SEX:	-----MALE-----					
ORGAN AND FINDING DESCRIPTION		GROUP:	-1-	-2-	-3-	-4-	-5-	-6-
NUMBER:			15	15	15	15	15	15
** TOP OF LIST **								
BRAIN (BR)		NUMBER EXAMINED:	15	15	15	15	15	15
		NOT REMARKABLE:	15	15	15	15	15	15
LUNG (LU)		NUMBER EXAMINED:	14	15	13	14	15	15
		NOT REMARKABLE:	14	15	13	14	15	15
LIVER (LI)		NUMBER EXAMINED:	15	15	15	15	15	15
		NOT REMARKABLE:	11	12	3	0	0	10
--INFILTRATES, MONONUCLEAR CELL			4	3	1	4	5	5
--INFLAMMATION, GRANULOMATOUS			0	0	0	1	0	0
--NECROSIS, COAGULATIVE			0	0	0	0	1	0
--FATTY CHANGE			0	0	0	0	1	0
--HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED			0	0	0	0	0	0
CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE			0	0	12	15	15	0
A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE								
ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR								
THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".								
--HYPERPLASIA, BILE DUCT			0	0	0	0	0	0
LF. TESTIS (TEO)		NUMBER EXAMINED:	15	15	15	15	15	15
		NOT REMARKABLE:	15	15	14	15	15	15
--ATROPHY/DEGENERATION			0	0	1	0	0	0
--INFLAMMATION, GRANULOMATOUS			0	0	0	0	0	0

TABLE 27
INCIDENCE OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

8 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 27.2

TABLE INCLUDES:		--- NUMBER - OF - ANIMALS - AFFECTED ---						
SEX=ALL; GROUP=ALL; SCREEN=ALL; WEEKS=ALL		SEX:	-----MALE-----					
DEATH=2; FIND=ALL; SUBSET=ALL								
		GROUP:	-1-	-2-	-3-	-4-	-5-	-6-
ORGAN AND FINDING DESCRIPTION		NUMBER:	15	15	15	15	15	15
-----		-----	-----	-----	-----	-----	-----	-----
PROSTATE (PR)	NUMBER EXAMINED:	15	15	15	15	15	15	15
	NOT REMARKABLE:	14	15	15	15	14	15	
--INFLAMMATION, CHRONIC ACTIVE		1	0	0	0	1	0	
SEMINAL VESICLE (SV)	NUMBER EXAMINED:	15	15	15	15	15	15	15
	NOT REMARKABLE:	15	15	15	15	15	15	
COAGULATING GLD (CG)	NUMBER EXAMINED:	15	15	15	15	15	15	15
	NOT REMARKABLE:	15	15	15	15	15	15	
URETHRA (UR)	NUMBER EXAMINED:	15	15	15	14	14	14	
	NOT REMARKABLE:	15	15	15	14	14	14	
KIDNEY(S) (KD)	NUMBER EXAMINED:	0	0	1	0	0	0	
	NOT REMARKABLE:	0	0	0	0	0	0	
--DILATATION, PELVIC		0	0	1	0	0	0	
SKIN (SK)	NUMBER EXAMINED:	0	0	0	0	0	0	
	NOT REMARKABLE:	0	0	0	0	0	0	
--DERMATITIS		0	0	0	0	0	0	
--ULCERATION		0	0	0	0	0	0	

TABLE 27
INCIDENCE OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

8 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 27.3

		--- NUMBER - OF - ANIMALS - AFFECTED ---					
		SEX: -----MALE-----					
		GROUP: -1- -2- -3- -4- -5- -6-					
ORGAN AND FINDING DESCRIPTION		NUMBER:	15	15	15	15	15
SPLEEN (SP)		NUMBER EXAMINED:	0	0	0	0	0
		NOT REMARKABLE:	0	0	0	0	0
--CYST, SEROSAL			0	0	0	0	0
MANDIB/CERV LN (MN)		NUMBER EXAMINED:	0	2	0	1	0
		NOT REMARKABLE:	0	0	0	0	0
--HYPERPLASIA, LYMPHORETICULAR CELL			0	2	0	1	1
MESENTERIC LN (MS)		NUMBER EXAMINED:	0	0	0	1	0
		NOT REMARKABLE:	0	0	0	1	0
LUMBAR/ILIAC LN (LM)		NUMBER EXAMINED:	0	0	0	0	0
		NOT REMARKABLE:	0	0	0	0	0
--HYPERPLASIA, LYMPHORETICULAR CELL			0	0	0	0	0
** END OF LIST **			0	0	0	0	0

TABLE 28
INCIDENCE OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

14 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 28.1

TABLE INCLUDES:		--- NUMBER - OF - ANIMALS - AFFECTED ---					
SEX-ALL; GROUP-ALL; SCREEN-ALL; WEEKS-ALL DEATH-T; FIND-ALL; SUBSET-ALL		SEX: -----MALE-----					
ORGAN AND FINDING DESCRIPTION		GROUP:	-1-	-2-	-3-	-4-	-5-
		NUMBER:	15	15	15	15	15
** TOP OF LIST **			---	---	---	---	---
BRAIN (BR)	NUMBER EXAMINED:	15	15	15	15	15	15
	NOT REMARKABLE:	15	15	15	15	15	15
LUNG (LU)	NUMBER EXAMINED:	15	15	15	15	15	15
	NOT REMARKABLE:	15	15	15	15	15	15
LIVER (LI)	NUMBER EXAMINED:	15	15	15	15	15	15
	NOT REMARKABLE:	12	11	2	1	0	7
--INFILTRATES, MONONUCLEAR CELL		3	3	8	5	7	8
--INFLAMMATION, GRANULOMATOUS		0	0	1	3	0	0
--NECROSIS, COAGULATIVE		0	1	0	1	0	0
--FATTY CHANGE		0	0	0	0	0	0
--HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".		0	0	13	14	15	0
--HYPERPLASIA, BILE DUCT		0	0	0	0	0	0
LF. TESTIS (TEO)	NUMBER EXAMINED:	15	15	15	15	15	15
	NOT REMARKABLE:	15	14	15	15	15	15
--ATROPHY/DEGENERATION		0	1	0	0	0	0
--INFLAMMATION, GRANULOMATOUS		0	1	0	0	0	0

TABLE 28
INCIDENCE OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

14 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-81
TABLE PAGE: 28.2

TABLE INCLUDES:		--- NUMBER - OF - ANIMALS - AFFECTED ---						
SEX=ALL; GROUP=ALL; SCREEN=ALL; WEEKS=ALL		SEX:	-----MALE-----					
DEATH=T; FIND=ALL; SUBSET=ALL								
ORGAN AND FINDING DESCRIPTION		GROUP:	-1-	-2-	-3-	-4-	-5-	-6-
		NUMBER:	15	15	15	15	15	15
			15	15	15	15	15	15
PROSTATE (PR)		NUMBER EXAMINED:	15	15	15	15	15	15
		NOT REMARKABLE:	15	15	13	14	14	14
--INFLAMMATION, CHRONIC ACTIVE			0	0	2	1	1	1
SEMINAL VESICLE (SV)		NUMBER EXAMINED:	15	15	15	15	15	15
		NOT REMARKABLE:	15	15	15	15	15	15
COAGULATING GLD (CG)		NUMBER EXAMINED:	15	15	15	15	15	15
		NOT REMARKABLE:	15	15	15	15	15	15
URETHRA (UR)		NUMBER EXAMINED:	15	15	15	15	15	15
		NOT REMARKABLE:	15	15	15	15	15	15
KIDNEY(S) (KD)		NUMBER EXAMINED:	0	0	0	1	1	0
		NOT REMARKABLE:	0	0	0	0	0	0
--DILATATION, PELVIC			0	0	0	1	1	0
SKIN (SK)		NUMBER EXAMINED:	0	0	0	0	0	0
		NOT REMARKABLE:	0	0	0	0	0	0
--DERMATITIS			0	0	0	0	0	0
--ULCERATION			0	0	0	0	0	0

TABLE 20
INCIDENCE OF MICROSCOPIC OBSERVATIONS

HWI 8329-100

14 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 28.3

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; SCREEN=ALL; WEEKS=ALL
DEATH=T; FIND=ALL; SUBSET=ALL

		--- NUMBER - OF - ANIMALS - AFFECTED ---					
		SEX: -----MALE-----					
		GROUP:	-1-	-2-	-3-	-4-	-5- -6-
ORGAN AND FINDING DESCRIPTION		NUMBER:	15	15	15	15	15
SPLEEN (SP)		NUMBER EXAMINED:	0	0	0	0	0
		NOT REMARKABLE:	0	0	0	0	0
--CYST, SEROSAL			0	0	0	0	0
MANDIB/CERV LN (MN)		NUMBER EXAMINED:	1	0	0	0	1
		NOT REMARKABLE:	0	0	0	0	0
--HYPERPLASIA, LYMPHORETICULAR CELL			1	0	0	0	1
MESENTERIC LN (MS)		NUMBER EXAMINED:	0	0	0	0	0
		NOT REMARKABLE:	0	0	0	0	0
LUMBAR/ILIAC LN (LM)		NUMBER EXAMINED:	0	0	0	0	0
		NOT REMARKABLE:	0	0	0	0	0
--HYPERPLASIA, LYMPHORETICULAR CELL			0	0	0	0	0
** END OF LIST **							

TABLE 29
INCIDENCE OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

22 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 29 1

		--- NUMBER - OF - ANIMALS - AFFECTED ---					
		SEX: -----MALE-----					
		GROUP: -1- -2- -3- -4- -5- -6-					
ORGAN AND FINDING DESCRIPTION		NUMBER:	10	10	10	10	0
** TOP OF LIST **							
BRAIN (BR)	NUMBER EXAMINED:	10	10	9	10	10	0
	NOT REMARKABLE:	10	10	9	10	10	0
LUNG (LU)	NUMBER EXAMINED:	10	10	10	10	10	0
	NOT REMARKABLE:	10	10	10	10	10	0
LIVER (LI)	NUMBER EXAMINED:	10	10	10	10	10	0
	NOT REMARKABLE:	5	5	8	8	7	0
--INFILTRATES, MONONUCLEAR CELL		2	4	2	1	3	0
--INFLAMMATION, GRANULOMATOUS		2	0	0	0	0	0
--NECROSIS, COAGULATIVE		1	1	1	1	0	0
--FATTY CHANGE		0	0	1	0	0	0
--HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".		0	0	0	0	0	0
--HYPERPLASIA, BILE DUCT		0	1	0	0	0	0
LF, TESTIS (TEO)	NUMBER EXAMINED:	10	10	10	10	10	0
	NOT REMARKABLE:	10	9	9	9	10	0
--ATROPHY/DEGENERATION		0	1	1	1	0	0
--INFLAMMATION, GRANULOMATOUS		0	0	0	0	0	0

TABLE 29
INCIDENCE OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

22 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 29.2

TABLE INCLUDES:		--- NUMBER - OF - ANIMALS - AFFECTED ---						
SEX=ALL; GROUP=ALL; SCREEN=ALL; WEEKS=ALL		SEX:		-----MALE-----				
DEATH=U; FIND=ALL; SUBSET=ALL								
		GROUP:	-1-	-2-	-3-	-4-	-5-	-6-
ORGAN AND FINDING DESCRIPTION		NUMBER:	10	10	10	10	10	0
-----		-----	---	---	---	---	---	---
PROSTATE (PR)		NUMBER EXAMINED:	10	10	10	10	10	0
		NOT REMARKABLE:	8	10	10	10	8	0
--INFLAMMATION, CHRONIC ACTIVE			2	0	0	0	2	0
SEMINAL VESICLE (SV)		NUMBER EXAMINED:	10	10	10	10	10	0
		NOT REMARKABLE:	10	10	10	10	10	0
COAGULATING GLD (CG)		NUMBER EXAMINED:	10	10	10	10	10	0
		NOT REMARKABLE:	10	10	10	10	10	0
URETHRA (UR)		NUMBER EXAMINED:	10	10	10	10	10	0
		NOT REMARKABLE:	10	10	10	10	10	0
KIDNEY(S) (KD)		NUMBER EXAMINED:	0	0	0	1	0	0
		NOT REMARKABLE:	0	0	0	0	0	0
--DILATATION, PELVIC			0	0	0	1	0	0
SKIN (SK)		NUMBER EXAMINED:	1	0	0	0	0	0
		NOT REMARKABLE:	0	0	0	0	0	0
--DERMATITIS			1	0	0	0	0	0
--ULCERATION			1	0	0	0	0	0

TABLE 29
INCIDENCE OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

22 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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TABLE PAGE: 29.3

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; SCREEN=ALL; WEEKS=ALL
DEATH=U; FIND=ALL; SUBSET=ALL

--- NUMBER - OF - ANIMALS - AFFECTED ---

		SEX: -----MALE-----					
		GROUP: -1- -2- -3- -4- -5- -6-					
ORGAN AND FINDING DESCRIPTION		NUMBER:	10	10	10	10	0
			--	--	--	--	--
SPLEEN (SP)	NUMBER EXAMINED:	1	0	0	0	0	0
	NOT REMARKABLE:	0	0	0	0	0	0
--CYST, SEROSAL		1	0	0	0	0	0
MANDIB/CERV LN (MN)	NUMBER EXAMINED:	0	0	0	0	1	0
	NOT REMARKABLE:	0	0	0	0	0	0
--HYPERPLASIA, LYMPHORETICULAR CELL		0	0	0	0	1	0
MESENTERIC LN (MS)	NUMBER EXAMINED:	0	0	0	0	0	0
	NOT REMARKABLE:	0	0	0	0	0	0
LUMBAR/ILIAC LN (LM)	NUMBER EXAMINED:	0	0	0	0	1	0
	NOT REMARKABLE:	0	0	0	0	0	0
--HYPERPLASIA, LYMPHORETICULAR CELL		0	0	0	0	1	0
** END OF LIST **							

TABLE 30
INCIDENCE OF SEVERITY OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

5' WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 30.1

		--- NUMBER - OF - ANIMALS - AFFECTED ---					
		SEX: -----MALE-----					
		GROUP:	-1-	-2-	-3-	-4-	-5- -6-
		NUMBER:	15	15	15	15	14 15
TABLE INCLUDES:							
SEX=ALL; GROUP=ALL; SCREEN=ALL; WEEKS=ALL							
DEATH=1; FIND=ALL; SUBSET=ALL							
ORGAN/TISSUE EXAMINED							
** TOP OF LIST **							
BRAIN (BR)	NUMBER EXAMINED:	15	15	15	15	14	15
LUNG (LU)	NUMBER EXAMINED:	15	15	15	14	14	15
LIVER (LI)	NUMBER EXAMINED:	15	15	15	15	14	15
--INFILTRATES, MONONUCLEAR CELL	->	10	8	11	10	9	11
	1>	3	5	4	5	4	3
	2>	2	2	0	0	1	1
	TL>	15	15	15	15	14	15
--INFLAMMATION, GRANULOMATOUS	->	14	14	14	14	14	15
	1>	0	1	1	0	0	0
	2>	0	0	0	1	0	0
	3>	1	0	0	0	0	0
	TL>	15	15	15	15	14	15
--NECROSIS, COAGULATIVE	->	15	15	15	14	12	14
	2>	0	0	0	0	1	1
	3>	0	0	0	1	1	0
	TL>	15	15	15	15	14	15
--FATTY CHANGE	->	15	15	15	15	14	14
	2>	0	0	0	0	0	1
	TL>	15	15	15	15	14	15
** CONTINUED ON NEXT PAGE **							

TABLE 30
INCIDENCE OF SEVERITY OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

5 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 30.2

TABLE INCLUDES:		--- NUMBER - OF - ANIMALS - AFFECTED ---					
SEX=ALL; GROUP=ALL; SCREEN=ALL; WEEKS=ALL DEATH=1; FIND=ALL; SUBSET=ALL		SEX: -----MALE-----					
ORGAN/TISSUE EXAMINED		GROUP:	-1-	-2-	-3-	-4-	-5- -6-
NUMBER:			15	15	15	15	14 15
** FROM PREVIOUS PAGE **							
LIVER (LI)							
--HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED		NUMBER EXAMINED:	15	15	15	15	14 15
CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE		->	15	15	3	0	0 15
A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE		1>	0	0	12	7	5 0
ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FO TL>		2>	0	0	0	8	9 0
THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".		TL>	15	15	15	15	14 15
--HYPERPLASIA, BILE DUCT		->	15	15	15	15	14 15
TL>			15	15	15	15	14 15
LF. TESTIS (TEO)							
--ATROPHY/DEGENERATION		NUMBER EXAMINED:	15	15	15	15	14 15
->			15	15	15	15	13 15
3>			0	0	0	0	1 0
TL>			15	15	15	15	14 15
--INFLAMMATION, GRANULOMATOUS		->	15	15	15	15	14 15
TL>			15	15	15	15	14 15
PROSTATE (PR)							
--INFLAMMATION, CHRONIC ACTIVE		NUMBER EXAMINED:	15	15	14	15	14 15
->			15	15	14	15	14 13
2>			0	0	0	0	0 1
3>			0	0	0	0	0 1
TL>			15	15	14	15	14 15
SEMINAL VESICLE (SV)		NUMBER EXAMINED:	15	15	14	15	14 15

TABLE 30
INCIDENCE OF SEVERITY OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

5 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 30.3

		--- NUMBER - OF - ANIMALS - AFFECTED ---						
TABLE INCLUDES: SEX=ALL;GROUP=ALL;SCREEN=ALL;WEEKS=ALL DEATH=1;FIND=ALL;SUBSET=ALL		SEX:	-----MALE-----					
		GROUP:	-1-	-2-	-3-	-4-	-5-	-6-
ORGAN/TISSUE EXAMINED		NUMBER:	15	15	15	15	14	15

COAGULATING GLD (CG)	NUMBER EXAMINED:	15	15	14	15	14	15	
URETHRA (UR)	NUMBER EXAMINED:	15	15	14	15	14	14	
KIDNEY(S) (KD)	NUMBER EXAMINED:	1	2	0	2	3	1	
--DILATATION, PELVIC	P>	1	2	0	2	3	1	
	TL>	1	2	0	2	3	1	
SKIN (SK)	NUMBER EXAMINED:	0	0	1	0	0	0	
--DERMATITIS	3>	0	0	1	0	0	0	
	TL>	0	0	1	0	0	0	
--ULCERATION	->	0	0	1	0	0	0	
	TL>	0	0	1	0	0	0	
SPLEEN (SP)	NUMBER EXAMINED:	0	0	0	1	0	0	
--CYST, SEROSAL	->	0	0	0	1	0	0	
	TL>	0	0	0	1	0	0	
MANDIB/CERV LN (MN)	NUMBER EXAMINED:	0	0	0	0	0	0	
--HYPERPLASIA, LYMPHORETICULAR CELL	TL>	0	0	0	0	0	0	
MESENTERIC LN (MS)	NUMBER EXAMINED:	0	0	0	0	0	0	
LUMBAR/ILIAC LN (LM)	NUMBER EXAMINED:	0	0	0	0	0	0	
--HYPERPLASIA, LYMPHORETICULAR CELL	TL>	0	0	0	0	0	0	
** END OF LIST **								

TABLE 31
INCIDENCE OF SEVERITY OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

8 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 31.2

		--- NUMBER - OF - ANIMALS - AFFECTED ---						
TABLE INCLUDES:		SEX:	-----MALE-----					
SEX=ALL; GROUP=ALL; SCREEN=ALL; WEEKS=ALL		GROUP:	-1-	-2-	-3-	-4-	-5-	-6-
DEATH=2; FIND=ALL; SUBSET=ALL		NUMBER:	15	15	15	15	15	15
ORGAN/TISSUE EXAMINED								

** FROM PREVIOUS PAGE **								
LIVER (LI)		NUMBER EXAMINED:	15	15	15	15	15	15
--HYPERPLASIA, BILE DUCT		->	15	15	15	15	15	15
		TL>	15	15	15	15	15	15
LF. TESTIS (TED)		NUMBER EXAMINED:	15	15	15	15	15	15
--ATROPHY/DEGENERATION		->	15	15	14	15	15	15
		4>	0	0	1	0	0	0
		TL>	15	15	15	15	15	15
--INFLAMMATION, GRANULOMATOUS		->	15	15	15	15	15	15
		TL>	15	15	15	15	15	15
PROSTATE (PR)		NUMBER EXAMINED:	15	15	15	15	15	15
--INFLAMMATION, CHRONIC ACTIVE		->	14	15	15	15	14	15
		2>	1	0	0	0	0	0
		3>	0	0	0	0	1	0
		TL>	15	15	15	15	15	15
SEMINAL VESICLE (SV)		NUMBER EXAMINED:	15	15	15	15	15	15
COAGULATING GLD (CG)		NUMBER EXAMINED:	15	15	15	15	15	15
URETHRA (UR)		NUMBER EXAMINED:	15	15	15	14	14	14

TABLE 31
INCIDENCE OF SEVERITY OF MICROSCOPIC OBSERVATIONS

HWI 8329-100

8 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 31.1

		--- NUMBER - OF - ANIMALS - AFFECTED ---					
		SEX: -----MALE-----					
		GROUP:	-1-	-2-	-3-	-4-	-5-
		NUMBER:	-1-	-2-	-3-	-4-	-5-
ORGAN/TISSUE EXAMINED		NUMBER EXAMINED:	15	15	15	15	15
** TOP OF LIST **							
BRAIN (BR)		NUMBER EXAMINED:	15	15	15	15	15
LUNG (LU)		NUMBER EXAMINED:	14	15	13	14	15
LIVER (LI)		NUMBER EXAMINED:	15	15	15	15	15
--INFILTRATES, MONONUCLEAR CELL		->	11	12	14	11	10
		1>	4	3	0	4	3
		2>	0	0	1	0	2
		TL>	15	15	15	15	15
--INFLAMMATION, GRANULOMATOUS		->	15	15	15	14	15
		1>	0	0	0	1	0
		TL>	15	15	15	15	15
--NECROSIS, COAGULATIVE		->	15	15	15	15	14
		2>	0	0	0	0	1
		TL>	15	15	15	15	15
--FATTY CHANGE		->	15	15	15	15	15
		TL>	15	15	15	15	15
--HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED		->	15	15	3	0	0
CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE		1>	0	0	12	14	8
A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE		2>	0	0	0	1	9
ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FO		TL>	15	15	15	15	15
THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".							

** CONTINUED ON NEXT PAGE **

TABLE 31
INCIDENCE OF SEVERITY OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

8 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 31.3

		--- NUMBER - OF - ANIMALS - AFFECTED ---						
TABLE INCLUDES: SEX=ALL;GROUP=ALL;SCREEN=ALL;WEEKS=ALL DEATH=2;FIND=ALL;SUBSET=ALL		SEX:	-----MALE-----					
		GROUP:	-1-	-2-	-3-	-4-	-5-	-6-
ORGAN/TISSUE EXAMINED		NUMBER:	15	15	15	15	15	15
-----		-----	---	---	---	---	---	---
KIDNEY(S) (KD)	NUMBER EXAMINED:	0	0	1	0	0	0	
--DILATATION,PELVIC	P>	0	0	1	0	0	0	
	TL>	0	0	1	0	0	0	
SKIN (SK)	NUMBER EXAMINED:	0	0	0	0	0	0	
--DERMATITIS	TL>	0	0	0	0	0	0	
--ULCERATION	TL>	0	0	0	0	0	0	
SPLEEN (SP)	NUMBER EXAMINED:	0	0	0	0	0	0	
--CYST, SEROSAL	TL>	0	0	0	0	0	0	
MANDIB/CERV LN (MN)	NUMBER EXAMINED:	0	2	0	1	0	1	
--HYPERPLASIA, LYMPHORETICULAR CELL	3>	0	2	0	1	0	1	
	TL>	0	2	0	1	0	1	
MESENTERIC LN (MS)	NUMBER EXAMINED:	0	0	0	1	0	0	
LUMBAR/ILIAC LN (LM)	NUMBER EXAMINED:	0	0	0	0	0	0	
--HYPERPLASIA, LYMPHORETICULAR CELL	TL>	0	0	0	0	0	0	
** END OF LIST **								

TABLE 32
INCIDENCE OF SEVERITY OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

14 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 32.1

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; SCREEN=ALL; WEEKS=ALL
DEATH=T; FIND=ALL; SUBSET=ALL

		--- NUMBER - OF - ANIMALS - AFFECTED ---					
		SEX: -----MALE-----					
		GROUP:	-1-	-2-	-3-	-4-	-5-
		NUMBER:	15	15	15	15	15
ORGAN/TISSUE EXAMINED							
** TOP OF LIST **							
BRAIN (BR)	NUMBER EXAMINED:	15	15	15	15	15	15
LUNG (LU)	NUMBER EXAMINED:	15	15	15	15	15	15
LIVER (LI)	NUMBER EXAMINED:	15	15	15	15	15	15
--INFILTRATES, MONONUCLEAR CELL	->	12	12	9	10	8	7
	1>	2	3	5	4	7	6
	2>	1	0	1	1	0	2
	TL>	15	15	15	15	15	15
--INFLAMMATION, GRANULOMATOUS	->	15	15	14	12	15	15
	1>	0	0	1	2	0	0
	2>	0	0	0	1	0	0
	TL>	15	15	15	15	15	15
--NECROSIS, COAGULATIVE	->	15	14	15	14	15	15
	2>	0	1	0	1	0	0
	TL>	15	15	15	15	15	15
--FATTY CHANGE	->	15	15	15	15	15	15
	TL>	15	15	15	15	15	15

** CONTINUED ON NEXT PAGE **

TABLE 32
INCIDENCE OF SEVERITY OF MICROSCOPIC OBSERVATIONS

HWI 6328-100

14 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 32.2

		--- NUMBER OF ANIMALS AFFECTED ---					
		SEX: -----MALE-----					
		GROUP:	-1-	-2-	-3-	-4-	-5- -6-
ORGAN/TISSUE EXAMINED		NUMBER:	15	15	15	15	15
** FROM PREVIOUS PAGE **							
LIVER (LI)	NUMBER EXAMINED:		15	15	15	15	15
--HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED	->		15	15	2	1	0
CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE 1>			0	0	13	12	3
A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE 2>			0	0	0	2	12
ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE, EXCEPT FO TL>			15	15	15	15	15
THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".							
--HYPERPLASIA, BILE DUCT	->		15	15	15	15	15
TL>			15	15	15	15	15
LF. TESTIS (TEO)	NUMBER EXAMINED:		15	15	15	15	15
--ATROPHY/DEGENERATION	->		15	14	15	15	15
	3>		0	1	0	0	0
TL>			15	15	15	15	15
--INFLAMMATION, GRANULOMATOUS	->		15	14	15	15	15
	3>		0	1	0	0	0
TL>			15	15	15	15	15
PROSTATE (PR)	NUMBER EXAMINED:		15	15	15	15	15
--INFLAMMATION, CHRONIC ACTIVE	->		15	15	13	14	14
	2>		0	0	2	0	0
	3>		0	0	0	1	1
TL>			15	15	15	15	15
SEMINAL VESICLE (SV)	NUMBER EXAMINED:		15	15	15	15	15

TABLE 32
INCIDENCE OF SEVERITY OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

14 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-81
TABLE PAGE: 32.3

		--- NUMBER - OF - ANIMALS - AFFECTED ---					
		SEX:	-----MALE-----				
		GROUP:	-1-	-2-	-3-	-4-	-5-
		NUMBER:	15	15	15	15	15
ORGAN/TISSUE EXAMINED							
COAGULATING GLD (CG)	NUMBER EXAMINED:	15	15	15	15	15	15
URETHRA (UR)	NUMBER EXAMINED:	15	15	15	15	15	15
KIDNEY(S) (KD)	NUMBER EXAMINED:	0	0	0	1	1	0
--DILATATION, PELVIC	P>	0	0	0	1	1	0
	TL>	0	0	0	1	1	0
SKIN (SK)	NUMBER EXAMINED:	0	0	0	0	0	0
--DERMATITIS	TL>	0	0	0	0	0	0
--ULCERATION	TL>	0	0	0	0	0	0
SPLEEN (SP)	NUMBER EXAMINED:	0	0	0	0	0	0
--CYST, SEROSAL	TL>	0	0	0	0	0	0
MANDIB/CERV LN (MN)	NUMBER EXAMINED:	1	0	0	0	1	0
--HYPERPLASIA, LYMPHORETICULAR CELL	3>	1	0	0	0	1	0
	TL>	1	0	0	0	1	0
MESENTERIC LN (MS)	NUMBER EXAMINED:	0	0	0	0	0	0
LUMBAR/ILIAC LN (LM)	NUMBER EXAMINED:	0	0	0	0	0	0
--HYPERPLASIA, LYMPHORETICULAR CELL	TL>	0	0	0	0	0	0
** END OF LIST **							

TABLE 33
INCIDENCE OF SEVERITY OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

22 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 33.1

		--- NUMBER - OF - ANIMALS - AFFECTED ---					
		SEX:	MALE				
		GROUP:	-1-	-2-	-3-	-4-	-5-
		NUMBER:	10	10	10	10	10
ORGAN/TISSUE EXAMINED							
** TOP OF LIST **							
BRAIN (BR)	NUMBER EXAMINED:	10	10	9	10	10	0
LUNG (LU)	NUMBER EXAMINED:	10	10	10	10	10	0
LIVER (LI)	NUMBER EXAMINED:	10	10	10	10	10	0
--INFILTRATES, MONONUCLEAR CELL							
	->	8	6	8	9	7	0
	1>	1	3	1	1	1	0
	2>	1	1	1	0	2	0
	TL>	10	10	10	10	10	0
--INFLAMMATION, GRANULOMATOUS							
	->	8	10	10	10	10	0
	1>	1	0	0	0	0	0
	2>	1	0	0	0	0	0
	TL>	10	10	10	10	10	0
--NECROSIS, COAGULATIVE							
	->	9	9	9	9	10	0
	2>	1	1	1	1	0	0
	TL>	10	10	10	10	10	0
--FATTY CHANGE							
	->	10	10	9	10	10	0
	3>	0	0	1	0	0	0
	TL>	10	10	10	10	10	0

** CONTINUED ON NEXT PAGE **

TABLE 33
INCIDENCE OF SEVERITY OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

22 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 33.2

		--- NUMBER - OF - ANIMALS - AFFECTED ---					
		SEX: -----MALE-----					
		GROUP: -1-	-2-	-3-	-4-	-5-	-6-
ORGAN/TISSUE EXAMINED	NUMBER:	10	10	10	10	10	0

** FROM PREVIOUS PAGE **							
LIVER (LI)	NUMBER EXAMINED:	10	10	10	10	10	0
--HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED	-->	10	10	10	10	10	0
CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE	TL>	10	10	10	10	10	0
A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE							
ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR							
THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".							
--HYPERPLASIA, BILE DUCT	-->	10	9	10	10	10	0
	2>	0	1	0	0	0	0
	TL>	10	10	10	10	10	0
LF, TESTIS (TE)	NUMBER EXAMINED:	10	10	10	10	10	0
--ATROPHY/DEGENERATION	-->	10	9	9	9	10	0
	2>	0	1	0	0	0	0
	3>	0	0	1	1	0	0
	TL>	10	10	10	10	10	0
--INFLAMMATION, GRANULOMATOUS	-->	10	10	10	10	10	0
	TL>	10	10	10	10	10	0
PROSTATE (PR)	NUMBER EXAMINED:	10	10	10	10	10	0
--INFLAMMATION, CHRONIC ACTIVE	-->	8	10	10	10	9	0
	2>	2	0	0	0	1	0
	5>	0	0	0	0	1	0
	TL>	10	10	10	10	10	0

TABLE 33
INCIDENCE OF SEVERITY OF MICROSCOPIC OBSERVATIONS

HWI 6329-100

22 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
TABLE PAGE: 33.3

TABLE INCLUDES:		--- NUMBER - OF - ANIMALS - AFFECTED ---						
SEX=ALL; GROUP=ALL; SCREEN=ALL; WEEKS=ALL DEATH=U; FIND=ALL; SUBSET=ALL		SEX:	MALE					
ORGAN/TISSUE EXAMINED		GROUP:	-1-	-2-	-3-	-4-	-5-	-6-
		NUMBER:	10	10	10	10	10	0
-----		---	---	---	---	---	---	---
SEMINAL VESICLE (SV)	NUMBER EXAMINED:	10	10	10	10	10	10	0
COAGULATING GLD (CG)	NUMBER EXAMINED:	10	10	10	10	10	10	0
URETHRA (UR)	NUMBER EXAMINED:	10	10	10	10	10	10	0
KIDNEY(S) (KD)	NUMBER EXAMINED:	0	0	0	1	0	0	0
--DILATATION, PELVIC	P>	0	0	0	1	0	0	0
	TL>	0	0	0	1	0	0	0
SKIN (SK)	NUMBER EXAMINED:	1	0	0	0	0	0	0
--DERMATITIS	S>	1	0	0	0	0	0	0
	TL>	1	0	0	0	0	0	0
--ULCERATION	S>	1	0	0	0	0	0	0
	TL>	1	0	0	0	0	0	0
SPLEEN (SP)	NUMBER EXAMINED:	1	0	0	0	0	0	0
--CYST, SEROSAL	P>	1	0	0	0	0	0	0
	TL>	1	0	0	0	0	0	0
MANDIB/CERV LN (MN)	NUMBER EXAMINED:	0	0	0	0	1	0	0
--HYPERPLASIA, LYMPHORETICULAR CELL	3>	0	0	0	0	1	0	0
	TL>	0	0	0	0	1	0	0
MESENTERIC LN (MS)	NUMBER EXAMINED:	0	0	0	0	0	0	0

Table 34
Summary of Hormone Data

Week		T-5180 (ppm)					
		0	1	10	30	100	0 ^a
<u>Estradiol (pg/mL)</u>							
5	Mean	20.1	21.0	b	26.8	33.7	21.3
	SD	-	0.42	-	4.56	9.93	1.70
	N	1	2	-	4	10	2
8	Mean	22.6	b	34.2	29.1	36.6	20.5
	SD	-	-	-	6.99	10.43	0.12
	N	1	-	1	6	5	3
14	Mean	b	b	20.9	26.7	28.2	b
	SD	-	-	1.16	4.17	3.69	-
	N	-	-	3	2	4	-
22	Mean	b	28.9	25.3	25.3	25.9	NA
	SD	-	5.23	3.70	7.10	2.22	NA
	N	-	3	5	3	3	NA
<u>Testosterone (ng/mL)</u>							
5	Mean	72,400	66,222	59,667	49,200	31,600	42,100
	SD	55,580.2	84,812.7	31,815.9	23,403.7	23,735.6	32,370.9
	N	10	9	9	10	10	10
8	Mean	46,562	49,913	35,984	73,790	55,680	34,410
	SD	39,398.1	66,500.6	22,768.7	103,947.1	35,655.4	38,889.9
	N	10	10	10	10	10	10

a Animal were pair-fed with the high-dose animals throughout treatment.

b Mean is less than 20.0 pg/mL.

Table 34 (Continued)
Summary of Hormone Data

		T-5180 (ppm)					
Week		0	1	10	30	100	0 ^a
<u>Testosterone (ng/mL)</u>							
14	Mean	24,578	35,649	31,478	23,577	20,413	19,462
	SD	12,656.3	27,614.6	21,909.0	19,074.1	14,625.6	16,005.4
	N	10	10	10	10	10	10
22	Mean	8,714	21,680	11,946	13,660	35,864	NA
	SD	2,517.6	5,669.8	7,885.8	5,981.4	38,519.5	NA
	N	5	5	5	5	5	NA
<u>Luteinizing (ng/mL)</u>							
5	Mean	0.5	0.7	0.6	0.6	0.5	0.6
	SD	0.19	0.28	0.16	0.19	0.12	0.20
	N	10	10	10	10	8	10
8	Mean	0.5	0.6	0.5	0.5	0.5	0.5
	SD	0.12	0.16	0.09	0.14	0.12	0.20
	N	9	9	8	9	10	9
14	Mean	0.4	0.5	0.4	0.5	0.6	0.4
	SD	0.07	0.10	0.14	0.19	0.45	0.13
	N	9	10	10	9	10	10
22	Mean	0.4	0.4	0.5	0.5	0.6	NA
	SD	0.17	0.05	0.12	0.32	0.22	NA
	N	5	4	5	5	4	NA

a Animals were pair-fed with the high-dose animals throughout treatment.

Table 35
Summary of Test Material Residue Analysis
Males

Week		T-5180 (ppm)					
		Group					
		1	2	3	4	5	6
5	Mean	a	6.5	55.4	103.5	159.3	a
	SD	a	1.05	8.08	14.38	30.16	a
	N	a	8	9	8	10	a
8	Mean	a	7.5	45.5	87.3	149.1	a
	SD	a	1.27	16.20	27.48	34.98	a
	N	a	9	10	10	10	a
14	Mean	a	7.1	41.2	70.3	137.6	a
	SD	a	1.15	12.98	16.18	33.83	a
	N	a	10	10	10	10	a
22	Mean	a	1.2	1.09	1.64	2.45	-
	SD	a	-	1.303	0.918	0.849	-
	N	a	1	3	3	2	-

a All values were below the limit of detection.

Table 36

Results of Method Validation for Determination of T-5180
in Rodent Food Expressed as the Percent of Recovery

<u>Theoretical Level (ppm)</u>	<u>Analytical Assay Results (ppm)</u>	<u>Percent Theoretical (%)</u>
<u>Day 1</u>		
1	0.810	81.0
1	1.08	108
1	0.760	76.0
	Mean	88.3
	SD	17.20
	CV (%)	19.50
	N	3
10	10.4	104
10	9.92	99.2
10	9.20	92.0
	Mean	98.4
	SD	6.00
	CV (%)	6.10
	N	3
30	30.1	100
30	34.2	114
30	30.6	102
	Mean	105
	SD	7.50
	CV (%)	7.10
	N	3
100	99.4	99.4
100	95.0	95.0
100	102	102
	Mean	98.8
	SD	3.50
	CV (%)	3.60
	N	3

Table 36 (Continued)

Results of Method Validation for Determination of T-5180
in Rodent Food Expressed as the Percent of Recovery
(Continued)

<u>Theoretical Level (ppm)</u>	<u>Analytical Assay Results (ppm)</u>	<u>Percent Theoretical (%)</u>
<u>Day 1 (Continued)</u>		
1,000	977	97.7
1,000	972	97.2
1,000	1,072	107
	Mean	101
	SD	5.60
	CV (%)	5.60
	N	3
<u>Day 2</u>		
1	-0.082	-
1	0.627	62.7
1	0.924	92.4
1 ^a	1.24	124
1 ^a	0.995	99.5
1 ^a	1.20	120
	Mean	99.7
	SD	24.60
	CV (%)	24.7
	N	5
10	10.6	106
10	9.85	98.5
10	9.66	96.6
	Mean	100
	SD	5.00
	CV (%)	5.00
	N	3

a Data are from reanalysis of sample.

Table 36 (Continued)

Results of Method Validation for Determination of T-5180
in Rodent Food Expressed as the Percent of Recovery
(Continued)

<u>Theoretical Level (ppm)</u>	<u>Analytical Assay Results (ppm)</u>	<u>Percent Theoretical (%)</u>
<u>Day 2 (Continued)</u>		
30	28.8	96.0
30	28.0	93.3
30	28.3	94.3
	Mean	94.6
	SD	1.30
	CV (%)	1.40
	N	3
100	97.1	97.1
100	93.3	93.3
100	94.3	94.3
	Mean	94.9
	SD	2.00
	CV (%)	2.10
	N	3
1,000	1,006	101
1,000	955	95.5
1,000	940	94.0
	Mean	96.8
	SD	3.70
	CV (%)	3.80
	N	3

Table 37
Results of Stability Analyses

Storage Conditions	Replicate	T-5180 (ppm)				
		0	1	10	30	100
Day of mixing, 12/19/90	1	-	1.27	10.0	28.3	93.2
	2	-	1.39	8.90	27.7	90.3
	Mean	-	1.33 (133) ^a	9.45 (94.5)	28.0 (93.3)	91.8 (91.8)
Refrigerated, 1 day; room temperature, 7 days	1	-	0.81	11.8	28.9	109
	2	-	0.75	10.8	33.7	108
	Mean	-	0.78 (78.0)	11.3 (113)	31.3 (104)	109 (109)
Frozen, 2 weeks	1	-	0.75	10.2	28.7	109
	2	-	0.78	12.2	29.5	112
	Mean	-	0.77 (77.0)	11.2 (112)	29.1 (97.0)	111 (111)
Frozen, 7 weeks	1	-	1.20	11.1	26.6	107
	2	-	1.47	9.44	26.6	109
	Mean	-	1.34 (134)	10.3 (103)	26.6 (88.7)	108 (108)

^a Values in parentheses are percent of theoretical.

Table 37 (Continued)
Results of Stability Analyses

Storage Conditions ^a	Replicate	T-5180 (ppm)				
		0	1	10	30	100
Day of mixing, 03/06/91	1	-	0.68	9.09	28.9	96.7
	2	-	0.76	9.62	29.7	94.0
	Mean	-	0.72 (72.0) ^a	9.36 (93.6)	29.3 (97.7)	95.4 (95.4)
Room temperature, 8 days	1	-	0.74	9.40	29.5	94.1
	2	-	0.76	9.72	29.7	94.6
	Mean	-	0.75 (75.0)	9.56 (95.6)	29.6 (98.7)	94.4 (94.4)

a Storage condition reflect actual conditions that samples were stored from Weeks 1 through 8.
b Values in parentheses are percent of theoretical.

Table 38
Results of Homogeneity Analyses

Sample Location	Replicate	T-5180 (ppm)				
		0	1	10	30	100
Top	1	-	0.72 (72.0) ^a	11.6 (116)	31.3 (104)	104 (104)
	2	-	0.65 (65.0)	12.0 (120)	29.8 (99.3)	106 (106)
Left	1	-	0.95 (95.0)	10.7 (107)	29.4 (98.0)	114 (114)
	2	-	0.88 (88.0)	10.9 (109)	31.1 (104)	119 (119)
Right	1	-	1.21 (121)	12.8 (128)	34.2 (114)	107 (107)
	2	-	1.54 (154)	11.6 (116)	30.5 (102)	106 (106)
Bottom	1	-	0.85 (85.0)	11.9 (119)	28.7 (95.6)	106 (106)
	2	-	0.84 (84.0)	12.7 (127)	31.0 (103)	110 (110)

a Values in parentheses are percent of theoretical.

Table 38 (Continued)
Results of Homogeneity Analyses^a

Sample Location	Replicate	T-5180 (ppm)				
		0	1	10	30	100
Top	1	-	0.84 (84.0) ^b	-	-	-
	2	-	0.88 (88.0)	-	-	-
Left	1	-	0.88 (88.0)	-	-	-
	2	-	0.86 (86.0)	-	-	-
Right	1	-	0.73 (73.0) ^c	-	-	-
	2	-	0.74 (74.0) ^c	-	-	-
Bottom	1	-	0.71 (71.0)	-	-	-
	2	-	0.87 (87.0)	-	-	-

a Reanalyzed, 01/07/91.

b Values in parentheses are percent of theoretical.

c Results are from a reanalysis on 1/15/91.

Table 39
Results of Dose Preparation Analyses

Week	Replicate	T-5180 (ppm)				
		0	1	10	30	100
1	1	-	0.80 (80.0) ^a	11.6 (116)	28.9 (96.3)	111 (111)
	2	-	1.19 (119)	11.4 (114)	29.5 (98.3)	102 (102)
2	1	-	0.80 (80.0)	9.73 (97.3)	32.2 (107)	100 (100)
	2	-	0.91 (91.0)	10.8 (108)	33.0 (110)	108 (108)
3	1	-	0.91 (91.0)	10.1 (101)	34.9 (116)	98.4 (98.4)
	2	-	0.74 (74.0)	11.5 (115)	31.4 (105)	110 (110)
4	1	-	0.73 (73.0)	11.5 (115)	30.4 (101)	98.0 (98.0)
	2	-	0.74 (74.0)	9.88 (98.8)	30.6 (102)	102 (102)
4 ^b	1	-	0.88 (88.0)	-	-	-
	2	-	0.82 (82.0)	-	-	-
5	1	-	0.86 (86.0)	-	-	-
	2	-	0.88 (88.0)	-	-	-
5 ^b	1	-	1.10 (110)	-	-	-
	2	-	1.17 (117)	-	-	-
6	1	-	-	9.58 (95.8)	-	-
	2	-	-	10.4 (104)	-	-

a Values in parentheses are percent of theoretical.

b Archived sample.

Table 39 (Continued)
Results of Dose Preparation Analyses

Week	Replicate	T-5180 (ppm)				
		0	1	10	30	100
7	1	-	-	-	29.1 (97.0)*	-
	2	-	-	-	26.1 (87.0)	-
8	1	-	-	-	-	97.3 (97.3)
	2	-	-	-	-	96.6 (96.6)
9	1	-	0.70 (70.0)	-	-	-
	2	-	0.75 (75.0)	-	-	-
10	1	-	-	10.3 (103)	-	-
	2	-	-	9.01 (90.1)	-	-
11	1	-	-	-	27.7 (92.3)	-
	2	-	-	-	28.8 (96.0)	-
12	1	-	-	-	-	90.1 (90.1)
	2	-	-	-	-	93.2 (93.2)
13	1	-	0.76 (76.0)	-	-	-
	2	-	0.72 (72.0)	-	-	-
14	1	-	-	9.34 (93.4)	-	-
	2	-	-	9.45 (94.5)	-	-

a Values in parentheses are percent of theoretical.

APPENDIX A

Protocol Deviations
Protocol TP9321
Protocol Amendment No. 1
Protocol Amendment No. 2
Protocol Amendment No. 3
Material Safety Data Sheet

Protocol Deviations

Protocol

Dose Preparation. "All dose preparations will be refrigerated until administration."

Dose Analyses. "Four additional sets of samples will be taken from each dose preparation mixed for Week 1...One set will be kept for at least the same period and under the same conditions that are expected to be used for the study, then analyzed."

Special Analysis. Test Material Residue Analysis. "An aliquot of serum ...will be collected and stored until analysis for test material residue."

Special Analysis. Disposition. "Serum samples will be stored at approximately -70°C until shipment."

Termination. "Animals will be anesthetized with methoxyflurane, exsanguinated, and necropsied between 7:00 a.m. and 10:00 a.m."

Gross Necropsy. Cut surfaces of the brain and spinal cord will be examined when tissues are trimmed.

Actual Procedure

During Weeks 1 through 8, diets were stored at room temperature until administration.

None of the sets of samples mixed for Week 1 were stored under the same conditions as was used for Weeks 1 through 8, so a second stability analysis was done at Week 12.

All serum samples from the Week 22 collection were sent to Hazleton Washington for hormone analysis. The serum remaining after hormone analysis was returned to Hazleton Wisconsin for test material residue analysis. Due to an insufficient amount of serum remaining after hormone analysis, some groups had serum from less than 10 animals available for test material residue analysis.

The location of serum sample storage for 3 collection dates was not documented and cannot be verified.

Two animals were not weighed before exsanguination. Three animals were necropsied after 10:00 a.m.

The spinal cord was not collected at necropsy; therefore, cut surfaces of the spinal cord were not examined when tissues were trimmed.

These deviations are not expected to have affected the results of the study.



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MADISON WISCONSIN 53707

• CORNING Laboratory Services Company

Sponsor:

3M
St. Paul, Minnesota

PROTOCOL TP9321

Study Title:

13-Week Dietary Toxicity Study with T-5180, Ammonium
Perfluorooctanoate (CAS No. 3825-26-1)
in Male Rats

Date:

November 30, 1990

Performing Laboratory:

Hazleton Wisconsin, Inc.
3301 Kinsman Boulevard
Madison, Wisconsin 53704

Laboratory Project Identification:

HWI 6329-100

STUDY IDENTIFICATION

13-Week Dietary Toxicity Study with T-5180, Ammonium
Perfluorooctanoate (CAS No. 3825-26-1)
in Male Rats

Test Material	T-5180, Ammonium Perfluorooctanoate (CAS No. 3825-26-1)
Sponsor	3M Toxicology Services Building 220-2E-02, 3M Center St. Paul, Minnesota 55144-1000
Study Monitor	Roger G. Perkins, PhD, DABT 3M Toxicology Services Building 220-2E-02, 3M Center St. Paul, Minnesota 55144-1000
Study Director	Matthew J. Palazzolo, PhD, DABT Hazleton Wisconsin, Inc. P.O. Box 7545 Madison, Wisconsin 53707 (608) 242-2622
Study Location	Hazleton Wisconsin, Inc. 3301 Kinsman Boulevard Madison, Wisconsin 53704
Proposed Study Timetable	
In-Life (Experimental) Start Date	December 20, 1990
In-Life Termination Date	May 16, 1991
Experimental Termination Date	To be provided by amendment

1. Study
13-Week Dietary Toxicity Study with T-5180, Ammonium Perfluorooctanoate (CAS No. 3825-26-1) in Male Rats
2. Purposes
To assess the subchronic toxicity of the test material when fed to rats for at least 13 weeks and to evaluate reversibility of any toxic effects
3. Regulatory Compliance
This study will be conducted in accordance with the Environmental Protection Agency Good Laboratory Practice Standards, 40 CFR 160.
4. Quality Assurance
The protocol, study conduct, and final report will be audited by the Quality Assurance Unit in accordance with Hazleton Wisconsin, Inc. (HWI) Standard Operating Procedures (SOPs).
5. Test Material
 - A. Identification
T-5180, Ammonium Perfluorooctanoate (CAS No. 3825-26-1)
 - B. Purity
To be determined by the Sponsor
 - C. Stability
To be determined by the Sponsor
 - D. Storage Conditions
In a dry area, at room temperature
 - E. Characteristics
Information on synthesis methods, composition, or other characteristics that define the test material is on file with the Sponsor.
 - F. Reserve Samples
A reserve sample of each lot will be taken and stored in a freezer. These samples will be transferred to the Sponsor after completion of the in-life phase of the study to be retained in accordance with 40 CFR 160.195. Any remaining test material will be returned to the Sponsor after their authorization.
 - G. Safety Precautions
As required by HWI SOPs, unless otherwise specified

6. Experimental Design

A. Animals

(1) Species	Rat
(2) Strain/Source	CrI:CD®BR/Charles River Laboratories, Inc.
(3) Age at Initiation of Treatment	Preferably 4 to 6 weeks, but not older than 8 weeks
(4) Weight at Initiation of Treatment	Approximately 75 to 250 g
(5) Number and Sex	320 males
(6) Identification	Individually numbered ear tags
(7) Husbandry	
(a) Housing	Individual
(b) Food	Certified Rodent Chow #5002 (Purina Mills, Inc.) <i>ad libitum</i> , unless otherwise specified. The food is routinely analyzed by the manufacturer for nutritional components and environmental contaminants.
(c) Water	<i>Ad libitum</i> . Samples of the water are analyzed by HWI for total dissolved solids, hardness, and specified microbiological content and for selected elements, heavy metals, organophosphates, and chlorinated hydrocarbons.
(d) Contaminants	There are no known contaminants in the food or water that would interfere with this study.
(e) Environment	Environmental controls for the animal room will be set to maintain a temperature of 72°F $\pm$ 6°, a relative humidity of 50% $\pm$ 20%, and a 12-hour light/12-hour dark cycle.
(f) Acclimation	At least 1 week

(8) Randomization

Via computer-generated random numbers for assignment to groups. The animals will be weighed. The weight variation of the animals selected for the study will not exceed ± 2 standard deviations of the mean weight, and the mean body weights for each group will not be statistically different at the 5% probability level.

(9) Justification

The rat is frequently used in safety evaluation studies as a representative of a rodent species. Male rats are used to characterize the effects of the test material on testicular physiology.

B. Group Designations

<u>Group</u>	<u>Dose Level (ppm)</u>	<u>Number of Males^a</u>
1	0	55
2	1	55
3	10	55
4	30	55
5	100	55
6	0 ^b	45

- a 10 animals for Groups 1 through 5 (designated as recovery animals) will be treated for at least 13 weeks, then treatment will be discontinued and they will be observed for reversibility, persistence, or delayed occurrence of toxic effects for at least 8 weeks posttreatment.
- b Animals in Group 6 will be pair-fed with the high-dose animals (Group 5) throughout the treatment period. Due to the pair-feeding requirements, the pair-fed control animals (Group 6) will initiate on test 1 day after all other groups.

C. Dosing Procedures

- (1) Dosing Route Dietary
- (2) Reason for Dosing Route To compare the test data with other studies dosed in a similar fashion.
- (3) Dosing Duration At least 13 weeks

(4) Dose Preparation

Weekly. All diets will be mixed according to the mixing procedure. Dose concentrations will be based on the test material as supplied. All dose preparations will be refrigerated until being dispensed into food containers.

(5) Dose Analyses

By HWI. Additional samples may be assayed at the discretion of the Study Director.

(a) Homogeneity

One sample each from all dose levels mixed for Week 1 will be taken from the top, bottom, and two opposing sides of the dose preparation and assayed for test material content. All samples will be stored in a freezer until analyzed.

(b) Stability

Four additional sets of samples will be taken from each dose preparation mixed for Week 1. One set will be analyzed on the day of mixing. One set will be kept for at least the same period of time and under the same conditions that are expected to be used for the study, then analyzed. The remaining two sets will be stored in a freezer and assayed after 2 and 7 weeks.

(c) Routine Analyses

All dose preparations will be assayed each week for the first 4 weeks. Each week thereafter, one test material dose concentration will be selected sequentially. Samples from each 4-week period will be analyzed as a group with a sample of the control diet.

D. Observation of Animals

(1) Cageside Observations

Mortality and moribundity check twice daily (a.m. and p.m.). Additional signs of poor health or abnormal behavior will be recorded as they are observed.

(2) Antemortem Observations

At least once weekly, each animal will be removed from its cage and examined.

(3) Body Weights

Before initiation of treatment, on the first day of treatment, weekly thereafter, and on the day of necropsy

(4) Food Consumptions

Daily for the animals that will be pair-fed (Groups 5 and 6); weekly for all other animals. During recovery, Group 5 animals will be fed weekly.

E. Special Analysis

(1) Hormone Analysis

Serum samples will be collected from animals scheduled for sacrifice at each interval for analysis of estradiol, testosterone (total), and luteinizing hormone. Serum samples from 10 animals/group selected at random at each scheduled sacrifice will be analyzed from each sacrifice interval during treatment. Serum samples from 5 animals/group will be analyzed at recovery. The following methods will be used for the hormone analysis:

- Luteinizing hormone -
radioimmunoassay
- Estradiol - Diagnostic Products Kit
(DPCKE2D1)
- Testosterone - Diagnostic Products
Kit (DPCKTT2)

(a) Method of
Collection

Nonfasted animals will be anesthetized with methoxyflurane; blood will be collected from the descending vena cava and stored on ice (approximately 4°C) until centrifugation.

(b) Disposition

Serum samples will be stored at approximately -70°C until shipment. All samples will be shipped on dry ice to:

Denise Novello
Immunochemistry Division
Client Services Section
Hazleton Washington
9200 Leesburg Turnpike
Vienna, Virginia 22182

(2) Test Material
Residue Analysis

Samples of liver, testes, lungs, and subcutaneous adipose from each animal at necropsy will be collected and stored frozen for possible analysis for test material residue (at an additional cost to the Sponsor; method to be provided by the Sponsor). An aliquot of serum (see Section 6. E. 1. Hormone Analysis) will be collected and stored for possible analysis for test material residue.

(3) Hepatic Palmitoyl
CoA Oxidase

A section of liver will be obtained from all animals at each scheduled sacrifice and will be flash frozen using liquid nitrogen. A section of liver from 5 animals/group, selected at random at each scheduled sacrifice will be assayed for the level of palmitoyl CoA oxidase as an indicator of peroxisome proliferation.

F. Termination

(1) Unscheduled Sacrifices
and Deaths

Necropsies will be done on all animals that die or are sacrificed in a moribund condition.

(2) Scheduled Sacrifice

After at least 4, 7, and 13 weeks of treatment, animals (15/group) will be anesthetized with methoxyflurane, weighed, exsanguinated, and necropsied between 7:00 a.m. and 10:00 a.m. For recovery animals (10/group), this will be done after at least 13 weeks of treatment and at least 8 weeks without treatment.

G. Postmortem Procedures

(1) Gross Necropsy

The necropsy will include an examination of:

External surface of the body
All orifices
Cranial cavity
External surfaces of the brain and spinal cord (Cut surfaces will be examined when tissues are trimmed.)

Nasal cavity and paranasal sinuses
Thoracic, abdominal, and pelvic
cavities and viscera

(2) Organ Weights

For each animal at scheduled sacrifice,
the following organs will be weighed;
paired organs will be weighed
separately:

Brain
Liver
Lungs
Testes
Accessory sex organs (seminal
vesicle, prostate, coagulating
gland, urethra)

Organ-to-body weight percentages and
organ-to-brain weight ratios will be
calculated.

(3) Special Analyses

Samples of liver, testes, lungs, and
subcutaneous adipose will be collected
from each animal for possible analysis
for test material residue. An
additional section of liver will be
collected from each animal for possible
analysis of Palmitoyl CoA. (See
Section 6. E. 3. Hepatic Palmitoyl CoA
Oxidase).

(4) Tissue Preservation

The following or representative samples
thereof, will be collected and
preserved in 10% phosphate-buffered
formalin, unless otherwise specified.
Samples of these tissues will be
preserved in glutaraldehyde for further
processing if electron microscopic
evaluation is desired.

Lesions
Brain
Liver
Lungs
Testes
Accessory sex organs (seminal
vesicle, prostate, coagulating
gland, urethra)

(5) Histopathology

The above (as appropriate) will be embedded in paraffin, sectioned, stained with hematoxylin and eosin, and examined microscopically from all animals from which they are collected

7. Reports

A. Final Report

A final report including, but not limited to, those items listed below will be submitted. One copy of the draft report and two copies of the final report will be provided.

(1) Experimental Design
and Methods

As defined by the protocol, protocol amendments, and any protocol deviations

(2) Results

Mortality
Antemortem observations
Body weights
Cumulative body weight gains
Food consumption
Compound consumption
Palmitoyl CoA
Organ weights
Organ-to-body weight percentages
Organ-to-brain weight ratios
Macroscopic observations
Microscopic observations

(3) Statistical Analyses

Body weights
Cumulative body weight gains
Food consumption
Organ weights
Organ-to-body weight percentages
Organ-to-brain weight ratios
Palmitoyl CoA
Hormone Analysis

Groups 2, 3, 4, and 5 will be compared with Group 1; Group 6 will be compared with Group 5. Statistical methods will be those used by HWI (Attachment 1).

(4) Data to be reported

Incidence of antemortem observations
Mean body weights
Mean cumulative body weight gains
Mean food consumptions
Mean compound consumptions
Mean group hormone values
Mean Palmitoyl CoA
Mean organ weights
Mean organ-to-body weight percentages
Mean organ-to-brain weight ratios
Incidence of macroscopic observations
Incidence of microscopic observations

Individual antemortem observations (to
include fate and date of death for
each animal)
Individual body weights
Individual food consumptions
Individual Palmitoyl CoA values
Individual organ weights
Individual organ-to-body weight
percentages
Individual organ-to-brain weight ratios
Individual macroscopic observations
Individual microscopic observations

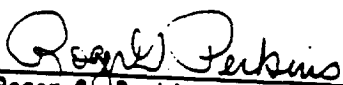
(5) Analytical Chemistry

Methods and results (if done by HWI)

8. Maintenance of Raw Data,
Records, and Specimens

Original data, or copies thereof, will
be available at HWI to facilitate
auditing the study during its progress
and before acceptance of the final
report. When the final report is
completed, all original paper data, all
magnetically encoded records, and a
copy of the final report will be
retained in the archives of HWI. All
specimens will be transferred to the
Sponsor to be retained in accordance
with 40 CFR 160.195.

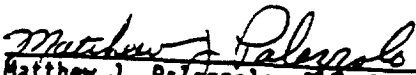
PROTOCOL APPROVAL



Roger G. Perkins, PhD, DABT
Study Monitor
3M

12/4/90

Date



Matthew J. Palazzolo, PhD, DABT
Study Director
Toxicology
Hazleton Wisconsin, Inc.

11/30/90

Date



Representative
Quality Assurance Unit
Hazleton Wisconsin, Inc.

11/30/90

Date

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DEC 06 1990
HLA-Madison

Attachment 1

Statistical Analyses

The statistical methods that will be used are described below. Levene's test (Levene, 1960) will be done to test for variance homogeneity. In the case of heterogeneity of variance at $p \leq 0.05$, transformations will be used to stabilize the variance.

Analysis of variance (ANOVA) (Winer, 1971) will be done on the homogeneous or transformed data. If the ANOVA is significant, Games and Howell Modified Tukey-Kramer test (Games and Howell, 1976) will be used for pairwise comparisons between groups.

One-way ANOVA will be used (if applicable) to analyze body weights; cumulative body weight gains; food consumptions; Palmitoyl CoA and Hormone Analysis; organ weights; organ-to-body weight percentages; and organ-to-brain weight ratios.

If the ANOVA shows significance for body weights at Week 0, one-way analysis of covariance (ANCOVA) (Winer, 1971) will be used to analyze body weights, with the initial body weight as the covariate. Although Levene's test for variance homogeneity will be done (see above), no transformations will be used because covariance adjustment removes extraneous heterogeneity. If the ANCOVA is significant, Games and Howell Modified Tukey-Kramer test will be used for pairwise comparisons between groups.

Group comparisons will be evaluated at the 5.0% two-tailed probability level.

References

Games, P. A., and Howell, J. F., "Pairwise Multiple Comparison Procedures with Unequal N's and/or Variances: A Monte Carlo Study," Journal of Educational Statistics, 1(2):113-125 (1976).

Levene, H., "Robust Tests for Equality of Variances," Contributions to Probability and Statistics, (eds.) I. Olkin et al., Ch. 25, pp. 278-292, Stanford University Press: Stanford, California (1960).

Winer, B. J., "Analysis of Covariance," Statistical Principles in Experimental Design, Second Ed., Ch. 10, pp. 752-812, McGraw-Hill: New York, New York (1971).

Winer, B. J., "Design and Analysis of Single-Factor Experiments," Statistical Principles in Experimental Design, Second Ed., Ch. 3, pp. 149-260, McGraw-Hill: New York, New York (1971).



HWI 6329-100

CORNING Laboratory Equipment Division

PROTOCOL TP9321

13-Week Dietary Toxicity Study with T-5180, Ammonium
Perfluorooctanoate (CAS No. 3825-26-1)
in Male Rats

HWI 6329-100

Sponsor

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

Contractor

Hazleton Wisconsin, Inc.
3301 Kinsman Boulevard
Madison, WI 53704

Study Monitor

Roger G. Perkins, PhD, DABT

Study Director

Matthew J. Palazzolo, PhD, DABT

Amendment No. 1:

This amendment modifies the following portions of the protocol:

Effective December 10, 1990

1. Page 6, 6. Experimental Design, C. Dosing Procedures, (4) Dose Preparation, Sentence 3. To clarify the actual procedure, delete this sentence and replace with the following:

All dose preparations will be refrigerated until administration.

2. Page 6, 6. Experimental Design, C. Dosing Procedures, (5) Dose Analyses, (c) Routine Analyses. To clarify the actual procedure, delete this section and replace with the following:

All dose preparations will be assayed each week for the first 4 weeks. Each week thereafter, the control diet and one test material dose concentration (selected sequentially) will be collected. Samples from each 4-week period will be analyzed as a group.

3. Page 9, 6. Experimental Design, G. Postmortem Procedures, (3) Special Analyses. To clarify the actual procedure, add the underlined as follows:

(3) Special Analyses (scheduled sacrifice animals only)

4. Page 9, 6. Experimental Design, G. Postmortem Procedures, (4) Tissue Preservation, Sentence 2. To clarify the protocol, add the underlined as follows:

Samples of these tissues (scheduled sacrifice animals only) will be preserved in glutaraldehyde for further processing if electron microscopic evaluation is desired.

Effective December 31, 1990

5. Page 6, 6. Experimental Design, C. Dosing Procedures, (5) Dose Analyses. To include the collection of retention samples and a second homogeneity for Diet 2, delete this section and replace with the following:

(5) Retention Samples

Samples will be taken from the base diet (premix) and from each dose preparation and stored in a freezer for at least 6 months, unless used for analysis. At the discretion of the Study Director, these samples will be returned to the Sponsor or discarded.

(6) Dose Analyses

By HWI. Additional samples may be assayed at the discretion of the Study Director.

(a) Homogeneity

One sample each from all dose levels mixed for Week 1 will be taken from the top, bottom, and two opposing sides of the dose preparation and assayed for test material content. Due to a change in the mixing procedure for the 1 ppm level, one sample from the 1 ppm level mixed for Week 3 will also be taken from the top, bottom, and two opposing sides of the dose preparation and assayed for test material content. All samples will be stored in a freezer until analyzed.

(b) Stability

Four additional sets of samples will be taken from each dose preparation mixed for Week 1. One set will be analyzed on the day of mixing. One set will be kept for at least the same period of time and under the same conditions that are expected to be used for the study, then analyzed. The remaining two sets will be stored in a freezer and assayed after 2 and 7 weeks.

(c) Routine Analyses

All dose preparations will be assayed each week for the first 4 weeks. Each week thereafter, the control diet and one test material dose concentration (selected sequentially) will be collected. Samples from each 4-week period will be analyzed as a group.

AMENDMENT APPROVAL

Received

JAN 28 1991

Hazleton
Wisconsin



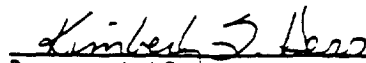
Roger G. Perkins, PhD
Diplomate, ABT
Study Monitor
3M

1/17/91
Date



Matthew J. Palezzolo, PhD
Diplomate, ABT
Study Director
Toxicology
Hazleton Wisconsin, Inc.

1/15/91
Date



Representative
Quality Assurance Unit
Hazleton Wisconsin Inc.

1-15-91
Date

(ADM/jle)
01/10/91



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HWI 6329-100

• CORNING Laboratory Services Company

PROTOCOL TP9321

13-Week Dietary Toxicity Study with T-5180, Ammonium
Perfluorooctanoate (CAS No. 3825-26-1)
in Male Rats

HWI 6329-100

Sponsor

3M
Toxicology Services
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Contractor

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Study Monitor

Roger G. Perkins, PhD, DABT

Study Director

Matthew J. Palazzolo, PhD, DABT

Amendment No. 2
Effective December 10, 1990

This amendment modifies the following portion of the protocol:

1. Page 9, 6. Experimental Design, G. Postmortem Procedures, (4) Tissue Preservation, and Amendment No. 1, Item 4. To clarify tissue collection for possible electron microscopic evaluation, delete this section and replace with the following:

(4) Tissue Preservation

The following or representative samples will be collected and preserved in 10% phosphate-buffered formalin, unless otherwise specified:

Lesions
Brain
Liver
Lungs
Testes (one testis)
Accessory sex organs (seminal vesicle, prostate, coagulating gland, and urethra)

Samples of the following tissues
(scheduled sacrifice animals only)
will be preserved in glutaraldehyde
for further processing if electron
microscopic evaluation is desired:

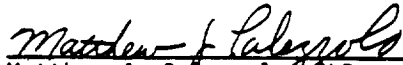
Brain
Liver
Lungs
Testes (one testis)
Accessory sex organs (seminal
vesicle, prostate)

AMENDMENT APPROVAL



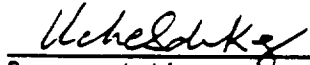
Roger G. Perkins, PhD
Diplomate, ABT
Study Monitor
3M

1/28/91
Date



Matthew J. Palazzolo, PhD
Diplomate, ABT
Study Director
Toxicology
Hazleton Wisconsin, Inc.

1/22/91
Date



Representative
Quality Assurance Unit
Hazleton Wisconsin Inc.

1/22/91
Date

(ADM/jle)
01/21/91

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JAN 31 1991

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HWI 6329-100

A CORNING Laboratory Services Company

PROTOCOL TP9321

13-Week Dietary Toxicity Study with T-5180, Ammonium
Perfluorooctanoate (CAS No. 3825-26-1)
in Male Rats

HWI 6329-100

Sponsor

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Building 220-2E-02, 3M Center
St. Paul, MN 55144-1000

Contractor

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3301 Kinsman Boulevard
Madison, WI 53704

Study Monitor

Roger G. Perkins, PhD, DABT

Study Director

Matthew J. Palazzolo, PhD, DABT

Amendment No. 3

This amendment modifies the following portions of the protocol:

Effective November 30, 1990

1. Page 2, STUDY IDENTIFICATION, Proposed Study Timetable, Experimental Termination Date. Because the final date of data collection has been determined, delete "To be provided by amendment" and replace with the following:

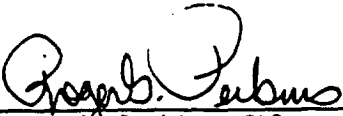
March 29, 1993

Effective April 8, 1991

2. Page 8, 6. Experimental Design, E. Special Analysis (2) Test Material and Residue Analysis, Sentence 2. At the Sponsor's request to analyze serum for test material residue, delete this sentence and replace with the following:

An aliquot of serum (see Section 6. E. 1. Hormone Analysis) will be collected and stored until analysis for test material residue.

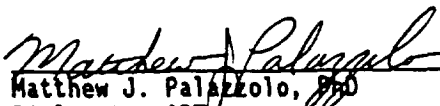
AMENDMENT APPROVAL



Roger G. Perkins, PhD
Diplomate, ABT
Study Monitor
3M

3/26/93

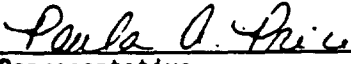
Date



Matthew J. Palazzolo, PhD
Diplomate, ABT
Study Director
Toxicology
Hazleton Wisconsin, Inc.

3/24/93

Date



Representative
Quality Assurance Unit
Hazleton Wisconsin Inc.

3/24/93

Date

3M General Offices
3M Center
St. Paul, MN 55144-1000
(612) 733-1110
Duns No.: 00-617-3082



MATERIAL SAFETY
DATA SHEET

FACSIMILE COPY

HWI 6329-100

DIVISION: INDUSTRIAL CHEMICAL PRODUCTS DIVISION
TRADE NAME: FC-143 FLUORAD Brand Fluorochemical Surfactant
3M I.D. NUMBER: 98-0211-0008-0 98-0211-0367-0 98-0211-0891-9
98-0211-1522-9 ZF-0002-0378-4
ISSUED: March 28, 1989
SUPERSEDES: July 27, 1988
DOCUMENT: 10-3808-2

1. INGREDIENTS	CAS NO.	PERCENT	EXPOSURE LIMITS			
			VALUE	UNIT	TYPE	AUTH
Ammonium Perfluoroalkyl Carboxylate	3825-26-1	95.0-100.0	0.1	mg/m3	TWA	ACGIH
Ammonium Perfluoroalkyl Carboxylate	6130-43-4	< 5.0	0.1	mg/m3	TWA	3M
Ammonium Perfluoroalkyl Carboxylate	21615-47-4	< 5.0	0.1	mg/m3	TWA	3M
Ammonium Perfluoroalkyl Carboxylate	68259-11-0	< 5.0	0.1	mg/m3	TWA	3M

SOURCE OF EXPOSURE LIMIT DATA:

- ACGIH: American Conference of Governmental Industrial Hygienists
- 3M: 3M Exposure Guidelines

2. PHYSICAL DATA

BOILING POINT:..... N/A
VAPOR PRESSURE:..... N/A
VAPOR DENSITY:..... N/A
EVAPORATION RATE:..... N/A
SOLUBILITY IN WATER:..... >10 %
SPECIFIC GRAVITY:..... 0.977-0.900
(Bulk)
PERCENT VOLATILES:..... N/A
VOLATILE ORGANICS:..... N/D
pH:..... ca. 9.00
(0.5% Aqueous)
VISCOSITY:..... N/D
APPEARANCE AND ODOR: Light colored powder; slight odor.

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... Non-Flammable
FLAMMABILITY LIMIT - LEL:..... N/A
FLAMMABILITY LIMIT - UEL:..... N/A
AUTOIGNITION TEMPERATURE:..... N/D
EXTINGUISHING MEDIA:
Water, Foam, CO2, Dry Chemical

Abbreviations: N/A = Not Determined, N/D = Not Applicable

3. FIRE AND EXPLOSION HAZARD DATA (continued)

SPECIAL FIRE FIGHTING PROCEDURES:

None Known

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Heat of fire may release ammonia and HF.

4. REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY - MATERIALS TO AVOID:

NA

HAZARDOUS POLYMERIZATION: Will Not Occur

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition may produce toxic materials including HF.

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:

Observe precautions from other sections. Use toxic dust mask. Use wet sweeping compound, or water to avoid dusting. Collect spilled material. Place in a closed container.

RECOMMENDED DISPOSAL:

Mix with flammable material and incinerate in an industrial or commercial facility. Combustion products will include HF. Discharge spent solutions to a wastewater treatment system. Reduce discharge rate if foaming occurs. Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste No.: None

ENVIRONMENTAL DATA:

Chemical Oxygen Demand (COD): Nil (700 mg/Kg); 20-Day Biochemical Oxygen Demand (BOD20): Nil; 96-Hr. LC50, Bluegill Sunfish (*Lepomis macrochirus*): 567 mg/L; 96-Hr. LC50, Fathead Minnow (*Pimephales promelas*): 766 mg/L; 48-Hr EC50, *Daphnia magna*: 632 mg/L; 14-Day EC50 (cell dry weight), Green Algae (*Selenastrum capricornutum*) 73 mg/L.

SARA HAZARD CLASS:

FIRE HAZARD: No PRESSURE: No REACTIVITY: No ACUTE: Yes CHRONIC: Yes

6. SUGGESTED FIRST AID

EYE CONTACT:

Immediately flush with plenty of water. Continue for 10 minutes. Call a physician.

SKIN CONTACT:

Wash affected area with soap and water.

INHALATION:

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

INGESTION:

DO NOT INDUCE VOMITING. Give copious amounts of water. IMMEDIATELY call a physician or Poison Control Center.

OTHER FIRST AID:



MSDS: FC-143 FLUORAD Brand Fluorochemical Surfactant
Mar-28-1989

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6. SUGGESTED FIRST AID

NONE

7. PRECAUTIONARY INFORMATION

Use only in well ventilated areas with sufficient local exhaust ventilation to maintain airborne levels at recognized health and safety levels. Do not breathe dust. Do not get powder or airborne dust in eyes; wear personal eye protection. Do not get on skin; wear impervious gloves and protective clothing. Wash hands thoroughly after use before eating or drinking. Do not take internally. Launder contaminated clothing before re-use. NOTE: FC-143 was fed to albino rats for 2 years; no compound induced carcinogenicity was found in the study. There were statistically significant compound related benign testicular tumors. Based on current knowledge, the findings have no human health implications. ***PREVENT MOISTURE CONTAMINATION TO KEEP POWDER FREE FLOWING.***

SPECIAL PROTECTION:

EYE PROTECTION: Safety Goggles

SKIN PROTECTION: Rubber gloves, protective clothing.

VENTILATION: Local exhaust ventilation should be used to control airborne dust.

RESPIRATORY PROTECTION: Toxic dust or supplied air respirator if dust is not well controlled.

ADDITIONAL EXPOSURE LIMITS

----- EXPOSURE LIMITS -----
INGREDIENTS VALUE UNIT TYPE AUTH

Ammonium Perfluoroalkyl Carboxylate 0.1 mg/m³ TWA 3M

SOURCE OF EXPOSURE LIMIT DATA:

- ACGIH: American Conference of Governmental Industrial Hygienists
- 3M: 3M Exposure Guidelines

8. HEALTH HAZARD DATA

EYE CONTACT: FC-143 can be irritating to the eyes upon direct contact. Animal studies indicate FC-143 is moderately irritating to the eyes. Airborne FC-143 may cause eye injury consisting of corneal opacity.

SKIN CONTACT: FC-143 may be absorbed through the skin. Slightly toxic when absorbed through the skin. FC-143 is non-irritating to the skin.

INHALATION: FC-143 may cause respiratory system irritation from inhalation of dust. FC-143 can be considered moderately toxic by inhalation on a single exposure; a median lethal concentration for a 4-hour exposure in the albino rat is 980 milligrams per cubic meter. Repeated inhalation exposure produced liver changes and elevated blood organofluoride levels in rats.

INGESTION: FC-143 is considered moderately toxic from a single oral exposure. The acute oral LD50 (rat) is 340 milligrams per kilogram of body weight. FC-143 is not teratogenic (rats or rabbits). See

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

MSDS: FC-143 FLUORAD Brand Fluorochemical Surfactant
Mar-28-1989

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8. HEALTH HAZARD DATA (continued)

HWI 6329-100

precautions for results of 2 year study.

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

The information on this Data Sheet represents our current data and best opinion as to the proper use and handling of this material under normal conditions. Any use of the material which is not in conformance with this Data Sheet or which involves using the material in combination with any other material or any other process is the responsibility of the user.

APPENDIX B

Individual Antemortem Observations
Individual Body Weights (g)
Individual Food Consumption (g/wk)

NOTE: Only observations other than normal are indicated in the
Individual Antemortem Observations tables.

**INDIVIDUAL ANTEMORTEM OBSERVATIONS
GROUP 1 - 0 PPM T-5180 - MALES**

<u>ANIMAL NUMBER</u> -----	<u>WEEK</u> -----	<u>OBSERVATION</u> -----	<u>LOCATION</u> -----
67451	6	INTERIM SACRIFICE 01/25/91	
67452	1	MALOCCLUSION	
67452	3	ALOPECIA	
67452	22	RECOVERY SACRIFICE 05/17/91	
67453	21	RECOVERY SACRIFICE 05/16/91	
67454	2	ALOPECIA	
67454	14	TERMINAL SACRIFICE 03/26/91	
67455	8	INTERIM SACRIFICE 02/14/91	
67456	20	CHROMODACRYORRHEA	RIGHT EYELID
67456	21	RECOVERY SACRIFICE 05/16/91	
67457	5	INTERIM SACRIFICE 01/24/91	
67458	8	INTERIM SACRIFICE 02/14/91	
67459	9	SMALL MOVABLE TISSUE MASS	HIND RIGHT VENTRAL
67459	14	TERMINAL SACRIFICE 03/26/91	
67460	14	TERMINAL SACRIFICE 03/25/91	
67461	3	ALOPECIA	
67461	5	INTERIM SACRIFICE 01/23/91	
67462	14	TERMINAL SACRIFICE 03/25/91	
67463	3	ALOPECIA	
67463	8	INTERIM SACRIFICE 02/12/91	
67464	4	ALOPECIA	
67464	6	INTERIM SACRIFICE 01/25/91	
67465	3	ALOPECIA	
67465	3	BLOODY CRUST	NECK
67465	8	INTERIM SACRIFICE 02/13/91	
67466	8	INTERIM SACRIFICE 02/13/91	
67467	6	INTERIM SACRIFICE 01/25/91	
67468	5	INTERIM SACRIFICE 01/23/91	
67469	8	INTERIM SACRIFICE 02/13/91	

**INDIVIDUAL ANTEMORTEM OBSERVATIONS
GROUP 1 - 0 PPM T-5180 - MALES**

ANIMAL NUMBER -----	WEEK -----	OBSERVATION -----	LOCATION -----
67470	14	TERMINAL SACRIFICE 03/26/91	
67471	22	RECOVERY SACRIFICE 05/17/91	
67472	8	INTERIM SACRIFICE 02/13/91	
67473	14	TERMINAL SACRIFICE 03/25/91	
67474	8	INTERIM SACRIFICE 02/14/91	
67475	14	TERMINAL SACRIFICE 03/22/91	
67476	4	MALOCCLUSION	
67476	6	INTERIM SACRIFICE 01/25/91	
67477	6	INTERIM SACRIFICE 01/25/91	
67478	4	ALOPECIA	
67478	8	INTERIM SACRIFICE 02/14/91	
67479	3	ALOPECIA	
67479	4	MALOCCLUSION	
67479	22	RECOVERY SACRIFICE 05/17/91	
67480	8	INTERIM SACRIFICE 02/12/91	
67481	8	INTERIM SACRIFICE 02/12/91	
67482	6	MALOCCLUSION	
67482	14	TERMINAL SACRIFICE 03/22/91	
67483	16	ALOPECIA	
67483	21	RECOVERY SACRIFICE 05/16/91	
67484	8	INTERIM SACRIFICE 02/12/91	
67485	14	TERMINAL SACRIFICE 03/22/91	
67486	5	INTERIM SACRIFICE 01/23/91	
67487	14	TERMINAL SACRIFICE 03/25/91	
67488	14	TERMINAL SACRIFICE 03/26/91	
67489	5	INTERIM SACRIFICE 01/24/91	
67490	21	RECOVERY SACRIFICE 05/16/91	

**INDIVIDUAL ANTEMORTEM OBSERVATIONS
GROUP 1 - 0 PPM T-5180 - MALES**

ANIMAL NUMBER -----	WEEK -----	OBSERVATION -----	LOCATION -----
67491	5	INTERIM SACRIFICE 01/23/91	
67492	5	INTERIM SACRIFICE 01/24/91	
67493	2	SORES	NECK
67493	3	ALOPECIA	
67493	9	BLOODY CRUST	NECK
67493	22	RECOVERY SACRIFICE 05/17/91	
67494	8	INTERIM SACRIFICE 02/14/91	
67495	8	INTERIM SACRIFICE 02/12/91	
67496	20	WART-LIKE LESION	HEAD
67496	21	RECOVERY SACRIFICE 05/16/91	
67497	22	RECOVERY SACRIFICE 05/17/91	
67498	8	INTERIM SACRIFICE 02/23/91	
67499	2	BLOODY CRUST	NECK
67499	3	ALOPECIA	
67499	14	TERMINAL SACRIFICE 03/26/91	
67500	5	INTERIM SACRIFICE 01/23/91	
67501	14	TERMINAL SACRIFICE 03/25/91	
67502	6	INTERIM SACRIFICE 01/25/91	
67503	5	INTERIM SACRIFICE 01/24/91	
67504	14	TERMINAL SACRIFICE 03/22/91	
67505	14	TERMINAL SACRIFICE 03/22/91	

**INDIVIDUAL ANTEMORTEM OBSERVATIONS
GROUP 2 - 1 PPM T-5180 - MALES**

ANIMAL NUMBER -----	WEEK ----	OBSERVATION -----	LOCATION -----
67506	8	INTERIM SACRIFICE 02/14/91	
67507	14	TERMINAL SACRIFICE 03/22/91	
67508	21	RECOVERY SACRIFICE 05/16/91	
67509	5	INTERIM SACRIFICE 01/24/91	
67510	5	INTERIM SACRIFICE 01/24/91	
67511	1	ALOPECIA	NECK
67511	1	BLOODY CRUST	
67511	5	INTERIM SACRIFICE 01/24/91	
67512	8	INTERIM SACRIFICE 02/13/91	
67513	22	RECOVERY SACRIFICE 05/17/91	
67514	5	INTERIM SACRIFICE 01/24/91	
67515	5	INTERIM SACRIFICE 01/24/91	
67516	21	RECOVERY SACRIFICE 05/16/91	
67517	20	MALOCCLUSION	
67517	22	RECOVERY SACRIFICE 05/17/91	
67518	14	TERMINAL SACRIFICE 03/26/91	
67519	14	TERMINAL SACRIFICE 03/26/91	
67520	4	MALOCCLUSION	
67520	22	RECOVERY SACRIFICE 05/17/91	
67521	1	ALOPECIA	NECK BACK BACK NECK
67521	1	BLOODY CRUST	
67521	2	SORES	
67521	2	BLOODY CRUST	
67521	3	SORES	
67521	14	TERMINAL SACRIFICE 03/22/91	
67522	8	INTERIM SACRIFICE 02/12/91	
67523	8	SOFT FECES	
67523	14	TERMINAL SACRIFICE 03/26/91	

**INDIVIDUAL ANTEMORTEM OBSERVATIONS
GROUP 2 - 1 PPM T-5180 - MALES**

<u>ANIMAL NUMBER</u>	<u>WEEK</u>	<u>OBSERVATION</u>	<u>LOCATION</u>
67524	4	ALOPECIA	
67524	5	INTERIM SACRIFICE 01/23/91	
67525	5	INTERIM SACRIFICE 01/23/91	
67526	14	TERMINAL SACRIFICE 03/25/91	
67527	8	INTERIM SACRIFICE 02/13/91	
67528	22	RECOVERY SACRIFICE 05/17/91	
67529	5	INTERIM SACRIFICE 01/24/91	
67530	1	ALOPECIA	
67530	1	BLOODY CRUST	HEAD
67530	3	SORES	HEAD
67530	5	INTERIM SACRIFICE 01/23/91	
67531	8	INTERIM SACRIFICE 02/12/91	
67532	3	ALOPECIA	
67532	3	BLOODY CRUST	HEAD
67532	8	INTERIM SACRIFICE 02/12/91	
67533	14	TERMINAL SACRIFICE 03/25/91	
67534	4	ALOPECIA	
67534	21	RECOVERY SACRIFICE 05/16/91	
67535	14	TERMINAL SACRIFICE 03/22/91	
67536	14	TERMINAL SACRIFICE 03/22/91	
67537	5	INTERIM SACRIFICE 01/24/91	
67538	5	ALOPECIA	
67538	5	BLOODY CRUST	ABDOMEN
67538	5	BLOODY CRUST	LEFT FORELEG
67538	7	BLOODY CRUST	RIGHT FORELEG
67538	21	RECOVERY SACRIFICE 05/16/91	
67539	8	INTERIM SACRIFICE 02/14/91	
67540	8	INTERIM SACRIFICE 02/12/91	
67541	14	TERMINAL SACRIFICE 03/22/91	

**INDIVIDUAL ANTEMORTEM OBSERVATIONS
GROUP 2 - 1 PPM T-5180 - MALES**

ANIMAL NUMBER -----	WEEK -----	OBSERVATION -----	LOCATION -----
67542	8	INTERIM SACRIFICE 02/13/91	
67543	6	MALOCCLUSION	
67543	18	MISSING	TEETH
67543	21	RECOVERY SACRIFICE 05/16/91	
67544	6	INTERIM SACRIFICE 01/25/91	
67545	8	INTERIM SACRIFICE 02/14/91	
67546	8	INTERIM SACRIFICE 02/13/91	
67547	8	INTERIM SACRIFICE 02/14/91	
67548	22	RECOVERY SACRIFICE 05/17/91	
67549	2	BLOODY CRUST	BACK
67549	3	ALOPECIA	
67549	14	TERMINAL SACRIFICE 03/25/91	
67550	6	INTERIM SACRIFICE 01/25/91	
67551	13	SOFT FECES	
67551	14	TERMINAL SACRIFICE 03/25/91	
67552	14	TERMINAL SACRIFICE 03/26/91	
67553	2	MALOCCLUSION	
67553	14	TERMINAL SACRIFICE 03/25/91	
67554	8	INTERIM SACRIFICE 02/13/91	
67555	5	INTERIM SACRIFICE 01/23/91	
67556	14	TERMINAL SACRIFICE 03/26/91	
67557	8	INTERIM SACRIFICE 02/14/91	
67558	5	INTERIM SACRIFICE 01/23/91	
67559	3	ALOPECIA	
67559	3	BLOODY CRUST	NECK
67559	6	INTERIM SACRIFICE 01/25/91	
67560	8	INTERIM SACRIFICE 02/12/91	

**INDIVIDUAL ANTEMORTEM OBSERVATIONS
GROUP 3 - 10 PPM T-5180 - MALES**

ANIMAL NUMBER -----	WEEK -----	OBSERVATION -----	LOCATION -----
67561	2	ALOPECIA	
67561	2	SORES	HEAD
67561	2	BLOODY CRUST	HEAD
67561	22	RECOVERY SACRIFICE 05/17/91	
67562	4	ALOPECIA	
67562	6	INTERIM SACRIFICE 01/25/91	
67563	2	SORES	NECK
67563	2	BLOODY CRUST	NECK
67563	14	TERMINAL SACRIFICE 03/22/91	
67564	3	MALOCCLUSION	
67564	14	TERMINAL SACRIFICE 03/25/91	
67565	6	INTERIM SACRIFICE 01/25/91	
67566	5	INTERIM SACRIFICE 01/24/91	
67567	16	MALOCCLUSION	
67567	16	EPISTAXIS	
67567	18	MISSING	TEETH
67567	21	RECOVERY SACRIFICE 05/16/91	
67568	5	INTERIM SACRIFICE 01/24/91	
67569	5	INTERIM SACRIFICE 01/24/91	
67570	6	MALOCCLUSION	
67570	8	INTERIM SACRIFICE 02/14/91	
67571	14	TERMINAL SACRIFICE 03/22/91	
67572	20	SWOLLEN	TAIL
67572	22	RECOVERY SACRIFICE 05/17/91	
67573	18	MALOCCLUSION	
67573	22	RECOVERY SACRIFICE 05/17/91	
67574	6	INTERIM SACRIFICE 01/25/91	
67575	21	RECOVERY SACRIFICE 05/16/91	
67576	5	INTERIM SACRIFICE 01/23/91	
67577	3	MALOCCLUSION	
67577	5	INTERIM SACRIFICE 01/23/91	

**INDIVIDUAL ANTEMORTEM OBSERVATIONS
GROUP 3 - 10 PPM T-5180 - MALES**

ANIMAL NUMBER -----	WEEK ----	OBSERVATION -----	LOCATION -----
67578	8	INTERIM SACRIFICE 02/12/91	
67579	21	RECOVERY SACRIFICE 05/16/91	
67580	8	INTERIM SACRIFICE 02/13/91	
67581	8	INTERIM SACRIFICE 02/13/91	
67582	8	INTERIM SACRIFICE 02/13/91	
67583	8	INTERIM SACRIFICE 02/12/91	
67584	8	INTERIM SACRIFICE 02/12/91	
67585	8	INTERIM SACRIFICE 02/14/91	
67586	8	INTERIM SACRIFICE 02/13/91	
67587	8	INTERIM SACRIFICE 02/12/91	
67588	8	MALOCCLUSION	
67588	22	RECOVERY SACRIFICE 05/17/91	
67589	21	RECOVERY SACRIFICE 05/16/91	
67590	4	ALOPECIA	
67590	5	INTERIM SACRIFICE 01/24/91	
67591	3	SORES	BACK
67591	3	SORES	HEAD
67591	3	BLOODY CRUST	BACK
67591	3	BLOODY CRUST	HEAD
67591	4	ALOPECIA	
67591	5	INTERIM SACRIFICE 01/23/91	
67592	5	INTERIM SACRIFICE 01/24/91	
67593	21	RECOVERY SACRIFICE 05/16/91	
67594	8	INTERIM SACRIFICE 02/13/91	
67595	3	ALOPECIA	
67595	5	INTERIM SACRIFICE 01/23/91	
67596	14	TERMINAL SACRIFICE 03/26/91	
67597	5	INTERIM SACRIFICE 01/24/91	

INDIVIDUAL ANTEMORTEM OBSERVATIONS
GROUP 3 - 10 PPM T-5180 - MALES

ANIMAL NUMBER -----	WEEK -----	OBSERVATION -----	LOCATION -----
67598	14	TERMINAL SACRIFICE 03/26/91	
67599	3	MALOCCLUSION	
67599	5	INTERIM SACRIFICE 01/23/91	
67600	14	TERMINAL SACRIFICE 03/26/91	
67601	6	INTERIM SACRIFICE 01/25/91	
67602	2	MALOCCLUSION	
67602	8	INTERIM SACRIFICE 02/14/91	
67603	14	TERMINAL SACRIFICE 03/22/91	
67604	14	TERMINAL SACRIFICE 03/22/91	
67605	14	TERMINAL SACRIFICE 03/26/91	
67606	8	INTERIM SACRIFICE 02/14/91	
67607	14	TERMINAL SACRIFICE 03/26/91	
67608	14	TERMINAL SACRIFICE 03/25/91	
67609	22	RECOVERY SACRIFICE 05/17/91	
67610	14	TERMINAL SACRIFICE 03/25/91	
67611	14	TERMINAL SACRIFICE 03/25/91	
67612	8	INTERIM SACRIFICE 02/12/91	
67613	2	BLOODY CRUST	NECK
67613	14	TERMINAL SACRIFICE 03/22/91	
67614	8	INTERIM SACRIFICE 02/14/91	
67615	14	TERMINAL SACRIFICE 03/25/91	

**INDIVIDUAL ANTEMORTEM OBSERVATIONS
GROUP 4 - 30 PPM T-5180 - MALES**

ANIMAL NUMBER -----	WEEK ----	OBSERVATION -----	LOCATION -----
67616	14	TERMINAL SACRIFICE 03/25/91	
67617	8	INTERIM SACRIFICE 02/13/91	
67618	14	TERMINAL SACRIFICE 03/22/91	
67619	5	INTERIM SACRIFICE 01/24/91	
67620	6	INTERIM SACRIFICE 01/25/91	
67621	2	ALOPECIA	HEAD
67621	2	BLOODY CRUST	
67621	14	TERMINAL SACRIFICE 03/26/91	
67622	9	MALOCCLUSION	
67622	9	EPISTAXIS	
67622	22	RECOVERY SACRIFICE 05/17/91	
67623	14	TERMINAL SACRIFICE 03/25/91	
67624	14	TERMINAL SACRIFICE 03/26/91	
67625	6	INTERIM SACRIFICE 01/25/91	
67626	21	RECOVERY SACRIFICE 05/16/91	
67627	5	INTERIM SACRIFICE 01/23/91	
67628	21	RECOVERY SACRIFICE 05/16/91	
67629	8	INTERIM SACRIFICE 02/14/91	
67630	6	INTERIM SACRIFICE 01/25/91	
67631	5	INTERIM SACRIFICE 01/23/91	
67632	5	INTERIM SACRIFICE 01/23/91	
67633	6	INTERIM SACRIFICE 01/25/91	
67634	2	ALOPECIA	RIGHT FOREPAW
67634	4	BLOODY CRUST	
67634	8	INTERIM SACRIFICE 02/12/91	
67635	14	TERMINAL SACRIFICE 03/26/91	
67636	6	INTERIM SACRIFICE 01/25/91	

INDIVIDUAL ANTEMORTEM OBSERVATIONS
GROUP 4 - 30 PPM T-5180 - MALES

ANIMAL NUMBER -----	WEEK -----	OBSERVATION -----	LOCATION -----
67637	21	RECOVERY SACRIFICE 05/16/91	
67638	8	INTERIM SACRIFICE 02/13/91	
67639	8	INTERIM SACRIFICE 02/13/91	
67640	5	INTERIM SACRIFICE 01/23/91	
67641	2	ALOPECIA	
67641	14	TERMINAL SACRIFICE 03/22/91	
67642	8	INTERIM SACRIFICE 02/12/91	
67643	12	SMALL MOVABLE TISSUE MASS	HIND LEFT VENTRAL
67643	14	TERMINAL SACRIFICE 03/25/91	
67644	8	INTERIM SACRIFICE 02/12/91	
67645	14	TERMINAL SACRIFICE 03/26/91	
67646	8	INTERIM SACRIFICE 02/14/91	
67647	8	INTERIM SACRIFICE 02/14/91	
67648	5	INTERIM SACRIFICE 01/24/91	
67649	2	SORES	NECK
67649	2	BLOODY CRUST	NECK
67649	4	ALOPECIA	
67649	7	MALOCCLUSION	
67649	22	RECOVERY SACRIFICE 05/17/91	
67650	14	TERMINAL SACRIFICE 03/22/91	
67651	5	ALOPECIA	
67651	16	MALOCCLUSION	
67651	22	RECOVERY SACRIFICE 05/17/91	
67652	14	TERMINAL SACRIFICE 03/25/91	
67653	12	WART-LIKE LESION	HIND LEFT VENTRAL
67653	12	WART-LIKE LESION	LEFT HIND PAW
67653	14	TERMINAL SACRIFICE 03/25/91	
67654	5	INTERIM SACRIFICE 01/24/91	
67655	8	INTERIM SACRIFICE 02/14/91	

INDIVIDUAL ANTEMORTEM OBSERVATIONS
GROUP 4 - 30 PPM T-5180 - MALES

ANIMAL NUMBER -----	WEEK -----	OBSERVATION -----	LOCATION -----
67656	5	SWOLLEN	LEFT HIND PAW
67656	8	INTERIM SACRIFICE 02/14/91	
67657	4	ALOPECIA	
67657	8	INTERIM SACRIFICE 02/12/91	
67658	14	TERMINAL SACRIFICE 03/26/91	
67659	5	INTERIM SACRIFICE 01/24/91	
67660	22	RECOVERY SACRIFICE 05/17/91	
67661	8	INTERIM SACRIFICE 02/12/91	
67662	8	INTERIM SACRIFICE 02/13/91	
67663	4	SQUINTING	RIGHT EYE
67663	4	CHROMODACRYORRHEA	RIGHT EYE
67663	5	INTERIM SACRIFICE 01/23/91	
67664	7	ALOPECIA	HIND RIGHT VENTRAL
67664	15	SMALL MOVABLE TISSUE MASS	
67664	21	RECOVERY SACRIFICE 05/16/91	
67665	5	INTERIM SACRIFICE 01/23/91	
67666	2	MALOCCLUSION	
67666	22	RECOVERY SACRIFICE 05/17/91	
67667	5	ALOPECIA	
67667	8	INTERIM SACRIFICE 02/13/91	
67668	5	MALOCCLUSION	
67668	5	RHINORRHEA	
67668	14	TERMINAL SACRIFICE 03/22/91	
67669	14	TERMINAL SACRIFICE 03/22/91	
67670	5	ALOPECIA	HIND RIGHT VENTRAL
67670	19	SMALL MOVABLE TISSUE MASS	
67670	21	RECOVERY SACRIFICE 05/16/91	

INDIVIDUAL ANTEMORTEM OBSERVATIONS
GROUP 5 - 100 PPM T-5180 - MALES

ANIMAL NUMBER -----	WEEK ----	OBSERVATION -----	LOCATION -----
67671	3	MALOCCLUSION	
67671	14	TERMINAL SACRIFICE 03/25/91	
67672	11	MALOCCLUSION	
67672	14	TERMINAL SACRIFICE 03/25/91	
67673	2	ALOPECIA	
67673	2	BLOODY CRUST	HEAD
67673	4	BLOODY CRUST	RIGHT FOREPAW
67673	14	TERMINAL SACRIFICE 03/26/91	
67674	21	RECOVERY SACRIFICE 05/16/91	
67675	4	ALOPECIA	
67675	5	INTERIM SACRIFICE 01/24/91	
67676	12	SWOLLEN	BOTH HIND PAWS
67676	13	BLOODY CRUST	TAIL
67676	15	SWOLLEN	RIGHT FOREPAW
67676	15	STIFF	TAIL
67676	15	DOES NOT USE	BOTH HIND LEGS
67676	16	SWOLLEN	BOTH FOREPAWS
67676	18	MISSING	TIP OF TAIL
67676	20	THIN	
67676	20	HUNCHED POSTURE	
67676	20	NECROTIC	TAIL
67676	22	RECOVERY SACRIFICE 05/17/91	
67677	14	TERMINAL SACRIFICE 03/26/91	
67678	21	RECOVERY SACRIFICE 05/16/91	
67679	14	TERMINAL SACRIFICE 03/22/91	
67680	8	INTERIM SACRIFICE 02/12/91	
67681	2	ALOPECIA	
67681	6	INTERIM SACRIFICE 01/25/91	
67682	1	ALOPECIA	
67682	1	BLOODY CRUST	NECK
67682	5	INTERIM SACRIFICE 01/23/91	
67683	21	RECOVERY SACRIFICE 05/16/91	

**INDIVIDUAL ANTEMORTEM OBSERVATIONS
GROUP 5 - 100 PPM T-5180 - MALES**

ANIMAL NUMBER -----	WEEK -----	OBSERVATION -----	LOCATION -----
67684	9	MALOCCLUSION	
67684	21	RECOVERY SACRIFICE 05/17/91	
67685	2	ALOPECIA	
67685	2	SORES	NECK
67685	2	BLOODY CRUST	NECK
67685	4	MORIBUND SACRIFICE 01/16/91	
67686	14	TERMINAL SACRIFICE 03/22/91	
67687	6	INTERIM SACRIFICE 01/25/91	
67688	8	ALOPECIA	
67688	10	THIN	
67688	10	MALOCCLUSION	
67688	10	FEW OR NO FECES	
67688	11	SOFT FECES	
67688	14	TERMINAL SACRIFICE 03/26/91	
67689	3	CROOKED	TIP OF TAIL
67689	5	INTERIM SACRIFICE 01/23/91	
67690	5	INTERIM SACRIFICE 01/23/91	
67691	10	MALOCCLUSION	
67691	14	TERMINAL SACRIFICE 03/25/91	
67692	5	INTERIM SACRIFICE 01/24/91	
67693	5	INTERIM SACRIFICE 01/24/91	
67694	2	ALOPECIA	
67694	2	BLOODY CRUST	LEFT FORELEG
67694	21	RECOVERY SACRIFICE 05/16/91	
67695	14	TERMINAL SACRIFICE 03/22/91	
67696	5	INTERIM SACRIFICE 01/24/91	
67697	14	TERMINAL SACRIFICE 03/26/91	
67698	6	INTERIM SACRIFICE 01/25/91	
67699	8	INTERIM SACRIFICE 02/14/91	
67700	14	TERMINAL SACRIFICE 03/25/91	

**INDIVIDUAL ANTEMORTEM OBSERVATIONS
GROUP 5 - 100 PPM T-5180 - MALES**

<u>ANIMAL NUMBER</u> -----	<u>WEEK</u> -----	<u>OBSERVATION</u> -----	<u>LOCATION</u> -----
67701	21	RECOVERY SACRIFICE 05/16/91	
67702	8	INTERIM SACRIFICE 02/13/91	
67703	8	INTERIM SACRIFICE 02/14/91	
67704	22	RECOVERY SACRIFICE 05/17/91	
67705	8	INTERIM SACRIFICE 02/13/91	
67706	4	ALOPECIA	
67706	22	RECOVERY SACRIFICE 05/17/91	
67707	2	ALOPECIA	
67707	8	INTERIM SACRIFICE 02/12/91	
67708	1	ALOPECIA	
67708	1	BLOODY CRUST	NECK
67708	8	INTERIM SACRIFICE 02/13/91	
67709	8	INTERIM SACRIFICE 02/12/91	
67710	8	INTERIM SACRIFICE 02/14/91	
67711	8	INTERIM SACRIFICE 02/14/91	
67712	14	TERMINAL SACRIFICE 03/26/91	
67713	4	ALOPECIA	
67713	6	INTERIM SACRIFICE 01/25/91	
67714	14	TERMINAL SACRIFICE 03/25/91	
67715	5	INTERIM SACRIFICE 01/24/91	
67716	7	ALOPECIA	
67716	14	TERMINAL SACRIFICE 03/22/91	
67717	2	ALOPECIA	
67717	5	INTERIM SACRIFICE 01/23/91	
67718	8	INTERIM SACRIFICE 02/14/91	
67719	3	MALOCCLUSION	
67719	8	INTERIM SACRIFICE 02/12/91	
67720	14	TERMINAL SACRIFICE 03/22/91	

INDIVIDUAL ANTEMORTEM OBSERVATIONS
GROUP 5 - 100 PPM T-5180 - MALES

ANIMAL NUMBER -----	WEEK -----	OBSERVATION -----	LOCATION -----
67721	8	INTERIM SACRIFICE 02/13/91	
67722	5	MALOCCLUSION	
67722	8	INTERIM SACRIFICE 02/12/91	
67723	22	RECOVERY SACRIFICE 05/17/91	
67724	8	INTERIM SACRIFICE 02/13/91	
67725	5	INTERIM SACRIFICE 01/23/91	

INDIVIDUAL ANTEMORTEM OBSERVATIONS
GROUP 6 - 0 PPM T-5180 - MALES

ANIMAL NUMBER -----	WEEK -----	OBSERVATION -----	LOCATION -----
67726	5	INTERIM SACRIFICE 01/23/91	
67727	5	INTERIM SACRIFICE 01/25/91	
67728	8	INTERIM SACRIFICE 02/13/91	
67729	8	INTERIM SACRIFICE 02/14/91	
67730	14	TERMINAL SACRIFICE 03/25/91	
67731	8	INTERIM SACRIFICE 02/12/91	
67732	14	TERMINAL SACRIFICE 03/26/91	
67733	5	INTERIM SACRIFICE 01/23/91	
67734	8	INTERIM SACRIFICE 02/12/91	
67735	5	INTERIM SACRIFICE 01/24/91	
67736	14	TERMINAL SACRIFICE 03/26/91	
67737	8	INTERIM SACRIFICE 02/12/91	
67738	14	TERMINAL SACRIFICE 03/25/91	
67739	8	INTERIM SACRIFICE 02/14/91	
67740	14	TERMINAL SACRIFICE 03/22/91	
67741	5	INTERIM SACRIFICE 01/23/91	
67742	5	INTERIM SACRIFICE 01/24/91	
67743	8	INTERIM SACRIFICE 02/13/91	
67744	14	TERMINAL SACRIFICE 03/26/91	
67745	5	INTERIM SACRIFICE 01/24/91	
67746	8	SWOLLEN	TAIL
67746	14	TERMINAL SACRIFICE 03/25/91	
67747	14	TERMINAL SACRIFICE 03/26/91	
67748	14	TERMINAL SACRIFICE 03/22/91	

INDIVIDUAL ANTEMORTEM OBSERVATIONS
GROUP 6 - 0 PPM T-5180 - MALES

ANIMAL NUMBER -----	WEEK -----	OBSERVATION -----	LOCATION -----
67749	14	TERMINAL SACRIFICE 03/22/91	
67750	8	INTERIM SACRIFICE 02/13/91	
67751	5	INTERIM SACRIFICE 01/25/91	
67752	8	INTERIM SACRIFICE 02/14/91	
67753	0	CHROMODACRYORRHEA	RIGHT EYE
67753	8	INTERIM SACRIFICE 02/14/91	
67754	14	TERMINAL SACRIFICE 03/25/91	
67755	14	TERMINAL SACRIFICE 03/22/91	
67756	14	TERMINAL SACRIFICE 03/26/91	
67757	5	INTERIM SACRIFICE 01/25/91	
67758	8	INTERIM SACRIFICE 02/14/91	
67759	5	INTERIM SACRIFICE 01/24/91	
67760	14	TERMINAL SACRIFICE 03/22/91	
67761	5	INTERIM SACRIFICE 01/25/91	
67762	5	INTERIM SACRIFICE 01/23/91	
67763	2	ALOPECIA	
67763	8	INTERIM SACRIFICE 02/13/91	
67764	5	INTERIM SACRIFICE 01/25/91	
67765	2	MALOCCLUSION	
67765	8	INTERIM SACRIFICE 02/13/91	
67766	7	MALOCCLUSION	
67766	8	INTERIM SACRIFICE 02/12/91	
67767	14	TERMINAL SACRIFICE 03/25/91	
67768	8	INTERIM SACRIFICE 02/12/91	
67769	5	INTERIM SACRIFICE 01/25/91	
67770	5	INTERIM SACRIFICE 01/25/91	

INDIVIDUAL BODY WEIGHTS (G)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

ANIMAL NUMBER	0	1	2	3	4	5	6	7	8	9	10	11	12	13
GROUP	1 MALES	- CONTROL												
67451	209.1	285.0	320.4	368.1	412.3	444.5	.	.	.	.	.	.	.	.
67452	187.1	236.8	294.4	333.3	389.1	398.4	.	.	.	.	.	.	.	.
67453	217.1	280.1	336.7	380.8	423.0	458.5	415.0	435.6	452.5	477.1	480.5	494.5	498.9	507.4
67454	208.2	267.3	326.2	367.7	410.3	438.9	484.1	506.1	527.1	544.8	562.5	577.7	582.8	600.4
67455	200.4	259.0	311.9	350.3	392.4	418.3	463.8	479.7	496.5	518.6	531.8	540.8	553.2	565.3
67456	187.5	243.8	284.7	325.1	360.8	388.1	407.7	428.4	455.7	465.5	475.6	488.8	498.5	510.8
67457	202.7	254.7	297.8	328.4	358.4	.	.	.	.	.	.	.	.	.
67458	208.4	258.9	304.5	340.3	375.7	398.1	418.5	429.6	.	.	.	.	.	.
67459	186.5	243.1	294.7	331.3	373.9	401.2	421.3	436.5	454.2	463.8	468.8	481.8	480.8	496.5
67460	210.0	266.0	317.9	354.8	391.1	422.5	437.0	455.6	469.2	485.3	501.6	507.9	522.8	526.6
67461	204.1	280.1	306.8	343.3	389.9	.	.	.	.	.	.	.	.	.
67462	212.2	269.5	324.1	361.2	395.9	424.9	447.0	473.5	494.2	520.7	540.1	555.6	569.7	586.1
67463	205.1	270.0	315.8	354.2	393.8	427.1	447.5	464.7	.	.	.	.	.	.
67464	189.3	261.7	323.6	361.9	398.1	426.7	.	.	.	.	.	.	.	.
67465	208.2	267.0	307.5	338.6	366.0	387.9	402.0	414.3	.	.	.	.	.	.
67466	210.3	264.7	321.6	358.9	404.7	434.4	459.3	475.6	.	.	.	.	.	.
67467	214.1	270.2	315.3	354.1	393.2	423.7	.	.	.	.	.	.	.	.
67468	201.2	262.3	302.6	339.8	373.8	.	.	.	.	.	.	.	.	.
67469	208.3	270.6	324.8	363.3	398.9	431.5	453.3	476.7	.	.	.	.	.	.
67470	196.9	255.3	312.5	348.8	378.8	402.0	422.5	437.1	455.1	472.7	485.8	490.7	496.8	514.4
67471	210.3	270.8	318.5	354.3	394.0	425.3	443.2	468.3	482.1	517.3	528.2	539.0	547.3	565.4
67472	201.3	267.3	334.0	379.0	424.1	455.9	481.5	504.3	.	.	.	.	.	.
67473	208.3	273.5	337.6	378.5	423.2	446.5	474.1	492.2	517.1	542.9	554.9	560.8	569.6	598.2
67474	205.5	263.1	318.4	355.5	392.4	424.0	442.2	458.2	.	.	.	.	.	.
67475	208.3	272.3	324.8	367.0	407.2	428.8	449.9	471.5	487.7	510.1	523.7	541.2	549.3	566.4
67476	213.3	268.7	321.0	361.2	394.2	425.5	.	.	.	.	.	.	.	.
67477	194.0	250.2	305.3	349.8	390.7	425.4	.	.	.	.	.	.	.	.
67478	204.6	260.4	311.0	353.0	389.8	415.7	439.1	458.8	.	.	.	.	.	.
67479	196.0	251.8	302.3	346.7	387.9	392.5	407.5	430.6	430.6	449.1	455.7	448.8	443.3	478.1
67480	208.9	266.4	315.3	349.1	391.5	418.3	434.3	453.0	.	.	.	.	.	.
67481	197.3	255.1	295.4	329.8	363.5	392.3	408.4	423.7	.	.	.	.	.	.
67482	189.7	241.4	284.6	324.5	355.3	388.0	399.5	411.8	442.8	458.6	473.5	490.2	497.9	513.8
67483	216.6	277.3	323.0	354.9	382.8	413.7	431.8	452.8	472.2	495.6	510.0	520.8	533.6	539.7
67484	208.2	264.6	315.1	360.0	402.9	434.5	452.4	473.6	.	.	.	.	.	.
67485	206.7	268.5	321.7	363.3	405.9	434.6	457.0	479.4	506.8	529.4	548.0	565.3	577.2	589.0
67486	200.5	261.3	305.0	339.7	379.6	.	.	.	.	.	.	.	.	.
67487	193.8	252.4	299.1	331.8	360.0	398.2	413.9	428.4	450.3	467.5	481.7	496.4	505.4	514.2
67488	223.0	291.9	345.8	392.0	435.5	469.7	494.9	520.4	535.0	555.7	567.0	580.8	597.7	610.5
67489	207.9	261.4	296.6	329.8	355.0	.	.	.	.	.	.	.	.	.
67490	203.1	268.1	317.2	357.9	394.6	421.1	438.9	458.6	480.0	494.1	508.9	513.8	522.6	536.6
67491	201.7	255.6	296.9	331.3	365.9	.	.	.	.	.	.	.	.	.
67492	226.8	290.9	341.2	385.4	424.6	.	.	.	.	.	.	.	.	.
67493	189.8	245.4	293.3	323.4	349.3	368.9	384.3	407.6	425.2	437.5	448.6	463.4	472.7	484.9

* = DEAD ANIMAL

INDIVIDUAL BODY WEIGHTS (G)
13 WK DIETARY TOXICITY STUDY WITH T-5180

IMI 6329-100

ANIMAL NUMBER	14	15	16	17	18	19	WEEKS 20	21
GROUP	1	MALES	-	CONTROL				
67451	*	*	*	*	*	*	*	*
67452	512.2	527.2	533.8	540.8	541.4	554.7	555.0	579.0
67453	619.3	623.5	631.6	636.8	641.2	649.5	659.7	*
67454	*	*	*	*	*	*	*	*
67455	*	*	*	*	*	*	*	*
67456	517.9	525.8	540.4	541.5	543.8	557.2	561.7	*
67457	*	*	*	*	*	*	*	*
67458	*	*	*	*	*	*	*	*
67459	*	*	*	*	*	*	*	*
67460	*	*	*	*	*	*	*	*
67461	*	*	*	*	*	*	*	*
67462	*	*	*	*	*	*	*	*
67463	*	*	*	*	*	*	*	*
67464	*	*	*	*	*	*	*	*
67465	*	*	*	*	*	*	*	*
67466	*	*	*	*	*	*	*	*
67467	*	*	*	*	*	*	*	*
67468	*	*	*	*	*	*	*	*
67469	*	*	*	*	*	*	*	*
67470	*	*	*	*	*	*	*	*
67471	578.3	588.4	605.5	615.1	616.1	628.8	638.1	648.0
67472	*	*	*	*	*	*	*	*
67473	*	*	*	*	*	*	*	*
67474	*	*	*	*	*	*	*	*
67475	*	*	*	*	*	*	*	*
67476	*	*	*	*	*	*	*	*
67477	*	*	*	*	*	*	*	*
67478	*	*	*	*	*	*	*	*
67479	490.6	509.0	514.2	526.6	528.1	524.8	517.5	524.7
67480	*	*	*	*	*	*	*	*
67481	*	*	*	*	*	*	*	*
67482	*	*	*	*	*	*	*	*
67483	556.4	564.8	580.1	589.4	585.7	597.5	601.1	*
67484	*	*	*	*	*	*	*	*
67485	*	*	*	*	*	*	*	*
67486	*	*	*	*	*	*	*	*
67487	*	*	*	*	*	*	*	*
67488	*	*	*	*	*	*	*	*
67489	*	*	*	*	*	*	*	*
67490	545.7	553.5	566.5	583.5	574.3	587.7	596.0	*
67491	*	*	*	*	*	*	*	*
67492	*	*	*	*	*	*	*	*
67493	484.3	497.2	494.4	505.7	507.9	509.9	508.3	511.0

* = DEAD ANIMAL

INDIVIDUAL BODY WEIGHTS (G)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

ANIMAL NUMBER	WEEKS													
	0	1	2	3	4	5	6	7	8	9	10	11	12	13
GROUP	1 MALES	- CONTROL												
67494	206.5	258.8	305.4	333.0	367.2	389.7	414.4	430.8	*	*	*	*	*	*
67495	203.6	271.6	328.2	370.4	408.1	433.9	454.9	474.8	*	*	*	*	*	*
67496	204.5	256.3	299.6	330.8	361.8	386.8	404.1	421.6	435.4	445.2	452.7	463.8	469.6	479.8
67497	187.8	242.0	294.5	341.0	373.9	403.1	421.1	440.0	459.2	478.2	483.5	501.2	507.2	518.7
67498	208.5	268.3	321.6	366.9	410.0	438.1	461.3	488.9	*	*	*	*	*	*
67499	212.3	274.5	331.6	377.0	417.3	452.4	479.0	502.6	512.8	536.5	551.8	560.4	569.1	576.6
67500	216.0	269.3	317.1	354.4	384.7	*	*	*	*	*	*	*	*	*
67501	202.6	256.0	302.5	338.1	373.7	401.2	415.4	436.7	455.1	475.5	473.9	492.4	493.1	510.2
67502	188.6	250.3	302.9	344.4	379.4	412.5	*	*	*	*	*	*	*	*
67503	197.2	259.5	309.8	352.4	387.5	*	*	*	*	*	*	*	*	*
67504	205.9	267.2	324.6	362.9	403.4	437.8	467.0	492.5	509.5	522.6	559.5	573.0	579.4	596.4
67505	204.2	257.1	304.3	342.6	375.2	402.8	427.8	445.2	463.3	476.7	494.8	513.2	527.7	543.9

* = DEAD ANIMAL

INDIVIDUAL BODY WEIGHTS (G)
13 WK DIETARY TOXICITY STUDY WITH T-5180

IMI 6329-100

ANIMAL NUMBER	WEEKS							
	14	15	16	17	18	19	20	21
GROUP	1 MALES	- CONTROL						
67494	*	*	*	*	*	*	*	*
67495	*	*	*	*	*	*	*	*
67496	481.9	480.8	481.1	491.8	492.8	495.5	499.2	*
67497	521.3	533.5	549.9	559.7	565.3	578.2	590.2	592.5
67498	*	*	*	*	*	*	*	*
67499	*	*	*	*	*	*	*	*
67500	*	*	*	*	*	*	*	*
67501	*	*	*	*	*	*	*	*
67502	*	*	*	*	*	*	*	*
67503	*	*	*	*	*	*	*	*
67504	*	*	*	*	*	*	*	*
67505	*	*	*	*	*	*	*	*

* = DEAD ANIMAL

INDIVIDUAL BODY WEIGHTS (G)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

ANIMAL NUMBER	WEEKS													
	0	1	2	3	4	5	6	7	8	9	10	11	12	13
GROUP	2 MALES	-	1.0000 PPM											
67506	202.0	256.0	299.4	331.8	363.8	394.8	413.5	428.0	.	.	.	.	.	.
67507	204.4	259.1	309.3	343.6	388.9	409.5	429.5	453.8	488.3	481.5	494.0	504.8	510.5	538.7
67508	199.8	259.4	308.2	346.5	388.2	408.0	428.2	441.4	461.3	486.9	491.8	502.5	505.7	517.6
67509	223.6	287.3	342.4	390.3	432.8	.	.	.	.	.	.	.	.	.
67510	201.3	256.4	303.0	342.0	377.5	.	.	.	.	.	.	.	.	.
67511	221.4	271.5	318.2	343.6	374.0	.	.	.	.	.	.	.	.	.
67512	200.3	248.9	292.0	325.7	361.0	390.0	411.0	432.5	.	.	.	.	.	.
67513	207.9	284.3	305.8	342.5	370.8	400.7	425.4	449.8	474.4	483.7	513.1	525.6	539.8	557.6
67514	220.2	292.1	334.1	370.8	402.1	.	.	.	.	.	.	.	.	.
67515	192.0	240.4	287.8	328.1	365.9	.	.	.	.	.	.	.	.	.
67516	208.3	260.5	311.8	357.7	392.6	428.4	451.8	483.1	505.7	529.8	543.2	564.3	581.8	599.5
67517	212.5	275.3	324.4	363.6	399.6	428.7	445.7	468.6	491.6	508.4	518.6	535.1	546.1	560.4
67518	201.8	254.0	303.7	333.4	365.0	382.5	394.7	407.5	415.1	425.7	432.2	448.7	459.6	468.7
67519	201.2	254.3	301.1	335.4	372.7	397.2	414.2	432.0	454.1	467.7	474.0	487.6	497.0	508.2
67520	216.4	270.9	317.2	355.2	383.0	408.6	421.7	438.6	458.7	474.0	485.5	496.5	497.3	511.1
67521	202.4	259.1	307.2	339.0	373.1	402.2	423.6	446.7	473.9	492.8	514.9	524.2	540.8	559.3
67522	199.3	263.8	318.8	373.0	412.3	452.0	484.7	513.0	.	.	.	.	.	.
67523	223.1	286.3	342.2	380.9	419.7	447.9	468.5	495.9	513.2	540.2	553.9	575.8	586.1	606.3
67524	185.2	235.3	283.5	321.3	357.0	.	.	.	.	.	.	.	.	.
67525	214.8	277.2	330.4	370.3	409.9	.	.	.	.	.	.	.	.	.
67526	198.8	254.3	302.3	334.8	368.9	389.4	404.7	415.9	433.9	453.5	465.9	483.4	498.0	510.0
67527	195.9	257.5	312.7	353.9	389.7	427.9	453.1	477.6	.	.	.	.	.	.
67528	197.6	255.2	298.8	338.7	368.0	395.5	417.0	437.1	449.2	467.0	477.8	489.3	499.8	512.5
67529	201.8	250.5	300.5	341.7	380.9	.	.	.	.	.	.	.	.	.
67530	223.5	279.8	330.0	372.2	401.1	.	.	.	.	.	.	.	.	.
67531	213.1	277.5	329.9	374.2	418.4	450.2	476.5	503.7	.	.	.	.	.	.
67532	213.2	271.2	320.2	361.2	399.2	431.1	451.5	473.7	.	.	.	.	.	.
67533	201.2	261.0	310.8	350.8	385.7	418.8	447.3	468.8	485.8	503.3	524.0	539.3	558.6	572.8
67534	218.0	280.1	330.5	374.8	408.6	439.5	462.5	482.3	504.9	518.3	531.7	546.9	550.1	565.5
67535	197.8	252.0	293.3	341.9	375.9	403.5	424.2	448.1	469.3	493.0	498.4	516.8	530.1	548.5
67536	208.6	264.6	315.1	346.2	385.2	419.0	442.6	462.4	469.3	505.2	518.5	538.0	549.3	567.7
67537	180.7	232.6	275.7	308.0	337.9	.	.	.	.	.	.	.	.	.
67538	192.3	258.2	313.8	357.9	397.1	422.9	449.5	471.4	491.5	507.8	527.1	548.8	565.2	582.5
67539	201.5	258.3	317.8	361.2	398.6	431.8	459.5	486.9	.	.	.	.	.	.
67540	217.1	283.2	343.3	393.6	439.3	477.1	504.7	532.4	.	.	.	.	.	.
67541	207.1	278.1	323.7	363.3	393.8	421.7	442.7	458.2	482.7	499.9	522.5	533.0	545.2	561.0
67542	194.3	245.4	285.0	314.8	351.1	377.2	397.9	417.0	.	.	.	.	.	.
67543	200.0	261.2	317.1	357.9	397.7	432.2	440.0	457.7	479.9	500.1	511.2	514.2	510.6	517.4
67544	198.6	254.3	298.2	334.2	361.2	388.4	.	.	.	.	.	.	.	.
67545	200.9	259.5	301.4	333.7	360.2	380.7	400.0	421.2	.	.	.	.	.	.
67546	212.6	268.7	311.3	347.9	384.8	418.2	442.5	458.0	.	.	.	.	.	.
67547	210.6	271.9	313.7	358.9	383.1	405.5	432.1	439.0	.	.	.	.	.	.
67548	190.8	243.8	288.1	321.7	353.2	386.3	399.4	417.4	433.4	452.7	465.0	471.8	475.2	489.8

* = DEAD ANIMAL

INDIVIDUAL BODY WEIGHTS (G)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

ANIMAL NUMBER	14	15	16	17	18	19	WEEKS 20	21
GROUP	2	MALES	-	1.0000	PPM			
67506	*	*	*	*	*	*	*	*
67507	*	*	*	*	*	*	*	*
67508	522.9	528.0	534.4	538.2	537.3	549.3	550.2	*
67509	*	*	*	*	*	*	*	*
67510	*	*	*	*	*	*	*	*
67511	*	*	*	*	*	*	*	*
67512	*	*	*	*	*	*	*	*
67513	570.6	584.1	600.2	621.0	622.6	637.9	658.5	673.8
67514	*	*	*	*	*	*	*	*
67515	*	*	*	*	*	*	*	*
67516	601.8	617.9	625.6	638.8	645.6	656.4	663.4	*
67517	569.8	577.3	593.1	611.7	612.6	628.2	608.6	617.4
67518	*	*	*	*	*	*	*	*
67519	*	*	*	*	*	*	*	*
67520	495.0	524.8	530.9	530.9	531.1	534.2	545.8	543.8
67521	*	*	*	*	*	*	*	*
67522	*	*	*	*	*	*	*	*
67523	*	*	*	*	*	*	*	*
67524	*	*	*	*	*	*	*	*
67525	*	*	*	*	*	*	*	*
67526	*	*	*	*	*	*	*	*
67527	*	*	*	*	*	*	*	*
67528	516.3	515.9	529.3	533.1	537.5	545.3	556.3	564.2
67529	*	*	*	*	*	*	*	*
67530	*	*	*	*	*	*	*	*
67531	*	*	*	*	*	*	*	*
67532	*	*	*	*	*	*	*	*
67533	*	*	*	*	*	*	*	*
67534	573.6	583.9	592.6	601.3	604.5	606.6	611.6	*
67535	*	*	*	*	*	*	*	*
67536	*	*	*	*	*	*	*	*
67537	*	*	*	*	*	*	*	*
67538	604.4	614.8	640.8	641.2	649.1	662.7	677.0	*
67539	*	*	*	*	*	*	*	*
67540	*	*	*	*	*	*	*	*
67541	*	*	*	*	*	*	*	*
67542	*	*	*	*	*	*	*	*
67543	512.2	517.2	516.0	514.6	528.8	535.0	518.3	*
67544	*	*	*	*	*	*	*	*
67545	*	*	*	*	*	*	*	*
67546	*	*	*	*	*	*	*	*
67547	*	*	*	*	*	*	*	*
67548	492.5	498.7	501.4	523.3	516.0	537.8	546.7	550.0

* = DEAD ANIMAL

INDIVIDUAL BODY WEIGHTS (G)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

ANIMAL NUMBER	0	1	2	3	4	5	6	7	8	9	10	11	12	13
GROUP	2 MALES	-	1.0000 PPM											
87549	214.7	272.0	323.4	381.1	405.8	443.5	485.0	491.9	520.7	541.0	554.7	589.0	591.8	601.5
87550	191.2	241.5	284.1	327.9	358.8	381.1	*	*	*	*	*	*	*	*
87551	209.0	276.8	337.5	380.6	423.1	453.5	479.8	502.9	521.9	534.5	540.3	552.8	564.7	574.9
87552	221.9	292.2	347.2	382.1	418.1	452.7	475.1	502.1	528.4	553.1	566.7	582.8	585.2	598.8
87553	203.4	257.3	299.7	343.4	381.8	411.7	436.4	455.2	469.8	497.6	517.2	527.6	540.9	549.7
87554	218.7	276.8	322.6	364.1	402.6	432.5	454.6	477.8	*	*	*	*	*	*
87555	207.4	281.9	316.5	356.1	398.7	*	*	*	*	*	*	*	*	*
87556	200.3	258.7	307.7	343.1	376.4	407.3	429.7	445.9	465.7	493.6	494.9	507.7	517.2	527.9
87557	218.5	283.3	338.2	374.3	413.2	445.2	462.8	482.9	*	*	*	*	*	*
87558	221.5	279.3	331.7	373.2	409.3	*	*	*	*	*	*	*	*	*
87559	225.0	280.8	349.2	403.7	447.8	482.6	*	*	*	*	*	*	*	*
87560	206.7	261.9	310.4	345.8	389.0	426.8	439.8	458.2	*	*	*	*	*	*

* = DEAD ANIMAL

INDIVIDUAL BODY WEIGHTS (G)
13 WK DIETARY TOXICITY STUDY WITH T-5180

IMI 6329-100

ANIMAL NUMBER	WEEKS							
	14	15	16	17	18	19	20	21
GROUP	2	MALES	-	1.0000 PPM				
67549	*	*	*	*	*	*	*	*
67550	*	*	*	*	*	*	*	*
67551	*	*	*	*	*	*	*	*
67552	*	*	*	*	*	*	*	*
67553	*	*	*	*	*	*	*	*
67554	*	*	*	*	*	*	*	*
67555	*	*	*	*	*	*	*	*
67556	*	*	*	*	*	*	*	*
67557	*	*	*	*	*	*	*	*
67558	*	*	*	*	*	*	*	*
67559	*	*	*	*	*	*	*	*
67560	*	*	*	*	*	*	*	*

* = DEAD ANIMAL

INDIVIDUAL BODY WEIGHTS (G)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

ANIMAL NUMBER	0	1	2	3	4	5	6	7	8	9	10	11	12	13
GROUP	3	MALES	-	10.0000 PPM										
67561	204.6	259.7	308.1	345.2	374.6	401.9	424.6	442.0	460.9	479.7	494.1	505.7	520.1	539.5
67562	211.3	272.4	320.4	366.1	401.4	433.2								
67563	214.7	282.2	326.6	378.8	417.4	453.1	474.9	499.9	524.4	552.3	568.0	590.3	605.6	619.7
67564	221.2	283.5	333.9	378.5	413.2	443.2	466.1	487.1	506.3	525.7	541.5	554.6	564.7	565.4
67565	195.9	250.4	295.4	332.8	368.5	390.0								
67566	203.2	263.0	324.2	354.8	383.1									
67567	213.0	271.2	323.1	366.6	402.9	435.0	461.5	488.0	514.7	537.4	554.4	570.4	581.1	592.1
67568	205.3	258.5	326.2	343.7	377.9									
67569	184.6	242.7	292.3	320.7	359.7									
67570	218.7	293.2	340.0	382.5	421.5	448.8	451.7	471.5						
67571	181.1	232.9	282.4	320.6	350.2	370.1	394.3	413.0	431.5	445.9	458.1	470.8	478.3	489.2
67572	212.8	270.3	315.4	351.4	388.9	408.1	433.2	444.4	467.7	474.5	484.1	495.4	498.3	515.6
67573	205.3	258.4	304.5	333.8	374.4	400.8	421.1	428.6	447.7	459.9	468.5	478.6	483.6	500.0
67574	199.3	251.0	299.4	332.0	385.7	394.8								
67575	193.9	249.5	308.5	359.2	404.2	440.4	474.5	496.2	527.8	548.2	564.3	581.7	599.1	602.4
67576	200.4	251.1	299.0	334.9	360.5									
67577	207.3	260.2	286.9	319.0	347.9									
67578	206.4	268.8	312.2	348.2	380.2	411.5	438.5	456.1						
67579	189.0	245.4	292.3	333.3	368.3	402.7	425.7	442.9	465.6	479.1	494.7	506.6	518.0	530.4
67580	213.4	262.5	305.3	341.1	370.6	393.7	416.1	427.4						
67581	210.1	268.9	318.3	355.3	391.2	420.3	446.7	464.1						
67582	206.8	262.9	311.0	353.2	388.3	408.9	433.8	446.1						
67583	196.8	247.8	288.9	330.2	369.7	396.8	418.0	437.9						
67584	209.4	266.3	321.2	367.0	408.5	438.6	464.1	485.9						
67585	188.2	241.5	285.8	324.8	360.7	387.3	410.1	425.9						
67586	182.4	230.6	273.5	306.7	336.0	361.7	382.8	398.8						
67587	219.8	276.8	324.0	366.3	405.7	432.6	447.3	474.0						
67588	188.3	242.9	289.5	326.9	364.6	400.2	415.6	439.1	447.3	455.4	478.6	491.8	506.5	515.2
67589	194.2	255.0	311.5	355.5	388.7	429.1	457.4	473.9	489.3	510.4	523.8	536.3	552.3	562.6
67590	197.4	249.8	300.0	331.0	364.0									
67591	195.1	248.8	294.2	333.7	359.8									
67592	190.1	235.7	270.8	299.2	321.0									
67593	197.7	255.1	314.0	365.5	409.3	444.6	474.6	496.2	519.4	553.3	558.4	581.3	598.9	621.5
67594	211.8	277.5	334.8	379.3	417.9	451.0	477.4	500.8						
67595	199.2	254.3	308.4	355.8	390.3									
67596	185.0	234.3	279.2	317.0	346.3	375.3	393.1	413.6	429.9	444.1	456.2	474.2	484.2	500.1
67597	186.5	242.0	282.6	319.2	356.4									
67598	186.3	239.1	288.8	325.0	360.2	390.5	414.1	438.6	455.9	476.1	484.5	499.7	516.4	531.0
67599	209.8	265.7	312.4	344.9	381.5									
67600	212.4	278.5	330.8	364.1	398.8	429.6	454.3	480.0	495.3	516.8	536.6	553.3	576.9	582.9
67601	210.7	278.0	337.0	384.8	434.6	477.0								
67602	220.7	286.2	337.7	388.3	409.1	439.6	466.5	485.3						
67603	216.0	283.0	254.7	389.0	430.8	471.9	492.4	514.0	543.4	566.5	570.7	583.8	603.9	609.5

* = DEAD ANIMAL

INDIVIDUAL BODY WEIGHTS (G)
13 WK DIETARY TOXICITY STUDY WITH T-5180

IMI 6329-100

ANIMAL NUMBER	WEEKS							
	14	15	16	17	18	19	20	21
GROUP	3	MALES	-	10.0000	PPM			
67561	547.5	562.7	574.5	580.0	587.8	597.2	605.7	613.9
67562	•	•	•	•	•	•	•	•
67563	•	•	•	•	•	•	•	•
67564	•	•	•	•	•	•	•	•
67565	•	•	•	•	•	•	•	•
67566	•	•	•	•	•	•	•	•
67567	616.5	631.4	614.1	622.1	612.9	636.4	637.4	•
67568	•	•	•	•	•	•	•	•
67569	•	•	•	•	•	•	•	•
67570	•	•	•	•	•	•	•	•
67571	•	•	•	•	•	•	•	•
67572	525.2	527.6	531.9	537.5	525.5	532.4	539.9	544.0
67573	505.6	513.4	521.1	529.2	490.3	500.8	516.0	525.2
67574	•	•	•	•	•	•	•	•
67575	626.3	647.1	659.2	673.5	674.8	687.8	704.6	•
67576	•	•	•	•	•	•	•	•
67577	•	•	•	•	•	•	•	•
67578	•	•	•	•	•	•	•	•
67579	536.5	542.5	558.6	570.6	568.6	574.3	583.0	•
67580	•	•	•	•	•	•	•	•
67581	•	•	•	•	•	•	•	•
67582	•	•	•	•	•	•	•	•
67583	•	•	•	•	•	•	•	•
67584	•	•	•	•	•	•	•	•
67585	•	•	•	•	•	•	•	•
67586	•	•	•	•	•	•	•	•
67587	•	•	•	•	•	•	•	•
67588	521.2	528.9	536.3	546.2	551.4	563.3	569.0	581.5
67589	563.2	568.1	582.6	592.8	597.6	603.0	612.4	•
67590	•	•	•	•	•	•	•	•
67591	•	•	•	•	•	•	•	•
67592	•	•	•	•	•	•	•	•
67593	630.7	648.0	664.3	676.5	686.6	694.3	704.0	•
67594	•	•	•	•	•	•	•	•
67595	•	•	•	•	•	•	•	•
67596	•	•	•	•	•	•	•	•
67597	•	•	•	•	•	•	•	•
67598	•	•	•	•	•	•	•	•
67599	•	•	•	•	•	•	•	•
67600	•	•	•	•	•	•	•	•
67601	•	•	•	•	•	•	•	•
67602	•	•	•	•	•	•	•	•
67603	•	•	•	•	•	•	•	•

• = DEAD ANIMAL

INDIVIDUAL BODY WEIGHTS (G)
13 WK DIETARY TOXICITY STUDY WITH T-S180

HWI 6329-100

ANIMAL NUMBER	WEEKS													
	0	1	2	3	4	5	6	7	8	9	10	11	12	13
GROUP	3	MALES	-	10.0000 PPM										
67604	221.4	273.8	328.0	362.2	398.8	421.1	440.7	458.9	480.3	500.2	511.8	528.5	540.7	555.3
67605	208.3	264.9	310.4	352.7	389.3	415.5	433.9	453.1	484.1	503.6	518.3	530.8	550.4	558.8
67606	201.1	263.2	318.5	350.1	385.7	417.8	437.0	458.3	484.1	503.6	518.3	530.8	550.4	558.8
67607	197.3	251.6	289.0	324.7	355.2	381.4	397.7	425.2	444.9	462.3	475.5	483.3	498.5	511.2
67608	194.7	252.3	294.2	327.3	360.8	385.9	403.3	421.5	434.5	450.0	464.7	479.4	481.1	497.2
67609	215.3	286.2	338.2	384.8	424.7	458.8	483.8	514.6	537.2	558.5	582.8	599.8	617.6	619.4
67610	212.0	288.1	313.2	358.2	383.7	411.4	429.1	445.3	471.5	488.6	501.4	512.2	529.7	542.1
67611	193.5	246.8	287.2	325.4	360.0	385.5	402.7	429.2	442.6	464.9	478.3	492.2	505.5	520.7
67612	190.9	246.5	291.0	336.4	375.2	415.6	434.7	456.6	484.1	502.0	523.5	539.3	551.8	579.8
67613	210.1	269.5	323.7	364.7	403.4	438.1	460.1	484.1	502.0	523.5	539.3	551.8	568.2	579.8
67614	205.6	270.2	323.6	362.2	395.9	428.0	455.6	474.5	484.1	502.0	523.5	539.3	551.8	579.8
67615	216.0	273.3	317.0	355.8	379.8	403.3	417.2	437.1	449.0	469.5	488.8	500.4	512.1	524.1

• = DEAD ANIMAL

INDIVIDUAL BODY WEIGHTS (G)
13 WK DIETARY TOXICITY STUDY WITH T-5180

IMI 6329-100

ANIMAL NUMBER	WEEKS							
	14	15	16	17	18	19	20	21
GROUP	3	MALES	-	10.0000 PPM				
67604	*	*	*	*	*	*	*	*
67605	*	*	*	*	*	*	*	*
67606	*	*	*	*	*	*	*	*
67607	*	*	*	*	*	*	*	*
67608	*	*	*	*	*	*	*	*
67609	632.1	635.4	659.0	669.8	682.6	696.6	711.2	728.0
67610	*	*	*	*	*	*	*	*
67611	*	*	*	*	*	*	*	*
67612	*	*	*	*	*	*	*	*
67613	*	*	*	*	*	*	*	*
67614	*	*	*	*	*	*	*	*
67615	*	*	*	*	*	*	*	*

* = DEAD ANIMAL

INDIVIDUAL BODY WEIGHTS (G)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

ANIMAL NUMBER	WEEKS													
	0	1	2	3	4	5	6	7	8	9	10	11	12	13
GROUP	4 MALES	-	30.0000 PPM											
67616	209.2	268.0	228.9	357.8	393.8	427.3	450.9	473.8	494.4	515.4	525.7	549.2	555.8	570.1
67617	184.8	236.0	277.6	310.5	339.4	362.2	386.1	404.6						
67618	211.5	274.8	328.6	370.4	403.6	442.3	466.4	488.2	505.4	529.2	538.9	561.7	574.5	591.2
67619	212.1	269.5	248.7	351.7	385.4									
67620	222.7	291.6	335.8	390.3	429.7	450.9								
67621	207.7	265.9	313.4	354.5	393.1	428.5	451.0	480.4	508.2	524.1	540.6	580.7	577.2	598.6
67622	220.9	278.8	323.6	366.6	400.2	427.0	443.4	454.5	478.4	481.2	488.5	497.7	505.7	512.1
67623	193.7	245.3	293.5	313.7	340.0	366.1	385.4	399.4	414.3	425.4	432.7	446.6	455.4	464.5
67624	193.3	249.2	296.3	332.8	381.6	390.2	414.4	434.0	452.6	468.0	475.5	495.9	510.1	518.0
67625	196.2	251.6	288.2	327.7	355.8	377.6								
67626	207.7	264.5	253.6	334.6	366.3	386.8	405.7	425.9	442.2	447.7	459.8	472.9	479.3	499.9
67627	198.0	252.6	300.0	334.2	363.9									
67628	220.8	280.2	322.2	366.3	427.7	451.6	470.1	488.1	514.7	528.8	540.6	563.1	571.2	575.3
67629	219.9	288.1	337.0	379.1	407.8	438.8	454.8	478.4						
67630	217.2	276.2	331.3	375.9	418.2	451.7								
67631	193.2	246.7	254.5	324.6	356.8									
67632	207.5	261.1	301.6	335.5	364.7									
67633	203.4	266.0	290.9	375.3	415.4	451.2								
67634	204.2	266.0	309.1	349.1	379.0	401.2	425.8	454.5						
67635	186.9	249.1	296.2	336.2	367.9	404.8	427.3	451.5	479.3	495.8	500.0	513.0	522.3	538.5
67636	197.1	255.0	293.1	326.0	353.3	382.0								
67637	189.6	238.3	282.0	314.7	343.7	363.3	381.9	396.8	414.0	428.9	432.4	446.6	452.1	459.0
67638	193.1	254.5	303.2	344.9	375.9	404.1	430.8	466.4						
67639	218.7	278.4	326.7	366.8	395.0	421.3	439.6	461.0						
67640	187.1	247.9	296.3	335.3	365.0									
67641	183.5	236.8	279.7	315.2	364.9	371.1	390.5	418.8	444.5	465.1	478.4	493.9	506.8	529.1
67642	209.5	277.1	333.4	376.7	441.0	433.5	455.3	478.5						
67643	189.4	237.6	280.2	309.8	363.3	355.4	371.0	387.9	404.7	416.9	422.0	434.9	441.6	452.7
67644	215.3	275.4	320.2	351.0	407.0	409.1	421.5	442.6						
67645	210.8	279.0	331.8	380.4	447.3	463.0	493.9	516.2	540.6	564.0	585.2	589.8	597.5	614.6
67646	206.2	264.7	313.4	353.3	381.4	414.0	432.0	457.6						
67647	185.9	238.6	281.1	317.4	348.2	374.6	394.2	418.7						
67648	209.1	265.1	313.8	346.2	373.0									
67649	184.2	236.3	285.1	321.0	357.1	391.3	415.2	426.8	448.9	466.9	487.7	504.1	518.8	532.4
67650	205.4	267.6	322.2	364.3	397.9	422.5	446.7	467.2	489.3	502.9	510.6	525.1	533.0	550.8
67651	215.7	277.2	327.7	348.5	377.2	403.6	414.5	449.5	474.3	489.0	500.4	515.4	527.3	543.9
67652	204.9	259.3	295.7	327.9	347.8	373.4	394.8	418.7	440.4	453.6	465.6	477.4	488.8	499.8
67653	201.6	257.6	318.8	362.2	401.5	438.1	467.9	489.8	508.3	525.7	543.5	558.1	570.3	577.1
67654	198.7	254.4	292.1	298.0	320.3									
67655	212.2	267.7	313.7	351.8	384.4	413.4	436.7	459.0						
67656	195.0	254.5	305.7	341.2	376.8	388.3	414.0	443.3						
67657	215.1	270.8	322.4	354.5	392.7	422.7	440.5	456.4						
67658	199.3	255.8	295.0	328.6	348.8	369.8	373.4	391.1	410.4	417.9	430.7	436.8	442.9	451.4

* = DEAD ANIMAL

INDIVIDUAL BODY WEIGHTS (G)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

ANIMAL NUMBER	WEEKS							
	14	15	16	17	18	19	20	21
GROUP	4	MALES	-	30,0000 PPM				
67616	*	*	*	*	*	*	*	*
67617	*	*	*	*	*	*	*	*
67618	*	*	*	*	*	*	*	*
67619	*	*	*	*	*	*	*	*
67620	*	*	*	*	*	*	*	*
67621	*	*	*	*	*	*	*	*
67622	518.3	517.9	528.3	537.8	538.5	547.2	553.0	559.8
67623	*	*	*	*	*	*	*	*
67624	*	*	*	*	*	*	*	*
67625	*	*	*	*	*	*	*	*
67626	488.6	502.5	516.4	520.4	522.8	538.5	547.1	*
67627	*	*	*	*	*	*	*	*
67628	594.4	601.2	614.8	630.9	638.8	648.4	659.9	*
67629	*	*	*	*	*	*	*	*
67630	*	*	*	*	*	*	*	*
67631	*	*	*	*	*	*	*	*
67632	*	*	*	*	*	*	*	*
67633	*	*	*	*	*	*	*	*
67634	*	*	*	*	*	*	*	*
67635	*	*	*	*	*	*	*	*
67636	*	*	*	*	*	*	*	*
67637	474.9	482.8	494.6	508.4	511.5	523.4	519.1	*
67638	*	*	*	*	*	*	*	*
67639	*	*	*	*	*	*	*	*
67640	*	*	*	*	*	*	*	*
67641	*	*	*	*	*	*	*	*
67642	*	*	*	*	*	*	*	*
67643	*	*	*	*	*	*	*	*
67644	*	*	*	*	*	*	*	*
67645	*	*	*	*	*	*	*	*
67646	*	*	*	*	*	*	*	*
67647	*	*	*	*	*	*	*	*
67648	*	*	*	*	*	*	*	*
67649	539.4	543.3	547.4	559.0	558.4	573.4	580.4	592.3
67650	*	*	*	*	*	*	*	*
67651	544.3	558.2	570.5	579.6	582.8	595.9	602.6	611.3
67652	*	*	*	*	*	*	*	*
67653	*	*	*	*	*	*	*	*
67654	*	*	*	*	*	*	*	*
67655	*	*	*	*	*	*	*	*
67656	*	*	*	*	*	*	*	*
67657	*	*	*	*	*	*	*	*
67658	*	*	*	*	*	*	*	*

* = DEAD ANIMAL

INDIVIDUAL BODY WEIGHTS (G)
13 WK DIETARY TOXICITY STUDY WITH T-5180

IMI 6329-100

ANIMAL NUMBER	WEEKS													
	0	1	2	3	4	5	6	7	8	9	10	11	12	13
GROUP	4	MALES	-	30.0000 PPM										
67659	205.9	270.1	314.1	355.8	390.9	*	*	*	*	*	*	*	*	*
67660	208.8	265.0	311.4	340.0	379.9	409.0	424.7	444.8	466.8	478.0	489.8	491.7	499.3	514.0
67661	188.3	245.3	284.6	317.0	344.1	363.8	385.6	405.1	*	*	*	*	*	*
67662	208.6	263.3	308.2	337.4	364.7	386.4	397.1	413.1	*	*	*	*	*	*
67663	199.1	255.7	306.2	346.5	388.0	*	*	*	*	*	*	*	*	*
67664	214.8	269.5	307.8	354.7	392.1	427.2	446.0	473.9	504.7	524.3	543.4	556.1	577.4	590.9
67665	194.6	249.1	299.0	335.7	367.5	*	*	*	*	*	*	*	*	*
67666	219.7	278.6	319.8	357.0	389.5	413.2	430.1	450.3	471.6	489.8	496.8	510.6	518.0	531.3
67667	201.6	259.6	318.2	360.5	396.2	426.6	449.9	475.0	*	*	*	*	*	*
67668	210.7	277.6	331.5	370.5	401.1	416.9	443.1	462.3	472.2	486.1	500.8	514.6	515.0	508.4
67669	209.5	266.9	315.2	355.3	381.3	407.4	423.9	439.6	462.3	470.5	485.5	498.5	509.6	517.4
67670	203.2	263.7	320.3	362.2	391.8	416.7	443.4	462.3	479.7	487.4	505.4	520.9	533.8	544.4

* = DEAD ANIMAL

INDIVIDUAL BODY WEIGHTS (G)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

ANIMAL NUMBER	14	15	16	17	18	19	WEEKS 20	21
GROUP	4	MALES	-	30.0000	PPM			
67659	*	*	*	*	*	*	*	*
67660	516.5	519.4	530.8	528.8	539.8	545.3	548.0	582.0
67661	*	*	*	*	*	*	*	*
67662	*	*	*	*	*	*	*	*
67663	*	*	*	*	*	*	*	*
67664	607.1	621.1	634.8	643.3	650.0	661.2	676.7	*
67665	*	*	*	*	*	*	*	*
67666	549.1	548.3	563.4	572.5	575.8	584.7	580.8	605.6
67667	*	*	*	*	*	*	*	*
67668	*	*	*	*	*	*	*	*
67669	*	*	*	*	*	*	*	*
67670	550.1	560.3	571.1	582.4	591.4	606.3	611.2	*

* = DEAD ANIMAL

Individual Body Weight Data (g)

Animal Number	Week													
	0	1	2	3	4	5	6	7	8	9	10	11	12	13
	100 ppm T-5180													
C67671	214.8	246.8	291.9	313.3	349.9	388.2	410.5	429.0	453.5	474.7	491.0	507.8	524.1	543.1
C67672	219.0	265.6	307.7	348.2	375.6	407.3	431.8	457.1	471.8	491.5	499.0	466.8	469.2	464.4
C67673	193.4	244.2	287.6	321.0	355.2	382.3	406.4	434.0	439.4	452.7	462.9	471.3	485.6	496.0
C67674	225.8	279.9	316.1	356.0	385.5	422.0	442.9	467.9	492.0	513.2	520.1	535.3	546.2	558.1
C67675	198.8	258.5	309.6	349.2	382.9	*	*	*	*	*	*	*	*	*
C67676	211.5	271.5	318.6	353.2	385.6	414.3	437.3	457.4	472.0	469.8	442.3	448.1	443.1	411.3
C67677	200.7	254.1	298.6	337.7	371.3	403.9	424.8	447.5	465.9	486.1	497.2	507.1	515.9	530.1
C67678	189.1	238.7	281.0	320.7	352.8	385.2	408.6	431.3	442.1	457.9	471.8	481.6	493.0	501.6
C67679	187.2	230.0	273.1	297.3	318.5	336.6	348.8	372.1	384.1	395.1	406.4	419.0	431.4	438.6
C67680	192.3	242.8	283.7	308.4	341.5	380.8	404.3	421.7	*	*	*	*	*	*
C67681	195.2	241.4	288.7	310.4	337.8	369.6	*	*	*	*	*	*	*	*
C67682	199.2	248.7	290.8	322.4	420.6	*	*	*	*	*	*	*	*	*
C67683	197.4	250.4	299.5	340.1	369.1	398.9	420.0	441.8	463.4	483.1	497.2	506.7	522.1	530.6
C67684	206.5	251.4	292.2	326.1	355.4	380.0	395.6	413.5	422.2	432.8	432.2	446.3	450.6	462.0
C67685	199.0	240.3	274.5	302.1	*	*	*	*	*	*	*	*	*	*
C67686	199.7	258.8	308.2	351.8	384.7	420.0	445.2	462.9	475.9	499.4	509.9	527.8	537.9	550.2
C67687	206.3	257.9	304.4	332.0	356.1	382.2	*	*	*	*	*	*	*	*
C67688	186.4	232.5	272.3	304.5	322.0	335.7	352.9	372.5	383.5	397.1	339.1	371.5	376.8	400.0
C67689	183.6	243.2	290.3	331.3	362.0	*	*	*	*	*	*	*	*	*
C67690	212.9	257.3	297.6	328.0	344.1	*	*	*	*	*	*	*	*	*
C67691	193.6	234.5	261.1	272.9	291.4	313.1	325.8	348.3	359.4	373.8	358.8	378.8	389.3	402.5
C67692	212.4	264.0	310.2	340.7	376.9	*	*	*	*	*	*	*	*	*
C67693	208.5	256.1	307.0	346.2	377.1	*	*	*	*	*	*	*	*	*
C67694	191.5	236.8	273.0	310.3	337.6	367.1	391.1	412.5	435.9	445.8	462.8	478.4	493.5	512.8
C67695	185.6	226.1	254.5	280.2	300.9	331.6	344.7	360.3	359.2	362.7	369.4	376.5	376.7	386.0
C67696	216.3	264.4	294.7	314.6	334.6	*	*	*	*	*	*	*	*	*
C67697	214.8	259.3	293.5	320.8	342.3	366.0	389.8	403.3	412.3	429.5	441.1	456.5	467.9	481.7
C67698	199.3	245.1	286.3	322.5	357.0	390.7	*	*	*	*	*	*	*	*
C67699	188.8	239.1	280.2	321.9	358.9	395.9	421.7	438.6	*	*	*	*	*	*
C67700	210.4	256.0	296.3	329.1	361.9	404.0	428.0	452.3	475.2	486.0	508.7	526.4	536.1	554.2
C67701	195.9	238.1	285.8	321.2	245.6	373.3	397.9	410.7	425.7	438.8	454.1	463.4	473.3	484.0
C67702	208.8	266.3	314.3	353.2	379.7	411.2	433.5	454.2	*	*	*	*	*	*
C67703	212.8	262.9	296.3	335.6	372.6	405.2	431.3	460.0	*	*	*	*	*	*
C67704	207.8	255.6	294.9	331.2	354.5	385.8	408.3	424.5	446.6	464.2	478.9	494.8	507.0	513.7
C67705	191.5	249.5	305.8	350.7	387.2	422.4	447.1	475.4	*	*	*	*	*	*
C67706	201.8	252.9	296.7	321.3	345.3	373.9	400.2	417.1	430.4	448.8	463.9	470.4	482.4	496.8
C67707	206.6	258.8	314.0	354.9	387.6	423.8	457.5	485.8	*	*	*	*	*	*

* = Dead animal

Individual Body Weight Data (g)

Animal Number	Week							
	14	15	16	17	18	19	20	21
100 ppm T-5180 (Continued)								
C67671	.	.	.	.	.	.	.	.
C67672	.	.	.	.	.	.	.	.
C67673	.	.	.	.	.	.	.	.
C67674	570.9	583.3	600.1	613.4	619.2	636.6	644.5	.
C67675	.	.	.	.	.	.	.	.
C67676	416.4	422.4	426.9	433.0	436.9	441.8	369.8	397.3
C67677	.	.	.	.	.	.	.	.
C67678	506.3	514.9	523.3	532.5	533.6	540.8	544.8	.
C67679	.	.	.	.	.	.	.	.
C67680	.	.	.	.	.	.	.	.
C67681	.	.	.	.	.	.	.	.
C67682	.	.	.	.	.	.	.	.
C67683	538.7	548.6	560.3	567.0	576.1	578.9	587.5	.
C67684	463.1	477.4	486.5	498.3	503.0	508.5	509.8	503.2
C67685	.	.	.	.	.	.	.	.
C67686	.	.	.	.	.	.	.	.
C67687	.	.	.	.	.	.	.	.
C67688	.	.	.	.	.	.	.	.
C67689	.	.	.	.	.	.	.	.
C67690	.	.	.	.	.	.	.	.
C67691	.	.	.	.	.	.	.	.
C67692	.	.	.	.	.	.	.	.
C67693	.	.	.	.	.	.	.	.
C67694	520.7	533.1	596.5	563.8	565.9	578.1	587.9	.
C67695	.	.	.	.	.	.	.	.
C67696	.	.	.	.	.	.	.	.
C67697	.	.	.	.	.	.	.	.
C67698	.	.	.	.	.	.	.	.
C67699	.	.	.	.	.	.	.	.
C67700	.	.	.	.	.	.	.	.
C67701	489.2	502.1	510.7	518.1	527.2	538.5	543.3	.
C67702	.	.	.	.	.	.	.	.
C67703	.	.	.	.	.	.	.	.
C67704	535.9	546.6	558.9	562.9	572.2	582.1	591.2	594.6
C67705	.	.	.	.	.	.	.	.
C67706	508.3	517.0	527.3	537.8	542.2	550.9	553.1	561.3
C67707	.	.	.	.	.	.	.	.

* = Dead animal

Individual Body Weight Data (g)

Animal Number	Week													
	0	1	2	3	4	5	6	7	8	9	10	11	12	13
100 ppm I-5180 (Continued)														
C67708	210.3	263.9	311.3	352.5	382.3	423.7	454.4	483.4	*	*	*	*	*	*
C67709	189.5	236.2	264.2	290.1	308.3	333.7	350.2	365.3	*	*	*	*	*	*
C67710	202.2	255.4	303.9	340.7	369.7	397.1	418.2	436.1	*	*	*	*	*	*
C67711	208.5	256.3	307.0	337.4	465.6	392.9	412.8	433.4	*	*	*	*	*	*
C67712	218.0	266.5	314.2	354.4	386.0	420.6	446.0	471.9	493.9	511.8	527.4	539.8	559.6	576.6
C67713	223.7	273.9	312.8	335.1	351.8	375.9	*	*	*	*	*	*	*	*
C67714	193.3	225.3	242.0	264.8	280.3	298.9	315.6	344.6	354.3	369.5	382.6	396.5	403.9	417.3
C67715	212.3	260.9	301.3	328.4	359.2	*	*	*	*	*	*	*	*	*
C67716	209.2	259.6	298.1	323.7	348.7	371.6	391.3	403.3	418.3	431.1	439.4	448.6	457.3	469.7
C67717	195.6	245.5	289.8	316.8	343.7	*	*	*	*	*	*	*	*	*
C67718	220.2	271.5	316.8	354.5	387.1	417.6	443.0	461.5	*	*	*	*	*	*
C67719	220.8	271.9	317.6	351.6	381.8	413.0	436.7	462.0	*	*	*	*	*	*
C67720	228.9	287.7	329.9	375.2	413.8	460.1	491.3	523.8	545.3	575.0	600.5	619.9	641.7	660.3
C67721	215.7	258.7	298.5	334.7	363.2	391.5	415.9	434.9	*	*	*	*	*	*
C67722	201.0	246.5	292.9	330.7	359.6	380.1	403.7	421.3	*	*	*	*	*	*
C67723	223.9	269.3	316.3	346.6	375.1	402.8	421.7	441.7	456.3	465.9	479.9	491.8	497.2	508.7
C67724	208.6	262.8	298.8	335.0	364.1	399.5	427.3	452.2	*	*	*	*	*	*
C67725	199.7	241.6	278.2	309.1	332.4	*	*	*	*	*	*	*	*	*

* = Dead animal

Individual Body Weight Data (g)

Animal Number	Week						
	14	15	16	17	18	19	20
100 ppm I-5180 (Continued)							
C67708	*	*	*	*	*	*	*
C67709	*	*	*	*	*	*	*
C67710	*	*	*	*	*	*	*
C67711	*	*	*	*	*	*	*
C67712	*	*	*	*	*	*	*
C67713	*	*	*	*	*	*	*
C67714	*	*	*	*	*	*	*
C67715	*	*	*	*	*	*	*
C67716	*	*	*	*	*	*	*
C67717	*	*	*	*	*	*	*
C67718	*	*	*	*	*	*	*
C67719	*	*	*	*	*	*	*
C67720	*	*	*	*	*	*	*
C67721	*	*	*	*	*	*	*
C67722	*	*	*	*	*	*	*
C67723	512.4	520.9	526.0	540.0	543.7	547.7	557.1
C67724	*	*	*	*	*	*	*
C67725	*	*	*	*	*	*	*

* = Dead animal

Individual Body Weight Data (g)

Animal Number	Week													
	0	1	2	3	4	5	6	7	8	9	10	11	12	13
	0 ppm 1-5180													
C67726	202.6	249.0	283.9	323.2	354.3	*	*	*	*	*	*	*	*	*
C67727	202.2	249.9	294.8	338.4	366.4	*	*	*	*	*	*	*	*	*
C67728	204.1	244.5	285.4	323.3	348.9	378.2	397.2	417.4	*	*	*	*	*	*
C67729	226.7	257.2	290.6	326.2	365.1	399.8	425.9	449.0	*	*	*	*	*	*
C67730	212.8	251.8	291.7	331.3	358.1	382.7	401.5	421.9	435.8	450.0	451.1	466.0	477.7	491.6
C67731	222.3	266.6	306.9	343.2	374.3	403.7	420.3	438.6	*	*	*	*	*	*
C67732	226.3	261.9	297.2	333.7	365.0	400.8	423.4	446.8	464.1	481.7	490.0	500.3	514.2	525.8
C67733	229.1	259.1	298.6	331.1	364.8	*	*	*	*	*	*	*	*	*
C67734	216.7	259.7	301.3	338.7	362.8	386.3	401.7	412.6	*	*	*	*	*	*
C67735	217.5	252.1	294.2	326.8	356.0	*	*	*	*	*	*	*	*	*
C67736	217.2	255.6	298.5	339.5	371.9	404.9	422.0	440.8	458.5	473.5	476.1	493.9	504.4	514.7
C67737	216.5	256.1	293.3	330.3	367.6	408.9	431.0	451.9	*	*	*	*	*	*
C67738	220.6	267.1	303.2	345.8	380.2	408.9	425.1	440.7	459.8	477.3	488.7	502.3	510.7	526.2
C67739	202.3	249.2	295.0	337.8	368.4	401.8	425.6	449.3	*	*	*	*	*	*
C67740	211.2	243.4	276.6	308.6	337.3	359.1	372.8	389.3	405.4	427.7	435.4	451.2	461.4	*
C67741	218.7	261.1	298.7	339.3	371.4	*	*	*	*	*	*	*	*	*
C67742	195.6	241.3	282.1	322.5	354.6	*	*	*	*	*	*	*	*	*
C67743	213.0	258.6	299.9	337.9	362.7	392.3	410.9	428.3	*	*	*	*	*	*
C67744	205.2	252.7	291.8	331.0	363.1	394.1	416.8	433.0	450.3	465.1	469.6	479.3	489.2	500.7
C67745	217.5	258.9	301.4	341.5	375.8	*	*	*	*	*	*	*	*	*
C67746	209.2	251.5	295.8	339.7	369.1	395.6	409.0	422.9	438.3	446.4	448.2	459.1	460.1	464.5
C67747	215.8	263.6	303.4	342.1	370.4	408.1	426.4	452.3	472.0	489.1	493.8	508.5	523.4	534.2
C67748	225.6	262.1	303.9	343.5	375.4	405.0	426.5	442.5	457.5	476.2	479.1	491.1	501.1	*
C67749	217.4	257.1	294.7	329.9	360.2	391.4	407.9	426.3	441.6	460.2	465.8	471.9	485.6	*
C67750	216.4	261.7	298.6	334.5	365.1	393.0	418.7	436.3	*	*	*	*	*	*
C67751	210.9	254.2	296.8	335.8	363.2	*	*	*	*	*	*	*	*	*
C67752	224.8	264.1	305.6	348.3	380.9	417.1	447.1	469.6	*	*	*	*	*	*
C67753	223.9	264.6	302.0	343.8	373.3	413.1	437.8	460.0	*	*	*	*	*	*
C67754	220.1	263.3	306.1	344.2	377.0	410.6	434.3	452.4	473.8	496.0	501.1	514.4	526.0	532.6
C67755	213.8	249.6	288.2	329.7	360.6	386.8	406.8	414.3	427.4	445.4	452.2	460.6	471.8	*
C67756	195.1	242.7	286.7	330.0	360.6	388.4	408.7	429.1	440.7	456.0	461.7	473.5	484.5	492.7
C67757	223.2	264.4	305.1	354.1	378.9	*	*	*	*	*	*	*	*	*
C67758	217.3	260.6	303.0	342.5	377.9	404.9	423.1	439.4	*	*	*	*	*	*
C67759	218.3	258.1	299.1	344.5	374.3	*	*	*	*	*	*	*	*	*
C67760	190.4	238.8	280.9	317.0	348.1	373.9	394.3	413.7	437.5	454.2	463.9	474.0	491.0	*
C67761	189.7	240.4	278.6	319.5	353.0	*	*	*	*	*	*	*	*	*

* = Dead animal

Individual Body Weight Data (g)

Animal Number	Week													
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>
	0 ppm T-5180 (Continued)													
C67762	215.4	257.3	297.9	340.2	367.8	*	*	*	*	*	*	*	*	*
C67763	222.6	269.3	313.0	358.8	391.1	421.0	444.9	467.4	*	*	*	*	*	*
C67764	204.0	243.0	286.2	326.4	359.2	*	*	*	*	*	*	*	*	*
C67765	223.1	271.4	307.4	339.4	367.1	394.2	413.9	429.3	*	*	*	*	*	*
C67766	198.8	244.2	286.8	326.4	352.5	376.8	396.0	389.9	*	*	*	*	*	*
C67767	207.3	249.2	284.7	325.1	357.2	394.9	417.3	433.8	453.9	466.4	472.7	488.2	492.5	502.2
C67768	208.0	250.3	290.9	333.5	360.4	392.5	413.4	435.0	*	*	*	*	*	*
C67769	224.8	258.1	301.7	346.1	377.8	*	*	*	*	*	*	*	*	*
C67770	196.4	246.8	286.3	320.3	342.3	*	*	*	*	*	*	*	*	*

* = Dead animal

INDIVIDUAL FOOD CONSUMPTION (G/WK)
13 WK DIETARY TOXICITY STUDY WITH T-5180

IWI 6329 100

ANIMAL NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14
GROUP	1 MALES	- CONTROL												
67451	172.1	185.0	198.8	209.5	213.8	*	*	*	*	*	*	*	*	*
67452	163.4	171.1	176.4	190.1	194.6	190.9	189.5	184.1	193.6	182.3	190.4	175.3	172.7	180.2
67453	183.7	201.0	210.6	217.7	221.2	218.2	215.8	214.4	218.9	209.6	205.5	199.7	197.4	202.8
67454	176.0	198.6	218.7	222.6	225.5	**	**	*	*	*	*	*	*	*
67455	173.9	203.2	216.5	222.0	221.4	**	**	*	*	*	*	*	*	*
67456	162.3	171.5	184.9	187.9	189.3	191.8	200.9	193.6	193.3	188.0	188.5	182.1	180.6	187.5
67457	171.2	179.8	179.3	181.4	186.0	187.4	189.1	185.5	*	*	*	*	*	*
67458	161.3	171.4	180.5	186.0	187.4	189.1	185.5	*	*	*	*	*	*	*
67459	149.8	165.0	173.6	178.9	186.7	184.8	179.2	169.0	175.7	171.2	168.9	170.7	182.4	*
67460	162.0	181.1	188.1	193.4	199.6	191.1	189.5	179.1	184.2	178.3	174.4	173.8	162.4	*
67461	163.8	173.9	187.5	201.1	*	*	*	*	*	*	*	*	*	*
67462	170.3	184.9	191.5	196.9	198.6	199.6	195.5	198.9	205.7	201.1	194.6	195.4	190.7	*
67463	170.0	172.6	175.7	184.7	197.6	204.5	198.6	*	*	*	*	*	*	*
67464	188.6	189.9	190.5	190.9	190.8	*	*	*	*	*	*	*	*	*
67465	160.3	186.9	172.2	178.3	182.3	178.5	172.5	*	*	*	*	*	*	*
67466	179.5	187.3	186.8	200.3	196.4	192.3	186.2	*	*	*	*	*	*	*
67467	163.4	170.6	177.1	187.5	191.7	*	*	*	*	*	*	*	*	*
67468	170.4	169.4	176.0	180.8	*	*	*	*	*	*	*	*	*	*
67469	174.4	185.6	192.5	196.3	204.2	202.2	200.4	*	*	*	*	*	*	*
67470	167.9	188.9	191.3	192.1	194.2	*	*	193.0	198.2	190.6	*	*	*	*
67471	177.0	**	185.6	*	*	198.3	206.3	202.0	198.5	195.6	189.0	187.0	181.9	179.7
67472	181.6	210.9	216.5	214.7	215.5	216.1	208.2	*	*	*	*	*	*	*
67473	178.3	197.9	209.1	216.6	199.6	212.7	216.1	210.0	219.0	209.9	202.3	208.6	199.0	*
67474	166.7	185.1	195.1	198.4	202.1	195.8	189.2	*	*	*	*	*	*	*
67475	180.9	191.4	200.2	213.5	208.3	207.4	206.8	197.2	206.2	206.6	199.8	203.6	*	*
67476	158.1	175.1	179.9	188.8	195.2	*	*	*	*	*	*	*	*	*
67477	165.2	182.8	193.8	201.3	204.0	*	*	*	*	*	*	*	*	*
67478	162.1	174.9	184.4	193.0	196.3	193.8	192.9	*	*	*	*	*	*	*
67479	148.3	166.4	184.2	182.1	171.1	169.6	162.9	142.9	169.8	165.6	121.3	116.2	184.5	161.3
67480	172.6	190.6	200.0	206.6	211.2	202.0	197.2	*	*	*	*	*	*	*
67481	157.8	166.3	175.5	179.1	187.9	181.7	176.4	*	*	*	*	*	*	*
67482	146.5	155.1	165.5	173.1	179.5	170.3	172.0	167.9	172.0	171.0	164.2	169.5	161.5	*
67483	179.0	187.7	**	183.0	192.7	189.2	187.6	192.4	204.1	190.9	189.5	186.9	181.9	180.7
67484	166.2	176.9	**	201.2	206.4	203.0	198.4	*	*	*	*	*	*	*
67485	179.4	196.1	201.0	215.1	224.1	222.8	219.5	222.1	221.9	222.9	223.4	215.0	210.6	*
67486	166.2	172.1	171.1	184.1	*	*	*	*	*	*	*	*	*	*
67487	165.5	173.4	179.7	179.5	189.1	187.9	183.8	183.2	194.1	187.1	182.8	**	**	*
67488	185.7	197.0	205.7	214.2	217.6	216.2	204.6	198.5	209.9	199.0	194.6	186.8	186.4	*
67489	172.8	168.4	171.3	178.3	*	*	*	*	*	*	*	*	*	*
67490	171.2	186.2	194.1	*	211.4	198.6	193.6	187.0	189.8	186.9	178.6	179.9	175.3	*
67491	157.1	163.6	171.2	182.5	*	*	*	*	*	*	*	*	*	*
67492	188.4	193.2	203.0	209.5	*	*	*	*	*	*	*	*	*	*
67493	148.8	158.6	159.9	163.8	163.9	164.8	162.2	158.7	164.1	160.1	161.8	167.5	159.6	151.6

* = DEAD ANIMAL
** = INVALID VALUE - FOOD WASTED OR SPILLED

INDIVIDUAL FOOD CONSUMPTION (G/WK)
13 WK DIETARY TOXICITY STUDY WITH T-5180

IMI 6329-100

ANIMAL NUMBER	WEEKS						
	15	16	17	18	19	20	21
GROUP	1	MALES	-	CONTROL			
67451	*	*	*	*	*	*	*
67452	185.2	182.9	178.0	183.2	196.2	185.8	198.0
67453	200.8	192.3	198.0	203.2	207.0	210.1	*
67454	*	*	*	*	*	*	*
67455	*	*	*	*	*	*	*
67456	184.8	184.2	185.5	188.1	202.3	201.0	*
67457	*	*	*	*	*	*	*
67458	*	*	*	*	*	*	*
67459	*	*	*	*	*	*	*
67460	*	*	*	*	*	*	*
67461	*	*	*	*	*	*	*
67462	*	*	*	*	*	*	*
67463	*	*	*	*	*	*	*
67464	*	*	*	*	*	*	*
67465	*	*	*	*	*	*	*
67466	*	*	*	*	*	*	*
67467	*	*	*	*	*	*	*
67468	*	*	*	*	*	*	*
67469	*	*	*	*	*	*	*
67470	*	*	*	*	*	*	*
67471	188.6	187.5	184.5	197.4	189.8	184.5	203.2
67472	*	*	*	*	*	*	*
67473	*	*	*	*	*	*	*
67474	*	*	*	*	*	*	*
67475	*	*	*	*	*	*	*
67476	*	*	*	*	*	*	*
67477	*	*	*	*	*	*	*
67478	*	*	*	*	*	*	*
67479	187.9	157.2	180.1	181.5	139.3	143.2	186.7
67480	*	*	*	*	*	*	*
67481	*	*	*	*	*	*	*
67482	*	*	*	*	*	*	*
67483	173.2	172.0	176.1	179.8	177.8	178.2	*
67484	*	*	*	*	*	*	*
67485	*	*	*	*	*	*	*
67486	*	*	*	*	*	*	*
67487	*	*	*	*	*	*	*
67488	*	*	*	*	*	*	*
67489	*	*	*	*	*	*	*
67490	174.7	177.2	182.8	181.2	190.0	185.1	*
67491	*	*	*	*	*	*	*
67492	*	*	*	*	*	*	*
67493	165.8	155.0	163.7	227.4	187.1	183.2	172.3

* = DEAD ANIMAL

INDIVIDUAL FOOD CONSUMPTION (G/WK)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

ANIMAL NUMBER	1	2	3	4	5	6	WEEKS 7	8	9	10	11	12	13	14
GROUP	1	MALES	-	CONTROL										
67494	160.5	163.0	166.7	171.7	178.8	174.8	168.9	*	*	*	*	*	*	*
67495	197.7	210.2	83.7	**	**	**	206.2	*	*	*	*	*	*	*
67496	158.0	172.3	180.4	176.9	182.4	**	185.1	179.1	176.6	181.0	185.3	176.8	**	**
67497	156.4	171.6	178.8	184.3	191.0	184.8	182.7	180.3	179.6	177.3	177.2	170.9	162.9	162.3
67498	174.9	185.7	194.8	199.4	201.5	201.9	205.6	*	*	*	*	*	*	*
67499	169.9	189.2	201.5	208.7	213.5	212.4	209.5	203.9	208.3	204.3	194.4	194.7	185.2	*
67500	166.8	176.6	177.1	186.1	*	*	*	*	*	*	*	*	*	*
67501	153.9	163.1	171.0	180.3	181.9	176.6	172.8	174.6	175.4	167.8	168.1	168.4	166.4	*
67502	**	**	198.0	**	**	*	*	*	*	*	*	*	*	*
67503	177.6	181.8	192.1	195.4	*	*	*	*	*	*	*	*	*	*
67504	178.4	191.8	199.8	203.0	212.1	210.0	207.6	200.0	204.7	206.8	200.4	197.8	194.4	*
67505	169.7	185.8	195.5	200.0	203.0	203.6	196.5	192.3	190.5	193.4	194.0	198.8	196.0	*

* = DEAD ANIMAL
** = INVALID VALUE - FOOD WASTED OR SPILLED

INDIVIDUAL FOOD CONSUMPTION (G/WK)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

ANIMAL NUMBER	15	16	17	18	19	20	WEEKS 21
GROUP	1	MALES	-	CONTROL			
67494	*	*	*	*	*	*	*
67495	*	*	*	*	*	*	*
67496	162.7	157.8	165.2	**	165.3	168.9	*
67497	178.4	182.3	180.6	181.1	189.8	188.5	192.2
67498	*	*	*	*	*	*	*
67499	*	*	*	*	*	*	*
67500	*	*	*	*	*	*	*
67501	*	*	*	*	*	*	*
67502	*	*	*	*	*	*	*
67503	*	*	*	*	*	*	*
67504	*	*	*	*	*	*	*
67505	*	*	*	*	*	*	*

* = DEAD ANIMAL
** = INVALID VALUE - FOOD WASTED OR SPILLED

INDIVIDUAL FOOD CONSUMPTION (G/WK)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

ANIMAL NUMBER	WEEKS													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
GROUP	2 MALES	-	1.0000 PPM											
67506	159.2	168.1	178.8	182.1	AA	AA	185.7							
67507	162.6	171.7	179.7	191.4	195.7	193.7	191.8	186.2	181.4	185.9	178.3	173.9	168.7	
67508	166.6	176.7	190.9	195.5	192.5	186.7	179.8	176.0	187.6	182.0	180.1	173.2	165.7	160.9
67509	185.7	199.8	209.0	221.0										
67510	153.8	164.7	177.5	188.0										
67511	157.7	163.7	166.4	175.6										
67512	158.4	160.3	173.4	189.3	185.3	182.6	178.8							
67513	167.0	187.7	178.7	187.8	195.7	197.8	198.6	184.2	195.7	197.6	200.3	200.2	195.0	189.2
67514	178.6	187.7	189.4	195.2										
67515	179.2	183.4	194.5	210.1										
67516	161.0	172.8	190.9	192.5	199.2	194.4	194.9	191.4	194.5	187.6	194.7	185.1	180.4	182.2
67517	169.4	179.4	192.0	191.5	197.4	193.5	193.0	193.8	194.9	183.2	185.5	187.6	180.2	181.5
67518	165.5	180.3	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA
67519	171.0	178.1	193.1	204.6	AA	AA	202.7	199.3	204.9	193.4	AA	AA	AA	AA
67520	164.9	182.1	202.7	AA	AA	AA	183.2	183.9	192.5	188.1	175.5	175.0	AA	161.4
67521	158.0	162.6	177.3	180.8	188.5	183.7	184.9	177.3	188.6	188.6	186.5	184.9	180.0	
67522	168.7	197.2	216.9	219.2	229.7	228.1	230.5							
67523	181.3	192.4	202.5	208.9	212.4	207.6	210.9	207.3	217.7	204.0	211.1	199.8	199.8	
67524	163.6	178.8	189.5	202.3										
67525	166.5	177.7	191.9	205.1										
67526	158.8	168.5	174.2	179.1	187.9	180.9	175.3	181.6	179.5	178.2	189.6	189.4	188.5	
67527	157.8	168.2	181.1	182.5	193.7	191.2	186.8							
67528	158.4	180.9	187.7	180.5	AA	196.6	AA	173.9	AA	168.3	164.3	168.4	164.1	157.7
67529	145.7	183.2	189.8	179.3										
67530	177.9	188.8	202.8	215.2										
67531	172.9	183.5	194.3	210.2	212.7	215.6	218.1							
67532	167.7	181.9	192.7	208.3	211.0	203.9	204.6							
67533	177.9	195.7	201.7	208.8	218.5	215.3	204.8	203.8	204.9	199.2	194.1	199.1	197.8	
67534	167.3	180.0	191.2	193.7	199.1	193.8	184.4	192.6	192.6	189.3	188.9	177.7	177.8	174.8
67535	161.5	171.8	190.5	196.2	202.6	195.7	203.3	200.6	202.9	186.7	184.3	201.6	195.4	
67536	174.8	172.2	178.6	186.5	200.3	195.0	192.8	187.9	199.4	200.2	203.5	200.2	197.3	
67537	145.2	152.9	163.0	169.0										
67538	167.7	187.3	AA	202.0	204.2	219.9	AA	196.8	202.3	198.4	217.1	207.1	198.6	210.6
67539	162.9	177.8	195.8	198.6	202.4	199.9	202.9							
67540	187.9	208.0	223.2	230.1	237.1	224.7	223.3							
67541	180.3	201.2	AA	206.7	210.7	208.6	206.3	200.9	217.5	209.8	201.9	202.1	197.8	
67542	141.0	151.3	165.1	170.4	176.0	178.2	170.7							
67543	168.2	190.9	205.7	213.3	219.6	189.9	180.6	184.6	180.4	174.1	163.3	149.8	133.6	147.6
67544	164.7	170.9	179.6	181.7	183.0									
67545	163.6	168.7	175.1	180.9	178.8	178.4	181.5							
67546	158.2	160.6	166.0	173.7	182.0	180.1	174.3							
67547	165.9	172.1	173.6	181.8	183.1	182.5	179.7							
67548	156.3	165.9	172.6	182.3	193.5	183.5	178.7	172.9	182.2	175.5	175.5	171.3	164.7	156.1

* = DEAD ANIMAL
** = INVALID VALUE - FOOD WASTED OR SPILLED

INDIVIDUAL FOOD CONSUMPTION (G/WK)
13 WK DIETARY TOXICITY STUDY WITH T-5180

IMI 6329-100

ANIMAL NUMBER	WEEKS						
	15	16	17	18	19	20	21
GROUP	2	MALES	-	1.0000	PPM		
67506	*	*	*	*	*	*	*
67507	*	*	*	*	*	*	*
67508	158.9	158.9	161.2	172.9	173.7	170.7	*
67509	*	*	*	*	*	*	*
67510	*	*	*	*	*	*	*
67511	*	*	*	*	*	*	*
67512	*	*	*	*	*	*	*
67513	202.0	193.0	206.2	210.9	203.6	212.9	223.4
67514	*	*	*	*	*	*	*
67515	*	*	*	*	*	*	*
67516	195.2	194.9	190.1	201.7	200.5	194.3	*
67517	189.6	188.1	187.1	195.6	203.3	186.6	174.8
67518	*	*	*	*	*	*	*
67519	*	*	*	*	*	*	*
67520	175.8	158.2	151.2	169.3	159.8	170.2	171.4
67521	*	*	*	*	*	*	*
67522	*	*	*	*	*	*	*
67523	*	*	*	*	*	*	*
67524	*	*	*	*	*	*	*
67525	*	*	*	*	*	*	*
67526	*	*	*	*	*	*	*
67527	*	*	*	*	*	*	*
67528	157.7	154.0	156.4	167.5	166.4	167.1	164.6
67529	*	*	*	*	*	*	*
67530	*	*	*	*	*	*	*
67531	*	*	*	*	*	*	*
67532	*	*	*	*	*	*	*
67533	*	*	*	*	*	*	*
67534	177.4	167.9	169.1	183.1	172.8	173.1	*
67535	*	*	*	*	*	*	*
67536	*	*	*	*	*	*	*
67537	*	*	*	*	*	*	*
67538	207.6	203.1	204.9	213.4	216.3	217.5	*
67539	*	*	*	*	*	*	*
67540	*	*	*	*	*	*	*
67541	*	*	*	*	*	*	*
67542	*	*	*	*	*	*	*
67543	150.3	180.6	149.5	208.5	178.6	160.4	*
67544	*	*	*	*	*	*	*
67545	*	*	*	*	*	*	*
67546	*	*	*	*	*	*	*
67547	*	*	*	*	*	*	*
67548	172.8	174.5	185.2	190.4	196.7	195.1	205.7

* = DEAD ANIMAL

INDIVIDUAL FOOD CONSUMPTION (G/WK)
13 WK DIETARY TOXICITY STUDY WITH T-5180

IMI 6329-100

ANIMAL NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14
GROUP	2	MALES	-	1.0000 PPM										
67549	171.8	178.8	195.4	216.3	220.8	228.8	221.1	217.5	217.6	216.4	221.9	213.1	*	
67550	151.6	162.8	177.4	179.8	186.4	*	*	*	*	*	*	*	*	*
67551	177.5	190.2	202.7	208.7	208.6	203.0	192.1	196.6	184.3	182.3	182.2	177.9	*	
67552	192.1	200.5	193.5	201.5	211.3	211.1	210.2	214.5	216.8	210.2	214.5	193.6	187.4	*
67553	164.6	169.1	181.1	197.1	197.1	201.4	188.4	191.3	195.5	184.2	164.7	*	*	
67554	181.5	195.8	211.2	214.9	215.6	214.5	*	*	*	*	*	*	*	*
67555	159.5	171.9	175.0	173.3	181.8	175.9	175.8	171.4	187.3	175.7	172.9	177.6	162.4	*
67556	177.7	184.4	195.2	198.6	208.4	201.1	198.1	*	*	*	*	*	*	*
67557	171.8	181.5	186.9	193.6	*	*	*	*	*	*	*	*	*	*
67558	187.4	203.9	215.0	219.6	225.0	*	*	*	*	*	*	*	*	*
67559	173.1	183.0	188.4	201.2	207.3	198.0	194.1	*	*	*	*	*	*	*

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INDIVIDUAL FOOD CONSUMPTION (G/WK)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

ANIMAL NUMBER	WEEKS						
	15	16	17	18	19	20	21
GROUP	2	MALES	-	1.0000 PPM			
67549	*	*	*	*	*	*	*
67550	*	*	*	*	*	*	*
67551	*	*	*	*	*	*	*
67552	*	*	*	*	*	*	*
67553	*	*	*	*	*	*	*
67554	*	*	*	*	*	*	*
67555	*	*	*	*	*	*	*
67556	*	*	*	*	*	*	*
67557	*	*	*	*	*	*	*
67558	*	*	*	*	*	*	*
67559	*	*	*	*	*	*	*
67560	*	*	*	*	*	*	*

* = DEAD ANIMAL

INDIVIDUAL FOOD CONSUMPTION (G/WK)
13 WK DIETARY TOXICITY STUDY WITH T-5180

IWI 6329-100

ANIMAL NUMBER	WEEKS													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
GROUP	3	MALES	-	10.0000	PPM									
87581	183.3	177.3	187.0	195.8	200.4	196.2	191.7	189.1	192.8	192.0	188.5	187.2	189.0	182.3
87582	175.8	188.3	199.3	207.3	208.8									
87583	191.6	200.1	208.5	213.9	214.4	209.4	205.8	203.8	213.9	208.1	207.0	208.0	213.9	
87584	186.9	204.4	202.1	217.5	214.0	216.3	202.4	200.4	201.4	205.5	204.4	192.8	149.2	
87585	183.7	188.1			210.7									
87586	180.3	182.9	184.1	185.8										
87587	170.3	188.1	193.8	198.8	208.5	200.3	209.9	202.7	217.0	211.4	198.5	194.0	193.0	189.8
87588	169.5	177.8	181.8	188.4										
87589	161.7	171.0	174.9											
87590	186.5	200.0	200.4	212.5	216.0	177.0	197.7							
87591	152.2	171.8	187.5	174.0	177.1	177.0	178.7		180.5				171.1	
87592	163.7	170.4	173.7	181.1	181.4	183.2	180.3	182.2	187.5	180.1	180.4	177.1	177.4	177.4
87593	163.9	188.3	170.4	180.7	190.3	184.2	177.7	171.8	173.9	189.3	158.5	159.4	155.8	180.1
87594	148.8	163.4	187.8	174.5	179.0									
87595	171.6	188.6	199.8	204.9	213.4	215.2	221.1				210.7		202.0	203.9
87596	154.1	185.5	170.3	170.3										
87597	158.1	154.7	154.1	158.8										
87598	164.4	168.7	173.4	173.7	184.8	184.4	179.9							
87599	159.4	171.8	185.2	193.2	200.0	200.1	193.3	187.8	198.9	190.0	183.9	184.5		
87600	162.8	166.9	177.8	179.7	184.7	186.5	180.4							
87601	183.9	177.5	189.9	184.3		196.3	200.7							
87602	154.2	165.8	184.1	179.4	179.5	173.1	177.4							
87603	180.3	188.2	178.6	192.8	195.0	188.5	182.5							
87604	166.2	179.7	193.0	194.7	210.4	211.0	213.1							
87605	180.0	172.9					203.2							
87606														
87607		181.3	189.7		208.2	203.0	203.3							
87608	150.5	163.3	170.5	178.2	189.3	180.8	177.7	168.2	154.0	167.4	171.3	170.3	180.7	159.9
87609	168.8	175.9	192.7	190.8	198.3	203.7	191.2	182.4	184.5	178.8	181.0	178.8	175.4	166.5
87610	158.7	173.6	177.3	177.0										
87611	154.8	167.4	177.3	188.7										
87612	134.5	138.2	157.0	143.7										
87613	170.8	188.8	214.8	223.0	222.1	222.7	224.5	215.8	212.4	207.8	217.3	215.4	209.7	209.2
87614	181.0	197.8	202.1	201.5	209.8	209.9	209.1							
87615	185.8	181.1	199.8	200.7										
87616	157.2	167.5	174.4	171.2	176.1		178.1	168.8	175.6	171.8	171.7			
87617	158.6	158.7	174.3											
87618	180.3	170.6	179.3	184.9	193.1	189.7	194.3	186.7	194.6	185.8	188.2	184.8	179.5	
87619	162.7	176.8	180.2	189.6										
87620	182.9	196.2	196.8	198.9	206.4	205.0	212.1	199.1	209.4	208.2	209.2	215.8	205.3	
87621	182.9	196.1	213.2	223.2	232.2									
87622	173.7	187.2	184.5	201.8	204.3	200.0	194.8							
87623	184.7	282.8	122.5	214.8	219.3	208.4	218.7	210.8	208.5	199.1	199.1	205.2	186.7	

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INDIVIDUAL FOOD CONSUMPTION (G/WK)
13 WK DIETARY TOXICITY STUDY WITH T-S180

IWI 6329-100

ANIMAL NUMBER	15	16	17	18	19	20	WEEKS 21
GROUP	3	MALES	-	10.0000	PPM		
67561	192.5	192.1	193.9	196.4	195.1	184.5	192.5
67562	*	*	*	*	*	*	*
67563	*	*	*	*	*	*	*
67564	*	*	*	*	*	*	*
67565	*	*	*	*	*	*	*
67566	*	*	*	*	*	*	*
67567	195.0	181.2	171.0	178.8	186.3	184.2	*
67568	*	*	*	*	*	*	*
67569	*	*	*	*	*	*	*
67570	*	*	*	*	*	*	*
67571	*	*	*	*	*	*	*
67572	180.5	170.5	174.7	180.9	175.7	171.4	186.2
67573	172.6	168.2	167.6	116.4	145.3	176.3	167.8
67574	*	*	*	*	*	*	*
67575	210.7	202.9	202.8	214.9	215.7	223.0	*
67576	*	*	*	*	*	*	*
67577	*	*	*	*	*	*	*
67578	*	*	*	*	*	*	*
67579	181.4	182.9	183.1	**	179.8	181.1	*
67580	*	*	*	*	*	*	*
67581	*	*	*	*	*	*	*
67582	*	*	*	*	*	*	*
67583	*	*	*	*	*	*	*
67584	*	*	*	*	*	*	*
67585	*	*	*	*	*	*	*
67586	*	*	*	*	*	*	*
67587	*	*	*	*	*	*	*
67588	181.2	182.3	183.3	179.1	177.7	171.0	177.1
67589	183.5	175.4	172.1	188.6	187.1	179.1	*
67590	*	*	*	*	*	*	*
67591	*	*	*	*	*	*	*
67592	*	*	*	*	*	*	*
67593	208.5	212.8	207.0	216.6	217.2	209.4	*
67594	*	*	*	*	*	*	*
67595	*	*	*	*	*	*	*
67596	*	*	*	*	*	*	*
67597	*	*	*	*	*	*	*
67598	*	*	*	*	*	*	*
67599	*	*	*	*	*	*	*
67600	*	*	*	*	*	*	*
67601	*	*	*	*	*	*	*
67602	*	*	*	*	*	*	*
67603	*	*	*	*	*	*	*

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** = INVALID VALUE - FOOD WASTED OR SPILLED

INDIVIDUAL FOOD CONSUMPTION (G/WK)
13 WK DIETARY TOXICITY STUDY WITH T-5180

IWI 6329-100

ANIMAL NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14
GROUP	3	MALES	-	10.0000	PPM									
67604	175.8	182.0	188.3	195.6	198.4	187.7	189.7	187.8	186.3	186.6	183.6	185.4	185.8	*
67605	174.9	**	**	193.8	201.2	193.4	180.6	188.2	191.5	189.5	183.2	184.7	176.6	*
67606	154.8	172.1	178.7	185.6	192.1	182.6	183.6	*	*	*	*	*	*	*
67607	167.1	170.6	179.5	184.8	193.5	181.6	191.0	189.4	195.8	185.8	181.8	182.0	181.5	*
67608	156.8	170.2	167.1	176.5	173.2	170.7	173.2	166.6	170.2	174.0	168.9	163.6	161.6	*
67609	203.8	213.1	225.9	226.2	223.5	225.1	218.1	203.6	216.8	221.5	211.4	208.6	174.9	185.6
67610	183.8	176.0	190.9	196.4	200.8	190.9	195.0	192.3	196.2	188.3	184.1	182.1	187.4	*
67611	155.1	173.1	171.7	181.3	*	174.6	177.1	175.3	180.1	179.2	174.2	176.0	174.1	*
67612	149.4	158.4	174.0	186.0	192.9	186.7	189.2	*	*	*	*	*	*	*
67613	171.2	188.2	205.2	208.1	212.6	210.5	206.9	202.7	208.0	209.4	201.6	202.8	193.6	*
67614	170.5	184.5	187.9	191.6	193.3	194.5	192.3	*	*	*	*	*	*	*
67615	171.0	174.2	**	177.9	176.0	174.3	179.5	172.2	177.1	181.8	181.2	183.9	179.6	*

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INDIVIDUAL FOOD CONSUMPTION (G/WK)
13 WK DIETARY TOXICITY STUDY WITH T-5180

IWI 6329-100

ANIMAL NUMBER	15	16	17	18	19	20	WEEKS 21
GROUP 3 MALES - 10.0000 PPM							
67604	*	*	*	*	*	*	*
67605	*	*	*	*	*	*	*
67606	*	*	*	*	*	*	*
67607	*	*	*	*	*	*	*
67608	*	*	*	*	*	*	*
67609	193.6	188.1	203.2	205.1	210.9	215.9	217.1
67610	*	*	*	*	*	*	*
67611	*	*	*	*	*	*	*
67612	*	*	*	*	*	*	*
67613	*	*	*	*	*	*	*
67614	*	*	*	*	*	*	*
67615	*	*	*	*	*	*	*

* = DEAD ANIMAL

INDIVIDUAL FOOD CONSUMPTION (G/WK)
13 WK DIETARY TOXICITY STUDY WITH T-5180

IWI 6329-100

ANIMAL NUMBER	WEEKS													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
GROUP	4	MALES	-	30.0000	PPM									
67616	175.4	188.5	193.3	202.0	205.8	205.8	207.1	203.0	204.9	204.4	209.3	209.9	204.6	*
67617	151.1	160.7	168.8	162.7	182.5	188.5	184.8							*
67618	172.1	194.8	218.3	**	**	**	**	**	**	**	200.8	208.0	**	*
67619	173.4	177.8	184.1	204.5	*	*	*	*	*	*	*	*	*	*
67620	205.3	210.5	223.8	230.5	248.5	*	*	*	*	*	*	*	*	*
67621	171.7	230.3	207.8	215.8	219.0	215.1	215.8	210.7	215.0	208.3	209.8	209.4	197.1	*
67622	170.7	187.3	190.4	195.8	203.0	197.7	197.1	198.7	189.8	185.3	187.3	182.0	178.2	163.3
67623	159.7	169.0	**	**	181.1	182.4	184.8	*	*	*	*	*	*	*
67624	159.9	170.0	179.3	191.1	191.1	191.1	185.4	182.3	185.1	178.8	185.4	184.9	173.2	*
67625	169.9	**	185.3	190.2	**	177.5	177.1	172.2	170.8	185.4	174.5	168.1	166.8	159.9
67626	167.2	168.7	170.4	174.4	*	*	*	*	*	*	*	*	*	*
67627	155.2	167.2	175.8	181.8	*	*	*	*	*	*	*	*	*	*
67628	182.2	238.2	202.3	209.3	211.0	209.3	201.5	197.2	204.3	200.0	200.8	191.5	185.5	177.4
67629	180.1	187.5	80.8	190.8	194.7	193.3	201.1	*	*	*	*	*	*	*
67630	181.6	193.2	208.4	222.0	228.9	*	*	*	*	*	*	*	*	*
67631	153.8	161.5	188.3	188.9	*	*	*	*	*	*	*	*	*	*
67632	158.4	185.0	177.8	178.0	*	*	*	*	*	*	*	*	*	*
67633	188.0	189.7	83.2	215.7	223.8	*	*	*	*	*	*	*	*	*
67634	167.5	259.8	194.8	185.8	202.3	200.1	202.7	*	*	*	*	*	*	*
67635	171.9	172.8	182.7	188.2	209.8	203.7	201.7	197.4	197.2	186.7	185.4	180.2	181.1	*
67636	158.5	160.5	164.7	170.0	179.0	*	*	*	*	*	*	*	*	*
67637	152.6	160.9	170.7	174.5	183.8	179.6	178.9	181.2	180.7	**	180.5	173.9	175.4	**
67638	171.0	178.5	193.9	207.5	212.7	213.9	227.9	*	*	*	*	*	*	*
67639	174.8	188.4	208.8	**	215.5	218.0	*	*	*	*	*	*	*	*
67640	165.7	180.4	189.9	190.8	*	*	*	*	*	*	*	*	*	*
67641	188.5	169.6	181.6	190.5	222.1	195.2	194.4	188.3	203.2	198.7	198.1	195.4	187.2	*
67642	183.0	195.4	201.4	184.8	248.1	205.8	205.5	*	*	*	*	*	*	*
67643	160.5	157.2	**	139.5	**	159.8	159.6	153.7	158.2	154.1	154.8	155.7	149.8	*
67644	177.2	183.3	188.3	157.4	229.4	191.3	188.6	*	*	*	*	*	*	*
67645	182.6	192.9	218.3	202.1	251.3	228.9	225.2	220.7	220.5	190.8	217.3	207.8	194.3	*
67646	172.6	181.9	191.8	200.4	**	**	201.5	*	*	*	*	*	*	*
67647	147.9	142.8	168.0	172.8	174.7	174.8	173.3	*	*	*	*	*	*	*
67648	169.9	180.4	185.8	190.5	*	*	*	*	*	*	*	*	*	*
67649	**	172.2	**	208.5	210.4	242.2	**	173.1	188.8	193.8	190.1	189.6	180.1	175.1
67650	177.3	190.9	198.1	202.1	203.2	208.6	207.9	203.8	204.4	203.0	201.3	203.2	191.4	*
67651	180.0	271.3	119.7	204.4	208.9	194.3	200.8	198.0	204.1	198.9	194.4	184.4	184.1	177.0
67652	159.5	163.2	168.6	163.4	168.7	171.0	178.5	174.9	174.5	172.4	170.2	171.2	171.3	*
67653	163.3	177.6	189.9	194.8	**	*	207.1	197.8	208.8	202.6	198.0	201.7	192.0	*
67654	152.2	158.7	28.9	151.7	*	*	*	*	*	*	*	*	*	*
67655	165.6	171.7	187.8	204.0	203.7	202.2	198.4	*	*	*	*	*	*	*
67656	171.7	186.7	187.1	191.0	174.2	184.0	184.1	*	*	*	*	*	*	*
67657	168.6	172.0	189.4	201.8	205.3	201.8	198.8	*	*	*	*	*	*	*
67658	160.4	242.0	166.1	167.0	172.6	155.4	160.8	163.1	168.4	165.8	164.6	158.1	152.7	*

* = DEAD ANIMAL
** = INVALID VALUE - FOOD WASTED OR SPILLED

INDIVIDUAL FOOD CONSUMPTION (G/WK)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

ANIMAL NUMBER	WEEKS						
	15	16	17	18	19	20	21
GROUP	4	MALES	-	30.0000	PPM		
87616	*	*	*	*	*	*	*
87617	*	*	*	*	*	*	*
87618	*	*	*	*	*	*	*
87619	*	*	*	*	*	*	*
87620	*	*	*	*	*	*	*
87621	*	*	*	*	*	*	*
87622	165.1	160.2	172.0	162.2	165.9	160.3	163.7
87623	*	*	*	*	*	*	*
87624	*	*	*	*	*	*	*
87625	*	*	*	*	*	*	*
87626	169.6	170.3	171.1	170.1	160.0	164.1	*
87627	*	*	*	*	*	*	*
87628	178.5	185.4	186.0	181.4	180.7	187.0	*
87629	*	*	*	*	*	*	*
87630	*	*	*	*	*	*	*
87631	*	*	*	*	*	*	*
87632	*	*	*	*	*	*	*
87633	*	*	*	*	*	*	*
87634	*	*	*	*	*	*	*
87635	*	*	*	*	*	*	*
87636	*	*	*	*	*	*	*
87637	177.4	*	**	**	**	**	*
87638	*	*	*	*	*	*	*
87639	*	*	*	*	*	*	*
87640	*	*	*	*	*	*	*
87641	*	*	*	*	*	*	*
87642	*	*	*	*	*	*	*
87643	*	*	*	*	*	*	*
87644	*	*	*	*	*	*	*
87645	*	*	*	*	*	*	*
87646	*	*	*	*	*	*	*
87647	*	*	*	*	*	*	*
87648	*	*	*	*	*	*	*
87649	168.2	175.8	192.9	177.9	186.2	186.8	206.4
87650	*	*	*	*	*	*	*
87651	186.2	189.3	190.0	194.3	191.5	188.4	191.2
87652	*	*	*	*	*	*	*
87653	*	*	*	*	*	*	*
87654	*	*	*	*	*	*	*
87655	*	*	*	*	*	*	*
87656	*	*	*	*	*	*	*
87657	*	*	*	*	*	*	*
87658	*	*	*	*	*	*	*

* = DEAD ANIMAL
** = INVALID VALUE - FOOD WASTED OR SPILLED

INDIVIDUAL FOOD CONSUMPTION (G/WK)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

ANIMAL NUMBER	WEEKS													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
GROUP	4	MALES	-	30.0000 PPM										
87859	177.8	180.1	181.5	201.0	*	*	*	*	*	*	*	*	*	*
87860	169.6	175.9	184.1	189.5	182.6	186.4	183.5	181.9	187.5	179.8	173.5	172.5	174.1	167.9
87861	151.5	158.5	163.8	185.8	167.7	182.7	185.0	*	*	*	*	*	*	*
87862	172.1	178.1	182.2	187.2	187.0	180.4	178.0	*	*	*	*	*	*	*
87863	165.9	175.5	178.2	193.8	*	*	*	*	*	*	*	*	*	*
87864	173.1	173.3	184.6	192.7	200.2	192.9	198.4	195.8	196.5	194.0	194.2	192.8	190.2	185.8
87865	152.8	167.0	173.9	179.5	*	*	*	*	*	*	*	*	*	*
87866	180.5	181.2	186.5	192.4	198.7	189.7	192.6	184.7	196.3	185.6	182.7	185.8	184.6	177.9
87867	165.7	179.8	187.7	195.3	196.9	195.8	196.7	*	*	*	*	*	*	*
87868	182.0	196.7	199.8	205.8	211.9	174.5	182.6	179.3	174.1	176.9	176.7	153.0	130.1	*
87869	169.2	178.8	175.0	194.0	205.3	193.7	187.2	167.0	195.2	189.1	194.6	186.7	181.1	*
87870	167.3	188.4	199.2	193.1	200.3	201.3	202.2	190.3	196.7	182.9	191.8	190.6	185.8	177.6

* = DEAD ANIMAL

INDIVIDUAL FOOD CONSUMPTION (G/WK)
13 WK DIETARY TOXICITY STUDY WITH T-5180

HWI 6329-100

ANIMAL NUMBER	WEEKS						
	15	16	17	18	19	20	21
GROUP	4	MALES	-	30.0000	PPM		
67659	*	*	*	*	*	*	*
67660	168.3	171.0	171.8	183.6	181.1	171.8	179.4
67661	*	*	*	*	*	*	*
67662	*	*	*	*	*	*	*
67663	*	*	*	*	*	*	*
67664	193.1	197.9	191.5	199.9	208.1	204.5	*
67665	*	*	*	*	*	*	*
67666	178.0	189.8	190.5	194.5	204.9	197.5	203.4
67667	*	*	*	*	*	*	*
67668	*	*	*	*	*	*	*
67669	*	*	*	*	*	*	*
67670	186.5	191.1	188.8	199.3	198.4	192.1	*

* = DEAD ANIMAL

Individual Food Consumption Data (g)

Animal Number	Week												
	1	2	3	4	5	6	7	8	9	10	11	12	13
	100 ppm T-5180												
C67671	138.9	153.8	164.1	172.6	198.3	189.3	192.8	188.2	190.2	193.4	190.1	200.1	192.8
C67672	148.2	158.8	174.3	178.4	186.7	185.4	184.5	174.1	182.7	177.5	126.0	144.7	127.9
C67673	141.5	156.4	166.7	181.1	192.5	188.4	197.3	180.2	181.5	177.2	176.9	185.2	176.1
C67674	163.9	169.5	190.1	199.7	206.0	201.4	198.2	200.4	205.0	189.3	194.3	195.8	190.9
C67675	159.5	183.4	193.2	200.1	207.6	*	*	*	*	*	*	*	*
C67676	168.0	180.9	198.4	208.4	213.7	211.0	207.5	187.8	186.8	123.2	138.2	142.0	114.8
C67677	148.3	161.3	177.2	180.1	189.3	188.7	186.2	184.3	191.7	179.6	174.8	176.3	173.7
C67678	144.4	154.4	168.0	176.6	182.5	182.2	177.5	170.9	172.4	168.7	165.9	165.2	155.6
C67679	150.2	163.2	170.8	179.8	178.8	173.7	178.7	172.3	183.5	176.3	173.1	178.8	170.5
C67680	139.5	149.8	158.0	169.9	185.2	179.6	179.5	*	*	*	*	*	*
C67681	155.6	175.9	182.4	180.4	183.0	*	*	*	*	*	*	*	*
C67682	146.2	162.7	175.8	186.7	*	*	*	*	*	*	*	*	*
C67683	153.5	164.9	173.5	181.7	180.9	175.9	180.0	176.8	177.9	173.8	167.2	174.2	164.8
C67684	153.2	166.8	179.9	183.5	189.0	183.4	181.8	178.4	169.9	**	159.6	162.1	155.4
C67685	146.1	150.2	153.3	*	*	*	*	*	*	*	*	*	*
C67686	160.5	168.6	188.9	190.4	199.2	194.6	186.7	182.9	189.1	185.6	181.9	185.3	184.5
C67687	154.6	171.4	172.6	179.2	184.9	*	*	*	*	*	*	*	*
C67688	141.0	154.8	178.1	177.0	174.8	182.2	177.9	169.1	182.3	128.5	134.4	156.4	153.3
C67689	152.7	163.5	179.2	187.9	*	*	*	*	*	*	*	*	*
C67690	155.0	161.2	176.0	175.0	*	*	*	*	*	*	*	*	*
C67691	147.4	143.7	137.4	155.6	159.9	155.5	159.3	159.2	165.4	137.7	142.1	150.9	151.2
C67692	167.5	176.8	186.7	197.1	207.7	*	*	*	*	*	*	*	*
C67693	154.3	166.9	184.3	193.5	195.2	*	*	*	*	*	*	*	*
C67694	155.5	162.5	181.1	181.0	193.8	186.8	189.1	188.3	189.9	187.1	162.8	186.0	184.5
C67695	138.7	141.2	155.0	157.8	167.7	162.8	156.0	148.7	147.0	148.7	146.4	147.9	142.0
C67696	154.1	157.4	166.9	170.1	171.8	*	*	*	*	*	*	*	*
C67697	160.6	167.1	180.2	182.8	191.9	189.6	186.5	179.8	188.4	184.9	190.7	188.5	183.2
C67698	145.8	153.9	170.2	184.5	195.6	*	*	*	*	*	*	*	*
C67699	161.8	171.3	186.5	205.0	219.2	215.1	196.8	189.4	*	*	*	*	*
C67700	163.0	167.7	187.3	195.5	209.0	204.9	201.6	198.4	206.8	199.4	198.7	203.8	197.6
C67701	151.3	161.9	169.9	174.5	183.6	182.9	173.1	168.5	178.0	176.9	176.7	179.2	170.6
C67702	170.0	175.8	183.1	186.1	191.5	190.0	188.2	157.5	*	*	*	*	*
C67703	168.4	175.0	193.4	207.0	221.1	236.3	215.3	185.3	*	*	*	*	*
C67704	159.5	170.5	200.7	194.0	204.2	198.2	190.7	195.0	207.5	205.2	203.7	198.5	187.4
C67705	156.4	174.6	196.0	202.8	209.3	204.2	206.5	172.0	*	*	*	*	*
C67706	141.4	154.2	157.9	164.8	176.8	176.3	170.2	162.5	171.5	173.0	164.9	166.1	167.8
C67707	167.4	180.2	197.6	205.4	202.4	213.3	210.8	149.6	*	*	*	*	*

* = Dead animal

** = Invalid value - food wasted or spilled.

Individual Food Consumption Data (g)

Animal Number	Week							
	14	15	16	17	18	19	20	21
100 ppm T-5180 (Continued)								
C67671	*	*	*	*	*	*	*	*
C67672	*	*	*	*	*	*	*	*
C67673	*	*	*	*	*	*	*	*
C67674	180.8	192.7	192.7	196.1	204.1	201.1	195.5	196.4
C67675	*	*	*	*	*	*	*	*
C67676	114.6	140.6	132.2	140.4	144.1	154.3	53.3	165.5
C67677	*	*	*	*	*	*	*	*
C67678	153.5	159.2	158.7	157.5	164.5	157.2	154.6	159.5
C67679	*	*	*	*	*	*	*	*
C67680	*	*	*	*	*	*	*	*
C67681	*	*	*	*	*	*	*	*
C67682	*	*	*	*	*	*	*	*
C67683	165.2	174.2	167.5	162.6	174.0	173.9	164.7	171.6
C67684	161.8	182.5	177.6	171.0	178.4	173.4	165.4	146.6
C67685	*	*	*	*	*	*	*	*
C67686	*	*	*	*	*	*	*	*
C67687	*	*	*	*	*	*	*	*
C67688	*	*	*	*	*	*	*	*
C67689	*	*	*	*	*	*	*	*
C67690	*	*	*	*	*	*	*	*
C67691	*	*	*	*	*	*	*	*
C67692	*	*	*	*	*	*	*	*
C67693	*	*	*	*	*	*	*	*
C67694	174.2	185.6	187.2	189.3	189.5	195.1	193.9	193.5
C67695	*	*	*	*	*	*	*	*
C67696	*	*	*	*	*	*	*	*
C67697	*	*	*	*	*	*	*	*
C67698	*	*	*	*	*	*	*	*
C67699	*	*	*	*	*	*	*	*
C67700	*	*	*	*	*	*	*	*
C67701	169.9	182.4	175.7	170.8	183.1	182.4	177.1	173.9
C67702	*	*	*	*	*	*	*	*
C67703	*	*	*	*	*	*	*	*
C67704	203.7	212.2	217.0	201.1	198.9	196.7	200.1	192.9
C67705	*	*	*	*	*	*	*	*
C67706	164.5	177.5	171.9	167.5	172.5	167.8	168.8	171.4
C67707	*	*	*	*	*	*	*	*

* = Dead animal

Individual Food Consumption Data (g)

Animal Number	Week												
	1	2	3	4	5	6	7	8	9	10	11	12	13
100 ppm T-5180 (Continued)													
C67708	165.6	175.4	196.6	201.2	210.9	214.5	220.1	190.6	*	*	*	*	*
C67709	142.6	155.6	175.8	170.8	181.9	177.6	168.2	118.7	*	*	*	*	*
C67710	160.7	179.7	203.1	200.4	206.5	205.6	196.7	193.4	*	*	*	*	*
C67711	157.5	176.2	178.1	181.0	185.9	181.9	178.2	179.2	*	*	*	*	*
C67712	159.0	169.8	198.5	197.6	183.8	210.2	206.5	207.1	215.7	212.5	205.5	213.2	218.5
C67713	169.9	180.9	192.6	193.4	199.9	*	*	*	*	*	*	*	*
C67714	138.7	135.5	140.7	134.9	153.4	153.4	154.7	155.5	158.3	160.1	159.0	158.6	157.0
C67715	154.7	163.7	177.1	193.1	200.9	*	*	*	*	*	*	*	*
C67716	159.4	161.9	165.4	169.6	176.1	167.7	164.2	160.8	168.0	162.1	138.4	160.7	162.0
C67717	152.4	162.7	164.8	176.5	*	*	*	*	*	*	*	*	*
C67718	164.0	176.5	193.6	199.1	205.2	204.0	197.0	201.6	*	*	*	*	*
C67719	161.3	164.7	180.0	181.8	194.9	191.1	189.3	136.1	*	*	*	*	*
C67720	182.5	195.5	224.0	235.4	257.0	244.2	238.1	242.0	242.9	243.4	244.8	240.6	236.2
C67721	154.2	148.0	171.9	171.2	187.4	179.3	170.6	145.1	*	*	*	*	*
C67722	149.4	161.0	176.3	184.0	176.1	180.9	180.0	129.6	*	*	*	*	*
C67723	163.0	173.4	186.4	186.3	194.3	188.0	183.0	176.6	177.1	172.1	173.8	170.3	174.3
C67724	158.4	163.9	191.7	197.6	211.3	208.9	208.0	175.9	*	*	*	*	*
C67725	149.2	166.0	189.0	188.9	*	*	*	*	*	*	*	*	*

* = Dead animal

** = Invalid value - food wasted or spilled.

Individual Food Consumption Data (g)

Animal Number	Week							
	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>
100 ppm T-5180 (Continued)								
C67708	*	*	*	*	*	*	*	*
C67709	*	*	*	*	*	*	*	*
C67710	*	*	*	*	*	*	*	*
C67711	*	*	*	*	*	*	*	*
C67712	*	*	*	*	*	*	*	*
C67713	*	*	*	*	*	*	*	*
C67714	*	*	*	*	*	*	*	*
C67715	*	*	*	*	*	*	*	*
C67716	*	*	*	*	*	*	*	*
C67717	*	*	*	*	*	*	*	*
C67718	*	*	*	*	*	*	*	*
C67719	*	*	*	*	*	*	*	*
C67720	*	*	*	*	*	*	*	*
C67721	*	*	*	*	*	*	*	*
C67722	*	*	*	*	*	*	*	*
C67723	159.9	181.3	179.2	170.1	179.2	173.7	171.5	177.4
C67724	*	*	*	*	*	*	*	*
C67725	*	*	*	*	*	*	*	*

* = Dead animal

** = Invalid value - food wasted or spilled.

Individual Food Consumption Data (g)

Animal Number	Week												
	1	2	3	4	5	6	7	8	9	10	11	12	13
	0 ppm T-5180												
C67726	153.0	165.0	179.3	184.6	*	*	*	*	*	*	*	*	*
C67727	154.9	165.0	179.3	184.9	*	*	*	*	*	*	*	*	*
C67728	154.6	165.0	179.3	184.9	193.7	190.8	188.6	*	*	*	*	*	*
C67729	154.9	165.0	179.3	184.9	193.7	**	188.6	*	*	*	*	*	*
C67730	154.1	165.0	178.3	182.6	190.5	**	185.2	182.5	184.8	175.8	172.1	175.1	**
C67731	154.9	165.0	179.3	184.5	193.7	190.8	188.6	*	*	*	*	*	*
C67732	154.9	165.0	179.3	184.9	193.7	190.8	188.6	184.3	185.1	175.9	173.1	177.0	171.3
C67733	152.6	165.0	179.3	184.4	*	*	*	*	*	*	*	*	*
C67734	153.0	165.0	179.3	180.0	182.2	174.7	166.2	*	*	*	*	*	*
C67735	154.7	165.0	179.3	184.9	*	*	*	*	*	*	*	*	*
C67736	152.9	165.0	179.3	184.7	193.7	190.8	188.6	182.5	185.1	176.1	172.9	177.1	171.7
C67737	154.3	165.0	179.3	184.9	193.7	187.1	177.6	*	*	*	*	*	*
C67738	153.0	165.0	179.3	184.9	179.6	163.7	158.0	164.0	165.9	160.3	168.9	158.0	157.5
C67739	153.9	165.0	179.3	184.9	193.7	190.8	188.6	*	*	*	*	*	*
C67740	154.9	165.0	179.3	184.9	154.4	150.1	155.9	164.0	177.3	166.3	172.4	167.3	*
C67741	154.9	165.0	179.3	184.9	*	*	*	*	*	*	*	*	*
C67742	153.4	165.0	179.3	184.9	*	*	*	*	*	*	*	*	*
C67743	151.9	165.0	178.6	170.9	180.0	175.9	168.9	*	*	*	*	*	*
C67744	154.9	165.0	179.3	184.9	186.8	175.6	181.0	178.4	181.6	171.9	173.4	175.2	168.1
C67745	154.9	165.0	179.3	184.9	*	*	*	*	*	*	*	*	*
C67746	154.9	165.0	179.3	184.9	193.7	190.8	188.6	184.2	185.1	175.9	173.0	177.0	171.2
C67747	154.9	165.0	179.3	184.9	193.7	190.8	188.0	183.8	183.6	174.9	173.4	174.9	163.4
C67748	154.9	165.0	179.3	184.9	193.7	190.8	188.6	183.6	185.1	176.1	173.4	177.2	*
C67749	154.9	165.0	179.3	184.7	193.0	190.8	187.6	183.8	184.0	175.8	172.5	177.1	*
C67750	154.9	165.0	179.3	184.9	193.7	172.6	163.7	*	*	*	*	*	*
C67751	154.9	165.0	179.0	184.4	*	*	*	*	*	*	*	*	*
C67752	154.9	165.0	179.3	184.9	193.7	190.8	188.6	*	*	*	*	*	*
C67753	154.9	165.0	179.3	184.5	193.0	190.0	187.3	*	*	*	*	*	*
C67754	154.9	165.0	179.3	184.9	193.5	**	184.9	182.4	185.1	176.1	173.4	177.2	171.7
C67755	154.9	165.0	179.3	175.3	166.4	167.8	153.0	156.9	155.7	159.3	160.1	155.8	*
C67756	150.4	162.8	176.7	181.2	183.4	176.0	175.1	170.3	176.3	167.8	165.9	164.3	159.5
C67757	154.9	165.0	179.3	184.9	*	*	*	*	*	*	*	*	*
C67758	154.9	165.0	179.3	184.9	193.7	190.8	187.5	*	*	*	*	*	*
C67759	154.9	165.0	179.3	184.9	*	*	*	*	*	*	*	*	*
C67760	152.9	160.8	166.0	176.0	179.9	**	170.6	173.7	180.0	171.8	160.7	176.2	*

* = Dead animal.

** = Spilled feed.

Individual Food Consumption Data (g)

Animal Number	Week												
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>
0 ppm T-5180 (Continued)													
C67761	148.8	165.0	179.3	184.9	*	*	*	*	*	*	*	*	*
C67762	154.9	165.0	179.3	184.9	*	*	*	*	*	*	*	*	*
C67763	154.9	165.0	179.3	184.7	193.1	190.8	188.5	*	*	*	*	*	*
C67764	143.9	165.0	179.3	184.9	*	*	*	*	*	*	*	*	*
C67765	154.9	165.0	154.7	169.5	179.5	**	164.7	*	*	*	*	*	*
C67766	154.9	165.0	179.3	180.0	183.9	188.5	153.6	*	*	*	*	*	*
C67767	149.2	165.0	179.3	184.9	192.9	184.9	179.3	178.1	177.9	170.2	167.7	163.2	161.9
C67768	154.9	165.0	179.3	184.9	193.7	190.8	182.5	*	*	*	*	*	*
C67769	154.9	164.9	179.3	184.9	*	*	*	*	*	*	*	*	*
C67770	153.0	163.3	166.8	169.6	*	*	*	*	*	*	*	*	*

* = Dead animal.

** = Spilled feed.

APPENDIX C
Individual Clinical Chemistry Values

INDIVIDUAL CLINICAL CHEMISTRY DATA

MALES WEEK 5

ANIMAL NUMBER	PCOAO IU/G	
GROUP: 1 DOSE LEVEL: 0 DOSAGE UNIT: PPM		
C67461	8	
C67468	8	
C67486	9	
C67491	8	
C67500	8	
MEAN	8	
S.D.	0.5	
N	5	
GROUP: 2 DOSE LEVEL: 1 DOSAGE UNIT: PPM		
C67524	8	
C67525	9	
C67530	8	
C67555	10	
C67558	12	
MEAN	9	
S.D.	1.7	
N	5	
GROUP: 3 DOSE LEVEL: 10 DOSAGE UNIT: PPM		
C67576	11	
C67577	16	
C67591	10	
C67595	17	
C67599	18	
MEAN	14	
S.D.	3.6	
N	5	

INDIVIDUAL CLINICAL CHEMISTRY DATA

MALES WEEK 5

ANIMAL NUMBER	PCOAO IU/G	

GROUP: 4	DOSE LEVEL: 30	DOSAGE UNIT: PPM
C67627	16	
C67631	21	
C67632	43	
C67663	15	
C67665	27	
MEAN	24	
S.D.	11.4	
N	5	
GROUP: 5	DOSE LEVEL: 100	DOSAGE UNIT: PPM
C67682	56	
C67689	28	
C67690	41	
C67717	43	
C67725	18	
MEAN	37	
S.D.	14.8	
N	5	
GROUP: 8	DOSE LEVEL: 0	DOSAGE UNIT: PPM
C67726	8	
C67733	8	
C67741	8	
C67745	8	
C67762	8	
MEAN	8	
S.D.	.4	
N	5	

INDIVIDUAL CLINICAL CHEMISTRY DATA

MALES WEEK 8

ANIMAL NUMBER	PCOAO IU/G	
GROUP: 1 DOSE LEVEL: 0 DOSAGE UNIT: PPM		
C67483	9	
C67480	5	
C67481	7	
C67484	6	
C67485	7	
MEAN	7	
S.D.	1.5	
N	5	
GROUP: 2 DOSE LEVEL: 1 DOSAGE UNIT: PPM		
C67522	7	
C67531	8	
C67532	7	
C67540	6	
C67560	8	
MEAN	7	
S.D.	.8	
N	5	
GROUP: 3 DOSE LEVEL: 10 DOSAGE UNIT: PPM		
C67578	10	
C67583	10	
C67584	25	
C67587	14	
C67612	15	
MEAN	16	
S.D.	5.5	
N	5	

INDIVIDUAL CLINICAL CHEMISTRY DATA

MALES		WEEK 8
ANIMAL NUMBER	PCOAO IU/G	
-----	-----	
GROUP: 4	DOSE LEVEL: 30	DOSAGE UNIT: PPM
C67634	35	
C67642	32	
C67644	30	
C67657	49	
C67661	15	
MEAN	32	
S.D.	12.2	
N	5	
GROUP: 5	DOSE LEVEL: 100	DOSAGE UNIT: PPM
C67680	55	
C67707	8	
C67709	107	
C67719	46	
C67722	53	
MEAN	54	
S.D.	35.3	
N	5	
GROUP: 6	DOSE LEVEL: 0	DOSAGE UNIT: PPM
C67731	8	
C67734	7	
C67737	9	
C67766	7	
C67768	5	
MEAN	7	
S.D.	1.5	
N	5	

INDIVIDUAL CLINICAL CHEMISTRY DATA

MALES WEEK 14

ANIMAL NUMBER	PCOAO IU/G	

GROUP: 1	DOSE LEVEL: 0	DOSAGE UNIT: PPM
C87460	6	
C87462	7	
C87473	5	
C87487	7	
C87501	7	
MEAN	6	
S.D.	1.0	
N	5	
GROUP: 2	DOSE LEVEL: 1	DOSAGE UNIT: PPM
C87526	11	
C87533	7	
C87540	6	
C87551	7	
C87553	8	
MEAN	8	
S.D.	1.0	
N	5	
GROUP: 3	DOSE LEVEL: 10	DOSAGE UNIT: PPM
C87564	8	
C87608	13	
C87610	8	
C87611	10	
C87615	9	
MEAN	10	
S.D.	2.1	
N	5	

INDIVIDUAL CLINICAL CHEMISTRY DATA

MALES WEEK 14

ANIMAL NUMBER -----	PCOAO IU/G -----	
GROUP: 4	DOSE LEVEL: 30	DOSAGE UNIT: PPM
C67616	11	
C67623	15	
C67643	16	
C67652	10	
C67653	18	
MEAN	14	
S.D.	3.4	
N	5	
GROUP: 5	DOSE LEVEL: 100	DOSAGE UNIT: PPM
C67671	16	
C67672	14	
C67691	12	
C67700	20	
C67714	23	
MEAN	17	
S.D.	4.5	
N	5	
GROUP: 6	DOSE LEVEL: 0	DOSAGE UNIT: PPM
C67730	7	
C67738	6	
C67746	5	
C67754	5	
C67767	4	
MEAN	5	
S.D.	1.1	
N	5	

INDIVIDUAL CLINICAL CHEMISTRY DATA

MALES WEEK 22

ANIMAL NUMBER	PCOAO IU/G	

GROUP: 1	DOSE LEVEL: 0	DOSAGE UNIT: PPM
C87453	8	
C87458	7	
C87483	7	
C87480	7	
C87486	8	
MEAN	7	
S.D.	.7	
N	5	
GROUP: 2	DOSE LEVEL: 1	DOSAGE UNIT: PPM
C87508	7	
C87518	7	
C87534	10	
C87538	8	
C87543	8	
MEAN	7	
S.D.	1.8	
N	5	
GROUP: 3	DOSE LEVEL: 10	DOSAGE UNIT: PPM
C87587	8	
C87575	7	
C87579	7	
C87589	7	
C87593	5	
MEAN	7	
S.D.	1.1	
N	5	

INDIVIDUAL CLINICAL CHEMISTRY DATA

MALES WEEK 22

ANIMAL NUMBER	PCOAO IU/G	

GROUP: 4	DOSE LEVEL: 30	DOSAGE UNIT: PPM
C67626	9	
C67628	6	
C67637	7	
C67664	8	
C67670	7	
MEAN	7	
S.D.	1.1	
N	5	
GROUP: 5	DOSE LEVEL: 100	DOSAGE UNIT: PPM
C67674	7	
C67678	6	
C67683	7	
C67694	7	
C67701	7	
MEAN	7	
S.D.	.4	
N	5	



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FINAL REPORT

Study Title:

13-Week Dietary Toxicity Study with T-5180, Ammonium
Perfluorooctanoate (CAS No. 3825-26-1)
in Male Rats

Data Requirement:
Guideline 82-1

Author:

Matthew J. Palazzolo, PhD, DABT

Date:

May 17, 1993

Performing Laboratory:

Hazleton Wisconsin, Inc.
3301 Kinsman Boulevard
Madison, Wisconsin 53704

Laboratory Project Identification:

HWI 6329-100

VOLUME II OF II

Page 230 of 657

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APPENDIX D

Individual Absolute Organ Weight Data (g)
Individual Organ-to-Body Weight Percentages
Individual Organ-to-Brain Weight Ratios
Individual Animal Pathology Data

APPENDIX D
INDIVIDUAL ABSOLUTE ORGAN WEIGHT DATA (G)
5 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 11-OCT-91
PAGE: 1

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=1; SUBSET=ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	1	C67451	447.6	2.2017	17.2638	1.7496	1.7809	1.7540	2.8091
M	1	C67457	375.7	2.0893	15.3087	1.4270	1.5370	1.5080	2.8754
M	1	C67461	409.0	2.1204	16.3219	1.5015	1.5785	1.6495	2.8661
M	1	C67464	425.9	2.0479	17.2570	1.5181	1.6126	1.6505	2.3400
M	1	C67467	420.5	2.1977	14.6861	1.6480	1.5841	1.5851	2.8690
M	1	C67468	398.0	2.0288	14.9008	1.5845	1.7321	1.8084	2.5829
M	1	C67476	419.9	2.0751	15.8597	1.4231	1.8496	1.8101	2.8944
M	1	C67477	420.1	1.9579	16.9781	1.6197	1.4154	1.3988	2.3930
M	1	C67486	397.0	2.1138	16.3081	1.5415	1.5448	1.5492	2.5854
M	1	C67489	382.7	2.1238	14.7948	1.8788	1.8265	1.7483	2.6769
M	1	C67491	388.1	1.9387	14.4250	1.4507	1.5006	1.5182	2.7280
M	1	C67492	451.9	2.1730	23.3031	1.7054	1.7399	1.8389	3.2461
M	1	C67500	401.7	2.0014	15.5389	1.5614	1.6913	1.6935	2.4648
M	1	C67502	409.0	2.0260	16.5645	1.4831	1.6655	1.6489	2.6034
M	1	C67503	418.8	2.0221	15.5999	1.6163	1.6037	1.6466	2.6669
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				411.1	2.0732	16.3408	1.5138	1.6442	1.6523
STANDARD DEV:				21.7	.0812	2.1378	.2006	.1250	.1273
M	2	C67509	464.8	1.9307	17.4500	1.6890	1.7287	1.7032	2.8041
M	2	C67510	390.4	2.0804	14.2679	1.6098	1.6477	1.6491	3.1326
M	2	C67511	399.2	1.9738	14.2649	1.4589	1.6229	1.6199	2.9169
M	2	C67514	440.2	2.1070	16.1693	1.5906	1.8038	1.7879	2.6682
M	2	C67515	396.0	1.9549	14.9406	1.4892	1.5906	1.5946	2.2112
M	2	C67524	376.6	2.0306	15.8071	1.3185	1.3102	1.3303	2.5370

** CONTINUED ON NEXT PAGE **

APPENDIX D
INDIVIDUAL ABSOLUTE ORGAN WEIGHT DATA (G)
5 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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TABLE INCLUDES:
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DEATH=1, SUBSET=ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TEI - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	2	C67525	434.7	1.8831	17.8185	1.5590	1.8806	1.8599	2.7211
M	2	C67529	404.5	2.1694	14.7411	1.4026	1.7852	1.7033	2.5456
M	2	C67530	422.6	2.1181	14.7178	1.5587	1.5795	1.5950	2.6398
M	2	C67537	359.6	1.9303	12.8585	1.4473	1.6041	1.6330	2.0156
M	2	C67544	387.7	2.0234	12.9862	1.4677	1.5412	1.6271	2.5267
M	2	C67550	387.9	1.9897	14.1445	1.5451	1.5024	1.4836	2.5265
M	2	C67555	422.1	2.0072	15.7892	1.5776	1.4981	1.4914	2.7810
M	2	C67558	433.7	2.1439	17.5586	1.6358	1.6699	1.6140	2.8345
M	2	C67559	488.4	2.0513	18.2277	1.6181	1.5783	1.5797	3.5584
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				413.9	2.0275	15.4495	1.5312	1.6222	1.6168
STANDARD DEV:				34.5	.0842	1.7139	.0989	.1410	.1243
M	3	C67562	433.8	2.0610	19.3861	1.4976	1.7701	1.7381	3.1278
M	3	C67565	390.4	1.9778	16.3602	1.4884	1.5178	1.5533	2.2069
M	3	C67566	421.7	2.1092	19.6938	1.4756	1.7084	1.7142	2.6099
M	3	C67568	397.0	1.9801	17.9401	1.3867	1.5138	1.5234	2.9710
M	3	C67569	389.8	2.0620	16.0008	1.3330	1.7269	1.7674	2.6638
M	3	C67574	396.8	2.0008	16.1510	1.4023	1.8672	1.8099	3.4002
M	3	C67576	387.9	1.8902	17.4704	1.3139	1.6187	1.6220	3.1888
M	3	C67577	363.6	2.0559	16.0948	1.2849	1.5817	1.6657	2.3630
M	3	C67590	391.4	2.2534	17.2091	1.4866	1.5528	1.5279	2.5767
M	3	C67591	379.3	1.9980	16.8659	1.4326	1.5782	1.5455	2.8492
M	3	C67592	341.8	2.1769	14.0101	1.2998	1.5136	1.5352	2.6531
M	3	C67595	414.9	2.0247	19.3969	1.5582	1.8551	1.8029	3.5599

** CONTINUED ON NEXT PAGE **

APPENDIX D
INDIVIDUAL ABSOLUTE ORGAN WEIGHT DATA (G)
5 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TEI - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	3	C67597	380.0	2.0027	19.4228	1.4474	1.4049	1.5588	2.8560
M	3	C67599	407.5	1.9288	20.7184	1.5289	1.7114	1.6842	2.3845
M	3	C67601	480.6	2.1563	21.8925	1.7051	1.8701	1.7349	3.3149
NUMBER IN GROUP:			15	15	15	15	15	15	15
MEAN:			398.4	2.0452	17.8942	1.4426	1.6454	1.6520	2.8350
STANDARD DEV:			32.0	.0966	2.1294	.1122	.1241	.1058	.4086
M	4	C67619	409.2	2.0862	26.3509	1.5621	1.5736	1.5987	2.4021
M	4	C67620	469.8	2.0154	25.3547	1.4847	1.5086	1.4384	3.1823
M	4	C67625	371.2	2.1277	20.1581	1.5618	1.6535	1.6745	2.6636
M	4	C67627	396.2	2.0441	20.7728	1.5105	1.5123	1.5975	2.5701
M	4	C67630	457.0	2.0448	27.0511	1.5123	1.6356	1.6873	2.8981
M	4	C67631	381.1	2.1312	22.4129	1.4438	1.4198	1.4055	2.9883
M	4	C67632	386.5	1.9220	18.2926	1.3554	1.5971	1.5183	2.3953
M	4	C67633	453.7	2.1741	25.6081	1.7584	1.7336	1.7207	3.2850
M	4	C67636	385.3	2.0247	21.9217	1.5187	1.5013	1.4497	2.4796
M	4	C67640	397.0	1.9866	23.9939	1.3627	1.5585	1.5853	2.9113
M	4	C67648	392.0	2.1367	21.6322	1.4050	1.6514	1.5671	2.6853
M	4	C67654	333.5	1.9896	21.1401	1.2542	1.5879	1.5519	2.7574
M	4	C67659	416.0	2.1787	24.7761	1.6584	1.5126	1.4907	2.3142

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APPENDIX D
INDIVIDUAL ABSOLUTE ORGAN WEIGHT DATA (G)
5 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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TABLE INCLUDES:
SEX=ALL, GROUP=ALL, WEEKS=ALL
DEATH=1, SUBSET=ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	4	C67663	413.9	2.0214	21.1079	1.4956	1.6313	1.6523	2.3713
M	4	C67665	387.8	2.0135	27.8819	1.5150	1.7585	1.7867	2.4346
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				403.3	2.0804	23.2303	1.4932	1.5874	2.6973
STANDARD DEV:				35.5	.0759	2.8382	.1231	.0916	.1085
M	5	C67675	408.9	2.0458	29.9182	1.4415	1.5379	1.5878	2.7515
M	5	C67681	372.9	2.0276	25.9118	1.4507	1.6282	1.6029	2.7151
M	5	C67682	373.0	2.1455	26.9262	1.3795	1.5366	1.5994	2.8357
M	5	C67687	383.1	2.2291	22.9772	1.4440	1.5980	1.7054	2.4616
M	5	C67689	392.4	2.0018	27.4930	1.4362	1.4394	1.4378	2.2388
M	5	C67690	365.2	1.9734	25.5643	1.4011	1.5479	1.5556	2.4551
M	5	C67692	390.9	2.0512	26.0918	1.6213	1.7223	1.7144	2.8217
M	5	C67693	402.0	2.0524	22.4973	1.4325	1.5361	1.5114	3.1287
M	5	C67696	350.6	1.8846	24.8083	1.2529	1.0894	1.5699	2.3663
M	5	C67698	389.6	2.0041	23.9691	1.3583	1.6598	1.6212	2.8625
M	5	C67713	373.3	2.2337	25.8610	1.4625	1.6587	1.6381	2.5155
M	5	C67715	387.8	1.9928	26.0457	1.4185	1.7886	1.8534	2.7785
M	5	C67717	361.0	2.0368	25.1598	1.3688	1.6172	1.6543	2.2787
M	5	C67725	346.6	1.9228	22.9038	1.3277	1.7531	1.7120	2.6365
NUMBER IN GROUP:				14	14	14	14	14	14
MEAN:				378.4	2.0437	25.4377	1.4140	1.6260	2.6319
STANDARD DEV:				18.4	.0996	1.9900	.0828	.1704	.2548

APPENDIX D

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INDIVIDUAL ABSOLUTE ORGAN WEIGHT DATA (G)

5 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.PRINTED: 11-OCT-91
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TABLE INCLUDES:

SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=1; SUBSET=ALLORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	6	C87726	371.4	2.0124	16.4989	1.4624	1.2929	1.3782	2.4971
M	6	C87727	388.9	2.0154	15.3142	1.6498	1.8110	1.5435	2.8367
M	6	C87733	384.1	1.8316	16.7275	1.5339	1.7651	1.7714	1.6099
M	6	C87735	383.7	1.9243	17.0588	1.5482	1.5107	1.4701	2.2190
M	6	C87741	393.5	1.9498	15.6120	1.5300	1.6557	1.7416	2.8005
M	6	C87742	386.0	1.9377	16.1264	1.2800	1.6971	1.6902	2.8718
M	6	C87745	396.0	2.0090	15.1598	1.5159	1.7783	1.7378	2.4131
M	6	C87751	387.0	2.0547	14.2522	1.5778	1.4513	1.4922	2.4998
M	6	C87757	403.1	2.1807	16.2709	1.5378	1.6187	1.6308	2.9108
M	6	C87759	402.3	2.0779	15.2773	1.4004	1.5886	1.4905	1.9775
M	6	C87761	391.9	2.0687	15.4561	1.4140	1.5977	1.5925	2.6961
M	6	C87762	388.8	2.0710	16.7585	1.5928	1.6769	1.6002	2.6627
M	6	C87764	392.0	1.9914	16.5557	1.7763	1.6393	1.6390	2.4532
M	6	C87769	402.7	2.1204	17.3502	1.7430	1.6996	1.7401	2.2768
M	6	C87770	382.5	2.0136	13.0996	1.5011	1.5705	1.4855	2.6226
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				388.9	2.0172	15.8344	1.5378	1.6102	2.4898
STANDARD DEV:				11.1	.0857	1.1305	.1266	.1234	.3579

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8 WEEK SACRIFICE

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MADISON, WISCONSIN U.S.A.

PRINTED: 11-OCT-91
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TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=2; SUBSET=ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TEI - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	1	C67455	483.7	1.9797	15.5440	1.8555	1.5477	1.5884	2.7815
M	1	C67458	450.9	2.0532	16.0617	1.5344	1.8369	1.5900	2.5528
M	1	C67463	482.8	2.2372	16.5945	1.7882	1.8595	1.7104	3.5580
M	1	C67465	422.1	2.1368	15.6909	1.4707	1.8221	1.7656	2.5484
M	1	C67468	490.3	2.0832	19.3228	1.4311	1.5484	1.6178	3.1784
M	1	C67469	494.0	2.0755	21.3445	1.5986	1.6613	1.7178	3.0237
M	1	C67472	516.8	2.0218	21.0580	1.5384	1.8755	1.8855	3.3550
M	1	C67474	478.1	2.0492	17.5871	1.5851	1.7169	1.7802	3.3959
M	1	C67478	474.1	2.0505	16.6894	1.8043	1.6764	1.6448	3.4645
M	1	C67480	459.0	2.1222	16.4500	1.3840	1.7231	1.7252	2.8279
M	1	C67481	435.1	2.0951	15.4782	1.5414	1.5888	1.6948	2.5278
M	1	C67484	486.7	2.1088	18.2573	1.7544	1.7484	1.7861	2.9883
M	1	C67494	452.1	2.1980	16.7526	1.6485	1.8606	1.6441	3.0165
M	1	C67495	485.5	2.0187	18.0970	1.8654	1.8692	1.7320	3.4893
M	1	C67498	508.0	2.1556	21.5087	1.5832	1.5785	1.5739	3.3224
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				473.1	2.0923	17.7810	1.5829	1.6808	3.0673
STANDARD DEV:				28.0	0.0698	2.1244	1.1077	1.1110	1.052
M	2	C67508	441.4	2.0323	15.2133	1.5873	1.6841	1.6619	3.1538
M	2	C67512	440.1	2.0451	15.8500	1.6805	1.5562	1.4831	3.0679
M	2	C67522	525.9	2.0794	21.9998	1.5873	1.7694	1.7859	3.3208
M	2	C67527	495.1	2.2223	16.3032	1.7484	1.7954	1.8030	3.2105
M	2	C67531	524.8	2.0324	19.8474	1.5564	1.5883	1.5311	2.7387
M	2	C67532	484.2	2.0003	17.3673	1.3694	1.7019	1.7102	3.0757

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ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TEI - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	2	C67539	510.7	2.0356	17.4885	1.8089	1.7637	1.7937	3.3431
M	2	C67540	552.7	2.1032	24.6735	1.8803	1.8493	1.8416	3.0235
M	2	C67542	432.9	1.9704	14.9745	1.5792	1.6801	1.7024	2.2701
M	2	C67545	436.6	2.0517	16.0053	1.5810	1.7831	1.8184	3.1652
M	2	C67546	476.9	2.1157	16.1950	1.5385	1.6888	1.6887	2.7084
M	2	C67547	464.8	2.1074	15.3574	1.6518	1.5788	1.6548	2.5313
M	2	C67554	496.4	2.1668	19.4081	1.6152	1.7070	1.6770	3.5907
M	2	C67557	505.0	2.1055	17.0301	1.7292	1.7846	1.8211	3.6050
M	2	C67560	472.1	2.0403	17.4734	1.5854	1.5902	1.5396	3.6806
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				484.0	2.0739	17.6798	1.6178	1.6866	3.0990
STANDARD DEV:				36.6	.0649	2.7374	.1110	.0821	.4021
M	3	C67570	442.7	2.2485	18.0879	1.4029	1.8392	1.7892	3.9661
M	3	C67578	466.6	2.0477	17.5462	1.5098	1.7745	1.6667	3.2620
M	3	C67580	441.8	2.0826	19.3210	1.5312	1.0539	1.5651	3.6804
M	3	C67581	483.8	1.9335	18.5770	1.7077	1.7079	1.6983	3.4546
M	3	C67582	457.3	2.1754	22.3152	1.5590	1.5470	1.5773	3.1744
M	3	C67583	453.8	2.0247	18.8334	1.4036	1.4218	1.4119	3.5708
M	3	C67584	497.1	2.0062	24.1724	1.8070	2.0352	1.9161	3.5310
M	3	C67585	450.7	2.0252	19.3391	1.5069	1.5553	1.5890	3.0661
M	3	C67586	413.7	2.0816	15.8208	1.4648	1.6005	1.5758	3.5940
M	3	C67587	493.0	2.2704	19.5473	1.5632	1.6864	1.7142	3.9945
M	3	C67594	523.8	2.0620	21.2955	1.8331	1.7855	1.7988	3.9196
M	3	C67602	504.0	2.0978	20.2097	1.6142	1.9214	1.8826	3.0233

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INDIVIDUAL ABSOLUTE ORGAN WEIGHT DATA (G)
8 WEEK SACRIFICE

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MADISON, WISCONSIN U.S.A.

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ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	3	C87608	475.9	2.0932	18.7844	1.2778	1.7088	1.8578	2.9217
M	3	C87612	489.9	2.0827	19.8334	1.5889	1.6888	1.8955	2.9468
M	3	C87614	489.4	2.0862	19.8089	1.4582	1.6205	1.6179	3.5666
NUMBER IN GROUP:			15	15	15	15	15	15	15
MEAN:			470.9	2.0852	19.4195	1.5339	1.6864	1.6904	3.4448
STANDARD DEV:			28.8	.0881	2.0972	.1287	.2298	.1397	.3649
M	4	C87617	428.8	1.9841	22.6410	1.4213	1.5918	2.4218	3.8044
M	4	C87629	505.2	2.1037	27.1705	1.5019	1.8013	1.8955	2.8563
M	4	C87634	475.1	2.1873	24.6474	1.5054	1.7292	1.8230	3.0844
M	4	C87638	488.9	2.1911	28.5405	1.6118	1.4847	1.4910	3.2086
M	4	C87639	479.0	2.0544	26.8281	1.4084	1.9780	2.0158	3.2112
M	4	C87642	504.7	2.1505	30.2508	1.4758	1.7243	1.7438	3.0789
M	4	C87644	456.2	2.0121	21.5018	1.2512	1.8552	1.8384	3.2252
M	4	C87646	478.6	2.0739	24.2582	1.7329	1.7144	1.7213	3.1011
M	4	C87647	432.8	2.1070	19.5853	1.5717	1.6185	1.6969	2.7296
M	4	C87655	479.5	2.1033	23.8742	1.6199	1.6080	1.5815	3.6047
M	4	C87658	465.4	2.0411	21.4435	1.3888	1.9008	1.9595	2.6750
M	4	C87657	489.9	2.1891	28.9855	1.5997	2.0112	1.9089	3.2783
M	4	C87661	412.9	2.1541	17.9125	1.4235	1.5288	1.5247	2.5889

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APPENDIX D
INDIVIDUAL ABSOLUTE ORGAN WEIGHT DATA (G)
8 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=2; SUBSET=ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TEI - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	4	C67662	431.7	2.0559	20.0101	1.3732	1.5487	1.5113	3.2098
M	4	C67667	494.5	2.1607	25.7940	1.4890	1.6719	1.7338	3.5244
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				2.1032	24.0814	1.4902	1.7163	1.7911	3.1306
STANDARD DEV:				0.0650	3.5798	0.1217	0.1649	0.2401	0.3184
M	5	C67680	430.9	2.0122	30.3922	1.5508	1.5587	1.5218	2.8374
M	5	C67699	451.9	1.9812	23.6852	1.6440	1.7874	1.8750	2.5243
M	5	C67702	462.8	1.9730	25.0007	1.7193	1.5538	1.5152	3.1093
M	5	C67703	473.9	2.1139	27.2361	1.6909	1.7440	1.6816	3.1259
M	5	C67705	486.8	2.0859	26.4825	1.5050	1.6570	1.5958	2.5928
M	5	C67707	497.5	2.1938	30.2278	1.6564	1.7721	1.7930	3.1442
M	5	C67708	505.8	2.2070	24.6949	1.5957	1.6074	1.5917	2.6153
M	5	C67709	364.7	2.1310	23.2540	1.3845	1.6261	1.5577	2.3407
M	5	C67710	453.1	2.0812	31.2847	1.4683	1.8449	1.6789	3.0033
M	5	C67711	448.5	1.9929	23.6896	1.9224	1.8353	1.8308	2.4993
M	5	C67718	479.7	2.1511	34.0653	1.5717	1.4320	1.5203	2.9666
M	5	C67719	476.3	2.1788	30.9586	1.5670	1.6091	1.6220	2.9267
M	5	C67721	451.9	2.0855	28.5484	1.4158	1.8756	1.8333	2.8522

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APPENDIX D
INDIVIDUAL ABSOLUTE ORGAN WEIGHT DATA (G)
8 WEEK SACRIFICE

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=2; SUBSET=ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TEI - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	5	C67722	429.8	1.9811	25.0187	1.5412	1.8711	1.8720	2.8523
M	5	C67724	472.1	2.1162	31.7972	1.5794	1.7527	1.7111	3.2795
NUMBER IN GROUP:			15	15	15	15	15	15	15
MEAN:			459.0	2.0855	27.7557	1.5208	1.8805	1.8533	2.8513
STANDARD DEV:			34.2	.0808	3.5077	.1904	.1265	.1070	.2775
M	6	C67728	438.8	2.0153	18.4515	1.3873	1.8152	1.8580	3.8721
M	6	C67729	460.8	2.0389	19.8395	1.4868	1.7331	1.8801	3.1071
M	6	C67731	448.5	2.0238	18.1915	1.6028	1.7209	1.7494	3.5167
M	6	C67734	418.5	2.0770	15.5695	1.4530	1.5371	1.5238	3.0402
M	6	C67737	460.5	2.1644	15.9088	1.8510	1.5874	1.5173	3.1873
M	6	C67739	467.4	2.1329	18.0550	1.4085	1.4688	1.4418	2.0103
M	6	C67743	438.9	2.2613	17.8532	1.8951	1.8251	1.5289	2.2869
M	6	C67750	448.0	1.9786	15.5428	1.3520	1.4122	13.4680EX	2.6175
M	6	C67752	490.0	2.1800	18.8719	1.5844	1.7674	1.7358	2.8811
M	6	C67753	475.7	1.9936	21.3720	1.8053	1.6030	1.7542	3.1831
M	6	C67758	445.6	2.1977	14.8527	1.5914	1.5823	1.8445	2.9298
M	6	C67763	479.9	2.0385	18.8815	1.8338	1.7633	1.7638	2.4933
M	6	C67765	439.3	2.1596	16.4708	1.7457	1.5518	1.5485	2.9217

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SEX-ALL; GROUP-ALL; WEEKS-ALL
DEATH=2; SUBSET-ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE	ANIMAL	TERMINAL		BR	LI	LU	TEO	TE1	SO
	GROUP	NUMBER	BODY WT (g)							
M	6	C67766	392.4		1.9598	12.4009	1.4526	1.5927	1.5825	2.8584
M	6	C67768	437.3		2.0700	17.7753	1.7744	1.8289	1.7633	2.7252
NUMBER IN GROUP:				15	15	15	15	15	14	15
MEAN:				449.3	2.0862	16.9078	1.5615	1.6305	1.6335	2.8806
STANDARD DEV:				24.9	.0907	2.2232	.1317	.1177	.1111	.4391

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DEATH-T; SUBSET-ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	1	C67454	569.7	2.1822	20.7989	1.6464	1.7305	1.7609	3.5431
M	1	C67459	495.8	2.1392	15.7049	1.5298	1.8054	1.8218	2.9089
M	1	C67460	531.9	2.4141	20.9863	1.6768	1.6212	1.6850	4.1448
M	1	C67462	596.7	2.1057	18.3891	1.4889	1.7811	1.7438	4.2601
M	1	C67470	519.7	2.0425	20.1684	1.5181	1.8097	1.7907	3.3856
M	1	C67473	610.5	1.9927	23.9648	1.5642	1.7392	1.7836	3.5245
M	1	C67475	567.4	2.3230	20.4091	1.7891	1.8015	1.9175	3.5652
M	1	C67482	511.8	2.1485	18.2988	1.6587	1.9007	1.8897	3.1952
M	1	C67485	595.6	2.2154	21.0922	1.9851	1.9486	1.9120	2.9746
M	1	C67487	523.4	2.3802	17.4732	1.5735	1.7150	1.6766	4.2208
M	1	C67488	621.2	2.2804	22.4633	1.7742	1.6540	1.6235	3.9901
M	1	C67499	577.0	2.2040	18.5020	1.6464	1.8157	1.8028	3.8600
M	1	C67501	511.0	2.1825	18.9192	1.6087	1.5330	1.5284	3.3014
M	1	C67504	600.3	2.1334	21.1053	1.8414	1.8185	1.7834	2.6144
M	1	C67505	548.8	2.1167	19.6743	1.5118	1.6138	1.6282	3.3370
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				558.7	2.1914	19.7289	1.6543	1.7591	3.5217
STANDARD DEV:				41.1	.1183	2.2290	.1403	.1174	.4974
M	2	C67507	527.0	3.1322	16.9792	1.5175	1.9512	1.9094	3.1032
M	2	C67518	467.2	2.0086	14.0143	1.3781	1.6312	1.7067	3.1439
M	2	C67519	515.4	2.1131	16.7043	1.6032	1.1623	1.8267	3.0481
M	2	C67521	557.6	2.2002	16.9853	1.7320	1.5841	1.6421	3.4940
M	2	C67523	613.6	2.1788	20.8353	1.7937	1.8941	1.8579	3.2076
M	2	C67528	513.2	2.1598	15.4771	1.5033	1.6993	1.7274	2.9030

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SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	2	C67533	MISSING	2.0836EX	18.5414EX	1.4960EX	1.6960EX	1.6749EX	3.5576EX
M	2	C67535	549.3	2.1087	17.0119	1.6975	1.9135	1.9137	3.5420
M	2	C67536	570.3	2.1616	18.4336	1.6590	1.8364	1.8860	3.0024
M	2	C67541	562.1	2.1370	16.4804	1.8520	1.5904	1.5860	3.7892
M	2	C67549	609.5	2.2603	23.4192	1.7373	1.8229	1.8225	3.9714
M	2	C67551	583.4	2.3262	17.3852	1.5754	1.7933	1.8257	4.3740
M	2	C67552	610.2	2.0215	23.8634	1.1710	2.0816	2.5860	3.8105
M	2	C67553	560.6	2.1217	17.9913	1.7719	1.7765	1.7760	3.5894
M	2	C67556	532.3	2.2605	16.9166	1.4190	1.5240	1.5304	3.7276
NUMBER IN GROUP:				14	14	14	14	14	14
MEAN:				555.1	2.2279	18.0355	1.6008	1.7329	3.4797
STANDARD DEV:				42.0	2.2745	2.8120	1.886	2.279	2.499
M	3	C67563	631.7	2.1397	26.7202	1.8608	1.8004	1.7096	3.8680
M	3	C67564	569.9	2.1277	20.0061	1.5698	1.8240	1.7241	3.9433
M	3	C67571	491.6	2.1255	17.3730	1.4238	1.9603	1.8607	4.2992
M	3	C67596	511.5	2.2403	20.2379	1.4079	1.6654	1.6369	4.5678
M	3	C67598	534.3	2.0731	22.4725	1.6083	1.6629	1.6661	2.8754
M	3	C67600	595.1	2.2575	24.7003	1.7639	1.7801	1.7600	3.5697
M	3	C67603	609.4	2.1709	22.3081	1.7242	1.6844	1.6867	3.2306
M	3	C67604	556.1	2.1210	19.9391	1.7130	1.9040	1.8820	3.4395
M	3	C67605	573.2	2.2442	22.2101	1.6579	1.7716	1.7867	3.2634
M	3	C67607	527.1	2.0524	17.8774	.9333	1.8299	1.8216	2.5374
M	3	C67608	500.4	2.0934	17.2484	1.5348	1.8529	1.7698	3.2045
M	3	C67610	548.1	2.4094	18.4583	1.7268	1.7350	1.7383	4.0026

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TED - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE	ANIMAL	TERMINAL						
GROUP		NUMBER	BODY WT (g)	BR	LI	LU	TED	TE1	SO
M	3	C67611	529.2	2.1843	18.8888	1.4205	1.6407	1.7118	3.9583
M	3	C67613	583.2	2.2002	21.3304	1.7482	1.6482	1.6651	3.1016
M	3	C67615	529.4	2.1700	16.8536	1.6116	1.8900	1.8593	3.2908
NUMBER IN GROUP:			15	15	15	15	15	15	15
MEAN:			552.7	2.1740	20.4416	1.5803	1.7767	1.7519	3.5435
STANDARD DEV:			40.7	.0896	2.8657	.2250	.1017	.0772	.5535
M	4	C67616	586.8	2.1783	26.1955	1.6784	2.0033	1.9311	3.7408
M	4	C67618	596.6	2.1651	22.8185	1.6356	1.7618	1.7267	3.9577
M	4	C67621	607.0	2.2076	25.0527	1.7479	1.6589	1.6305	2.4959
M	4	C67623	470.7	2.1070	17.9421	1.5822	1.6761	1.6628	3.7735
M	4	C67624	538.7	2.1104	26.4596	1.4814	1.7078	1.7554	3.3864
M	4	C67635	544.9	2.0595	20.2688	1.5667	1.8801	1.9577	3.0409
M	4	C67641	545.4	1.9354	24.7182	1.2912	1.5795	1.6706	2.5436
M	4	C67643	455.6	2.0837	17.6129	1.7374	1.7180	1.7418	3.7702
M	4	C67645	621.6	2.2238	24.2640	1.6907	1.9867	2.0271	3.1797
M	4	C67650	556.3	2.1319	28.2076	1.7301	1.7803	1.7022	3.4488
M	4	C67652	506.3	2.0904	21.0718	1.5510	1.8529	1.8162	4.0836
M	4	C67653	592.1	2.0977	28.8583	1.8177	1.8866	1.8649	3.3819
M	4	C67658	444.1	2.1339	19.2486	1.5343	1.7072	1.6782	3.2944

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TEO - LF. TESTIS, TEI - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	4	C67668	484.9	2.0351	14.2750	1.5258	1.6947	1.6942	2.9082
M	4	C67669	523.5	2.0615	24.0567	1.5817	1.7825	1.7785	3.6346
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				538.2	2.1081	22.7387	1.6101	1.7771	3.3760
STANDARD DEV:				56.8	.0724	4.2128	.1316	.1216	.1197
M	5	C67671	550.6	2.2283	28.9610	1.7189	1.9706	1.9721	3.5087
M	5	C67672	459.5	2.1400	20.0820	1.4046	1.8796	1.8773	3.3349
M	5	C67673	501.8	2.3368	23.3503	1.5038	1.7338	1.7085	3.3836
M	5	C67677	532.1	2.1273	23.0049	1.4378	1.6225	1.6322	2.6019
M	5	C67679	437.4	2.0367	28.2020	1.5392	1.8515	1.7670	3.0584
M	5	C67686	MISSING	2.1931EX	25.9482EX	1.6253EX	1.8843EX	1.8268EX	3.1612EX
M	5	C67688	412.5	2.2203	25.7541	1.4103	1.5410	1.6223	2.3841
M	5	C67691	405.0	1.9935	19.6478	1.2989	1.5029	1.4089	2.8857
M	5	C67695	385.9	2.1189	21.7897	1.3370	1.8195	1.7250	3.0488
M	5	C67697	481.7	2.1143	30.4173	1.4679	1.8159	1.8220	4.1308
M	5	C67700	558.6	2.0545	34.0432	1.7753	2.0474	1.9584	4.1528
M	5	C67712	583.8	2.2038	33.3805	1.6828	1.8780	1.8628	4.1255
M	5	C67714	415.5	2.1574	28.6577	1.4941	1.6633	1.7522	3.2741

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TEO - LF. TESTIS, TEI - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	5	C67716	464.7	2.2080	21.3462	1.5976	1.8894	1.6342	2.8111
M	5	C67720	658.1	1.9403	36.3471	1.5044	1.7913	1.7786	4.4059
NUMBER IN GROUP:				14	14	14	14	14	14
MEAN:				489.1	2.1342	26.7846	1.5123	1.7576	3.3647
STANDARD DEV:				79.0	.1044	5.4675	.1401	.1547	.8309
M	6	C67730	490.1	2.0387	16.3508	1.5931	1.6753	1.6759	3.3666
M	6	C67732	532.2	2.2336	15.6333	1.5756	2.0543	1.9868	2.2448
M	6	C67736	516.5	2.1141	15.8738	1.4705	1.7649	1.7359	3.2384
M	6	C67738	523.1	2.1398	17.0909	1.6276	1.9505	1.7333	3.2127
M	6	C67740	466.7	2.1000	15.2555	1.3691	1.6609	1.6399	3.0965
M	6	C67744	503.7	2.2132	16.5820	1.5768	1.6972	1.7381	4.6774
M	6	C67746	474.3	2.1136	14.3227	1.7248	1.6021	1.5768	3.4288
M	6	C67748	536.4	2.1360	20.8888	1.4976	1.6121	1.5408	3.5361
M	6	C67749	503.4	2.1320	15.9957	1.6252	1.6997	1.7396	3.7221
M	6	C67754	495.6	2.1303	16.2508	1.5980	1.6322	1.5716	2.8874
M	6	C67755	546.3	2.1798	18.1830	1.7299	1.7984	1.8086	4.4033
M	6	C67755	473.7	2.1551	13.9850	1.7195	1.7228	1.7385	2.2831
M	6	C67756	490.0	2.0271	16.3285	1.5033	1.5453	1.5535	3.0065

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TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	6	C67760	496.1	2.1114	15.8452	1.8850	1.5840	1.5850	2.7857
M	6	C67767	503.9	2.2220	16.1837	1.5384	1.6959	1.7503	3.0280
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				503.5	2.1384	16.3033	1.5875	1.6903	3.2597
STANDARD DEV:				23.7	.0594	1.6241	.1018	.1204	.6635

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TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	1	C87452	564.9	2.1855	18.0358	1.6150	1.6438	1.7489	4.3278
M	1	C87453	666.3	2.1383	23.8464	1.8553	1.9776	2.0904	3.5866
M	1	C87456	564.9	2.1450	17.3831	1.5932	1.4105	1.4101	3.5858
M	1	C87471	653.8	2.2174	23.0861	1.6203	1.7540	1.7921	3.8614
M	1	C87479	489.7	2.0754	14.3558	1.4853	1.5307	1.5801	2.4799
M	1	C87483	615.4	2.2214	19.7955	1.5877	1.7633	1.7407	3.7585
M	1	C87490	610.6	2.0230	19.8409	1.6371	1.7820	1.8883	3.8683
M	1	C87493	510.4	2.0441	15.5493	1.5130	1.7096	1.8119	2.9256
M	1	C87496	507.2	2.0387	15.7533	1.5019	1.7336	1.8395	3.2306
M	1	C87497	597.7	2.2377	19.0055	1.5723	1.6288	1.6645	3.9372
NUMBER IN GROUP:				10	10	10	10	10	10
MEAN:				578.1	2.1328	18.6432	1.5981	1.6934	3.5540
STANDARD DEV:				61.6	.0822	3.0867	.1050	.1536	.5410
M	2	C87508	563.4	2.1800	18.9139	1.7534	1.5465	1.6334	3.8153
M	2	C87513	680.3	2.2957	21.4368	1.9058	1.6522	1.7142	3.9260
M	2	C87516	678.8	2.2907	19.8095	1.9520	1.8836	1.8377	3.2904
M	2	C87517	618.8	2.2742	18.9402	1.6389	2.0113	2.1674	4.2763
M	2	C87520	551.1	2.2930	15.6840	1.6581	1.7258	1.7091	4.2444
M	2	C87528	567.8	2.2437	17.2706	1.5680	1.7632	1.7366	3.6242
M	2	C87534	610.9	2.1679	17.1901	1.7502	1.8921	1.8614	3.5869
M	2	C87538	692.6	2.2904	20.1806	1.9530	1.8505	1.7197	3.8643

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SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	2	C67543	548.2	2.2028	18.9593	1.7226	1.4962	1.5087	2.3864
M	2	C67548	560.7	2.2262	17.9884	1.5154	1.7379	1.7086	3.5678
NUMBER IN GROUP:			10	10	10	10	10	10	10
MEAN:			607.1	2.2465	18.4373	1.7415	1.7559	1.7592	3.6582
STANDARD DEV:			58.1	.0496	1.7410	.1548	.1607	.1739	.5408
M	3	C67561	612.8	2.2294	18.9096	1.5853	1.3128	1.6840	4.2129
M	3	C67567	640.3	2.3313	18.8258	1.6677	1.7847	1.8164	3.2880
M	3	C67572	553.3	2.2251	18.4045	1.7515	1.6489	1.5651	3.3023
M	3	C67573	526.7	2.1454	14.1228	1.5733	1.7071	1.7022	3.8631
M	3	C67575	729.2	2.2754	22.2539	1.7849	2.0338	2.0447	3.4670
M	3	C67579	587.0	2.1448	18.3980	1.6293	1.7570	1.7759	3.8273
M	3	C67588	571.7	2.1857	17.7967	1.5797	1.5047	1.5663	3.5672
M	3	C67589	630.8	2.1870	21.7957	2.1373	2.0235	2.1199	3.6165
M	3	C67593	709.5	2.0594	20.5211	1.5800	1.8891	1.8484	3.7032
M	3	C67609	730.9	2.2589	18.0752	1.5208	1.7566	1.8681	3.2434
NUMBER IN GROUP:			10	10	10	10	10	10	10
MEAN:			629.2	2.2042	18.8203	1.6800	1.7398	1.7991	3.5891
STANDARD DEV:			73.4	.0774	2.2968	.1827	.2184	.1834	.2931
M	4	C67622	563.6	2.1055	21.3009	1.5222	1.8721	2.0008	3.8759
M	4	C67626	560.2	2.0641	18.6121	1.6345	1.8775	1.8955	4.2949
M	4	C67628	666.5	2.2129	21.4594	1.7619	1.8651	1.8660	4.4556

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DEATH=U; SUBSET=ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	4	C67637	529.9	2.1437	22.6290	1.6894	1.5730	1.6060	3.3451
M	4	C67649	601.5	2.1373	17.4747	1.5153	1.2237	1.9322	4.0803
M	4	C67651	614.0	2.1395	20.7605	1.6285	1.8008	1.7725	3.2537
M	4	C67660	557.8	2.3756	20.6458	1.7257	1.7347	1.7806	3.6045
M	4	C67664	694.3	2.1889	20.9493	2.0241	1.6828	1.8949	4.3942
M	4	C67666	609.1	2.2312	19.4575	1.6434	1.4773	1.4605	4.0238
M	4	C67670	620.5	2.2129	24.0443	1.7924	1.9480	1.9042	4.0490
NUMBER IN GROUP:				10	10	10	10	10	10
MEAN:				601.8	2.1822	20.7334	1.6937	1.7055	3.9577
STANDARD DEV:				51.2	.0863	1.8917	.1476	.1655	.4056
M	5	C67674	655.4	2.2178	21.6330	1.6911	1.9654	1.8083	3.9142
M	5	C67676	399.4	2.2129	15.9177	1.6120	1.7404	1.6794	4.5874
M	5	C67678	552.5	2.0649	19.4957	1.4101	1.7275	1.7204	3.6056
M	5	C67683	593.0	2.1457	17.4588	1.5412	1.5834	1.5733	3.6391
M	5	C67684	490.9	2.0711	14.1733	1.4541	1.6550	1.7138	2.4774
M	5	C67694	595.7	2.2788	20.0263	1.7747	1.8411	1.7286	4.1212
M	5	C67701	541.8	2.0228	19.0280	1.6734	1.7353	1.7266	4.8046
M	5	C67704	597.4	2.0053	19.9850	1.5285	1.6107	1.6761	3.0958

** CONTINUED ON NEXT PAGE **

APPENDIX D
INDIVIDUAL ABSOLUTE ORGAN WEIGHT DATA (G)
22 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=U; SUBSET=ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	5	C67706	572.9	2.1828	21.5633	1.5880	1.7092	1.6788	3.4295
M	5	C67723	581.3	2.1428	16.9088	1.6659	2.0423	1.9492	3.2844
NUMBER IN GROUP:				10	10	10	10	10	10
MEAN:				556.0	2.1345	18.6190	1.5919	1.7355	3.6939
STANDARD DEV:				69.8	.0909	2.4465	.1130	.1509	.6923

APPENDIX D
INDIVIDUAL ORGAN-TO-BODY WEIGHT PERCENTAGES
5 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=1; SUBSET=ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	1	C67451	447.8	.4918	3.8570	.3808	.3979	.3919	.5829
M	1	C67457	375.7	.5508	4.0747	.3788	.4091	.4014	.7121
M	1	C67461	409.0	.5184	3.8907	.3871	.3859	.4033	.7008
M	1	C67464	425.9	.4808	4.0519	.3564	.3786	.3875	.5494
M	1	C67467	420.5	.5226	3.4825	.3814	.3767	.3722	.6823
M	1	C67468	398.0	.5097	3.7439	.3881	.4352	.4544	.6480
M	1	C67476	419.9	.4942	3.7770	.3389	.4405	.4311	.6893
M	1	C67477	420.1	.4681	4.0414	.3856	.3369	.3325	.5898
M	1	C67486	397.0	.5324	4.1081	.3883	.3891	.3902	.6512
M	1	C67489	382.7	.5550	3.8659	.2298	.4773	.4588	.8995
M	1	C67491	388.1	.4995	3.7188	.3738	.3867	.3912	.7029
M	1	C67492	451.9	.4809	5.1587	.3774	.3850	.4065	.7183
M	1	C67500	401.7	.4982	3.8883	.3887	.4210	.4216	.6136
M	1	C67502	409.0	.4955	4.0500	.3626	.4072	.4032	.6385
M	1	C67503	418.8	.4828	3.7249	.3859	.3829	.3932	.6368
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				411.1	3.8680	.3876	.4007	.4025	.6530
STANDARD DEV:				21.7	.0260	.0413	.0332	.0309	.0545
M	2	C67509	464.8	.4154	3.7543	.3634	.3719	.3664	.6033
M	2	C67510	390.4	.5355	3.6547	.4123	.4221	.4224	.8024
M	2	C67511	399.2	.4944	3.5734	.3655	.4085	.4058	.7307
M	2	C67514	440.2	.4786	3.6732	.3813	.4098	.4016	.6061
M	2	C67515	396.0	.4937	3.7729	.3781	.4017	.4027	.5584
M	2	C67524	376.6	.5392	4.1973	.3501	.3479	.3532	.6737

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APPENDIX D
INDIVIDUAL ORGAN-TO-BODY WEIGHT PERCENTAGES
5 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=1; SUBSET=ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TEI - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	2	C67525	434.7	.4355	4.0990	.3586	.4349	.4279	.6260
M	2	C67529	404.5	.5363	3.6443	.3467	.4364	.4211	.6203
M	2	C67530	422.6	.5007	3.4827	.3688	.3738	.3774	.6247
M	2	C67537	359.6	.5368	3.5758	.4025	.4461	.4541	.5805
M	2	C67544	387.7	.5219	3.3495	.3786	.3975	.4197	.6517
M	2	C67550	387.9	.5129	3.6464	.3983	.3873	.3825	.6513
M	2	C67555	422.1	.4755	3.7406	.3738	.3549	.3533	.6541
M	2	C67558	433.7	.4943	4.0486	.3772	.3850	.3721	.6074
M	2	C67559	488.4	.4200	3.7321	.3313	.3232	.3234	.7286
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				413.9	.4927	3.7297	.3710	.3933	.3922
STANDARD DEV:				34.5	.0416	.2293	.0216	.0350	.0350
M	3	C67562	433.8	.4751	4.4689	.3452	.4080	.4002	.7210
M	3	C67565	390.4	.5066	4.1906	.3807	.3888	.3979	.5653
M	3	C67566	421.7	.5002	4.6701	.3499	.4051	.4065	.6189
M	3	C67568	397.0	.4988	4.5189	.3493	.3813	.3837	.7484
M	3	C67569	389.8	.5290	4.1049	.3420	.4430	.4534	.6834
M	3	C67574	396.8	.5042	4.0703	.3534	.4706	.4561	.6569
M	3	C67576	387.9	.4873	4.5038	.3387	.4173	.4181	.8221
M	3	C67577	363.6	.5654	4.4265	.3534	.4350	.4581	.6499
M	3	C67590	391.4	.5757	4.3968	.3798	.3967	.3904	.6583
M	3	C67591	379.3	.5268	4.3939	.3777	.4161	.4075	.7512
M	3	C67592	341.8	.6389	4.0989	.3803	.4428	.4492	.7762
M	3	C67595	414.9	.4880	4.6751	.3756	.4471	.4345	.8580

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APPENDIX D
INDIVIDUAL ORGAN-TO-BODY WEIGHT PERCENTAGES
5 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=1; SUBSET=ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	3	C87597	380.0	.5270	5.1113	.3809	.3934	.4097	.6989
M	3	C87599	407.5	.4733	5.0843	.3752	.4200	.4133	.5852
M	3	C87601	480.6	.4487	4.5552	.3548	.3475	.3610	.6897
NUMBER IN GROUP:			15	15	15	15	15	15	15
MEAN:			398.4	.5162	4.4846	.3625	.4142	.4160	.7122
STANDARD DEV:			32.0	.0474	.3162	.0162	.0310	.0280	.0910
M	4	C87619	409.2	.5123	6.4396	.3817	.3848	.3907	.5870
M	4	C87620	469.8	.4290	5.3969	.3180	.3207	.3084	.6774
M	4	C87625	371.2	.5732	5.4305	.4207	.4454	.4511	.7176
M	4	C87627	398.2	.5159	5.2430	.3812	.3817	.4032	.6487
M	4	C87630	457.0	.4474	5.9193	.3309	.3579	.3648	.6563
M	4	C87631	381.1	.5592	5.8811	.3789	.3726	.3688	.7867
M	4	C87632	386.5	.4973	4.7329	.3507	.4132	.3928	.6197
M	4	C87633	453.7	.4792	5.6443	.3878	.3821	.3793	.7240
M	4	C87636	385.3	.5255	5.6895	.3942	.3896	.3763	.6436
M	4	C87640	397.0	.5004	6.0438	.3432	.3926	.3993	.7333
M	4	C87648	392.0	.5451	5.5184	.3584	.4213	.3998	.6876
M	4	C87654	333.5	.5966	6.3389	.3761	.4701	.4653	.8268
M	4	C87659	416.0	.5237	5.9558	.3982	.3636	.3583	.5563

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APPENDIX D
INDIVIDUAL ORGAN-TO-BODY WEIGHT PERCENTAGES
5 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=1; SUBSET=ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	4	C67663	413.9	.4884	5.0998	.3813	.3941	.3992	.5729
M	4	C67665	387.8	.5192	7.1898	.3907	.4529	.4607	.6278
NUMBER IN GROUP:			15	15	15	15	15	15	15
MEAN:			403.3	.5142	5.7682	.3713	.3962	.3944	.6710
STANDARD DEV:			35.5	.0444	.6020	.0278	.0391	.0414	.0788
M	5	C67675	408.9	.5003	7.3168	.3525	.3761	.3883	.6729
M	5	C67681	372.9	.5437	6.9487	.3890	.4366	.4298	.7281
M	5	C67682	373.0	.5752	7.2188	.3698	.4120	.4288	.7602
M	5	C67687	383.1	.5819	5.9877	.3789	.4188	.4452	.6425
M	5	C67688	382.4	.5101	7.0084	.3660	.3688	.3664	.5705
M	5	C67690	365.2	.5404	7.0001	.3837	.4238	.4280	.6723
M	5	C67692	390.9	.5247	6.6748	.4148	.4406	.4386	.7218
M	5	C67693	402.0	.5105	5.5963	.3563	.3821	.3760	.7783
M	5	C67696	350.8	.5404	7.0760	.3573	.3107	.4478	.6749
M	5	C67698	389.6	.5144	6.1522	.3486	.4280	.4161	.7347
M	5	C67713	373.3	.5984	6.9277	.3918	.4443	.4388	.6739
M	5	C67715	387.8	.5139	6.7163	.3658	.4612	.4779	.7165
M	5	C67717	361.0	.5642	6.9895	.3792	.4480	.4583	.6312
M	5	C67725	348.6	.5548	6.6081	.3831	.5058	.4939	.7607
NUMBER IN GROUP:			14	14	14	14	14	14	14
MEAN:			378.4	.5409	6.7292	.3739	.4179	.4308	.6958
STANDARD DEV:			18.4	.0305	.4938	.0181	.0475	.0359	.0579

APPENDIX D
INDIVIDUAL ORGAN-TO-BODY WEIGHT PERCENTAGES
5 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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PAGE: 5

TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=1; SUBSET=ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	6	C67726	371.4	.5418	4.4424	.3938	.3481	.3705	.6723
M	6	C67727	388.9	.5182	3.9378	.4242	.4142	.3969	.7294
M	6	C67733	384.1	.4769	4.3550	.3893	.4585	.4612	.4191
M	6	C67735	383.7	.5015	4.4453	.4035	.3937	.3831	.5783
M	6	C67741	393.5	.4955	3.9675	.3888	.4208	.4426	.7117
M	6	C67742	386.0	.5020	4.1778	.3316	.4397	.4379	.7440
M	6	C67745	396.0	.5073	3.8282	.3828	.4491	.4388	.6094
M	6	C67751	387.0	.5309	3.6827	.4077	.3750	.3856	.6459
M	6	C67757	403.1	.5410	4.0364	.3815	.4016	.4046	.7221
M	6	C67759	402.3	.5165	3.7975	.3481	.3949	.3705	.4915
M	6	C67761	391.9	.5279	3.9439	.3608	.4077	.4064	.6880
M	6	C67762	388.8	.5327	4.3103	.4097	.4313	.4116	.6849
M	6	C67764	392.0	.5080	4.2234	.4531	.4182	.4181	.6258
M	6	C67769	402.7	.5265	4.3085	.4328	.4221	.4321	.5654
M	6	C67770	362.5	.5555	3.6137	.4141	.4332	.4098	.7235
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				388.9	5188	4.0714	.3955	.4139	.6408
STANDARD DEV:				11.1	.0207	.2734	.0319	.0288	.0943

APPENDIX D
INDIVIDUAL ORGAN-TO-BODY WEIGHT PERCENTAGES
8 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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TABLE INCLUDES:
SEX-ALL; GROUP-ALL; WEEKS-ALL
DEATH-2; SUBSET-ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	1	C67455	463.7	.4289	3.3522	.3570	.3338	.3425	.5955
M	1	C67458	450.9	.4554	3.5621	.3403	.3630	.3528	.5861
M	1	C67463	482.6	.4636	3.4386	.3864	.3439	.3544	.7373
M	1	C67465	422.1	.5062	3.7173	.3484	.4317	.4183	.6037
M	1	C67466	490.3	.4249	3.9410	.2919	.3158	.3300	.6483
M	1	C67469	494.0	.4201	4.3207	.3236	.3383	.3477	.6121
M	1	C67472	516.8	.3912	4.0747	.2979	.3823	.3842	.6492
M	1	C67474	478.1	.4286	3.8785	.3274	.3591	.3723	.7103
M	1	C67478	474.1	.4325	3.5180	.3384	.3536	.3469	.7308
M	1	C67480	459.0	.4624	3.5839	.3015	.3754	.3759	.6161
M	1	C67481	435.1	.4815	3.5569	.3543	.3652	.3895	.5809
M	1	C67484	486.7	.4332	3.7512	.3605	.3592	.3670	.6140
M	1	C67484	452.1	.4862	3.7055	.3646	.3673	.3637	.6672
M	1	C67495	485.5	.4158	3.7275	.3430	.3439	.3587	.7187
M	1	C67498	506.0	.4260	4.2507	.3129	.3118	.3110	.6566
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				473.1	.4436	3.7451	.3352	.3561	.3609
STANDARD DEV:				28.0	.0311	.2850	.0249	.0291	.0258
									.6471
									.0557
M	2	C67506	441.4	.4604	3.4466	.3619	.3815	.3765	.7145
M	2	C67512	440.1	.4647	3.6015	.3818	.3536	.3370	.6971
M	2	C67522	525.9	.3954	4.1833	.3018	.3365	.3396	.6314
M	2	C67527	495.1	.4489	3.2929	.3531	.3626	.3642	.6485
M	2	C67531	524.8	.3873	3.7819	.2966	.3023	.2917	.5219
M	2	C67532	484.2	.4131	3.5868	.2828	.3515	.3532	.6352

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APPENDIX D
INDIVIDUAL ORGAN-TO-BODY WEIGHT PERCENTAGES
8 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=2; SUBSET=ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TEI - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	2	C67539	510.7	3988	3.4284	3148	3453	3512	6546
M	2	C67540	552.7	3805	4.4842	3366	2984	2970	5470
M	2	C67542	432.9	4552	3.4591	3648	3835	3933	5244
M	2	C67545	436.6	4699	3.6659	3575	4084	4165	7250
M	2	C67546	478.9	4436	3.3959	3226	3541	3541	5879
M	2	C67547	464.8	4534	3.3041	3554	3397	3560	5446
M	2	C67554	498.4	4365	3.9098	3254	3439	3378	7233
M	2	C67557	505.0	4189	3.3723	3424	3534	3606	7139
M	2	C67560	472.1	4322	3.7012	3358	3368	3261	7796
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				484.0	3.8394	3355	3501	3503	6419
STANDARD DEV:				36.6	.0298	.0281	.0283	.0323	.0839
M	3	C67570	442.7	5079	4.0858	3169	4155	4042	8959
M	3	C67578	466.6	4389	3.7604	3236	3803	3572	6991
M	3	C67580	441.8	4714	4.3732	3466	2385	3543	8330
M	3	C67581	483.8	3996	3.8398	3530	3530	3510	7141
M	3	C67582	457.3	4757	4.8798	3409	3383	3449	6942
M	3	C67583	453.8	4462	4.1502	3093	3133	3111	7869
M	3	C67584	497.1	4036	4.8627	3635	4094	3855	7103
M	3	C67585	450.7	4493	4.2909	3343	3451	3526	6803
M	3	C67586	413.7	5032	3.8242	3541	3869	3809	8687
M	3	C67587	493.0	4605	3.9650	3171	3441	3477	8102
M	3	C67594	523.8	3937	4.0858	3118	3409	3434	7483
M	3	C67602	504.0	4162	4.0099	3203	3812	3735	5999

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HAZLETON LABORATORIES AMERICA, INC.
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TABLE INCLUDES:
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DEATH-2; SUBSET-ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TEI - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	3	C67606	475.9	.4398	3.5289	.2885	.3718	.3903	.6139
M	3	C67612	469.9	.4390	4.1782	.3338	.3551	.3608	.6271
M	3	C67614	489.4	.4222	4.0476	.2980	.3311	.3306	.7288
NUMBER IN GROUP:			15	15	15	15	15	15	15
MEAN:			470.9	.4445	4.1240	.3261	.3536	.3592	.7340
STANDARD DEV:			28.6	.0349	.3702	.0246	.0429	.0242	.0900
M	4	C67617	428.8	.4627	5.2801	.3315	.3712	.5648	.8406
M	4	C67629	505.2	.4184	5.3782	.2973	.3568	.3752	.5654
M	4	C67634	475.1	.4604	5.1878	.3169	.3640	.3837	.6492
M	4	C67638	488.9	.4482	5.4286	.3206	.2988	.3050	.6563
M	4	C67639	479.0	.4289	5.6009	.2936	.4125	.4208	.6704
M	4	C67642	504.7	.4261	5.9938	.2924	.3416	.3455	.6096
M	4	C67644	456.2	.4411	4.7132	.2743	.4067	.4030	.7070
M	4	C67646	478.6	.4333	5.0682	.3621	.3582	.3597	.6480
M	4	C67647	432.6	.4871	4.5227	.3633	.3741	.3923	.6310
M	4	C67655	479.5	.4386	4.9373	.3378	.3353	.3298	.7518
M	4	C67656	465.4	.4386	4.6075	.2984	.4084	.4210	.5748
M	4	C67657	469.9	.4616	6.1684	.3404	.4280	.4062	.6977
M	4	C67661	412.9	.5217	4.3382	.3448	.3703	.3693	.6222

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TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	4	C67662	431.7	.4782	4.6352	.3181	.3587	.3501	.7435
M	4	C67667	494.5	.4369	5.2182	.2971	.3381	.3506	.7127
NUMBER IN GROUP:			15	15	15	15	15	15	15
MEAN:			466.9	.4519	5.1384	.3198	.3682	.3851	.6720
STANDARD DEV:			28.7	.0274	.5317	.0271	.0342	.0598	.0725
M	5	C67680	430.9	.4670	7.0532	.3599	.3817	.3531	.6585
M	5	C67699	451.9	.4384	5.2412	.3838	.3955	.3707	.5588
M	5	C67702	462.8	.4263	5.4021	.3715	.3357	.3274	.6718
M	5	C67703	473.9	.4461	5.7472	.3568	.3680	.3548	.6598
M	5	C67705	486.8	.4285	5.4401	.3082	.3404	.3278	.5326
M	5	C67707	497.5	.4410	6.0759	.3328	.3562	.3604	.6320
M	5	C67708	505.8	.4363	4.8823	.3155	.3178	.3147	.5171
M	5	C67709	364.7	.5843	6.3762	.3786	.4459	.4271	.6418
M	5	C67710	453.1	.4593	6.9046	.3241	.4072	.3705	.6828
M	5	C67711	448.5	.4443	5.2820	.2057	.4092	.4082	.5573
M	5	C67718	479.7	.4484	7.1014	.3276	.2885	.3189	.6184
M	5	C67719	476.3	.4570	6.4998	.3280	.3378	.3405	.6145
M	5	C67721	451.9	.4615	6.3174	.3133	.4150	.4057	.6312

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ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	5	C67722	429.8	.4609	5.8210	.3586	.3888	.3880	.6869
M	5	C67724	472.1	.4483	6.7353	.3345	.3713	.3624	.6947
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				.4565	6.0587	.3321	.3699	.3620	.6225
STANDARD DEV:				.0374	.7188	.0415	.0404	.0342	.0562
M	6	C67728	438.8	.4593	3.7492	.3162	.3881	.3774	.8369
M	6	C67729	460.8	.4425	4.3054	.3227	.3761	.3646	.6743
M	6	C67731	448.5	.4512	3.6101	.3573	.3837	.3901	.7841
M	6	C67734	416.5	.4987	3.7382	.3489	.3691	.3659	.7299
M	6	C67737	460.5	.4700	3.4547	.3585	.3404	.3295	.6821
M	6	C67739	467.4	.4563	3.4350	.3009	.3145	.3084	.4301
M	6	C67743	438.9	.5152	4.0221	.3862	.3703	.3483	.5211
M	6	C67750	448.0	.4419	3.4694	.3018	.3152	3.0058EX	.5843
M	6	C67752	490.0	.4449	3.8514	.3233	.3807	.3542	.5431
M	6	C67753	475.7	.4191	4.4927	.3375	.3559	.3688	.6691
M	6	C67758	445.6	.4932	3.2883	.3571	.3551	.3691	.6575
M	6	C67763	479.9	.4248	3.9303	.3404	.3674	.3675	.5185
M	6	C67765	439.3	.4916	3.7493	.3974	.3532	.3525	.6651

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TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	6	C67766	392.4	.4984	3.1803	.3702	.4058	.3882	.7279
M	6	C67768	437.3	.4734	4.0648	.4058	.4178	.4032	.6232
NUMBER IN GROUP:				15	15	15	15	14	15
MEAN:				.4854	3.7548	.3483	.3638	.3641	.6439
STANDARD DEV:				.0292	.3705	.0325	.0278	.0254	.1080

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TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	1	C67454	569.7	.3830	3.6509	.2890	.3038	.3091	.6219
M	1	C67459	495.8	.4315	3.1676	.3088	.3841	.3874	.5867
M	1	C67460	531.9	.4539	3.9455	.3152	.3048	.3168	.7792
M	1	C67462	598.7	.3529	3.0818	.2497	.2985	.2922	.7139
M	1	C67470	519.7	.3930	3.8804	.2921	.3482	.3446	.6515
M	1	C67473	610.5	.3264	3.9254	.2562	.2849	.2922	.5773
M	1	C67475	587.4	.4094	3.5970	.3153	.3351	.3379	.6283
M	1	C67482	511.8	.4198	3.1846	.3241	.3714	.3712	.6243
M	1	C67485	595.6	.3720	3.5413	.3333	.3268	.3210	.4994
M	1	C67487	523.4	.4548	3.3384	.3008	.3277	.3203	.8064
M	1	C67488	621.2	.3687	3.6161	.2856	.2863	.2813	.6423
M	1	C67498	577.0	.3820	3.2068	.2853	.3147	.3124	.6690
M	1	C67501	511.0	.4271	3.7024	.3148	.3000	.2991	.6461
M	1	C67504	600.3	.3554	3.5158	.3067	.3029	.2971	.4355
M	1	C67505	548.8	.3857	3.5850	.2755	.2941	.2967	.6081
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				.3944	3.5293	.2988	.3162	.3160	.6327
STANDARD DEV:				.0377	.2808	.0239	.0292	.0296	.0937
M	2	C67507	527.0	.5943	3.2219	.2880	.3702	.3623	.5888
M	2	C67518	467.2	.4299	2.9988	.2850	.3491	.3653	.6729
M	2	C67519	515.4	.4100	3.2410	.3111	.2255	.3544	.5914
M	2	C67521	557.6	.3946	3.0461	.3106	.2841	.2945	.6266
M	2	C67523	613.6	.3551	3.3956	.2923	.3087	.3028	.5228
M	2	C67526	513.2	.4208	3.0158	.2929	.3311	.3366	.5657

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SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	2	C67533	MISSING						
M	2	C67535	549.3	.3838	3.0870	.3090	.3484	.3484	.6448
M	2	C67536	570.3	.3780	3.2323	.2909	.3220	.3307	.5265
M	2	C67541	562.1	.3802	2.9319	.3295	.2829	.2786	.6741
M	2	C67548	609.5	.3708	3.8424	.2850	.2991	.2980	.6516
M	2	C67551	583.4	.3987	2.9800	.2700	.3074	.3129	.7497
M	2	C67552	610.2	.3313	3.9108	.1919	.3411	.4238	.6245
M	2	C67553	560.6	.3785	3.2093	.3161	.3169	.3168	.6421
M	2	C67556	532.3	.4247	3.1780	.2686	.2863	.2875	.7003
NUMBER IN GROUP:				14	14	14	14	14	14
MEAN:				555.1	4037	3.2358	3124	3295	6273
STANDARD DEV:				42.0	.0613	.3001	.0329	.0368	.0641
M	3	C67563	631.7	.3387	4.2299	.2948	.2850	.2708	.6123
M	3	C67564	569.9	.3733	3.5105	.2755	.3201	.3025	.6919
M	3	C67571	491.6	.4324	3.5340	.2896	.3988	.3785	.8745
M	3	C67596	511.5	.4380	3.9566	.2752	.3256	.3200	.8930
M	3	C67598	534.3	.3880	4.2080	.3010	.3112	.3118	.5382
M	3	C67600	595.1	.3793	4.1506	.2964	.2991	.2957	.5998
M	3	C67603	609.4	.3562	3.6607	.2829	.2764	.2768	.5301
M	3	C67604	556.1	.3814	3.5855	.3080	.3424	.3384	.6185
M	3	C67605	573.2	.3915	3.8748	.2892	.3091	.3117	.5693
M	3	C67607	527.1	.3894	3.3917	.1771	.3472	.3456	.4814
M	3	C67608	500.4	.4183	3.4469	.3067	.3703	.3537	.6404
M	3	C67610	548.1	.4396	3.3677	.3151	.3165	.3172	.7303

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SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	3	C67611	529.2	.4128	3.5693	.2884	.3100	.3235	.7480
M	3	C67613	583.2	.3773	3.8575	.2998	.2828	.2855	.5318
M	3	C67615	529.4	.4099	3.1835	.3044	.3570	.3512	.6216
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				552.7	.3951	3.6883	.2856	.3234	.3189
STANDARD DEV:				40.7	.0296	.3238	.0329	.0343	.0305
M	4	C67616	586.8	.3712	4.4641	.2880	.3414	.3291	.6375
M	4	C67618	598.8	.3629	3.8248	.2742	.2953	.2894	.6634
M	4	C67621	607.0	.3637	4.1273	.2880	.2733	.2688	.4112
M	4	C67623	470.7	.4476	3.8118	.3361	.3561	.3533	.8017
M	4	C67624	536.7	.3932	4.9301	.2760	.3182	.3271	.6310
M	4	C67635	544.9	.3780	3.7197	.2875	.3450	.3593	.5581
M	4	C67641	545.4	.3549	4.5321	.2367	.2896	.3063	.4664
M	4	C67643	455.8	.4574	3.8659	.3813	.3771	.3823	.8275
M	4	C67645	621.8	.3578	3.9035	.2720	.3198	.3261	.5115
M	4	C67650	556.3	.3832	5.0706	.3110	.3164	.3060	.6200
M	4	C67652	506.3	.4129	4.1819	.3063	.3680	.3587	.8068
M	4	C67653	592.1	.3543	4.8739	.3070	.3186	.3150	.5712
M	4	C67658	444.1	.4805	4.3343	.3455	.3844	.3779	.7418

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TED - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TED	TE1	SO
M	4	C67668	484.9	.4197	2.9439	.3147	.3495	.3494	.5998
M	4	C67669	523.5	.3938	4.5954	.3021	.3405	.3397	.6943
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				.3954	4.2108	.3018	.3327	.3325	.6381
STANDARD DEV:				.0401	.5809	.0348	.0322	.0321	.1240
M	5	C67671	550.8	.4047	5.2599	.3122	.3579	.3582	.8373
M	5	C67672	459.5	.4857	4.3704	.3057	.3855	.3850	.7258
M	5	C67673	501.8	.4657	4.6533	.2988	.3455	.3405	.8743
M	5	C67677	532.1	.3998	4.3234	.2702	.3049	.3067	.4890
M	5	C67679	437.4	.4858	6.4476	.3519	.4233	.4040	.8992
M	5	C67686	MISSING						
M	5	C67688	412.5	.5383	6.2434	.3419	.3738	.3933	.5780
M	5	C67691	405.9	.4911	4.8408	.3200	.3703	.3471	.7109
M	5	C67695	385.9	.5491	5.8465	.3485	.4715	.4470	.7900
M	5	C67697	481.7	.4389	6.3148	.3047	.3770	.3782	.8575
M	5	C67700	558.8	.3678	6.0944	.3178	.3885	.3506	.7434
M	5	C67712	583.8	.3775	5.7178	.2892	.3217	.3191	.7067
M	5	C67714	415.5	.5192	6.8972	.3598	.4003	.4217	.7880

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TED - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TED	TE1	SO
M	5	C67716	464.7	.4747	4.5935	.3438	.3635	.3517	.6049
M	5	C67720	658.1	.2948	5.5230	.2286	.2722	.2703	.6695
NUMBER IN GROUP:				14	14	14	14	14	14
MEAN:				.4466	5.4947	.3136	.3653	.3610	.6910
STANDARD DEV:				.0713	.8403	.0357	.0488	.0464	.0946
M	6	C67730	490.1	.4160	3.3362	.3251	.3418	.3420	.6869
M	6	C67732	532.2	.4197	2.9375	.2961	.3860	.3733	.4218
M	6	C67736	516.5	.4093	3.0733	.2847	.3417	.3361	.6270
M	6	C67738	523.1	.4091	3.2672	.3112	.3729	.3314	.6142
M	6	C67740	466.7	.4500	3.2688	.2934	.3559	.3514	.6635
M	6	C67744	503.7	.4394	3.2920	.3130	.3389	.3451	.9286
M	6	C67746	474.3	.4456	3.0198	.3637	.3378	.3324	.7229
M	6	C67747	536.4	.3982	3.8943	.2792	.3005	.2872	.6592
M	6	C67748	503.4	.4235	3.1775	.3228	.3376	.3456	.7394
M	6	C67749	495.6	.4298	3.2790	.3224	.3293	.3171	.5826
M	6	C67754	546.3	.3990	3.3284	.3167	.3292	.3311	.8060
M	6	C67755	473.7	.4550	2.9481	.3630	.3637	.3670	.4820
M	6	C67756	490.0	.4137	3.3323	.3088	.3154	.3170	.6136

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APPENDIX D

HWI 8329-100

INDIVIDUAL ORGAN-TO-BODY WEIGHT PERCENTAGES

14 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.PRINTED: 11-OCT-91
PAGE: 6TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=T; SUBSET=ALLORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TEI - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	8	C67780	488.1	.4258	3.1538	.3358	.3153	.3155	.5575
M	8	C67787	503.9	.4410	3.2117	.3048	.3386	.3474	.6005
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				.4250	3.2347	.3158	.3400	.3380	.6470
STANDARD DEV:				.0181	.2274	.0247	.0224	.0218	.1241

APPENDIX D
INDIVIDUAL ORGAN-TO-BODY WEIGHT PERCENTAGES
22 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	1	C67452	564.9	.3869	3.1927	.2859	.2910	.3092	.7661
M	1	C67453	666.3	.3209	3.5489	.2784	.2968	.3137	.5383
M	1	C67456	584.9	.3797	3.0772	.2820	.2497	.2496	.6312
M	1	C67471	653.8	.3392	3.5280	.2478	.2683	.2741	.5906
M	1	C67479	489.7	.4238	2.9316	.3033	.3126	.3227	.5064
M	1	C67483	615.4	.3610	3.2167	.2547	.2865	.2829	.6107
M	1	C67490	610.6	.3313	3.2494	.2681	.2918	.3060	.6332
M	1	C67493	510.4	.4005	3.0485	.2964	.3350	.3550	.5732
M	1	C67496	507.2	.4021	3.1059	.2961	.3418	.3627	.6369
M	1	C67497	597.7	.3744	3.1798	.2631	.2725	.2785	.6587
NUMBER IN GROUP:				10	10	10	10	10	10
MEAN:				578.1	3.2077	2.776	2.946	3.054	6.145
STANDARD DEV:				61.6	.0336	.0187	.0286	.0357	.0714
M	2	C67508	563.4	.3869	3.3571	.3112	.2745	.2899	.6772
M	2	C67513	680.3	.3375	3.1511	.2801	.2429	.2520	.5771
M	2	C67516	678.8	.3375	2.9183	.2876	.2775	.2707	.4847
M	2	C67517	618.8	.3675	3.0608	.2645	.3250	.3503	.6911
M	2	C67520	551.1	.4161	2.8459	.3009	.3132	.3099	.7702
M	2	C67528	567.8	.3952	3.0417	.2782	.3105	.3058	.6383
M	2	C67534	610.9	.3549	2.8139	.2865	.3097	.3047	.5172
M	2	C67538	692.6	.3307	2.9137	.2820	.2672	.2483	.5579

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	2	C67543	546.2	.4033	3.1050	.3154	.2739	.2759	.4369
M	2	C67548	560.7	.3870	3.2082	.2703	.3100	.3044	.6383
NUMBER IN GROUP:				10	10	10	10	10	10
MEAN:				.6071	3.0416	.2875	.2904	.2912	.6057
STANDARD DEV:				.581	.0311	.0169	.0266	.0306	.0989
M	3	C67561	612.8	.3638	3.0858	.2587	.2142	.2748	.6875
M	3	C67567	640.3	.3641	2.9557	.2605	.2787	.2837	.5135
M	3	C67572	553.3	.4022	3.3263	.3166	.2980	.2829	.5968
M	3	C67573	526.7	.4073	2.8814	.2987	.3241	.3232	.6955
M	3	C67575	729.2	.3120	3.0518	.2461	.2789	.2804	.4755
M	3	C67579	587.0	.3653	3.1342	.2776	.2993	.3025	.6520
M	3	C67588	571.7	.3823	3.1129	.2763	.2632	.2740	.6240
M	3	C67589	630.8	.3467	3.4552	.3388	.3208	.3381	.5733
M	3	C67593	709.5	.2903	2.8923	.2199	.2634	.2605	.5219
M	3	C67609	730.9	.3091	2.4730	.2081	.2403	.2556	.4438
NUMBER IN GROUP:				10	10	10	10	10	10
MEAN:				.6292	3.0169	.2701	.2781	.2874	.5784
STANDARD DEV:				.734	.0397	.0408	.0345	.0259	.0879
M	4	C67622	563.6	.3736	3.7794	.2701	.3322	.3550	.6877
M	4	C67626	560.2	.3685	3.3224	.2918	.3351	.3384	.7667
M	4	C67628	666.5	.3320	3.2197	.2644	.2788	.2800	.6685

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22 WEEK SACRIFICE

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HAZLETON LABORATORIES AMERICA, INC.
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TEO - LF. TESTIS, TEI - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	4	C67637	529.9	.4045	4.2704	.3188	.2988	.3031	.6313
M	4	C67649	601.5	.3553	2.9052	.2519	.2034	.3212	.6784
M	4	C67651	614.9	.3479	3.3762	.2648	.2929	.2883	.5291
M	4	C67660	557.8	.4259	3.7013	.3094	.3110	.3192	.6821
M	4	C67664	694.3	.3167	3.0173	.2915	.2424	.2441	.6329
M	4	C67666	609.1	.3683	3.1945	.2698	.2425	.2398	.6606
M	4	C67670	620.5	.3566	3.8750	.2889	.3139	.3069	.6525
NUMBER IN GROUP:				10	10	10	10	10	10
MEAN:				.3647	3.4861	.2821	.2850	.2996	.6590
STANDARD DEV:				.0320	.4278	.0214	.0431	.0375	.0594
M	5	C67674	655.4	.3384	3.3007	.2560	.2899	.2812	.5972
M	5	C67676	399.4	.5541	3.9854	.4038	.4358	.4205	1.1436
M	5	C67678	552.5	.3737	3.5286	.2552	.3127	.3114	.6526
M	5	C67683	593.0	.3618	2.9441	.2599	.2636	.2653	.6137
M	5	C67684	490.9	.4219	2.8872	.2862	.3371	.3491	.5047
M	5	C67694	595.7	.3825	3.3618	.2979	.3091	.2902	.6918
M	5	C67701	541.8	.3733	3.5120	.3089	.3203	.3187	.8868
M	5	C67704	597.4	.3357	3.3453	.2559	.2896	.2806	.5182

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SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	5	C67706	572.9	.3810	3.7639	.2737	.2983	.2930	.5086
M	5	C67723	561.3	.3818	3.0124	.2968	.3639	.3473	.5851
NUMBER IN GROUP:				10	10	10	10	10	10
MEAN:				.3804	3.3842	.2906	.3210	.3167	.6792
STANDARD DEV:				.0624	.3538	.0447	.0499	.0455	.1950

APPENDIX D
INDIVIDUAL ORGAN-TO-BRAIN WEIGHT RATIOS
5 WEEK SACRIFICE

HWI 6329-100

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DEATH=1; SUBSET=ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	1	C67451	447.6	1.0000	7.8411	.7947	.8089	.7967	1.1850
M	1	C67457	375.7	1.0000	7.3980	.6896	.7428	.7287	1.2929
M	1	C67461	409.0	1.0000	7.6976	.7081	.7444	.7779	1.3517
M	1	C67464	425.9	1.0000	8.4267	.7413	.7874	.8059	1.1426
M	1	C67467	420.5	1.0000	6.6825	.7490	.7208	.7122	1.3055
M	1	C67468	398.0	1.0000	7.3446	.7810	.8538	.8914	1.2731
M	1	C67476	419.9	1.0000	7.6429	.6858	.8913	.8723	1.3948
M	1	C67477	420.1	1.0000	8.6716	.8273	.7229	.7134	1.2222
M	1	C67486	397.0	1.0000	7.7155	.7293	.7308	.7329	1.2231
M	1	C67489	382.7	1.0000	6.9662	.4138	.8600	.8232	1.2604
M	1	C67491	388.1	1.0000	7.4406	.7483	.7740	.7831	1.4071
M	1	C67492	451.9	1.0000	10.7239	.7848	.8007	.8453	1.4938
M	1	C67500	401.7	1.0000	7.7640	.7802	.8451	.8462	1.2315
M	1	C67502	409.0	1.0000	8.1735	.7318	.8218	.8136	1.2846
M	1	C67503	418.8	1.0000	7.7147	.7993	.7931	.8143	1.3189
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				411.1	7.8802	.7309	.7932	.7971	1.2925
STANDARD DEV:				21.7	.9350	.0969	.0541	.0562	.0916
M	2	C67509	464.8	1.0000	9.0382	.8748	.8954	.8822	1.4524
M	2	C67510	390.4	1.0000	6.8254	.7701	.7882	.7889	1.4986
M	2	C67511	399.2	1.0000	7.2271	.7391	.8222	.8207	1.4778
M	2	C67514	440.2	1.0000	7.6741	.7549	.8561	.8391	1.2664
M	2	C67515	398.0	1.0000	7.6426	.7818	.8136	.8157	1.1311
M	2	C67524	376.6	1.0000	7.7844	.6493	.6452	.6551	1.2494

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INDIVIDUAL ORGAN-TO-BRAIN WEIGHT RATIOS
5 WEEK SACRIFICE

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MADISON, WISCONSIN U.S.A.

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TEO - LF. TESTIS, TEI - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	2	C87525	434.7	1.0000	9.4123	.8235	.9987	.9825	1.4374
M	2	C87528	404.5	1.0000	8.7850	.6465	.8137	.7851	1.1734
M	2	C87530	422.6	1.0000	8.9552	.7368	.7484	.7537	1.2475
M	2	C87537	359.8	1.0000	8.6814	.7498	.8310	.8460	1.0442
M	2	C87544	387.7	1.0000	8.4180	.7254	.7617	.8041	1.2487
M	2	C87550	387.9	1.0000	7.1089	.7765	.7551	.7456	1.2898
M	2	C87555	422.1	1.0000	7.8863	.7860	.7464	.7430	1.3755
M	2	C87558	433.7	1.0000	8.1900	.7830	.7789	.7528	1.2288
M	2	C87559	488.4	1.0000	8.8859	.7888	.7694	.7701	1.7347
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				413.9	1.0000	7.8323	.7564	.8015	.7990
STANDARD DEV:				34.5	.0000	.9170	.0575	.0794	.0742
M	3	C87562	433.8	1.0000	9.4062	.7266	.8589	.8424	1.5176
M	3	C87565	390.4	1.0000	8.2728	.7516	.7875	.7854	1.1159
M	3	C87566	421.7	1.0000	9.3371	.6996	.8100	.8127	1.2374
M	3	C87568	397.0	1.0000	9.0802	.7003	.7645	.7694	1.5004
M	3	C87569	389.8	1.0000	7.7598	.6465	.8375	.8571	1.2919
M	3	C87574	396.8	1.0000	8.0723	.7009	.9332	.9048	1.6984
M	3	C87576	387.9	1.0000	9.2426	.6951	.8564	.8581	1.6870
M	3	C87577	363.6	1.0000	7.8286	.6250	.7693	.8102	1.1494
M	3	C87580	391.4	1.0000	7.8369	.6597	.6891	.6780	1.1435
M	3	C87591	379.3	1.0000	8.3413	.7170	.7899	.7735	1.4260
M	3	C87592	341.8	1.0000	6.4358	.5971	.6953	.7052	1.2188
M	3	C87595	414.9	1.0000	9.5801	.7696	.9162	.8905	1.7582

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INDIVIDUAL ORGAN-TO-BRAIN WEIGHT RATIOS
5 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
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TEO - LF. TESTIS, TEI - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	3	C67597	380.0	1.0000	9.6983	.7227	.7464	.7774	1.3262
M	3	C67599	407.5	1.0000	10.7418	.7927	.8873	.8732	1.2383
M	3	C67601	480.6	1.0000	10.1528	.7908	.7745	.8046	1.5373
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				1.0000	8.7711	.7063	.8084	.8095	1.3897
STANDARD DEV:				.0000	1.1310	.0573	.0739	.0644	.2163
M	4	C67619	409.2	1.0000	12.5708	.7452	.7507	.7627	1.1459
M	4	C67620	469.8	1.0000	12.5805	.7367	.7475	.7142	1.5790
M	4	C67625	371.2	1.0000	9.4741	.7340	.7771	.7870	1.2519
M	4	C67627	396.2	1.0000	10.1623	.7380	.7398	.7815	1.2573
M	4	C67630	457.0	1.0000	13.2292	.7398	.7899	.8154	1.4667
M	4	C67631	381.1	1.0000	10.5166	.6775	.6662	.6595	1.4069
M	4	C67632	386.5	1.0000	9.5175	.7052	.8310	.7900	1.2463
M	4	C67633	453.7	1.0000	11.7767	.8093	.7874	.7915	1.5110
M	4	C67636	385.3	1.0000	10.8271	.7501	.7415	.7160	1.2247
M	4	C67640	397.0	1.0000	12.0779	.6859	.7845	.7980	1.4655
M	4	C67648	392.0	1.0000	10.1241	.6576	.7729	.7334	1.2614
M	4	C67654	333.5	1.0000	10.6253	.6304	.7880	.7800	1.3859
M	4	C67659	416.0	1.0000	11.3720	.7603	.6943	.6842	1.0622

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APPENDIX D

HWI 6329-100

INDIVIDUAL ORGAN-TO-BRAIN WEIGHT RATIOS

5 WEEK SACRIFICE

HAZLETON LABORATORIES AMERICA, INC.
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SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	4	C87683	413.9	1.0000	10.4422	.7399	.8070	.8174	1.1731
M	4	C87685	387.8	1.0000	13.8475	.7524	.8724	.8874	1.2091
NUMBER IN GROUP:			15	15	15	15	15	15	15
MEAN:			403.3	1.0000	11.2764	.7242	.7713	.7879	1.3098
STANDARD DEV:			35.5	.0000	1.3499	.0452	.0513	.0580	.1497
M	5	C87675	408.9	1.0000	14.8242	.7048	.7517	.7781	1.3450
M	5	C87681	372.9	1.0000	12.7795	.7155	.8030	.7905	1.3391
M	5	C87682	373.0	1.0000	12.5501	.6430	.7182	.7455	1.3217
M	5	C87687	383.1	1.0000	10.3078	.6478	.7180	.7851	1.1043
M	5	C87689	392.4	1.0000	13.7341	.7175	.7191	.7183	1.1184
M	5	C87680	365.2	1.0000	12.9544	.7100	.7844	.7883	1.2441
M	5	C87692	390.9	1.0000	12.7203	.7904	.8397	.8358	1.3758
M	5	C87693	402.0	1.0000	10.9815	.6980	.7484	.7384	1.5244
M	5	C87696	350.8	1.0000	13.0842	.6812	.5750	.8286	1.2490
M	5	C87698	389.8	1.0000	11.9600	.6778	.8282	.8089	1.4283
M	5	C87713	373.3	1.0000	11.5777	.6547	.7428	.7334	1.1282
M	5	C87715	387.8	1.0000	13.0899	.7118	.8975	.9300	1.3943
M	5	C87717	381.0	1.0000	12.3528	.6720	.7940	.8122	1.1188
M	5	C87725	346.8	1.0000	11.9117	.6905	.9117	.8904	1.3712
NUMBER IN GROUP:			14	14	14	14	14	14	14
MEAN:			378.4	1.0000	12.4713	.6925	.7734	.7971	1.2900
STANDARD DEV:			18.4	.0000	1.0996	.0383	.0852	.0604	.1328

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INDIVIDUAL ORGAN-TO-BRAIN WEIGHT RATIOS
5 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	6	C67726	371.4	1.0000	8.1886	.7267	.6425	.6838	1.2408
M	6	C67727	388.9	1.0000	7.5986	.8186	.7993	.7659	1.4075
M	6	C67733	384.1	1.0000	9.1327	.8375	.9637	.9671	.8790
M	6	C67735	383.7	1.0000	8.8639	.8046	.7851	.7640	1.1531
M	6	C67741	393.5	1.0000	8.0070	.7847	.8492	.8932	1.4363
M	6	C67742	386.0	1.0000	8.3224	.8606	.8758	.8723	1.4821
M	6	C67745	396.0	1.0000	7.5459	.7546	.8852	.8650	1.2011
M	6	C67751	387.0	1.0000	6.9364	.7679	.7063	.7262	1.2166
M	6	C67757	403.1	1.0000	7.4613	.7052	.7423	.7478	1.3348
M	6	C67759	402.3	1.0000	7.3523	.8739	.7645	.7173	.9517
M	6	C67761	391.9	1.0000	7.4714	.6835	.7723	.7698	1.3033
M	6	C67762	388.8	1.0000	8.0920	.7691	.8097	.7727	1.2857
M	6	C67764	392.0	1.0000	8.3136	.8920	.8232	.8230	1.2310
M	6	C67769	402.7	1.0000	8.1825	.8220	.8015	.8208	1.0738
M	6	C67770	362.5	1.0000	6.5056	.7455	.7789	.7377	1.3024
NUMBER IN GROUP:			15	15	15	15	15	15	15
MEAN:			388.9	1.0000	7.8656	.7631	.8000	.7951	1.2333
STANDARD DEV:			11.1	.0000	.6950	.0659	.0767	.0771	.1678

APPENDIX D
INDIVIDUAL ORGAN-TO-BRAIN WEIGHT RATIOS
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TABLE INCLUDES:
SEX=ALL; GROUP=ALL; WEEKS=ALL
DEATH=2; SUBSET=ALL

: BR - BRAIN, LI - LIVER, LU - LUNG
ORGAN ABBREVIATION: TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	1	C67455	463.7	1.0000	7.8517	.8362	.7818	.8023	1.3849
M	1	C67458	450.9	1.0000	7.8228	.7473	.7872	.7744	1.2432
M	1	C67463	482.8	1.0000	7.4175	.7804	.7418	.7645	1.5904
M	1	C67465	422.1	1.0000	7.3439	.6883	.8528	.8264	1.1927
M	1	C67466	490.3	1.0000	9.2755	.6870	.7433	.7766	1.5257
M	1	C67469	494.0	1.0000	10.2840	.7702	.8004	.8278	1.4589
M	1	C67472	516.8	1.0000	10.4165	.7615	.9772	.9821	1.8598
M	1	C67474	478.1	1.0000	8.5824	.7638	.8378	.8887	1.6572
M	1	C67478	474.1	1.0000	8.1294	.7824	.8176	.8021	1.8896
M	1	C67480	459.0	1.0000	7.7514	.6522	.8119	.8129	1.3325
M	1	C67481	435.1	1.0000	7.3869	.7357	.7583	.8089	1.2064
M	1	C67484	486.7	1.0000	8.8585	.8320	.8282	.8471	1.4172
M	1	C67494	452.1	1.0000	7.8217	.7500	.7555	.7480	1.3724
M	1	C67495	485.5	1.0000	8.9647	.8250	.8269	.8580	1.7285
M	1	C67498	508.0	1.0000	9.9781	.7345	.7314	.7301	1.5413
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				1.0000	8.4990	.7571	.8042	.8153	1.4672
STANDARD DEV:				.0000	1.0685	.0538	.0814	.0608	.1780
M	2	C67506	441.4	1.0000	7.4858	.7860	.8287	.8177	1.5518
M	2	C67512	440.1	1.0000	7.7502	.8217	.7809	.7252	1.5001
M	2	C67522	525.9	1.0000	10.5799	.7833	.8509	.8589	1.5969
M	2	C67527	495.1	1.0000	7.3382	.7868	.8079	.8113	1.4447
M	2	C67531	524.8	1.0000	9.7655	.7658	.7805	.7533	1.3475
M	2	C67532	484.2	1.0000	8.6823	.6846	.8508	.8550	1.5376

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SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	2	C67539	510.7	1.0000	8.5862	.7894	.8664	.8812	1.8423
M	2	C67540	552.7	1.0000	11.7314	.8845	.7842	.7805	1.4376
M	2	C67542	432.9	1.0000	7.5997	.8015	.8425	.8640	1.1521
M	2	C67545	438.8	1.0000	7.8010	.7608	.8691	.8863	1.5427
M	2	C67546	476.9	1.0000	7.6547	.7272	.7982	.7982	1.2801
M	2	C67547	484.8	1.0000	7.2874	.7838	.7492	.7852	1.2011
M	2	C67554	496.4	1.0000	8.9570	.7454	.7878	.7740	1.8571
M	2	C67557	505.0	1.0000	8.0884	.8213	.8476	.8648	1.7122
M	2	C67560	472.1	1.0000	8.5841	.7770	.7794	.7548	1.8040
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				1.0000	8.5253	.7799	.8136	.8140	1.4939
STANDARD DEV:				.0000	1.2877	.0455	.0385	.0517	.1863
M	3	C67570	442.7	1.0000	8.0444	.6238	.8180	.7957	1.7638
M	3	C67578	468.8	1.0000	8.5887	.7373	.8866	.8139	1.5930
M	3	C67580	441.8	1.0000	9.2773	.7352	.5061	.7515	1.7672
M	3	C67581	483.8	1.0000	9.6080	.8832	.8833	.8784	1.7867
M	3	C67582	457.3	1.0000	10.2580	.7166	.7111	.7251	1.4592
M	3	C67583	453.8	1.0000	9.3018	.6932	.7022	.6973	1.7638
M	3	C67584	497.1	1.0000	12.0489	.9007	1.0145	.8551	1.7800
M	3	C67585	450.7	1.0000	9.5492	.7441	.7680	.7848	1.5140
M	3	C67586	413.7	1.0000	7.6002	.7037	.7688	.7570	1.7266
M	3	C67587	493.0	1.0000	8.6096	.6885	.7472	.7550	1.7594
M	3	C67594	523.8	1.0000	10.3276	.7920	.8659	.8724	1.9009
M	3	C67602	504.0	1.0000	9.8338	.7695	.9159	.8974	1.4412

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TED - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TED	TE1	SO
M	3	C87608	475.9	1.0000	8.0185	.8105	.8448	.8874	1.3958
M	3	C87612	489.8	1.0000	9.5183	.7808	.8089	.8220	1.4286
M	3	C87614	489.4	1.0000	9.5871	.7057	.7843	.7830	1.7262
NUMBER IN GROUP:			15	15	15	15	15	15	15
MEAN:			470.9	1.0000	9.3301	.7377	.8004	.8117	1.6524
STANDARD DEV:			28.6	.0000	1.1031	.0795	.1154	.0727	.1631
M	4	C87617	428.8	1.0000	11.4112	.7183	.8022	1.2208	1.8166
M	4	C87629	505.2	1.0000	12.8158	.7139	.8583	.9010	1.3578
M	4	C87634	475.1	1.0000	11.2884	.8882	.7908	.8334	1.4101
M	4	C87638	488.9	1.0000	12.1129	.7355	.6885	.6805	1.4644
M	4	C87639	479.0	1.0000	13.0588	.8848	.9818	.9811	1.5631
M	4	C87642	504.7	1.0000	14.0869	.8863	.8018	.8108	1.4308
M	4	C87644	456.2	1.0000	10.6882	.8218	.9220	.9137	1.6029
M	4	C87646	478.6	1.0000	11.6959	.8358	.8267	.8300	1.4953
M	4	C87647	432.6	1.0000	9.2859	.7459	.7882	.8054	1.2955
M	4	C87655	479.5	1.0000	11.2557	.7702	.7845	.7519	1.7138
M	4	C87656	465.4	1.0000	10.5059	.8804	.9312	.9600	1.3106
M	4	C87657	468.9	1.0000	13.3829	.7375	.9272	.8800	1.5114
M	4	C87661	412.9	.0000	8.3155	.6808	.7097	.7078	1.1926

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TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	4	C67662	431.7	1.0000	9.7330	.6679	.7533	.7351	1.5813
M	4	C67667	494.5	1.0000	11.9378	.6799	.7738	.8024	1.6311
NUMBER IN GROUP:			15	15	15	15	15	15	15
MEAN:			466.9	1.0000	11.4408	.7083	.8172	.8543	1.4905
STANDARD DEV:			28.7	.0000	1.5808	.0518	.0864	.1342	.1662
M	5	C67680	430.9	1.0000	15.1040	.7706	.7746	.7562	1.4101
M	5	C67699	451.8	1.0000	11.8550	.8298	.9022	.8454	1.2741
M	5	C67702	462.8	1.0000	12.6714	.8714	.7874	.7880	1.5759
M	5	C67703	473.9	1.0000	12.8843	.7999	.8250	.7955	1.4787
M	5	C67705	486.8	1.0000	12.6960	.7215	.7944	.7650	1.2429
M	5	C67707	497.5	1.0000	13.7787	.7550	.8078	.8173	1.4332
M	5	C67708	505.8	1.0000	11.1894	.7230	.7283	.7212	1.1850
M	5	C67709	384.7	1.0000	10.9122	.6497	.7631	.7310	1.0984
M	5	C67710	453.1	1.0000	15.0320	.7055	.8865	.8067	1.4431
M	5	C67711	448.5	1.0000	11.8870	.4628	.9209	.9187	1.2541
M	5	C67718	479.7	1.0000	15.8362	.7306	.6657	.7068	1.3791
M	5	C67719	476.3	1.0000	14.2221	.7199	.7392	.7451	1.3445
M	5	C67721	451.9	1.0000	13.6890	.6788	.8994	.8791	1.3676

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TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	5	C67722	429.8	1.0000	12.6287	.7780	.8435	.8440	1.4902
M	5	C67724	472.1	1.0000	15.0256	.7463	.8282	.8086	1.5497
NUMBER IN GROUP:			15	15	15	15	15	15	15
MEAN:			459.0	1.0000	13.3008	.7285	.8111	.7939	1.3685
STANDARD DEV:			34.2	.0000	1.5175	.0929	.0722	.0604	.1361
M	6	C67728	438.8	1.0000	8.1633	.6884	.8015	.8217	1.8221
M	6	C67729	460.8	1.0000	9.7305	.7292	.8500	.8240	1.5239
M	6	C67731	448.5	1.0000	8.0005	.7919	.8503	.8644	1.7377
M	6	C67734	416.5	1.0000	7.4981	.6986	.7401	.7337	1.4637
M	6	C67737	480.5	1.0000	7.3502	.7628	.7242	.7010	1.4726
M	6	C67739	467.4	1.0000	7.5273	.6594	.6891	.6759	.9425
M	6	C67743	438.9	1.0000	7.8067	.7496	.7187	.6761	1.0113
M	6	C67750	448.0	1.0000	7.8515	.6830	.7134	6.8024EX	1.3222
M	6	C67752	490.0	1.0000	8.6568	.7268	.8107	.7961	1.2207
M	6	C67753	475.7	1.0000	10.7203	.8052	.8492	.8799	1.5967
M	6	C67758	445.6	1.0000	6.6673	.7241	.7200	.7483	1.3330
M	6	C67763	479.9	1.0000	9.2526	.8015	.8650	.8651	1.2231
M	6	C67765	439.3	1.0000	7.6268	.8083	.7186	.7170	1.3529

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ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	8	C67766	392.4	1.0000	8.3276	.7412	.8127	.7973	1.4575
M	8	C67768	437.3	1.0000	8.5871	.8572	.8828	.8518	1.3165
NUMBER IN GROUP:				15	15	15	15	14	15
MEAN:				449.3	8.1176	.7485	.7831	.7823	1.3864
STANDARD DEV:				24.8	1.1411	.0558	.0872	.0727	.2380

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14 WEEK SACRIFICE

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TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	1	C67454	589.7	1.0000	9.5312	.7545	.7930	.8089	1.8236
M	1	C67459	495.8	1.0000	7.3415	.7151	.8440	.8516	1.3590
M	1	C67460	531.9	1.0000	8.6932	.6946	.6716	.6980	1.7169
M	1	C67462	598.7	1.0000	8.7330	.7078	.8458	.8281	2.0231
M	1	C67470	519.7	1.0000	9.8734	.7433	.8860	.8767	1.6576
M	1	C67473	610.5	1.0000	12.0283	.7850	.8728	.8951	1.7687
M	1	C67475	567.4	1.0000	8.7857	.7702	.8186	.8254	1.5347
M	1	C67482	511.8	1.0000	7.5861	.7720	.8847	.8842	1.4872
M	1	C67485	595.6	1.0000	9.5207	.8960	.8787	.8630	1.3427
M	1	C67487	523.4	1.0000	7.3411	.6611	.7205	.7044	1.7733
M	1	C67488	621.2	1.0000	9.8076	.7746	.7221	.7088	1.7421
M	1	C67489	577.0	1.0000	8.3947	.7470	.8238	.8180	1.7514
M	1	C67501	511.0	1.0000	8.6686	.7371	.7024	.7003	1.5127
M	1	C67504	600.3	1.0000	9.8928	.8631	.8524	.8359	1.2255
M	1	C67505	548.8	1.0000	9.2948	.7142	.7624	.7692	1.5765
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				558.7	1.0000	9.0327	.7557	.8053	1.6064
STANDARD DEV:				41.1	.0000	1.2007	.0609	.0723	.2047
M	2	C67507	527.0	1.0000	5.4209	.4845	.6229	.6096	.9907
M	2	C67518	467.2	1.0000	6.9771	.6861	.8121	.8497	1.5652
M	2	C67519	515.4	1.0000	7.9051	.7587	.5500	.8645	1.4425
M	2	C67521	557.8	1.0000	7.7199	.7872	.7200	.7463	1.5880
M	2	C67523	613.6	1.0000	9.5627	.8233	.8693	.8527	1.4722
M	2	C67526	513.2	1.0000	7.1660	.6960	.7868	.7998	1.3441

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SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	2	C67533	MISSING						
M	2	C67535	549.3	1.0000	8.0675	.8050	.9074	.9075	1.6797
M	2	C67536	570.3	1.0000	8.5278	.7675	.8496	.8725	1.3890
M	2	C67541	562.1	1.0000	7.7119	.8668	.7442	.7328	1.7731
M	2	C67549	609.5	1.0000	10.3611	.7686	.8065	.8063	1.7570
M	2	C67551	583.4	1.0000	7.4736	.6772	.7709	.7848	1.8803
M	2	C67552	610.2	1.0000	11.8048	.5793	1.0297	1.2792	1.8850
M	2	C67553	560.6	1.0000	8.4797	.8351	.8373	.8371	1.6965
M	2	C67556	532.3	1.0000	7.4836	.6277	.6742	.6770	1.6490
NUMBER IN GROUP:				14	14	14	14	14	14
MEAN:				555.1	1.0000	8.1901	.7259	.7844	.8300
STANDARD DEV:				42.0	.0000	1.5593	.1075	.1209	.1528
M	3	C67563	631.7	1.0000	12.4878	.8697	.8414	.7990	1.8077
M	3	C67564	589.9	1.0000	9.4027	.7378	.8573	.8103	1.8533
M	3	C67571	491.6	1.0000	8.1736	.8699	.9223	.8754	2.0227
M	3	C67596	511.5	1.0000	9.0336	.6284	.7434	.7307	2.0389
M	3	C67598	534.3	1.0000	10.8400	.7758	.8021	.8037	1.3870
M	3	C67600	595.1	1.0000	10.9414	.7814	.7885	.7796	1.5813
M	3	C67603	608.4	1.0000	10.2760	.7942	.7759	.7770	1.4881
M	3	C67604	556.1	1.0000	9.4008	.8076	.8977	.8873	1.6216
M	3	C67605	573.2	1.0000	9.8969	.7388	.7894	.7962	1.4542
M	3	C67607	527.1	1.0000	8.7105	.4547	.8916	.8875	1.2363
M	3	C67608	500.4	1.0000	8.2394	.7332	.8851	.8454	1.5308
M	3	C67610	548.1	1.0000	7.6610	.7167	.7201	.7215	1.6612

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APPENDIX D
INDIVIDUAL ORGAN-TO-BRAIN WEIGHT RATIOS
14 WEEK SACRIFICE

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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TABLE INCLUDES:
SEX-ALL; GROUP-ALL; WEEKS-ALL
DEATH-T; SUBSET-ALL

ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE	ANIMAL	TERMINAL							
GROUP	NUMBER	BODY WT (g)	BR	LI	LU	TEO	TE1	SO		
M	3	C87611	529.2	1.0000	8.6475	.6503	.7511	.7837	1.8122	
M	3	C87613	583.2	1.0000	9.8948	.7946	.7491	.7568	1.4097	
M	3	C87615	529.4	1.0000	7.7666	.7427	.8710	.8568	1.5164	
NUMBER IN GROUP:			15	15	15	15	15	15	15	
MEAN:			552.7	1.0000	9.4115	.7284	.8181	.8074	1.6281	
STANDARD DEV:			40.7	.0000	1.3310	.0982	.0655	.0532	.2354	
M	4	C87616	586.8	1.0000	12.0257	.7705	.9197	.8865	1.7173	
M	4	C87618	596.6	1.0000	10.5392	.7554	.8137	.7975	1.8280	
M	4	C87621	607.0	1.0000	11.3484	.7818	.7514	.7386	1.1306	
M	4	C87623	470.7	1.0000	8.5155	.7508	.7855	.7892	1.7809	
M	4	C87624	536.7	1.0000	12.5377	.7020	.8082	.8318	1.6046	
M	4	C87635	544.9	1.0000	9.8416	.7807	.9129	.9506	1.4765	
M	4	C87641	545.4	1.0000	12.7716	.8871	.8161	.8632	1.3143	
M	4	C87643	455.6	1.0000	8.4527	.8338	.8245	.8359	1.8094	
M	4	C87645	621.6	1.0000	10.9111	.7803	.8934	.9115	1.4298	
M	4	C87650	558.3	1.0000	13.2312	.8115	.8257	.7984	1.6177	
M	4	C87652	506.3	1.0000	10.0803	.7420	.8864	.8688	1.9535	
M	4	C87653	592.1	1.0000	13.7571	.8665	.8994	.8890	1.6122	
M	4	C87658	444.1	1.0000	9.0204	.7180	.8000	.7864	1.5438	

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SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	4	C67668	484.9	1.0000	7.0144	.7497	.8327	.8325	1.4290
M	4	C67669	523.5	1.0000	11.8895	.7673	.8647	.8627	1.7831
NUMBER IN GROUP:				15	15	15	15	15	15
MEAN:				538.2	1.0000	10.7811	.7632	.8430	.8428
STANDARD DEV:				58.8	.0000	1.9814	.0498	.0498	.0555
M	5	C67671	550.8	1.0000	12.9969	.7714	.8844	.8850	1.5746
M	5	C67672	459.5	1.0000	9.3841	.6584	.7849	.7838	1.5584
M	5	C67673	501.8	1.0000	9.9924	.6434	.7419	.7311	1.4480
M	5	C67677	532.1	1.0000	10.8141	.6758	.7627	.7673	1.2231
M	5	C67679	437.4	1.0000	13.8469	.7557	.9091	.8676	1.5016
M	5	C67686	MISSING						
M	5	C67688	412.5	1.0000	11.5994	.6352	.6941	.7307	1.0738
M	5	C67691	405.9	1.0000	9.8559	.6516	.7539	.7067	1.4476
M	5	C67695	385.9	1.0000	10.2835	.6310	.8587	.8141	1.4389
M	5	C67697	481.7	1.0000	14.3865	.6943	.8589	.8618	1.9537
M	5	C67700	558.6	1.0000	16.5701	.8641	.8965	.9532	2.0213
M	5	C67712	583.8	1.0000	15.1468	.7636	.8522	.8453	1.8720
M	5	C67714	415.5	1.0000	13.2834	.6925	.7710	.8122	1.5176

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ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TEI - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	5	C67716	464.7	1.0000	9.8764	.7242	.7658	.7408	1.2743
M	5	C67720	658.1	1.0000	18.7327	.7753	.9232	.9167	2.2707
NUMBER IN GROUP:			14	14	14	14	14	14	14
MEAN:			489.1	1.0000	12.6121	.7096	.8255	.8154	1.5840
STANDARD DEV:			79.0	.0000	2.8623	.0686	.0849	.0759	.3327
M	6	C67730	490.1	1.0000	8.0202	.7814	.8217	.8220	1.6513
M	6	C67732	532.2	1.0000	6.9991	.7054	.8197	.8895	1.0050
M	6	C67736	516.5	1.0000	7.5085	.6956	.8348	.8211	1.5318
M	6	C67738	523.1	1.0000	7.9871	.7606	.9115	.8100	1.5014
M	6	C67740	466.7	1.0000	7.2645	.6520	.7909	.7809	1.4745
M	6	C67744	503.7	1.0000	7.4923	.7125	.7869	.7853	2.1134
M	6	C67746	474.3	1.0000	6.7764	.8160	.7580	.7460	1.6223
M	6	C67747	536.4	1.0000	9.7794	.7012	.7547	.7213	1.6555
M	6	C67748	503.4	1.0000	7.5027	.7623	.7972	.8159	1.7458
M	6	C67749	495.6	1.0000	7.6284	.7501	.7862	.7377	1.3554
M	6	C67754	546.3	1.0000	8.3416	.7936	.8250	.8297	2.0200
M	6	C67755	473.7	1.0000	6.4800	.7979	.7994	.8067	1.0594
M	6	C67756	490.0	1.0000	8.0551	.7416	.7623	.7664	1.4832

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INDIVIDUAL ORGAN-TO-BRAIN WEIGHT RATIOS

22 WEEK SACRIFICE

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SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TEI	SO
M	1	C67452	564.9	1.0000	8.2525	.7380	.7520	.7993	1.9802
M	1	C67453	666.3	1.0000	11.0585	.8677	.9248	.9776	1.6773
M	1	C67456	564.9	1.0000	8.1040	.7428	.6576	.6574	1.6624
M	1	C67471	653.8	1.0000	10.4023	.7307	.7910	.8082	1.7414
M	1	C67479	489.7	1.0000	6.9171	.7157	.7375	.7613	1.1949
M	1	C67483	615.4	1.0000	8.9113	.7057	.7938	.7836	1.6920
M	1	C67490	610.6	1.0000	9.8077	.8082	.8809	.9235	1.9112
M	1	C67493	510.4	1.0000	7.6069	.7402	.8364	.8864	1.4312
M	1	C67496	507.2	1.0000	7.7233	.7363	.8499	.9018	1.5839
M	1	C67497	597.7	1.0000	8.4933	.7026	.7279	.7438	1.7595
NUMBER IN GROUP:				10	10	10	10	10	10
MEAN:				578.1	1.0000	8.7277	.7490	.7952	1.6634
STANDARD DEV:				61.6	.0000	1.3167	.0512	.0799	.2255
M	2	C67508	563.4	1.0000	8.6761	.8043	.7094	.7493	1.7501
M	2	C67513	680.3	1.0000	9.3378	.8302	.7197	.7467	1.7102
M	2	C67516	678.8	1.0000	8.6478	.8521	.8223	.8022	1.4364
M	2	C67517	618.8	1.0000	8.3283	.7198	.8844	.9530	1.8804
M	2	C67520	551.1	1.0000	6.8399	.7231	.7526	.7449	1.8510
M	2	C67528	567.8	1.0000	7.6974	.6988	.7858	.7740	1.6153
M	2	C67534	610.9	1.0000	7.9294	.8073	.8728	.8586	1.6546
M	2	C67538	692.6	1.0000	8.8109	.8527	.8079	.7508	1.6872

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TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	2	C67543	546.2	1.0000	7.8990	.7820	.8792	.6840	1.0833
M	2	C67548	560.7	1.0000	8.0803	.6807	.7807	.7866	1.6026
NUMBER IN GROUP:				10	10	10	10	10	10
MEAN:				607.1	8.2047	.7751	.7815	.7830	1.6271
STANDARD DEV:				58.1	.7112	.0645	.0680	.0746	.2284
M	3	C67561	612.8	1.0000	8.4818	.7111	.5889	.7554	1.8897
M	3	C67567	640.3	1.0000	8.1180	.7154	.7655	.7791	1.4104
M	3	C67572	553.3	1.0000	8.2713	.7872	.7410	.7034	1.4841
M	3	C67573	526.7	1.0000	6.5828	.7333	.7957	.7934	1.7074
M	3	C67575	729.2	1.0000	9.7802	.7888	.8938	.8986	1.5237
M	3	C67579	587.0	1.0000	8.5788	.7597	.8193	.8281	1.7846
M	3	C67588	571.7	1.0000	8.1423	.7227	.6884	.7166	1.6321
M	3	C67589	630.8	1.0000	9.9860	.9773	.9252	.9693	1.6536
M	3	C67593	709.5	1.0000	9.9646	.7575	.9078	.8975	1.7882
M	3	C67609	730.9	1.0000	8.0018	.6732	.7776	.8270	1.4358
NUMBER IN GROUP:				10	10	10	10	10	10
MEAN:				629.2	8.5888	.7626	.7903	.8168	1.6320
STANDARD DEV:				73.4	1.0599	.0835	.1042	.0852	.1649
M	4	C67622	563.6	1.0000	10.1168	.7230	.8891	.9503	1.8408
M	4	C67626	560.2	1.0000	9.0171	.7919	.9096	.9183	2.0808
M	4	C67628	666.5	1.0000	9.6974	.7962	.8428	.8432	2.0135

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ORGAN ABBREVIATION: BR - BRAIN, LI - LIVER, LU - LUNG
TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	4	C67637	529.9	1.0000	10.5560	.7881	.7338	.7492	1.5804
M	4	C67649	601.5	1.0000	8.1781	.7090	.5725	.9040	1.9091
M	4	C67651	614.9	1.0000	9.7034	.7612	.8417	.8285	1.5208
M	4	C67660	557.8	1.0000	8.6908	.7264	.7302	.7495	1.6015
M	4	C67664	694.3	1.0000	9.5272	.8205	.7853	.7708	1.9984
M	4	C67666	609.1	1.0000	8.7206	.7366	.6621	.6546	1.8034
M	4	C67670	620.5	1.0000	10.8655	.8100	.8803	.8605	1.8297
NUMBER IN GROUP:			10	10	10	10	10	10	10
MEAN:			601.8	1.0000	9.5071	.7763	.7828	.8228	1.8158
STANDARD DEV:			51.2	.0000	.8621	.0618	.1097	.0917	.1973
M	5	C67674	655.4	1.0000	9.7543	.7625	.8862	.8604	1.7649
M	5	C67676	399.4	1.0000	7.1931	.7285	.7865	.7589	2.0640
M	5	C67678	552.5	1.0000	9.4415	.6829	.8368	.8332	1.7461
M	5	C67683	593.0	1.0000	8.1366	.7183	.7286	.7332	1.6960
M	5	C67684	490.9	1.0000	6.8434	.7021	.7991	.8275	1.1962
M	5	C67694	595.7	1.0000	8.7881	.7788	.8079	.7586	1.8085
M	5	C67701	541.8	1.0000	9.4068	.8273	.8579	.8536	2.3752
M	5	C67704	597.4	1.0000	9.9661	.7622	.8032	.8358	1.5438

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TEO - LF. TESTIS, TE1 - RT. TESTIS, SO - ACCESS/SEX ORG

SEX	DOSE GROUP	ANIMAL NUMBER	TERMINAL BODY WT (g)	BR	LI	LU	TEO	TE1	SO
M	5	C67706	572.9	1.0000	9.8798	.7184	.7831	.7692	1.5713
M	5	C67723	581.3	1.0000	7.8910	.7774	.9531	.9097	1.5328
NUMBER IN GROUP:				10	10	10	10	10	10
MEAN:				556.0	8.7300	.7458	.8242	.8140	1.7299
STANDARD DEV:				69.8	1.1471	.0434	.0827	.0563	.3198

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

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ANIMAL NUMBER: C87451 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 447.6 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 9:11 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2017	.4919 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.2638	3.8570 %	7.8411	WEIGHT TAKEN
LUNG (LU)	1.7486	.3908 %	.7947	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7809	.3978 %	.8089	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7540	.3919 %	.7987	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.6091	.5829 %	1.1850	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:		
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)		

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ANIMAL NUMBER: C87452 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 564.9 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 8:28 PROSECTOR: DEBBIE PINKEL RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DENNIS HOFFMAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1855	.3889 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.0358	3.1927 %	8.2525	WEIGHT TAKEN
LUNG (LU)	1.8150	.2850 %	.7390	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8438	.2910 %	.7520	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7489	.3092 %	.7893	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.3278	.7661 %	1.9802	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67453 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/16/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 666.3 GRAMS
DATE AND TIME OF NECROPSY: 05/16/91 7:27 PROSECTOR: DEBBIE PIRKEL RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1383	.3208 %	1.0000	WEIGHT TAKEN
LIVER (LI)	23.6464	3.5480 %	11.0585	WEIGHT TAKEN
LUNG (LU)	1.8553	.2784 %	.8677	WEIGHT TAKEN
LF. TESTIS (TEO)	1.9776	.2968 %	.9248	WEIGHT TAKEN
RT. TESTIS (TEI)	2.0904	.3137 %	.9776	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5866	.5383 %	1.6773	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -SLIGHT, FOCAL	-NECROSIS, COAGULATIVE

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67454 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 589.7 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 9:22 PROSECTOR: STEVE VAN ADESTINE RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1822	.3830 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.7989	3.6509 %	9.5312	WEIGHT TAKEN
LUNG (LU)	1.8464	.2890 %	.7545	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7305	.3038 %	.7930	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7809	.3081 %	.8089	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5431	.6219 %	1.6236	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67455 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 463.7 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 7:45 PROSECTOR: KEVIN BILLINGS RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9797	.4269 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.5440	3.3522 %	7.8517	WEIGHT TAKEN
LUNG (LU)	1.8555	.3570 %	.8362	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5477	.3338 %	.7818	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5884	.3425 %	.8023	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.7815	.5955 %	1.3949	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS: -ALL TISSUES/ORGANS NORMAL		
LIVER (LI)	MICRO: -MINIMAL, FOCAL	-INFILTRATES, MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67458 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/16/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 564.9 GRAMS
DATE AND TIME OF NECROPSY: 05/18/91 7:41 PROSECTOR: DEBBIE PIRKEL RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1450	.3797 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.3831	3.0772 %	8.1040	WEIGHT TAKEN
LUNG (LU)	1.5932	.2820 %	.7428	WEIGHT TAKEN
LF. TESTIS (TEO)	1.4105	.2497 %	.6576	WEIGHT TAKEN
RT. TESTIS (TEI)	1.4101	.2498 %	.6574	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5658	.6312 %	1.6624	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:		
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UN)		

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ANIMAL NUMBER: C67457 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 36 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 375.7 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 8:38 PROSECTOR: KEVIN BILLINGS RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0693	.5508 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.3087	4.0747 %	7.3980	WEIGHT TAKEN
LUNG (LU)	1.4270	.3788 %	.8898	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5370	.4091 %	.7428	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5080	.4014 %	.7287	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8754	.7121 %	1.2929	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67458 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 450.9 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 8:32 PROSECTOR: RUTH SCHMITZ RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0532	.4554 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.0817	3.9821 %	7.8228	WEIGHT TAKEN
LUNG (LU)	1.5344	.3403 %	.7473	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6389	.3630 %	.7972	WEIGHT TAKEN
RT. TESTIS (TE1)	1.5900	.3528 %	.7744	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.5528	.5681 %	1.2432	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC) GROSS: -ALL TISSUES/ORGANS NORMAL
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
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ANIMAL NUMBER: C67459 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 495.8 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 9:10 PROSECTOR: DEBBIE PIRKEL RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1392	.4315 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.7049	3.1678 %	7.3415	WEIGHT TAKEN
LUNG (LU)	1.5298	.3088 %	.7151	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8054	.3641 %	.8440	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8218	.3674 %	.8518	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.9089	.5867 %	1.3598	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS: -ALL TISSUES/ORGANS NORMAL		
GENERAL INFORMATION (XX)		
GROSS:	NECROPSY NOTE: MASS (VENTRAL HIND RIGHT) NOTED IN CLINICAL OBSERVATIONS WAS NOT FOUND AT NECROPSY	

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
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ANIMAL NUMBER: C67460 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 531.9 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 7:31 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.4141	.4538 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.9883	3.9455 %	8.6932	WEIGHT TAKEN
LUNG (LU)	1.8788	.3152 %	.6946	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8212	.3048 %	.6718	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6850	.3168 %	.6980	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.1448	.7792 %	1.7169	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, FOCAL	-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87481 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
 DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 409.0 GRAMS
 DATE AND TIME OF NECROPSY: 01/23/91 8:34 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
 POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1204	.5184 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.3219	3.9907 %	7.6978	WEIGHT TAKEN
LUNG (LU)	1.5015	.3671 %	.7081	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5785	.3859 %	.7444	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6495	.4033 %	.7779	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8661	.7008 %	1.3517	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
 ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
 GENERAL COMMENT (GC) GROSS: -ALL TISSUES/ORGANS NORMAL
 LIVER (LI) MICRO: -SLIGHT, FOCAL -INFILTRATES, MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
 BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87482 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 596.7 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 9:50 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1057	.3529 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.3891	3.0818 %	8.7330	WEIGHT TAKEN
LUNG (LU)	1.4899	.2487 %	.7078	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7811	.2985 %	.8458	WEIGHT TAKEN
RT. TESTIS (TE1)	1.7438	.2922 %	.8281	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.2801	.7139 %	2.0231	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)

LIVER (LI)

GROSS: -ALL TISSUES/ORGANS NORMAL

MICRO: -SLIGHT, FOCAL

-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:

BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87483 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 482.6 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 9:30 PROSECTOR: KEVIN BILLINGS RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2372	.4638 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.5945	3.4386 %	7.4175	WEIGHT TAKEN
LUNG (LU)	1.7882	.3684 %	.7804	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6595	.3439 %	.7418	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7104	.3544 %	.7645	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5580	.7373 %	1.5804	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C87484 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 425.9 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 8:08 PROSECTOR: NANCY DIEDRICH RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0479	.4808 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.2570	4.0519 %	8.4267	WEIGHT TAKEN
LUNG (LU)	1.5181	.3584 %	.7413	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8128	.3786 %	.7874	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6505	.3875 %	.8059	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.3400	.5494 %	1.1428	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC) GROSS: -ALL TISSUES/ORGANS NORMAL
LIVER (LI) MICRO: -MINIMAL, FOCAL -INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87485 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 422.1 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 9:04 PROSECTOR: DENNIS HOFFMAN RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1388	.5082 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.6809	3.7173 %	7.3439	WEIGHT TAKEN
LUNG (LU)	1.4707	.3484 %	.8883	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8221	.4317 %	.8528	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7858	.4183 %	.8284	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.5484	.6037 %	1.1927	WEIGHT TAKEN

* * * P A T H O L O G Y O B S E R V A T I O N S * * *
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67466 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 56 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 490.3 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 8:05 PROSECTOR: JULIE A. LARSEN RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0832	.4249 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.3228	3.9410 %	9.2755	WEIGHT TAKEN
LUNG (LU)	1.4311	.2919 %	.6870	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5484	.3158 %	.7433	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6178	.3300 %	.7786	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1784	.6483 %	1.5257	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION: BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)		

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ANIMAL NUMBER: C67467 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 420.5 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 9:40 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1977	.5228 X	1.0000	WEIGHT TAKEN
LIVER (LI)	14.6861	3.4925 X	6.6825	WEIGHT TAKEN
LUNG (LU)	1.6460	.3914 X	.7490	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5841	.3767 X	.7208	WEIGHT TAKEN
RT. TESTIS (TE1)	1.5851	.3722 X	.7122	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8690	.6823 X	1.3055	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION: BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)		

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67468 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 398.0 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 8:43 PROSECTOR: NANCY DIEDRICH RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0288	.5097 %	1.0000	WEIGHT TAKEN
LIVER (LI)	14.9008	3.7439 %	7.3446	WEIGHT TAKEN
LUNG (LU)	1.5845	.3981 %	.7810	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7321	.4352 %	.8538	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8084	.4544 %	.8914	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.5829	.6490 %	1.2731	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL	-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67469 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 56 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 494.0 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 9:17 PROSECTOR: RUTH SCHMITZ RECORDER: KEVIN BILLINGS
POST-FIX WEIGHTER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHTER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0755	.4201 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.3445	4.3207 %	10.2840	WEIGHT TAKEN
LUNG (LU)	1.5986	.3238 %	.7702	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6613	.3383 %	.8004	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7176	.3477 %	.8278	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0237	.6121 %	1.4569	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)			
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL	-INFILTRATES, MONONUCLEAR CELL	

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87470 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/28/91 STUDY DAY OF DEATH: 87 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 519.7 GRAMS
DATE AND TIME OF NECROPSY: 03/28/91 8:55 PROSECTOR: STEVE VAN ADESTINE RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0425	.3830 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.1884	3.8804 %	9.8734	WEIGHT TAKEN
LUNG (LU)	1.5181	.2921 %	.7433	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8097	.3482 %	.8860	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7907	.3448 %	.8787	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.3856	.6515 %	1.6578	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67471 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 853.8 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 8:31 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DENNIS HOFFMAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2174	.3392 %	1.0000	WEIGHT TAKEN
LIVER (LI)	23.0681	3.5280 %	10.4023	WEIGHT TAKEN
LUNG (LU)	1.6203	.2478 %	.7307	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7540	.2683 %	.7910	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7921	.2741 %	.8082	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.8614	.5806 %	1.7414	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
PROSTATE (PR)	MICRO: -SLIGHT, FOCAL	-INFLAMMATION, CHRONIC ACTIVE

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87472 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 516.8 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 7:50 PROSECTOR: JULIE A. LARSEN RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0218	.3912 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.0580	4.0747 %	10.4165	WEIGHT TAKEN
LUNG (LU)	1.5394	.2970 %	.7615	WEIGHT TAKEN
LF. TESTIS (TE0)	1.9755	.3823 %	.9772	WEIGHT TAKEN
RT. TESTIS (TE1)	1.9855	.3842 %	.9821	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.3550	.6492 %	1.6596	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67473 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 610.5 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 8:02 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.8927	.3284 %	1.0000	WEIGHT TAKEN
LIVER (LI)	23.8648	3.9254 %	12.0283	WEIGHT TAKEN
LUNG (LU)	1.5842	.2582 %	.7850	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7392	.2849 %	.8728	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7838	.2922 %	.8951	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5245	.5773 %	1.7887	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
MANDIB/CERV LN (MN)	GROSS: -LARGE MICRO: -MODERATE, MULTI-FOCAL		-LEFT: UP TO 16 X 10 X 8 MM (FOR COMPARISON, RIGHT IS 5 X 4 X 3 MM) (CAP 8) -HYPERPLASIA, LYMPHORETICULAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UN)

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ANIMAL NUMBER: C87474 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 478.1 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 9:04 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0492	.4286 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.5871	3.6785 %	8.5824	WEIGHT TAKEN
LUNG (LU)	1.5651	.3274 %	.7638	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7189	.3591 %	.8378	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7802	.3723 %	.8887	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.3959	.7103 %	1.8572	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION OBSERVATIONS GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
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ANIMAL NUMBER: C87475 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 567.4 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 8:50 PROSECTOR: KEVIN BILLINGS RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.3230	.4094 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.4091	3.5970 %	8.7857	WEIGHT TAKEN
LUNG (LU)	1.7491	.3153 %	.7702	WEIGHT TAKEN
LF. TESTIS (TEO)	1.9015	.3351 %	.8186	WEIGHT TAKEN
RT. TESTIS (TEI)	1.9175	.3379 %	.8254	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5852	.6283 %	1.5347	WEIGHT TAKEN

ORGAN NAME * * * PATHOLOGY OBSERVATIONS * * *
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
LIVER (LI) GROSS: -ALL TISSUES/ORGANS NORMAL
GROSS:

NECROPSY NOTE: >TRIMMING COMMENT: ONLY ONE PIECE OF LIVER FOUND IN WET TISSUE AT TIME OF TRIMMING.

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67476 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 419.9 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 8:39 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHTER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHTER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0751	.4942 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.8597	3.7770 %	7.6429	WEIGHT TAKEN
LUNG (LU)	1.4231	.3389 %	.6858	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8498	.4405 %	.8913	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8101	.4311 %	.8723	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8944	.6893 %	1.3948	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION: BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)		

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ANIMAL NUMBER: C67477 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 420.1 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 9:31 PROSECTOR: NANCY DIEDRICH RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9579	.4661 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.9781	4.0414 %	8.6716	WEIGHT TAKEN
LUNG (LU)	1.6197	.3858 %	.8273	WEIGHT TAKEN
LF. TESTIS (TEO)	1.4154	.3368 %	.7228	WEIGHT TAKEN
RT. TESTIS (TEI)	1.3968	.3325 %	.7134	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.3930	.5698 %	1.2222	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION PATHOLOGY OBSERVATIONS GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC) GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67478 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 474.1 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 8:01 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0505	.4325 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.8894	3.5180 %	8.1294	WEIGHT TAKEN
LUNG (LU)	1.6043	.3384 %	.7824	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6764	.3538 %	.8178	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6448	.3489 %	.8021	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.4645	.7308 %	1.6896	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C87479 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 489.7 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 8:48 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DENNIS HOFFMAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0754	.4238 %	1.0000	WEIGHT TAKEN
LIVER (LI)	14.3558	2.9318 %	6.9171	WEIGHT TAKEN
LUNG (LU)	1.4853	.3033 %	.7157	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5307	.3126 %	.7375	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5801	.3227 %	.7613	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.4799	.5084 %	1.1949	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI)
MICRO: -MINIMAL, FOCAL

PROSTATE (PR)
MICRO: -SLIGHT, MULTI-FOCAL

-INFILTRATES MONONUCLEAR CELL

-INFLAMMATION, CHRONIC ACTIVE

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87480 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 450.0 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 7:51 PROSECTOR: KEVIN BILLINGS RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1222	.4824 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.4500	3.5839 %	7.7514	WEIGHT TAKEN
LUNG (LU)	1.3840	.3015 %	.6522	WEIGHT TAKEN
LF. TESTIS (TE0)	1.7231	.3754 %	.8119	WEIGHT TAKEN
RT. TESTIS (TE1)	1.7252	.3750 %	.8129	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8279	.6181 %	1.3325	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
LIVER (LI) GROSS: -ALL TISSUES/ORGANS NORMAL

MICRO: -MINIMAL, FOCAL -INFILTRATES, MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67481 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 435.1 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 9:07 PROSECTOR: KEVIN BILLINGS RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0951	.4815 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.4762	3.5589 %	7.3889	WEIGHT TAKEN
LUNG (LU)	1.5414	.3543 %	.7357	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5888	.3652 %	.7583	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6948	.3895 %	.8089	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.5276	.5809 %	1.2064	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)			
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL	-INFILTRATES, MONONUCLEAR CELL	

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87482 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 511.8 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 9:19 PROSECTOR: KEVIN BILLINGS RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1485	.4198 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.2988	3.1848 %	7.5861	WEIGHT TAKEN
LUNG (LU)	1.6587	.3241 %	.7720	WEIGHT TAKEN
LF. TESTIS (TEO)	1.9007	.3714 %	.8847	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8987	.3712 %	.8842	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1052	.6243 %	1.4872	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
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ANIMAL NUMBER: C87483 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/16/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 815.4 GRAMS
DATE AND TIME OF NECROPSY: 05/16/91 8:00 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2214	3810 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.7955	3.2167 %	8.9113	WEIGHT TAKEN
LUNG (LU)	1.5877	2547 %	.7057	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7633	2885 %	.7938	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7407	2829 %	.7836	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.7585	6107 %	1.6920	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)

LIVER (LI) GROSS: -ALL TISSUES/ORGANS NORMAL

MICRO: -MINIMAL, FOCAL

-INFLAMMATION, GRANULOMATOUS

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:

BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87484 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 488.7 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 8:13 PROSECTOR: NANCY DIEDRICH RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1086	.4332 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.2573	3.7512 %	8.8585	WEIGHT TAKEN
LUNG (LU)	1.7544	.3805 %	.8320	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7484	.3592 %	.8292	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7861	.3670 %	.8471	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.9883	.6140 %	1.4172	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
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ANIMAL NUMBER: C67485 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 595.6 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 7:50 PROSECTOR: KEVIN BILLINGS RECORDER: JOE N. KIZZIE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2154	.3720 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.0922	3.5413 %	9.5207	WEIGHT TAKEN
LUNG (LU)	1.9851	.3333 %	.8980	WEIGHT TAKEN
LF. TESTIS (TE0)	1.9488	.3288 %	.8787	WEIGHT TAKEN
RT. TESTIS (TE1)	1.9120	.3210 %	.8630	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.9748	.4994 %	1.3427	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
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ANIMAL NUMBER: C87488 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 397.0 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 9:45 PROSECTOR: NANCY DIEDRICH RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1138	.5324 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.3091	4.1081 %	7.7155	WEIGHT TAKEN
LUNG (LU)	1.5415	.3883 %	.7293	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5448	.3891 %	.7308	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5492	.3902 %	.7329	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.5854	.6512 %	1.2231	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
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ANIMAL NUMBER: C87487 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 523.4 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 8:19 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.3802	.4548 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.4732	3.3384 %	7.3411	WEIGHT TAKEN
LUNG (LU)	1.5735	.3008 %	.8611	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7150	.3277 %	.7205	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8788	.3203 %	.7044	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.2208	.8084 %	1.7733	WEIGHT TAKEN

ORGAN NAME * * * PATHOLOGY OBSERVATIONS * * *
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
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ANIMAL NUMBER: C87488 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 621.2 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 7:22 PROSECTOR: STEVE VAN ADESTINE RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2904	.3687 %	1.0000	WEIGHT TAKEN
LIVER (LI)	22.4633	3.6181 %	9.8078	WEIGHT TAKEN
LUNG (LU)	1.7742	.2858 %	.7748	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6540	.2663 %	.7221	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6235	.2613 %	.7088	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.9901	.6423 %	1.7421	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C87489 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 382.7 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 9:27 PROSECTOR: KEVIN BILLINGS RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1238	.5550 %	1.0000	WEIGHT TAKEN
LIVER (LI)	14.7948	3.8659 %	6.9682	WEIGHT TAKEN
LUNG (LU)	.8788	.2296 %	.4138	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8265	.4773 %	.8600	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7483	.4588 %	.8232	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.6788	.6995 %	1.2804	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI) MICRO: -MINIMAL, FOCAL -INFILTRATES, MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87490 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/16/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 810.6 GRAMS
DATE AND TIME OF NECROPSY: 05/16/91 7:11 PROSECTOR: GAIL M. NOVAK RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0230	.3313 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.8409	3.2494 %	9.8077	WEIGHT TAKEN
LUNG (LU)	1.6371	.2681 %	.8092	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7820	.2918 %	.8809	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8683	.3060 %	.9235	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.8863	.6332 %	1.9112	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC) GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI) MICRO: -SLIGHT, FOCAL

-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:

BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87491 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 388.1 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 8:57 PROSECTOR: NANCY DIEDRICH RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.0387	.4885 %	1.0000	WEIGHT TAKEN
LIVER (LI)	14.4250	3.7188 %	7.4408	WEIGHT TAKEN
LUNG (LU)	1.4507	.3738 %	.7483	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5008	.3867 %	.7740	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5182	.3912 %	.7831	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.7280	.7029 %	1.4071	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67492 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 451.9 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 8:38 PROSECTOR: JULIE A. LARSEN RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1730	.4809 %	1.0000	WEIGHT TAKEN
LIVER (LI)	23.3031	5.1567 %	10.7239	WEIGHT TAKEN
LUNG (LU)	1.7054	.3774 %	.7848	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7389	.3850 %	.8007	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8369	.4085 %	.8453	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2481	.7183 %	1.4938	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
KIDNEY(S) (KD)	GROSS: -LARGE PELVIS(ES) MICRO: -PRESENT	-RIGHT: BOTH COLLECTED -DILATATION, PELVIC
LIVER (LI)	MICRO: -MODERATE, FOCAL	-INFLAMMATION, GRANULOMATOUS

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C07493 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 510.4 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 7:03 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0441	.4005 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.5493	3.0485 %	7.8089	WEIGHT TAKEN
LUNG (LU)	1.5130	.2984 %	.7402	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7098	.3350 %	.8384	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8119	.3550 %	.8864	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.9258	.5732 %	1.4312	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
SKIN (SK)	GROSS: -ABRASION(S)/ULCERATION(S) MICRO: -SEVERE, FOCAL -SEVERE, FOCAL	-MID VENTRAL CERVICAL REGION: SINGLE ABRADED AREA, 30 X 10 MM TAN AND MOIST (CAP 8) -DERMATITIS -ULCERATION

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HWI 6329-100

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ANIMAL NUMBER: C87494 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 452.1 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 8:54 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1980	.4862 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.7528	3.7055 %	7.6217	WEIGHT TAKEN
LUNG (LU)	1.0485	.3646 %	.7500	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6606	.3673 %	.7555	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6441	.3637 %	.7480	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0165	.6672 %	1.3724	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC) GROSS: -ALL TISSUES/ORGANS NORMAL

PROSTATE (PR) MICRO: -SLIGHT, FOCAL

-INFLAMMATION, CHRONIC ACTIVE

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:

BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87495 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 485.5 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 9:11 PROSECTOR: RUTH SCHMITZ RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0187	.4158 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.0970	3.7275 %	8.9847	WEIGHT TAKEN
LUNG (LU)	1.8854	.3430 %	.8250	WEIGHT TAKEN
LF. TESTIS (TE0)	1.8892	.3438 %	.8288	WEIGHT TAKEN
RT. TESTIS (TE1)	1.7320	.3567 %	.8580	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.4893	.7187 %	1.7285	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS: -ALL TISSUES/ORGANS NORMAL		
LUNG (LU)		
GROSS:	NECROPSY NOTE: TRIMMING COMMENT: LUNG SECTION MISSING FROM WET TISSUE AT TIME OF TRIMMING	
MICRO: -TISSUE MISSING		

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LIVER (LI), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67496 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/18/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 507.2 GRAMS
DATE AND TIME OF NECROPSY: 05/16/91 7:25 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0397	.4021 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.7533	3.1059 %	7.7233	WEIGHT TAKEN
LUNG (LU)	1.5019	.2881 %	.7383	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7338	.3418 %	.8499	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8395	.3627 %	.9018	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2308	.6389 %	1.5839	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL		
GENERAL INFORMATION (XX)	GROSS: NECROPSY NOTE: WART-LIKE LESION (HEAD) NOTED IN CLINICAL OBSERVATIONS. INADVERTENTLY NOT COMMENTED ON AS TO ABSENCE OR PRESENCE AT TIME OF NECROPSY		

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67497 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 597.7 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 7:37 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2377	.3744 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.0055	3.1788 %	8.4933	WEIGHT TAKEN
LUNG (LU)	1.5723	.2631 %	.7026	WEIGHT TAKEN
LF. TESTIS (TE0)	1.8288	.2725 %	.7279	WEIGHT TAKEN
RT. TESTIS (TE1)	1.6845	.2785 %	.7438	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.9372	.6587 %	1.7595	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LIVER (LI)	MICRO: -SLIGHT, FOCAL	-INFLAMMATION, GRANULOMATOUS
SPLEEN (SP)	GROSS: -CYST(S) MICRO: -PRESENT	-VENTRAL SURFACE: SINGLE CYST, 2 MM IN DIAMETER, FILLED WITH CLEAR FLUID (COLLECTED) -CYST, SEROSAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87488 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 508.0 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 7:59 PROSECTOR: DENNIS HOFFMAN RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1558	.4280 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.5087	4.2507 %	9.9781	WEIGHT TAKEN
LUNG (LU)	1.5832	.3129 %	.7345	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5765	.3118 %	.7314	WEIGHT TAKEN
RT. TESTIS (TE1)	1.5739	.3110 %	.7301	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.3224	.6588 %	1.5413	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LUNG (LU)	GROSS: -MOTTLED MICRO: -UNREMARKABLE	-ALL LOBES: RED AND DARK RED

HISTOPATHOLOGICAL COMMENT: >NO MICROSCOPIC CORRELATE TO GROSS OBSERVATION.

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C07490 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 577.0 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 8:27 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2040	.3820 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.5020	3.2088 %	8.3947	WEIGHT TAKEN
LUNG (LU)	1.6464	.2853 %	.7470	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8157	.3147 %	.8238	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8028	.3124 %	.8180	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.8600	.6690 %	1.7514	WEIGHT TAKEN

ORGAN NAME PATHOLOGY OBSERVATIONS
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87500 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 401.7 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 7:50 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0014	.4982 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.5389	3.8883 %	7.7840	WEIGHT TAKEN
LUNG (LU)	1.5814	.3887 %	.7802	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8913	.4210 %	.8451	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8935	.4218 %	.8462	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.4648	.6138 %	1.2315	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C87501 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 96 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 511.0 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 9:38 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1825	.4271 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.9192	3.7024 %	8.8688	WEIGHT TAKEN
LUNG (LU)	1.6087	.3148 %	.7371	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5330	.3000 %	.7024	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5284	.2991 %	.7003	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.3014	.6461 %	1.5127	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67502 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 409.0 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 7:50 PROSECTOR: NANCY DIEDRICH RECORDER: NANCY DIEDRICH
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0266	.4855 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.5845	4.0500 %	8.1735	WEIGHT TAKEN
LUNG (LU)	1.4831	.3626 %	.7318	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6655	.4072 %	.8218	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8489	.4032 %	.8136	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.6034	.6385 %	1.2848	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS: LIVER (LI)	-ALL TISSUES/ORGANS NORMAL	
MICRO: LIVER (LI)	-SLIGHT, FOCAL	-INFILTRATES, MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C07503 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 418.8 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 8:19 PROSECTOR: JULIE A. LARSEN RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PINKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (X)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0221	.4828 X	1.0000	WEIGHT TAKEN
LIVER (LI)	15.5999	3.7249 X	7.7147	WEIGHT TAKEN
LUNG (LU)	1.6163	.3859 X	.7993	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6037	.3829 X	.7931	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6466	.3932 X	.8143	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.6669	.6388 X	1.3189	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67504 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 03 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 800.3 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 8:31 PROSECTOR: KEVIN BILLINGS RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1334	.3554 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.1053	3.5158 %	9.8928	WEIGHT TAKEN
LUNG (LU)	1.8414	.3087 %	.8631	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8185	.3029 %	.8524	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7834	.2971 %	.8358	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.6144	.4355 %	1.2255	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL	-INFILTRATES, MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67505 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 548.8 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 8:22 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1167	.3857 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.6743	3.5850 %	9.2948	WEIGHT TAKEN
LUNG (LU)	1.5118	.2755 %	.7142	WEIGHT TAKEN
LF. TESTIS (TE0)	1.8138	.2941 %	.7624	WEIGHT TAKEN
RT. TESTIS (TE1)	1.6282	.2967 %	.7682	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.3370	.6081 %	1.5785	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87508 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 441.4 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 8:42 PROSECTOR: RUTH SCHMITZ RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0323	.4604 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.2133	3.4486 %	7.4858	WEIGHT TAKEN
LUNG (LU)	1.5973	.3619 %	.7860	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6841	.3815 %	.8287	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6619	.3765 %	.8177	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1538	.7145 %	1.5518	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67507 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 527.0 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 8:24 PROSECTOR: KEVIN BILLINGS RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	3.1322	.5943 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.9792	3.2219 %	5.4209	WEIGHT TAKEN
LUNG (LU)	1.5175	.2880 %	.4845	WEIGHT TAKEN
LF. TESTIS (TEO)	1.9512	.3702 %	.6229	WEIGHT TAKEN
RT. TESTIS (TEI)	1.9094	.3623 %	.6086	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1032	.5888 %	.9907	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67508 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/18/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 583.4 GRAMS
DATE AND TIME OF NECROPSY: 05/18/91 8:52 PROSECTOR: GAIL M. NOVAK RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1800	.3889 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.9139	3.3571 %	8.6761	WEIGHT TAKEN
LUNG (LU)	1.7534	.3112 %	.8043	WEIGHT TAKEN
LF. TESTIS (TE0)	1.5465	.2745 %	.7094	WEIGHT TAKEN
RT. TESTIS (TE1)	1.6334	.2898 %	.7493	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.8153	.6772 %	1.7501	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

LF. TESTIS (TE0)
MICRO: -SLIGHT, FOCAL -ATROPHY/DEGENERATION

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67509 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
 DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 36 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 464.8 GRAMS
 DATE AND TIME OF NECROPSY: 01/24/91 8:58 PROSECTOR: DENNIS HOFFMAN RECORDER: VAL QUINN
 POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9307	.4154 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.4500	3.7543 %	9.0382	WEIGHT TAKEN
LUNG (LU)	1.6890	.3634 %	.8748	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7287	.3719 %	.8954	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7032	.3664 %	.8822	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8041	.6033 %	1.4524	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL	-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
 BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87510 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 390.4 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 9:09 PROSECTOR: DENNIS HOFFMAN RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0904	.5355 %	1.0000	WEIGHT TAKEN
LIVER (LI)	14.2679	3.6547 %	6.8254	WEIGHT TAKEN
LUNG (LU)	1.6098	.4123 %	.7701	WEIGHT TAKEN
LF. TESTIS (TED)	1.6477	.4221 %	.7882	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6491	.4224 %	.7889	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1328	.8024 %	1.4988	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)

GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI)

MICRO: -SLIGHT, FOCAL

-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:

BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TED), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U S A

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ANIMAL NUMBER: C87511 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 36 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 399.2 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 8:23 PROSECTOR: KEVIN BILLINGS RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.8738	.4844 %	1.0000	WEIGHT TAKEN
LIVER (LI)	14.2649	3.5734 %	7.2271	WEIGHT TAKEN
LUNG (LU)	1.4589	.3655 %	.7391	WEIGHT TAKEN
LF TESTIS (TEO)	1.8229	.4685 %	.8222	WEIGHT TAKEN
RT TESTIS (TEI)	1.8189	.4588 %	.8207	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.9189	.7307 %	1.4778	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87512 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 440.1 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 8:00 PROSECTOR: RUTH SCHMITZ RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0451	.4847 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.8500	3.6015 %	7.7502	WEIGHT TAKEN
LUNG (LU)	1.6805	.3818 %	.8217	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5562	.3536 %	.7809	WEIGHT TAKEN
RT. TESTIS (TEI)	1.4831	.3370 %	.7252	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0879	.8971 %	1.5001	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
MANDIB/CERV LN (MN)	GROSS: -LARGE MICRO: -MODERATE, MULTI-FOCAL	-LEFT: UP TO 16 X 11 X 8 MM (FOR COMPARISON RIGHT IS 8 X 4 X 2 MM) (CAP 6) -HYPERPLASIA, LYMPHORETICULAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87513 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
 DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 680.3 GRAMS
 DATE AND TIME OF NECROPSY: 05/17/91 8:07 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIEE
 POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2957	.3375 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.4368	3.1511 %	9.3378	WEIGHT TAKEN
LUNG (LU)	1.9058	.2801 %	.8302	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6522	.2429 %	.7197	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7142	.2520 %	.7467	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.9260	.5771 %	1.7102	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL	-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
 BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87514 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 440.2 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 7:03 PROSECTOR: JULIE A. LARSEN RECORDER: VAL QUINN
POST-FIX WEIGHTER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHTER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1070	.4786 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.1893	3.6732 %	7.6741	WEIGHT TAKEN
LUNG (LU)	1.5908	.3613 %	.7549	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8038	.4098 %	.8581	WEIGHT TAKEN
RT. TESTIS (TE1)	1.7879	.4018 %	.8391	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.6682	.6081 %	1.2864	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, FOCAL	-INFILTRATES, MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C07515 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 396.0 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 7:16 PROSECTOR: JULIE A. LARSEN RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9549	.4937 %	1.0000	WEIGHT TAKEN
LIVER (LI)	14.8406	3.7729 %	7.8426	WEIGHT TAKEN
LUNG (LU)	1.4892	.3781 %	.7618	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5908	.4017 %	.8138	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5948	.4027 %	.8157	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.2112	.5584 %	1.1311	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, MULTI-FOCAL	-INFILTRATES, MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67518 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/18/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 878.8 GRAMS
DATE AND TIME OF NECROPSY: 05/16/91 8:17 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2907	.3375 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.8095	2.9183 %	8.8478	WEIGHT TAKEN
LUNG (LU)	1.9520	.2878 %	.8521	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8838	.2775 %	.8223	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8377	.2707 %	.8022	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2904	.4847 %	1.4364	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UN)

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ANIMAL NUMBER: C67517 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 618.8 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 8:33 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DENNIS HOFFMAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2742	.3675 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.9402	3.0608 %	8.3283	WEIGHT TAKEN
LUNG (LU)	1.6389	.2645 %	.7198	WEIGHT TAKEN
LF. TESTIS (TEO)	2.0113	.3250 %	.8844	WEIGHT TAKEN
RT. TESTIS (TEI)	2.1674	.3503 %	.9530	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.2763	.6911 %	1.8804	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, FOCAL	-INFILTRATES MONONUCLEAR CELL
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION: BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)		

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ANIMAL NUMBER: C87518 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 467.2 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 9:04 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0088	.4299 %	1.0000	WEIGHT TAKEN
LIVER (LI)	14.0143	2.9898 %	6.9771	WEIGHT TAKEN
LUNG (LU)	1.3781	.2950 %	.6861	WEIGHT TAKEN
LF. TESTIS (TE0)	1.6312	.3491 %	.8121	WEIGHT TAKEN
RT. TESTIS (TE1)	1.7067	.3653 %	.8497	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1438	.6729 %	1.5852	WEIGHT TAKEN

***** PATHOLOGY OBSERVATIONS *****
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87519 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 515.4 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 8:43 PROSECTOR: DEBBIE PIRKEL RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1131	.4100 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.7043	3.2410 %	7.9051	WEIGHT TAKEN
LUNG (LU)	1.8032	.3111 %	.7587	WEIGHT TAKEN
LF. TESTIS (TEO)	1.1623	.2255 %	.5500	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8267	.3544 %	.8645	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0481	.5914 %	1.4425	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LF. TESTIS (TEO)	GROSS: -SMALL MICRO: -MODERATE, DIFFUSE -MODERATE, FOCAL	-18 X 10 MM (FOR COMPARISON RIGHT IS 25 X 15 X 10 MM) -ATROPHY/DEGENERATION -INFLAMMATION, GRANULOMATOUS
LIVER (LI)	MICRO: -MINIMAL, FOCAL	-INFILTRATES, MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67520 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 551.1 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 8:02 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2930	.4181 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.8840	2.8459 %	6.8399	WEIGHT TAKEN
LUNG (LU)	1.8581	.3009 %	.7231	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7258	.3132 %	.7526	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7081	.3099 %	.7449	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.2444	.7702 %	1.8510	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -SLIGHT, FOCAL -SLIGHT, MULTI-FOCAL	-NECROSIS, COAGULATIVE -HYPERPLASIA, BILE DUCT

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67521 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
 DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 557.8 GRAMS
 DATE AND TIME OF NECROPSY: 03/22/91 8:43 PROSECTOR: KEVIN BILLINGS RECORDER: JOE N. KIZZIEE
 POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2002	.3948 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.9853	3.0461 %	7.7199	WEIGHT TAKEN
LUNG (LU)	1.7320	.3106 %	.7872	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5841	.2841 %	.7200	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6421	.2945 %	.7463	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.4940	.6266 %	1.5880	WEIGHT TAKEN

***** PATHOLOGY OBSERVATIONS *****
 ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
 GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
 BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
 URETHRA (UR)

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ANIMAL NUMBER: C67522 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 525.9 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 7:49 PROSECTOR: RUTH SCHMITZ RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHTER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHTER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0794	.3954 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.9998	4.1833 %	10.5789	WEIGHT TAKEN
LUNG (LU)	1.5873	.3018 %	.7833	WEIGHT TAKEN
LF. TESTIS (TE0)	1.7894	.3385 %	.8508	WEIGHT TAKEN
RT. TESTIS (TE1)	1.7859	.3386 %	.8509	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.3206	.6314 %	1.5969	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87523 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 613.6 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 8:32 PROSECTOR: DEBBIE PIRKEL RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1788	.3551 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.8353	3.3956 %	9.5627	WEIGHT TAKEN
LUNG (LU)	1.7937	.2923 %	.8233	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8941	.3087 %	.8693	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8579	.3028 %	.8527	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2076	.5228 %	1.4722	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:		
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)		

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ANIMAL NUMBER: C87524 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 376.8 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 7:18 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0308	.5392 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.8071	4.1973 %	7.7844	WEIGHT TAKEN
LUNG (LU)	1.3185	.3501 %	.6493	WEIGHT TAKEN
LF. TESTIS (TEO)	1.3102	.3479 %	.6452	WEIGHT TAKEN
RT. TESTIS (TEI)	1.3303	.3532 %	.6551	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.5370	.6737 %	1.2494	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67525 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/81 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 434.7 GRAMS
DATE AND TIME OF NECROPSY: 01/23/81 7:22 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.8931	.4355 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.8185	4.0990 %	9.4123	WEIGHT TAKEN
LUNG (LU)	1.5590	.3586 %	.8235	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8908	.4349 %	.9987	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8599	.4279 %	.9825	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.7211	.6260 %	1.4374	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87528 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 513.2 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 10:07 PROSECTOR: JACK SERFORT RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1598	.4208 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.4771	3.0158 %	7.1880	WEIGHT TAKEN
LUNG (LU)	1.5033	.2929 %	.6960	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8993	.3311 %	.7868	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7274	.3388 %	.7898	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.9030	.5657 %	1.3441	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67527 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 495.1 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 8:51 PROSECTOR: RUTH SCHMITZ RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2223	.4489 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.3032	3.2929 %	7.3362	WEIGHT TAKEN
LUNG (LU)	1.7484	.3531 %	.7888	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7954	.3626 %	.8079	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8030	.3642 %	.8113	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2105	.6485 %	1.4447	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UN)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67528 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 587.8 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 7:30 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2437	.3852 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.2708	3.0417 %	7.8974	WEIGHT TAKEN
LUNG (LU)	1.5680	.2702 %	.8988	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7632	.3105 %	.7858	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7388	.3058 %	.7740	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.6242	.6383 %	1.8153	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, FOCAL	-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67529 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 404.5 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 8:47 PROSECTOR: KEVIN BILLINGS RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1694	.5383 %	1.0000	WEIGHT TAKEN
LIVER (LI)	14.7411	3.6443 %	6.7950	WEIGHT TAKEN
LUNG (LU)	1.4028	.3487 %	.6465	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7852	.4384 %	.8137	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7033	.4211 %	.7851	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.5458	.6293 %	1.1734	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67530 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 422.8 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 9:20 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHTER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHTER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1181	.5007 %	1.0000	WEIGHT TAKEN
LIVER (LI)	14.7178	3.4827 %	8.9552	WEIGHT TAKEN
LUNG (LU)	1.5587	.3688 %	.7388	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5795	.3738 %	.7484	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5950	.3774 %	.7537	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.6398	.6247 %	1.2475	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI)
MICRO: -MINIMAL, FOCAL -INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87531 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 524.8 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 8:25 PROSECTOR: KEVIN BILLINGS RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0324	.3873 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.8474	3.7819 %	9.7855	WEIGHT TAKEN
LUNG (LU)	1.5584	.2988 %	.7858	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5883	.3023 %	.7805	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5311	.2917 %	.7533	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.7387	.5219 %	1.3475	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87532 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 484.2 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 9:44 PROSECTOR: KEVIN BILLINGS RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0003	.4131 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.3673	3.5888 %	8.8823	WEIGHT TAKEN
LUNG (LU)	1.3694	.2828 %	.8846	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7019	.3515 %	.8508	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7102	.3532 %	.8550	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0757	.6352 %	1.5376	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67533 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: NOT ENTERED
DATE AND TIME OF NECROPSY: 03/25/91 9:23 PROSECTOR: JACK SERFORT RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (X)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0838		1.0000	EXCLUDE
LIVER (LI)	18.5414		8.8987	EXCLUDE
LUNG (LU)	1.4980		7.180	EXCLUDE
LF TESTIS (TEO)	1.6980		8.140	EXCLUDE
RT TESTIS (TEI)	1.6749		8.038	EXCLUDE
ACCESS/SEX ORG (SO)	3.5578		1.7074	EXCLUDE

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GENERAL INFORMATION (XXI)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
	NECROPSY NOTE: TERMINAL BODY WEIGHT INADVERTENTLY NOT TAKEN PRIOR TO BLOOD COLLECTION AND NECROPSY	

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HWI 6320-100

INDIVIDUAL ANIMAL PATHOLOGY DATA

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67534 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/18/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 610.9 GRAMS
DATE AND TIME OF NECROPSY: 05/18/91 8:20 PROSECTOR: DEBBIE PIRKEL RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SENFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1879	.3548 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.1901	2.8139 %	7.9294	WEIGHT TAKEN
LUNG (LU)	1.7502	.2885 %	.8073	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8921	.3097 %	.8728	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8614	.3047 %	.8588	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5869	.5872 %	1.6548	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87535 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 549.3 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 8:10 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1087	.3839 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.0119	3.0970 %	8.0675	WEIGHT TAKEN
LUNG (LU)	1.8975	.3090 %	.8050	WEIGHT TAKEN
LF. TESTIS (TEO)	1.9135	.3484 %	.8074	WEIGHT TAKEN
RT. TESTIS (TEI)	1.9137	.3484 %	.8075	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5420	.6448 %	1.6797	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67538 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 570.3 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 8:35 PROSECTOR: RUTH SCHMITZ RECORDER: JOE W. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1618	.3790 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.4336	3.2323 %	8.5278	WEIGHT TAKEN
LUNG (LU)	1.6590	.2909 %	.7675	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8364	.3220 %	.8498	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8880	.3307 %	.8725	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0024	.5265 %	1.3880	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87537 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 359.6 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 9:00 PROSECTOR: KEVIN BILLINGS RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9303	.5368 X	1.0000	WEIGHT TAKEN
LIVER (LI)	12.8585	3.5758 X	8.8614	WEIGHT TAKEN
LUNG (LU)	1.4473	.4025 X	.7498	WEIGHT TAKEN
LF. TESTIS (TE0)	1.6041	.4481 X	.8310	WEIGHT TAKEN
RT. TESTIS (TE1)	1.6330	.4541 X	.8460	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.0158	.5605 X	1.0442	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
KIDNEY(S) (KD)	GROSS: -LARGE PELVIS(ES) MICRO: -PRESENT	-RIGHT: BOTH COLLECTED -DILATATION, PELVIC

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87538 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/16/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 892.6 GRAMS
DATE AND TIME OF NECROPSY: 05/16/91 8:37 PROSECTOR: GAIL M. NOVAK RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2904	.3307 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.1806	2.9137 %	8.9109	WEIGHT TAKEN
LUNG (LU)	1.9530	.2820 %	.8527	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8505	.2672 %	.8079	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7197	.2483 %	.7508	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.8843	.5578 %	1.8872	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -SLIGHT, FOCAL	-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87539 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 510.7 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 7:58 PROSECTOR: KEVIN BILLINGS RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0350	.3988 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.4985	3.4284 %	8.5982	WEIGHT TAKEN
LUNG (LU)	1.8089	.3146 %	.7884	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7637	.3453 %	.8864	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7937	.3512 %	.8812	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.3431	.6546 %	1.6423	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
LIVER (LI)		
MICRO:	-MINIMAL, FOCAL	-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67540 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 552.7 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 9:42 PROSECTOR: NANCY DIEDRICH RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1032	.3805 %	1.0000	WEIGHT TAKEN
LIVER (LI)	24.8735	4.4842 %	11.7314	WEIGHT TAKEN
LUNG (LU)	1.8603	.3386 %	.8845	WEIGHT TAKEN
LF. TESTIS (TE0)	1.8493	.2884 %	.7842	WEIGHT TAKEN
RT. TESTIS (TE1)	1.8418	.2970 %	.7805	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0235	.5470 %	1.4378	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
MANDIB/CERV LN (MN)	GROSS: -LARGE MICRO: -MODERATE, MULTI-FOCAL	-LEFT: UP TO 15 X 10 X 5 MM (FOR COMPARISON RIGHT IS UP TO 8 X 3 X 2 MM) (CAP 6) -HYPERPLASIA, LYMPHORETICULAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HWI 6328-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87541 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 582.1 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 9:42 PROSECTOR: KEVIN BILLINGS RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1370	.3802 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.4804	2.9319 %	7.7119	WEIGHT TAKEN
LUNG (LU)	1.8520	.3205 %	.8666	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5904	.2829 %	.7442	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5660	.2786 %	.7328	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.7492	.6741 %	1.7731	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

MWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67542 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 56 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 432.9 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 8:13 PROSECTOR: RUTH SCHMITZ RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9704	.4552 %	1.0000	WEIGHT TAKEN
LIVER (LI)	14.9745	3.4591 %	7.5997	WEIGHT TAKEN
LUNG (LU)	1.5792	.3648 %	.8015	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6601	.3835 %	.8425	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7024	.3933 %	.8640	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.2701	.5244 %	1.1521	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UN)

APPENDIX D
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MWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67543 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/16/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 546.2 GRAMS
DATE AND TIME OF NECROPSY: 05/18/91 8:22 PROSECTOR: GAIL M. NOVAK RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2028	.4033 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.8593	3.1050 %	7.8990	WEIGHT TAKEN
LUNG (LU)	1.7228	.3154 %	.7820	WEIGHT TAKEN
LF. TESTIS (TEO)	1.4962	.2739 %	.8792	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5067	.2759 %	.8840	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.3884	.4389 %	1.0833	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87544 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 387.7 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 8:48 PROSECTOR: NANCY DIEDRICH RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0234	.5210 %	1.0000	WEIGHT TAKEN
LIVER (LI)	12.9882	3.3485 %	6.4180	WEIGHT TAKEN
LUNG (LU)	1.4877	.3788 %	.7254	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5412	.3975 %	.7617	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6271	.4197 %	.8041	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.5267	.6517 %	1.2487	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC) GROSS: -ALL TISSUES/ORGANS NORMAL
LIVER (LI) MICRO: -MINIMAL, MULTI-FOCAL -INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87545 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 436.6 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 7:37 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0517	.4800 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.0053	3.6650 %	7.8010	WEIGHT TAKEN
LUNG (LU)	1.5810	.3575 %	.7808	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7831	.4084 %	.8691	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8184	.4185 %	.8863	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1852	.7250 %	1.5427	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LUNG (LU)	GROSS: -ALL TISSUES/ORGANS NORMAL	
	GROSS:	NECROPSY NOTE: TRIMMING COMMENT: ONE SECTION OF LIVER MISSING FROM WET TISSUE AT TIME OF TRIMMING
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION: BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)		

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ANIMAL NUMBER: C87548 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 476.9 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 9:03 PROSECTOR: RUTH SCHMITZ RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1157	.4438 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.1950	3.3859 %	7.6547	WEIGHT TAKEN
LUNG (LU)	1.5385	.3226 %	.7272	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6888	.3541 %	.7982	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6887	.3541 %	.7982	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.7084	.5679 %	1.2801	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC) GROSS: -ALL TISSUES/ORGANS NORMAL
LIVER (LI) MICRO: -MINIMAL, FOCAL -INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

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ANIMAL NUMBER: C87547 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 464.8 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 8:59 PROSECTOR: KEVIN BILLINGS RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1074	.4534 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.3574	3.3041 %	7.2874	WEIGHT TAKEN
LUNG (LU)	1.0510	.3554 %	.7838	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5708	.3397 %	.7492	WEIGHT TAKEN
RT. TESTIS (TEI)	1.0548	.3580 %	.7852	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.5313	.5446 %	1.2011	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67540 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 560.7 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 7:09 PROSECTOR: DEBBIE PIRKEL RECORDER: JOE N. KIZZIE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2282	.3970 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.9884	3.2082 %	8.0803	WEIGHT TAKEN
LUNG (LU)	1.5154	.2703 %	.6807	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7379	.3100 %	.7807	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7066	.3044 %	.7666	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5678	.6383 %	1.6028	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL
LUNG (LU)
GROSS:

NECROPSY NOTE: >TRIMMING COMMENT: MISSING FROM WET TISSUE AT TIME OF TRIMMING

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67549 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 809.5 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 9:12 PROSECTOR: JACK SERFORT RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2603	.3708 %	1.0000	WEIGHT TAKEN
LIVER (LI)	23.4192	3.8424 %	10.3611	WEIGHT TAKEN
LUNG (LU)	1.7373	.2850 %	.7888	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8229	.2991 %	.8065	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8225	.2990 %	.8063	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.9714	.6516 %	1.7570	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC) GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI) MICRO: -MINIMAL, FOCAL -INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67550 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 387.9 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 8:10 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9897	.5129 %	1.0000	WEIGHT TAKEN
LIVER (LI)	14.1445	3.6464 %	7.1089	WEIGHT TAKEN
LUNG (LU)	1.5451	.3983 %	.7765	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5024	.3873 %	.7551	WEIGHT TAKEN
RT. TESTIS (TEI)	1.4838	.3825 %	.7456	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.5265	.6513 %	1.2698	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C87551 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 583.4 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 10:08 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.3262	.3987 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.3852	2.9800 %	7.4738	WEIGHT TAKEN
LUNG (LU)	1.5754	.2700 %	.8772	WEIGHT TAKEN
LF. TESTIS (TE0)	1.7933	.3074 %	.7709	WEIGHT TAKEN
RT. TESTIS (TE1)	1.8257	.3129 %	.7848	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.3740	.7497 %	1.8803	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C87552 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 610.2 GRAMS
DATE AND TIME OF NECROPSY: 03/28/91 9:08 PROSECTOR: STEVE VAN ADESTINE RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0215	3313 %	1.0000	WEIGHT TAKEN
LIVER (LI)	23.8634	39108 %	11.8048	WEIGHT TAKEN
LUNG (LU)	1.1710	1919 %	5793	WEIGHT TAKEN
LF. TESTIS (TEO)	2.0818	3411 %	1.0297	WEIGHT TAKEN
RT. TESTIS (TEI)	2.5860	4238 %	1.2792	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.8105	6245 %	1.8850	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI)
MICRO: -SLIGHT, FOCAL

-NECROSIS, COAGULATIVE

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67553 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 560.8 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 8:30 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1217	.3785 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.9913	3.2093 %	8.4797	WEIGHT TAKEN
LUNG (LU)	1.7719	.3181 %	.8351	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7765	.3180 %	.8373	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7760	.3180 %	.8371	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5994	.6421 %	1.6965	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC) GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI) MICRO: -MINIMAL, FOCAL -INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87554 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 498.4 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 7:45 PROSECTOR: DENNIS HOFFMAN RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1668	.4385 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.4081	3.9088 %	8.9570	WEIGHT TAKEN
LUNG (LU)	1.6152	.3254 %	.7454	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7070	.3439 %	.7878	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6770	.3378 %	.7740	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5907	.7233 %	1.6571	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C07555 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 422.1 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 8:08 PROSECTOR: NANCY DIEDRICH RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0072	.4755 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.7892	3.7408 %	7.8863	WEIGHT TAKEN
LUNG (LU)	1.5776	.3738 %	.7860	WEIGHT TAKEN
LF. TESTIS (TEO)	1.4981	.3548 %	.7484	WEIGHT TAKEN
RT. TESTIS (TEI)	1.4914	.3533 %	.7430	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.7810	.6541 %	1.3755	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
KIDNEY(S) (KD)	GROSS: -LARGE PELVIS(ES) MICRO: -PRESENT	-RIGHT: BOTH KIDNEYS COLLECTED -DILATATION, PELVIC
LIVER (LI)	MICRO: -SLIGHT, FOCAL	-INFILTRATES, MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67558 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 532.3 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 8:35 PROSECTOR: STEVE VAN ADESTINE RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2805	.4247 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.9188	3.1780 %	7.4836	WEIGHT TAKEN
LUNG (LU)	1.4190	.2888 %	.8277	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5240	.2863 %	.8742	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5304	.2875 %	.8770	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.7278	.7003 %	1.8490	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67557 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 505.0 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 7:29 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1055	.4189 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.0301	3.3723 %	8.0884	WEIGHT TAKEN
LUNG (LU)	1.7292	.3424 %	.8213	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7848	.3534 %	.8478	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8211	.3608 %	.8849	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.8050	.7130 %	1.7122	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
LIVER (LI)		
MICRO:	-MINIMAL, FOCAL	-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67558 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 433.7 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 8:20 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1439	.4943 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.5588	4.0488 %	8.1900	WEIGHT TAKEN
LUNG (LU)	1.8358	.3772 %	.7830	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8699	.3850 %	.7789	WEIGHT TAKEN
RT. TESTIS (TE1)	1.8140	.3721 %	.7528	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8345	.6074 %	1.2288	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS	HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL		
LIVER (LI)	MICRO: -MINIMAL, FOCAL	-INFLAMMATION, GRANULOMATOUS	
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION: BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)			

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INDIVIDUAL ANIMAL PATHOLOGY DATA

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67559 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 488.4 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 7:58 PROSECTOR: DENNIS HOFFMAN RECORDER: NANCY DIEDRICH
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0513	.4200 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.2277	3.7321 %	8.8059	WEIGHT TAKEN
LUNG (LU)	1.6181	.3313 %	.7888	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5783	.3232 %	.7684	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5797	.3234 %	.7701	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5584	.7286 %	1.7347	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION OBSERVATIONS
GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87560 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 472.1 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 8:22 PROSECTOR: RUTH SCHMITZ RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0403	.4322 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.4734	3.7012 %	8.5841	WEIGHT TAKEN
LUNG (LU)	1.5854	.3358 %	.7770	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5802	.3388 %	.7794	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5398	.3261 %	.7548	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.8808	.7798 %	1.8040	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87561 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 612.8 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 8:09 PROSECTOR: DEBBIE PIRKEL RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2294	.3638 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.8098	3.0858 %	8.4819	WEIGHT TAKEN
LUNG (LU)	1.5853	.2587 %	.7111	WEIGHT TAKEN
LF. TESTIS (TEO)	1.3128	.2142 %	.5889	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6840	.2748 %	.7554	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.2129	.6875 %	1.8897	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

LF. TESTIS (TEO)
MICRO: -MODERATE, MULTI-FOCAL -ATROPHY/DEGENERATION

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67562 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 433.8 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 8:28 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0610	4.751 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.3861	4.4889 %	9.4082	WEIGHT TAKEN
LUNG (LU)	1.4976	3.452 %	7.288	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7701	4.080 %	8.589	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7361	4.002 %	8.424	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1278	7.210 %	1.5178	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LIVER (LI)	MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67563 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 631.7 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 8:01 PROSECTOR: KEVIN BILLINGS RECORDER: JOE N. KIZZIE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1397	.3387 X	1.0000	WEIGHT TAKEN
LIVER (LI)	26.7202	4.2299 X	12.4878	WEIGHT TAKEN
LUNG (LU)	1.8608	.2948 X	.8697	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8004	.2850 X	.8414	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7098	.2708 X	.7990	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.8880	.6123 X	1.8077	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67504 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 589.9 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 9:14 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1277	.3733 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.0061	3.5105 %	9.4027	WEIGHT TAKEN
LUNG (LU)	1.5898	.2755 %	.7378	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8240	.3201 %	.8573	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7241	.3025 %	.8103	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.9433	.6919 %	1.8533	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS
GENERAL COMMENT (GC)		GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, MULTI-FOCAL -MINIMAL	-INFILTRATES, MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR. CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67565 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 390.4 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 8:59 PROSECTOR: NANCY DIEDRICH RECORDER: JILL BEVAN
POST-FIX WEAHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEAHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9776	.5066 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.3802	4.1908 %	8.2728	WEIGHT TAKEN
LUNG (LU)	1.4864	.3807 %	.7518	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5178	.3888 %	.7875	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5533	.3979 %	.7854	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.2089	.5653 %	1.1159	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, FOCAL -MINIMAL	-INFILTRATES, MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87588 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 36 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 421.7 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 9:14 PROSECTOR: KEVIN BILLINGS RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1092	.5002 %	1.0000	WEIGHT TAKEN
LIVER (LI)	10.8938	4.8701 %	9.3371	WEIGHT TAKEN
LUNG (LU)	1.4758	.3499 %	.6998	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7084	.4051 %	.8100	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7142	.4085 %	.8127	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.6090	.6189 %	1.2374	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LIVER (LI)	MICRO: -MINIMAL, MULTI-FOCAL -MINIMAL	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL"

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

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ANIMAL NUMBER: C67567 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/16/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 640.3 GRAMS
DATE AND TIME OF NECROPSY: 05/16/91 8:09 PROSECTOR: DEBBIE PIRKEL RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.3313	.3641 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.9256	2.9557 %	8.1180	WEIGHT TAKEN
LUNG (LU)	1.6677	.2605 %	.7154	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7847	.2787 %	.7655	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8184	.2837 %	.7791	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2880	.5135 %	1.4104	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC) GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI) MICRO: -MINIMAL, FOCAL -INFILTRATES, MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87568 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 397.0 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 7:55 PROSECTOR: KEVIN BILLINGS RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.8801	.4888 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.9401	4.5189 %	9.0802	WEIGHT TAKEN
LUNG (LU)	1.3867	.3493 %	.7003	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5138	.3813 %	.7845	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5234	.3837 %	.7894	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.9710	.7484 %	1.5004	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87589 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 389.8 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 7:29 PROSECTOR: JULIE A. LARSEN RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0620	.5290 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.0008	4.1049 %	7.7598	WEIGHT TAKEN
LUNG (LU)	1.3330	.3420 %	.8465	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7289	.4430 %	.8375	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7674	.4534 %	.8571	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.6638	.6834 %	1.2919	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI)
MICRO: -MINIMAL, FOCAL -INFLAMMATION, GRANULOMATOUS

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67570 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 442.7 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 7:40 PROSECTOR: RUTH SCHMITZ RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2485	.5079 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.0879	4.0858 %	8.0444	WEIGHT TAKEN
LUNG (LU)	1.4029	.3169 %	.6239	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8392	.4155 %	.8180	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7892	.4042 %	.7957	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.9681	.8959 %	1.7639	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)			
LIVER (LI)	GROSS: -MALOCCLUSION MICRO: -MINIMAL		-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67571 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 491.8 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 7:41 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1255	.4324 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.3730	3.5340 %	8.1736	WEIGHT TAKEN
LUNG (LU)	1.4238	.2898 %	.6698	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8603	.3888 %	.9223	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8607	.3785 %	.8754	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.2992	.8745 %	2.0227	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS
GENERAL COMMENT (GC)		GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL -MINIMAL	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67572 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 553.3 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 7:18 PROSECTOR: DEBBIE PIRKEL RECORDER: JOE N. KIZZIE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2251	.4022 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.4045	3.3263 %	8.2713	WEIGHT TAKEN
LUNG (LU)	1.7515	.3188 %	.7872	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6489	.2980 %	.7410	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5651	.2829 %	.7034	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.3023	.5988 %	1.4841	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL
LUNG (LU)
GROSS:

NECROPSY NOTE: TRIMMING COMMENT: TWO LEFT LOBES OF LUNG FOUND IN WET TISSUE;
BOTH PROCESSED, ONE IN BLOCK #2, AND ONE IN BLOCK #6

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67573 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 528.7 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 7:40 PROSECTOR: DEBBIE PIRKEL RECORDER: JOE N. KIZZIE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1454	.4073 %	1.0000	WEIGHT TAKEN
LIVER (LI)	14.1228	2.6814 %	6.5828	WEIGHT TAKEN
LUNG (LU)	1.5733	.2887 %	.7333	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7071	.3241 %	.7957	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7022	.3232 %	.7934	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.8831	.8955 %	1.7074	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
BRAIN (BR)	GROSS: -TISSUE MISSING MICRO: -TISSUE MISSING GROSS: -ALL TISSUES/ORGANS NORMAL	NECROPSY NOTE: >TRIMMING COMMENT: MISSING FROM WET TISSUE AT TIME OF TRIMMING

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C07574 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 398.8 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 8:22 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0008	.5042 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.1510	4.0703 %	8.0723	WEIGHT TAKEN
LUNG (LU)	1.4023	.3534 %	.7009	WEIGHT TAKEN
LF. TESTIS (TE0)	1.8672	.4708 %	.9332	WEIGHT TAKEN
RT. TESTIS (TE1)	1.8099	.4561 %	.9046	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.4002	.8569 %	1.8984	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS
GENERAL COMMENT (GC)	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS	
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL -MINIMAL	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67575 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/16/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 729.2 GRAMS
DATE AND TIME OF NECROPSY: 05/16/91 7:14 PROSECTOR: DEBBIE PIRKEL RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2754	.3120 %	1.0000	WEIGHT TAKEN
LIVER (LI)	22.2539	3.0518 %	9.7802	WEIGHT TAKEN
LUNG (LU)	1.7949	.2461 %	.7888	WEIGHT TAKEN
LF. TESTIS (TEO)	2.0338	.2789 %	.8938	WEIGHT TAKEN
RT. TESTIS (TEI)	2.0447	.2804 %	.8986	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.4870	.4755 %	1.5237	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)			
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL		
	MICRO: -SLIGHT, FOCAL	-NECROSIS, COAGULATIVE	
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION: BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)			

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87578 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 387.9 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 8:25 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.8902	.4873 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.4704	4.5038 %	9.2428	WEIGHT TAKEN
LUNG (LU)	1.3138	.3387 %	.6951	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8187	.4173 %	.8584	WEIGHT TAKEN
RT. TESTIS (TE1)	1.8220	.4181 %	.8581	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1888	.8221 %	1.6870	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87577 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 363.6 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 9:48 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0559	.5654 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.0948	4.4265 %	7.8288	WEIGHT TAKEN
LUNG (LU)	1.2849	.3534 %	.6250	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5817	.4350 %	.7693	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6657	.4581 %	.8102	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.3630	.6498 %	1.1494	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67578 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 486.6 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 9:36 PROSECTOR: RUTH SCHMITZ RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0477	4389 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.5462	37604 %	8.5887	WEIGHT TAKEN
LUNG (LU)	1.5098	3236 %	7373	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7745	3803 %	8666	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6667	3572 %	8139	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2620	6991 %	1.5930	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LUNG (LU)	GROSS: -ALL TISSUES/ORGANS NORMAL NECROPSY NOTE: >TRIMMING COMMENT: LUNG SECTION MISSING FROM WET TISSUE AT TIME OF TRIMMING MICRO: -TISSUE MISSING	

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67579 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/16/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 587.0 GRAMS
DATE AND TIME OF NECROPSY: 05/16/91 8:33 PROSECTOR: DEBBIE PIRKEL RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1446	.3653 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.3980	3.1342 %	8.5788	WEIGHT TAKEN
LUNG (LU)	1.8293	.2776 %	.7597	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7570	.2993 %	.8193	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7759	.3025 %	.8281	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.8273	.6520 %	1.7846	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI)
MICRO: -SLIGHT, FOCAL -INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87580 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 441.8 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 9:18 PROSECTOR: DENNIS HOFFMAN RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0826	.4714 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.3210	4.3732 %	9.2773	WEIGHT TAKEN
LUNG (LU)	1.5312	.3488 %	.7352	WEIGHT TAKEN
LF. TESTIS (TE0)	1.0539	.2385 %	.5081	WEIGHT TAKEN
RT. TESTIS (TE1)	1.5851	.3543 %	.7515	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.6804	.8330 %	1.7672	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

LF. TESTIS (TE0)
GROSS: -SMALL -10 X 11 X 20 MM (FOR COMPARISON RIGHT IS 10 X 13 X 21); SOFT
MICRO: -MODERATELY SEVERE, DIFFUSE -ATROPHY/DEGENERATION

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67581 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 56 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 483.8 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 8:30 PROSECTOR: RUTH SCHMITZ RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.8335	.3888 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.5770	3.8398 %	9.6080	WEIGHT TAKEN
LUNG (LU)	1.7077	.3530 %	.8832	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7079	.3530 %	.8833	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8983	.3510 %	.8784	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.4546	.7141 %	1.7867	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LIVER (LI)	MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR, CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87582 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 457.3 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 8:38 PROSECTOR: DENNIS HOFFMAN RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: JULIE A. LARSEN WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1754	.4757 %	1.0000	WEIGHT TAKEN
LIVER (LI)	22.3152	4.8798 %	10.2580	WEIGHT TAKEN
LUNG (LU)	1.5590	.3409 %	.7168	WEIGHT TAKEN
LF. TESTIS (TE0)	1.5470	.3383 %	.7111	WEIGHT TAKEN
RT. TESTIS (TE1)	1.5773	.3449 %	.7251	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1744	.6942 %	1.4592	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -SLIGHT, FOCAL -MINIMAL	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67583 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 453.8 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 8:10 PROSECTOR: KEVIN BILLINGS RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0247	.4482 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.8334	4.1502 %	9.3018	WEIGHT TAKEN
LUNG (LU)	1.4036	.3093 %	.8932	WEIGHT TAKEN
LF. TESTIS (TEO)	1.4218	.3133 %	.7022	WEIGHT TAKEN
RT. TESTIS (TEI)	1.4119	.3111 %	.6973	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5708	.7889 %	1.7838	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL
LIVER (LI)
MICRO: -MINIMAL

-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67584 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 497.1 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 9:46 PROSECTOR: RUTH SCHMITZ RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0062	.4038 %	1.0000	WEIGHT TAKEN
LIVER (LI)	24.1724	4.8627 %	12.0489	WEIGHT TAKEN
LUNG (LU)	1.8070	.3635 %	.9007	WEIGHT TAKEN
LF. TESTIS (TEO)	2.0352	.4084 %	1.0145	WEIGHT TAKEN
RT. TESTIS (TEI)	1.9161	.3855 %	.9551	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5310	.7103 %	1.7600	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)			
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL		
LUNG (LU)	GROSS: -TISSUE MISSING MICRO: -TISSUE MISSING	NECROPSY NOTE: >TRIMMING COMMENT: LUNG SECTION MISSING FROM WET TISSUE AT TIME OF TRIMMING	HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67585 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 450.7 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 8:13 PROSECTOR: KEVIN BILLINGS RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0252	.4493 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.3391	4.2909 %	9.5492	WEIGHT TAKEN
LUNG (LU)	1.5089	.3343 %	.7441	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5553	.3451 %	.7880	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5890	.3526 %	.7848	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0681	.6803 %	1.5140	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS

GENERAL COMMENT (GC)	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS	
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67588 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 413.7 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 8:35 PROSECTOR: JULIE A. LARSEN RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0816	.5032 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.8208	3.8242 %	7.6002	WEIGHT TAKEN
LUNG (LU)	1.4848	.3541 %	.7037	WEIGHT TAKEN
LF. TESTIS (TE0)	1.6005	.3889 %	.7889	WEIGHT TAKEN
RT. TESTIS (TE1)	1.5758	.3809 %	.7570	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5940	.8687 %	1.7266	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS

GENERAL COMMENT (GC)	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LIVER (LI) GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87587 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 493.0 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 8:59 PROSECTOR: RUTH SCHMITZ RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2704	.4805 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.5473	3.9850 %	8.8098	WEIGHT TAKEN
LUNG (LU)	1.5832	.3171 %	.6885	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6964	.3441 %	.7472	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7142	.3477 %	.7550	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.8845	.8102 %	1.7594	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS

GENERAL COMMENT (GC) GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI) MICRO: -MINIMAL

-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67588 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 571.7 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 7:31 PROSECTOR: DEBBIE PIRKEL RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1857	.3823 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.7987	3.1129 %	8.1423	WEIGHT TAKEN
LUNG (LU)	1.5797	.2763 %	.7227	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5047	.2632 %	.8884	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5663	.2740 %	.7186	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5672	.6240 %	1.6321	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C87589 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/16/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 630.8 GRAMS
DATE AND TIME OF NECROPSY: 05/16/91 7:47 PROSECTOR: GAIL M. NOVAK RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1870	.3487 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.7957	3.4552 %	9.9860	WEIGHT TAKEN
LUNG (LU)	2.1373	.3388 %	.9773	WEIGHT TAKEN
LF. TESTIS (TE0)	2.0235	.3208 %	.9252	WEIGHT TAKEN
RT. TESTIS (TE1)	2.1199	.3361 %	.9893	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.6165	.5733 %	1.8538	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI)
MICRO: -MODERATE, FOCAL
-FATTY CHANGE

GENERAL INFORMATION (XX)
GROSS: NECROPSY NOTE: ANIMAL PRIOR TO EXSANGUINATION

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87580 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 36 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 391.4 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 8:58 PROSECTOR: JULIE A. LARSEN RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2534	.5757 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.2091	4.3968 %	7.8369	WEIGHT TAKEN
LUNG (LU)	1.4866	.3798 %	.6597	WEIGHT TAKEN
LF. TESTIS (TE0)	1.5528	.3967 %	.6891	WEIGHT TAKEN
RT. TESTIS (TE1)	1.5279	.3904 %	.6780	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.5767	.6583 %	1.1435	WEIGHT TAKEN

ORGAN NAME * * * PATHOLOGY OBSERVATIONS * * *
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67581 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 379.3 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 8:40 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9980	.5288 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.6859	4.3939 %	8.3413	WEIGHT TAKEN
LUNG (LU)	1.4326	.3777 %	.7170	WEIGHT TAKEN
LF. TESTIS (TE0)	1.5782	.4161 %	.7899	WEIGHT TAKEN
RT. TESTIS (TE1)	1.5455	.4075 %	.7735	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8492	.7512 %	1.4280	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	*** PATHOLOGY OBSERVATIONS *** GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LIVER (LI)	MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
SKIN (SK)	GROSS: -CRUSTED AREA(S) MICRO: -MODERATE, FOCAL	-MID DORSAL THORACIC REGION: DARK RED CRUSTED AREAS. 15 X 10 MM (CAP 6) -DERMATITIS -FOCAL, SUBACUTE TO CHRONIC DERMATITIS WITH EPIDERMAL HYPERPLASIA AND FOCAL EXUDATE FORMATION. FOCAL GRANULOMATOUS INFLAMMATION IN THE DERMIS AND AROUND HAIR FOLLICLES.

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C07591 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 379.3 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 8:48 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF, TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67592 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 341.8 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 7:47 PROSECTOR: JULIE A. LARSEN RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1769	.6369 %	1.0000	WEIGHT TAKEN
LIVER (LI)	14.0101	4.0989 %	6.4358	WEIGHT TAKEN
LUNG (LU)	1.2098	.3803 %	.5971	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5138	.4428 %	.8953	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5352	.4482 %	.7052	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.6531	.7762 %	1.2188	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLO (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 8329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
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ANIMAL NUMBER: C67593 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/18/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 709.5 GRAMS
DATE AND TIME OF NECROPSY: 05/18/91 7:43 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0504	.2903 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.5211	2.8923 %	9.9646	WEIGHT TAKEN
LUNG (LU)	1.5600	.2189 %	.7575	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8691	.2634 %	.9076	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8484	.2605 %	.8975	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.7032	.5219 %	1.7982	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)

GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:

BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

MWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
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ANIMAL NUMBER: C67595 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 414.9 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 8:04 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0247	4880 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.3969	4.6751 %	9.5801	WEIGHT TAKEN
LUNG (LU)	1.5582	3756 %	.7886	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8551	4471 %	.9182	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8029	4345 %	.8905	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5599	8580 %	1.7582	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, FOCAL -MINIMAL	-INFILTRATES, MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67594 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 56 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 523.8 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 8:23 PROSECTOR: DENNIS HOFFMAN RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0820	.3837 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.2955	4.0858 %	10.3276	WEIGHT TAKEN
LUNG (LU)	1.8331	.3118 %	.7920	WEIGHT TAKEN
LF. TESTIS (TE0)	1.7855	.3409 %	.8659	WEIGHT TAKEN
RT. TESTIS (TE1)	1.7988	.3434 %	.8724	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.9198	.7483 %	1.9009	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67596 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 511.5 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 7:41 PROSECTOR: STEVE VAN ADESTINE RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2403	.4380 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.2379	3.9588 %	9.0336	WEIGHT TAKEN
LUNG (LU)	1.4079	.2752 %	.6284	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8654	.3258 %	.7434	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8369	.3200 %	.7307	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.5678	.8930 %	2.0389	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, FOCAL -MINIMAL	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
PROSTATE (PR)	MICRO: -SLIGHT, FOCAL	-INFLAMMATION, CHRONIC ACTIVE

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), SEMINAL VESICLE (SV), URETHRA (UR)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67597 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 380.0 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 8:26 PROSECTOR: DENNIS HOFFMAN RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0027	.5270 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.4228	5.1113 %	9.8983	WEIGHT TAKEN
LUNG (LU)	1.4474	.3809 %	.7227	WEIGHT TAKEN
LF. TESTIS (TEO)	1.4949	.3934 %	.7464	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5588	.4097 %	.7774	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8560	.8989 %	1.3282	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
LIVER (LI)
GROSS: -ALL TISSUES/ORGANS NORMAL
MICRO: -MINIMAL

-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87598 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/28/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 534.3 GRAMS
DATE AND TIME OF NECROPSY: 03/28/91 8:13 PROSECTOR: DEBBIE PIRKEL RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0731	.3880 %	1.0000	WEIGHT TAKEN
LIVER (LI)	22.4725	4.2080 %	10.8400	WEIGHT TAKEN
LUNG (LU)	1.6083	.3010 %	.7758	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8629	.3112 %	.8021	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8881	.3118 %	.8037	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8754	.5382 %	1.3870	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS
GENERAL COMMENT (GC)	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS	
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67599 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 407.5 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 9:17 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9288	.4733 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.7184	5.0843 %	10.7416	WEIGHT TAKEN
LUNG (LU)	1.5289	.3752 %	.7927	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7114	.4200 %	.8873	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6842	.4133 %	.8732	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.3845	.5852 %	1.2363	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
LIVER (LI) GROSS: -ALL TISSUES/ORGANS NORMAL
MICRO: -MINIMAL

-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

GENERAL INFORMATION (XX)
GROSS: NECROPSY NOTE: ANIMAL DIED PRIOR TO EXSANGUINATION

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67800 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/28/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 595.1 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 9:28 PROSECTOR: DEBBIE PIRKEL RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2575	.3793 %	1.0000	WEIGHT TAKEN
LIVER (LI)	24.7003	4.1508 %	10.9414	WEIGHT TAKEN
LUNG (LU)	1.7839	.2984 %	.7814	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7801	.2991 %	.7885	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7800	.2957 %	.7798	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5897	.5998 %	1.5813	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL		
LIVER (LI)	MICRO: -MINIMAL, FOCAL -MINIMAL	-INFLAMMATION, GRANULOMATOUS -HYPERTROPHY, HEPATOCELLULAR	CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 8329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87601 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 480.6 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 8:41 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1503	.4487 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.8925	4.5552 %	10.1528	WEIGHT TAKEN
LUNG (LU)	1.7051	.3548 %	.7808	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8701	.3475 %	.7745	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7349	.3610 %	.8046	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.3149	.6897 %	1.5373	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
COAGULATING GLD (CG)	GROSS: -TISSUE MISSING	NECROPSY NOTE: >TRIMMING COMMENT: MISSING FROM WET TISSUE AT TIME OF TRIMMING	
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL		
LIVER (LI)	MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".	
PROSTATE (PR)	GROSS: -TISSUE MISSING	NECROPSY NOTE: >TRIMMING COMMENT: MISSING FROM WET TISSUE AT TIME OF TRIMMING	
SEMINAL VESICLE (SV)	MICRO: -TISSUE MISSING	NECROPSY NOTE: >TRIMMING COMMENT: MISSING FROM WET TISSUE AT TIME OF TRIMMING	
URETHRA (UR)	GROSS: -TISSUE MISSING	NECROPSY NOTE: >TRIMMING COMMENT: MISSING FROM WET TISSUE AT TIME OF TRIMMING	

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ANIMAL NUMBER: C67801 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 480.6 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 8:41 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

* * * P A T H O L O G Y O B S E R V A T I O N S (CONTINUED) * * *
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

URETHRA (UR)

MICRO: -TISSUE MISSING

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), LF. TESTIS (TEO), LUNG (LU)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67602 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 504.0 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 8:48 PROSECTOR: KEVIN BILLINGS RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0978	.4182 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.2097	4.0099 %	9.8338	WEIGHT TAKEN
LUNG (LU)	1.8142	.3203 %	.7695	WEIGHT TAKEN
LF TESTIS (TEO)	1.9214	.3812 %	.9159	WEIGHT TAKEN
RT TESTIS (TEI)	1.8826	.3735 %	.8974	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0233	.5999 %	1.4412	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL"

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67603 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/81 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 609.4 GRAMS
DATE AND TIME OF NECROPSY: 03/22/81 9:38 PROSECTOR: KEVIN BILLINGS RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1709	.3582 %	1.0000	WEIGHT TAKEN
LIVER (LI)	22.3081	3.6807 %	10.2760	WEIGHT TAKEN
LUNG (LU)	1.7242	.2829 %	.7942	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6844	.2764 %	.7759	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6867	.2768 %	.7770	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2308	.5301 %	1.4881	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
PROSTATE (PR)	MICRO: -SLIGHT, MULTI-FOCAL	-INFLAMMATION, CHRONIC ACTIVE
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION: BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), SEMINAL VESICLE (SV), URETHRA (UR)		

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ANIMAL NUMBER: C67604 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 556.1 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 9:10 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1210	.3814 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.9391	3.5855 %	9.4008	WEIGHT TAKEN
LUNG (LU)	1.7130	.3080 %	.8076	WEIGHT TAKEN
LF. TESTIS (TEO)	1.9040	.3424 %	.8977	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8820	.3384 %	.8873	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.4395	.6185 %	1.6216	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -SLIGHT, FOCAL -MINIMAL	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67805 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/28/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 573.2 GRAMS
DATE AND TIME OF NECROPSY: 03/28/91 9:39 PROSECTOR: DEBBIE PIRKEL RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2442	.3915 %	1.0000	WEIGHT TAKEN
LIVER (LI)	22.2101	3.8748 %	9.8989	WEIGHT TAKEN
LUNG (LU)	1.8579	.2892 %	.7388	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7718	.3091 %	.7894	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7887	.3117 %	.7982	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2634	.5693 %	1.4542	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)			
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".	

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67608 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 475.9 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 8:34 PROSECTOR: KEVIN BILLINGS RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0932	.4398 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.7844	3.5289 %	8.0185	WEIGHT TAKEN
LUNG (LU)	1.2778	.2685 %	.6105	WEIGHT TAKEN
LF. TESTIS (TE0)	1.7686	.3716 %	.8449	WEIGHT TAKEN
RT. TESTIS (TE1)	1.8576	.3903 %	.8874	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.0217	.6139 %	1.3958	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87607 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 527.1 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 8:05 PROSECTOR: STEVE VAN ADESTINE RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0524	.3894 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.8774	3.3817 %	8.7105	WEIGHT TAKEN
LUNG (LU)	.9333	.1771 %	.4547	WEIGHT TAKEN
LF. TESTIS (TE0)	1.8299	.3472 %	.8916	WEIGHT TAKEN
RT. TESTIS (TE1)	1.8210	.3458 %	.8875	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.5374	.4814 %	1.2383	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C87808 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 88 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 500.4 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 8:38 PROSECTOR: JACK SERFORT RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0934	4.183 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.2484	3.4489 %	8.2394	WEIGHT TAKEN
LUNG (LU)	1.5348	.3067 %	.7332	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8529	.3703 %	.8851	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7698	.3537 %	.8454	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2045	.6404 %	1.5308	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS: -ALL TISSUES/ORGANS NORMAL		
LIVER (LI)	MICRO: -MINIMAL, FOCAL -MINIMAL	-INFILTRATES, MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87809 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 730.9 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 8:53 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DENNIS HOFFMAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2589	.3091 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.0752	2.4730 %	8.0018	WEIGHT TAKEN
LUNG (LU)	1.5208	.2081 %	.6732	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7588	.2403 %	.7776	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8881	.2558 %	.8270	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2434	.4438 %	1.4358	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ANIMAL OBESE

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C87810 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 548.1 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 9:58 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.4094	.4398 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.4583	3.3677 %	7.6610	WEIGHT TAKEN
LUNG (LU)	1.7288	.3151 %	.7167	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7350	.3185 %	.7201	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7383	.3172 %	.7215	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.0028	.7303 %	1.6612	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CO), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67611 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 96 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 529.2 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 9:21 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1843	.4128 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.8888	3.5693 %	8.6475	WEIGHT TAKEN
LUNG (LU)	1.4205	.2684 %	.8503	WEIGHT TAKEN
LF. TESTIS (TEO)	1.0407	.3100 %	.7511	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7118	.3235 %	.7837	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.9583	.7480 %	1.8122	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL -MINIMAL	-INFILTRATES, MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87812 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 469.9 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 8:02 PROSECTOR: NANCY DIEDRICH RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0627	.4390 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.6334	4.1782 %	9.5183	WEIGHT TAKEN
LUNG (LU)	1.5889	.3339 %	.7606	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6686	.3551 %	.8089	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6955	.3608 %	.8220	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.9468	.6271 %	1.4286	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION: BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UN)		

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ANIMAL NUMBER: C87613 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 583.2 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 7:24 PROSECTOR: KEVIN BILLINGS RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (X)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2002	.3773 X	1.0000	WEIGHT TAKEN
LIVER (LI)	21.3304	3.6575 X	9.6948	WEIGHT TAKEN
LUNG (LU)	1.7482	.2998 X	.7948	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6482	.2828 X	.7491	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6651	.2855 X	.7588	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1018	.5318 X	1.4097	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67614 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 489.4 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 8:15 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0662	.4222 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.8089	4.0476 %	9.5871	WEIGHT TAKEN
LUNG (LU)	1.4582	.2980 %	.7057	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6205	.3311 %	.7843	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6179	.3306 %	.7830	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5686	.7288 %	1.7262	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
KIDNEY(S) (KD)	GROSS: -LARGE PELVIS(ES) MICRO: -PRESENT	-BILATERAL -DILATATION, PELVIC
LIVER (LI)	MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C07615 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 96 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 529.4 GRAMS
DATE AND TIME OF NECKOPSY: 03/25/91 8:11 PROSECTOR: JACK SERFORT RECORDER: JOE N. KIZZIE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1700	.4099 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.8536	3.1835 %	7.7666	WEIGHT TAKEN
LUNG (LU)	1.6116	.3044 %	.7427	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8900	.3570 %	.8710	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8593	.3512 %	.8568	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2906	.6216 %	1.5164	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS
GENERAL COMMENT (GC)	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS	
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87616 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 588.8 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 8:41 PROSECTOR: JULIE A. LARSEN RECORDER: JOE M. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1783	.3712 %	1.0000	WEIGHT TAKEN
LIVER (LI)	26.1955	4.4841 %	12.0257	WEIGHT TAKEN
LUNG (LU)	1.8784	.2860 %	.7705	WEIGHT TAKEN
LF. TESTIS (TEO)	2.0033	.3414 %	.9197	WEIGHT TAKEN
RT. TESTIS (TEI)	1.9311	.3291 %	.8865	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.7408	.6375 %	1.7173	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL -MINIMAL	-INFLAMMATION, GRANULOMATOUS -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67617 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 428.8 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 7:24 PROSECTOR: RUTH SCHMITZ RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9841	.4627 %	1.0000	WEIGHT TAKEN
LIVER (LI)	22.6410	5.2801 %	11.4112	WEIGHT TAKEN
LUNG (LU)	1.4213	.3315 %	.7163	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5918	.3712 %	.8022	WEIGHT TAKEN
RT. TESTIS (TEI)	2.4218	.5648 %	1.2206	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.6044	.8408 %	1.8166	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87818 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 596.6 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 8:54 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1651	.3629 %	1.0000	WEIGHT TAKEN
LIVER (LI)	22.8185	3.8248 %	10.5302	WEIGHT TAKEN
LUNG (LU)	1.6358	.2742 %	.7554	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7618	.2853 %	.8137	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7267	.2894 %	.7875	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.9577	.6634 %	1.8280	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -SLIGHT, FOCAL -MINIMAL	-INFLAMMATION, GRANULOMATOUS -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

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BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67619 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 409.2 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 8:44 PROSECTOR: JULIE A. LARSEN RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0962	.5123 %	1.0000	WEIGHT TAKEN
LIVER (LI)	28.3509	6.4396 %	12.5708	WEIGHT TAKEN
LUNG (LU)	1.5621	.3817 %	.7452	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5738	.3846 %	.7507	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5987	.3907 %	.7627	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.4021	.5870 %	1.1459	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, MULTI-FOCAL -MINIMAL	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67620 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 489.8 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 9:01 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0154	.4290 %	1.0000	WEIGHT TAKEN
LIVER (LI)	25.3547	5.3989 %	12.5805	WEIGHT TAKEN
LUNG (LU)	1.4847	.3180 %	.7367	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5088	.3207 %	.7475	WEIGHT TAKEN
RT. TESTIS (TEI)	1.4394	.3084 %	.7142	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1823	.8774 %	1.5790	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -SLIGHT, FOCAL -SLIGHT	-INFLAMMATION, GRANULOMATOUS -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67621 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 607.0 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 7:39 PROSECTOR: DEBBIE PIRKEL RECORDER: JILL BEVAN
POST-FIX WEIGHTER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHTER: JOE N. KIZZIE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2076	.3637 %	1.0000	WEIGHT TAKEN
LIVER (LI)	25.0527	4.1273 %	11.3484	WEIGHT TAKEN
LUNG (LU)	1.7479	.2880 %	.7918	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8589	.2733 %	.7514	WEIGHT TAKEN
RT. TESTIS (TE1)	1.8305	.2886 %	.7386	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.4959	.4112 %	1.1308	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS: LIVER (LI)	-ALL TISSUES/ORGANS NORMAL	
MICRO: LIVER (LI)	-MINIMAL, FOCAL -MINIMAL	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67622 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 583.6 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 7:25 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1055	.3736 X	1.0000	WEIGHT TAKEN
LIVER (LI)	21.3009	3.7784 X	10.1168	WEIGHT TAKEN
LUNG (LU)	1.5222	.2701 X	.7230	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8721	.3322 X	.8891	WEIGHT TAKEN
RT. TESTIS (TEI)	2.0008	.3550 X	.9503	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.8759	.6877 X	1.8408	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87623 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 470.7 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 8:58 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1070	.4476 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.9421	3.8118 %	8.5155	WEIGHT TAKEN
LUNG (LU)	1.5822	.3381 %	.7509	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6761	.3561 %	.7955	WEIGHT TAKEN
RT. TESTIS (TE1)	1.6628	.3533 %	.7882	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.7735	.8017 %	1.7809	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67624 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 536.7 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 7:55 PROSECTOR: STEVE VAN ADESTINE RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1104	.3932 %	1.0000	WEIGHT TAKEN
LIVER (LI)	26.4596	4.9301 %	12.5377	WEIGHT TAKEN
LUNG (LU)	1.4814	.2760 %	.7020	WEIGHT TAKEN
LF TESTIS (TEO)	1.7078	.3182 %	.8092	WEIGHT TAKEN
RT TESTIS (TEI)	1.7554	.3271 %	.8318	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.3864	.6310 %	1.6048	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL -SLIGHT	-INFLAMMATION, GRANULOMATOUS -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87825 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 371.2 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 9:22 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1277	.5732 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.1581	5.4305 %	9.4741	WEIGHT TAKEN
LUNG (LU)	1.5818	.4207 %	.7340	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8535	.4454 %	.7771	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8745	.4511 %	.7870	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.6638	.7178 %	1.2519	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
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ANIMAL NUMBER: C87828 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/18/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 560.2 GRAMS
DATE AND TIME OF NECROPSY: 05/18/91 7:58 PROSECTOR: DEBBIE PIRKEL RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0641	.3685 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.6121	3.3224 %	9.0171	WEIGHT TAKEN
LUNG (LU)	1.6345	.2918 %	.7919	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8775	.3351 %	.8098	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8955	.3384 %	.9183	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.2949	.7667 %	2.0808	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C07627 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 396.2 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 8:37 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0441	5.159 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.7728	5.2430 %	10.1623	WEIGHT TAKEN
LUNG (LU)	1.5105	3.812 %	7.3900	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5123	3.817 %	7.3980	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5975	4.032 %	7.8150	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.5701	6.487 %	1.2573	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -SLIGHT	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87628 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/18/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 668.5 GRAMS
DATE AND TIME OF NECROPSY: 05/18/91 7:08 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2129	.3320 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.4594	3.2197 %	9.6974	WEIGHT TAKEN
LUNG (LU)	1.7819	.2644 %	.7962	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8651	.2798 %	.8428	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8860	.2800 %	.8432	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.4556	.6685 %	2.0135	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -SLIGHT, MULTI-FOCAL	-NECROSIS, COAGULATIVE
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION: BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)		

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INDIVIDUAL ANIMAL PATHOLOGY DATA

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87629 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 505.2 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 7:18 PROSECTOR: RUTH SCHMITZ RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1037	.4164 %	1.0000	WEIGHT TAKEN
LIVER (LI)	27.1705	5.3782 %	12.9158	WEIGHT TAKEN
LUNG (LU)	1.5019	.2973 %	.7139	WEIGHT TAKEN
LF. TESTIS (TE0)	1.8013	.3588 %	.8583	WEIGHT TAKEN
RT. TESTIS (TE1)	1.8955	.3752 %	.8010	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8583	.5654 %	1.3578	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67630 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 457.0 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 8:42 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0448	.4474 %	1.0000	WEIGHT TAKEN
LIVER (LI)	27.0511	5.9183 %	13.2292	WEIGHT TAKEN
LUNG (LU)	1.5123	.3308 %	.7398	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8358	.3579 %	.7999	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8873	.3848 %	.8154	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.9991	.6583 %	1.4687	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS
GENERAL COMMENT (GC)	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS	
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL -SLIGHT	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C07831 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 381.1 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 9:39 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1312	.5592 %	1.0000	WEIGHT TAKEN
LIVER (LI)	22.4120	5.8811 %	10.5168	WEIGHT TAKEN
LUNG (LU)	1.4438	.3789 %	.8775	WEIGHT TAKEN
LF. TESTIS (TEO)	1.4198	.3728 %	.8862	WEIGHT TAKEN
RT. TESTIS (TEI)	1.4055	.3688 %	.8595	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.9983	.7867 %	1.4069	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, MULTI-FOCAL -MINIMAL	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67632 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 386.5 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 8:53 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9220	.4973 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.2926	4.7329 %	9.5175	WEIGHT TAKEN
LUNG (LU)	1.3554	.3507 %	.7052	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5971	.4132 %	.8310	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5183	.3928 %	.7800	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.3953	.6197 %	1.2483	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -SLIGHT	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67833 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 453.7 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 8:30 PROSECTOR: NANCY DIEDRICH RECORDER: JILL BEVAN
POST-FIX WEIGHTER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHTER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1741	.4782 %	1.0000	WEIGHT TAKEN
LIVER (LI)	25.8081	5.8443 %	11.7787	WEIGHT TAKEN
LUNG (LU)	1.7594	.3878 %	.8093	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7336	.3821 %	.7874	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7207	.3793 %	.7915	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2850	.7240 %	1.5110	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
KIDNEY(S) (KD)	GROSS: -LARGE PELVIS(ES) MICRO: -PRESENT	-RIGHT (BOTH KIDNEYS COLLECTED) -DILATATION, PELVIC
LIVER (LI)	MICRO: -MINIMAL, FOCAL -MINIMAL	-INFILTRATES, MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
SPLEEN (SP)	GROSS: -RAISED FOCUS(1)/AREA(S) MICRO: -UNREMARKABLE	-ALONG MARGIN: SINGLE RED AND TAN FIRM AREA 4 X 3 X 2 MM; COLLECTED

HISTOPATHOLOGICAL COMMENT: > NO MICROSCOPIC CORRELATE TO GROSS OBSERVATION.

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67633 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 453.7 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 8:30 PROSECTOR: NANCY DIEDRICH RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF, TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67634 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 475.1 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 9:24 PROSECTOR: RUTH SCHMITZ RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1873	.4604 %	1.0000	WEIGHT TAKEN
LIVER (LI)	24.6474	5.1878 %	11.2884	WEIGHT TAKEN
LUNG (LU)	1.5054	.3169 %	.6882	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7292	.3640 %	.7906	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8230	.3837 %	.8334	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0844	.6492 %	1.4101	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LIVER (LI)	MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
LUNG (LU)	GROSS: MICRO: -TISSUE MISSING	NECROPSY NOTE: >TRIMMING COMMENT: LUNG SECTION MISSING FROM WET TISSUE AT TIME OF TRIMMING
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION: BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)		

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67635 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 544.9 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 9:40 PROSECTOR: STEVE VAN ADESTINE RECORDER: JILL BEVAN
POST-FIX WEIGHTER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHTER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0595	.3780 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.2688	3.7197 %	9.8418	WEIGHT TAKEN
LUNG (LU)	1.5867	.2875 %	.7607	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8801	.3450 %	.9129	WEIGHT TAKEN
RT. TESTIS (TEI)	1.9577	.3593 %	.9508	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0409	.5581 %	1.4765	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, FOCAL -MINIMAL	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67836 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 385.3 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 7:45 PROSECTOR: DENNIS HOFFMAN RECORDER: JACK SERFORT
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0247	.5255 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.9217	5.6895 %	10.8271	WEIGHT TAKEN
LUNG (LU)	1.5187	.3942 %	.7501	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5013	.3898 %	.7415	WEIGHT TAKEN
RT. TESTIS (TEI)	1.4497	.3783 %	.7160	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.4798	.6438 %	1.2247	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)

GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI)

MICRO: -MINIMAL

-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:

BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C07637 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/16/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 529.9 GRAMS
DATE AND TIME OF NECROPSY: 05/16/91 8:43 PROSECTOR: DEBBIE PIRKEL RECORDER: JOE N. KIZZIE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1437	.4045 %	1.0000	WEIGHT TAKEN
LIVER (LI)	22.6290	4.2704 %	10.5560	WEIGHT TAKEN
LUNG (LU)	1.6894	.3188 %	.7881	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5730	.2968 %	.7338	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6060	.3031 %	.7492	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.3451	.6313 %	1.5604	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 8320-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
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ANIMAL NUMBER: C67838 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 56 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 488.9 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 9:00 PROSECTOR: JULIE A. LARSEN RECORDER: KEVIN BILLINGS
POST-FIX WEIGHTER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHTER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1911	.4482 %	1.0000	WEIGHT TAKEN
LIVER (LI)	26.5405	5.4288 %	12.1128	WEIGHT TAKEN
LUNG (LU)	1.8118	.3298 %	.7355	WEIGHT TAKEN
LF. TESTIS (TEO)	1.4847	.2896 %	.8885	WEIGHT TAKEN
RT. TESTIS (TEI)	1.4910	.3050 %	.8805	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2088	.6583 %	1.4644	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, MULTI-FOCAL -SLIGHT	-INFILTRATES, MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67639 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 479.0 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 8:10 PROSECTOR: DENNIS HOFFMAN RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0544	.4289 %	1.0000	WEIGHT TAKEN
LIVER (LI)	26.8281	5.6009 %	13.0588	WEIGHT TAKEN
LUNG (LU)	1.4064	.2936 %	.6846	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8780	.4125 %	.9618	WEIGHT TAKEN
RT. TESTIS (TEI)	2.0158	.4208 %	.9811	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2112	.6704 %	1.5631	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION PATHOLOGY OBSERVATIONS
GENERAL COMMENT (GC) GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

LIVER (LI) GROSS: -ALL TISSUES/ORGANS NORMAL
MICRO: -MINIMAL

-HYPERTROPHY, HEPATOCELLULAR, CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87640 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 397.0 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 7:22 PROSECTOR: KEVIN BILLINGS RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9866	.5004 %	1.0000	WEIGHT TAKEN
LIVER (LI)	23.9939	6.0438 %	12.0779	WEIGHT TAKEN
LUNG (LU)	1.3827	.3432 %	.8859	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5585	.3926 %	.7845	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5853	.3993 %	.7980	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8113	.7333 %	1.4855	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LIVER (LI)	MICRO: -SLIGHT	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
LUNG (LU)	GROSS: MICRO: -TISSUE MISSING	NECROPSY NOTE: >TRIMMING COMMENT: LUNG NOT FOUND IN WET TISSUE AT TIME OF TRIMMING.

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67841 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 545.4 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 7:57 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9354	.3549 %	1.0000	WEIGHT TAKEN
LIVER (LI)	24.7182	4.5321 %	12.7718	WEIGHT TAKEN
LUNG (LU)	1.2912	.2387 %	.6671	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5795	.2888 %	.8181	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6708	.3083 %	.8632	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.5438	.4684 %	1.3143	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, FOCAL -MINIMAL	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87642 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 504.7 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 7:31 PROSECTOR: KEVIN BILLINGS RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1505	.4261 %	1.0000	WEIGHT TAKEN
LIVER (LI)	30.2508	5.9938 %	14.0889	WEIGHT TAKEN
LUNG (LU)	1.4758	.2924 %	.6883	WEIGHT TAKEN
LF. TESTIS (TED)	1.7243	.3418 %	.8018	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7438	.3455 %	.8108	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0769	.6098 %	1.4308	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TED), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 8329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87643 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 455.8 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 8:53 PROSECTOR: JACK SERFORT RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0837	.4574 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.8129	3.8859 %	8.4527	WEIGHT TAKEN
LUNG (LU)	1.7374	.3813 %	.8338	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7180	.3771 %	.8245	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7418	.3823 %	.8350	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.7702	.8275 %	1.8084	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LIVER (LI)	MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
GENERAL INFORMATION (XX)	GROSS:	NECROPSY NOTE: > SMALL MOVEABLE TISSUE MASS NOTED IN CLINICAL OBSERVATIONS. INADVERTENTLY NOT COMMENTED AS TO PRESENCE OR ABSENCE AT TIME OF NECROPSY

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67644 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 456.2 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 8:52 PROSECTOR: KEVIN BILLINGS RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0121	.4411 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.5018	4.7132 %	10.6862	WEIGHT TAKEN
LUNG (LU)	1.2512	.2743 %	.6218	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8552	.4087 %	.9220	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8384	.4030 %	.9137	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2252	.7070 %	1.8029	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL -MINIMAL	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C07645 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 621.6 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 8:53 PROSECTOR: DEBBIE PIRKEL RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2238	.3578 %	1.0000	WEIGHT TAKEN
LIVER (LI)	24.2840	3.9035 %	10.9111	WEIGHT TAKEN
LUNG (LU)	1.6907	.2720 %	.7603	WEIGHT TAKEN
LF. TESTIS (TEO)	1.9867	.3198 %	.8934	WEIGHT TAKEN
RT. TESTIS (TEI)	2.0271	.3261 %	.9115	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1787	.5115 %	1.4298	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS
GENERAL COMMENT (GC)	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS	
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87848 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 478.6 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 8:29 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0739	.4333 %	1.0000	WEIGHT TAKEN
LIVER (LI)	24.2562	5.0882 %	11.6959	WEIGHT TAKEN
LUNG (LU)	1.7329	.3621 %	.8358	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7144	.3582 %	.8267	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7213	.3597 %	.8300	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1011	.6480 %	1.4953	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
LIVER (LI) GROSS: -ALL TISSUES/ORGANS NORMAL
MICRO: -MINIMAL

-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C07847 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 432.6 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 7:30 PROSECTOR: RUTH SCHMITZ RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1070	.4871 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.5853	4.5227 %	9.2859	WEIGHT TAKEN
LUNG (LU)	1.5717	.3633 %	.7459	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6185	.3741 %	.7882	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6969	.3823 %	.8054	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.7298	.6310 %	1.2955	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS
GENERAL COMMENT (GC)		GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87648 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 392.0 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 7:41 PROSECTOR: KEVIN BILLINGS RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1367	.5451 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.6322	5.5184 %	10.1241	WEIGHT TAKEN
LUNG (LU)	1.4050	.3584 %	.8576	WEIGHT TAKEN
LF. TESTIS (TEO)	1.0514	.4213 %	.7729	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5071	.3898 %	.7334	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.6953	.6876 %	1.2614	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS
KIDNEY(S) (KD)	GROSS: -LARGE PELVIS(ES) MICRO: -PRESENT	-LEFT: BOTH COLLECTED -DILATATION, PELVIC
LIVER (LI)	MICRO: -SLIGHT	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87849 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/81 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 801.5 GRAMS
DATE AND TIME OF NECROPSY: 05/17/81 7:07 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1373	.3553 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.4747	2.8052 %	8.1781	WEIGHT TAKEN
LUNG (LU)	1.5153	.2519 %	.7090	WEIGHT TAKEN
LF. TESTIS (TEO)	1.2237	.2034 %	.5725	WEIGHT TAKEN
RT. TESTIS (TEI)	1.9322	.3212 %	.8040	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.0803	.6784 %	1.9091	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LF. TESTIS (TEO)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MODERATE, MULTI-FOCAL	-ATROPHY/DEGENERATION

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67850 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 558.3 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 9:37 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1319	.3832 %	1.0000	WEIGHT TAKEN
LIVER (LI)	28.2076	5.0708 %	13.2312	WEIGHT TAKEN
LUNG (LU)	1.7301	.3110 %	.8115	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7603	.3164 %	.8257	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7022	.3080 %	.7884	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.4488	.6200 %	1.8177	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS
GENERAL COMMENT (GC)	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS	
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67651 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 614.9 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 7:48 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1305	.3479 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.7605	3.3762 %	9.7034	WEIGHT TAKEN
LUNG (LU)	1.6285	.2648 %	.7612	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8008	.2929 %	.8417	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7725	.2883 %	.8285	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2537	.5291 %	1.5208	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

KIDNEY(S) (KD)	GROSS: -LARGE PELVIS(ES) -SEMIFLUID MATERIAL-PELVIS MICRO: -PRESENT	-RIGHT: BOTH COLLECTED -RIGHT: FILLED WITH CLEAR FLUID -DILATATION, PELVIC
LIVER (LI)	NECROPSY NOTE: TRIMMING COMMENT: ONE SECTION OF LIVER MISSING FROM WET TISSUE AT TIME OF TRIMMING	

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67852 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 506.3 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 9:01 PROSECTOR: JACK SERFORT RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0804	.4129 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.0718	4.1819 %	10.0803	WEIGHT TAKEN
LUNG (LU)	1.5510	.3083 %	.7420	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8529	.3680 %	.8884	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8182	.3587 %	.8888	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.0838	.8088 %	1.9535	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HWI 6329-100

HAZLETON WISCONSIN, INC.
MADISON, WISCONSIN USA

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ANIMAL NUMBER: C67853 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 592.1 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 10:13 PROSECTOR: JACK SERFORT RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0977	.3543 %	1.0000	WEIGHT TAKEN
LIVER (LI)	28.8583	4.8739 %	13.7571	WEIGHT TAKEN
LUNG (LU)	1.8177	.3070 %	.8885	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8888	.3188 %	.8904	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8849	.3150 %	.8890	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.3818	.5712 %	1.8122	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, FOCAL -SLIGHT, FOCAL -MINIMAL	-INFILTRATES MONONUCLEAR CELL -NECROSIS COAGULATIVE -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS, "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
GENERAL INFORMATION (XX)	GROSS:	NECROPSY NOTE: WART-LIKE LESION (VENTRAL HIND LEFT) NOTED IN CLINICAL OBSERVATIONS INADVERTENTLY NOT COMMENTED ON AS TO ABSENCE OR PRESENCE AT TIME OF NECROPSY

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HAZLETON WISCONSIN, INC.
MADISON, WISCONSIN USA

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ANIMAL NUMBER: C67853 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 88 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 582.1 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 10:13 PROSECTOR: JACK SERFORT RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87654 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 36 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 333.5 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 8:11 PROSECTOR: KEVIN BILLINGS RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9896	.5886 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.1401	6.3389 %	10.6253	WEIGHT TAKEN
LUNG (LU)	1.2542	.3781 %	.6304	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5679	.4701 %	.7880	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5519	.4653 %	.7800	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.7574	.8288 %	1.3859	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -SLIGHT	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C07055 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 479.5 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 8:51 PROSECTOR: RUTH SCHMITZ RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1033	.4386 %	1.0000	WEIGHT TAKEN
LIVER (LI)	23.8742	4.9373 %	11.2557	WEIGHT TAKEN
LUNG (LU)	1.6188	.3378 %	.7702	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8080	.3353 %	.7645	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5815	.3298 %	.7518	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.8047	.7518 %	1.7138	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
URETHRA (UR)	MICRO: -SECTION EXAMINED; TISSUE NOT PRESENT	

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV)

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HWI 6328-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87858 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 485.4 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 7:35 PROSECTOR: KEVIN BILLINGS RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATISTICS
BRAIN (BR)	2.0411	.4388 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.4435	4.8075 %	10.5059	WEIGHT TAKEN
LUNG (LU)	1.3888	.2884 %	.8804	WEIGHT TAKEN
LF. TESTIS (TEO)	1.9008	.4084 %	.9312	WEIGHT TAKEN
RT. TESTIS (TEI)	1.9585	.4210 %	.8600	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.6750	.5748 %	1.3108	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, FOCAL -MINIMAL	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67657 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 469.9 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 7:45 PROSECTOR: NANCY DIEDRICH RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHTER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHTER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1691	.4616 %	1.0000	WEIGHT TAKEN
LIVER (LI)	28.9855	6.1884 %	13.3829	WEIGHT TAKEN
LUNG (LU)	1.5997	.3404 %	.7375	WEIGHT TAKEN
LF. TESTIS (TEO)	2.0112	.4280 %	.9272	WEIGHT TAKEN
RT. TESTIS (TEI)	1.9089	.4082 %	.8800	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2783	.6977 %	1.5114	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LIVER (LI)	MICRO: -MINIMAL, FOCAL -MINIMAL	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
MESENTERIC LN (MS)	GROSS: -MOTTLED MICRO: -UNREMARKABLE	-DARK RED AND TAN (COLLECTED)

HISTOPATHOLOGICAL COMMENT: >NO MICROSCOPIC CORRELATE TO GROSS OBSERVATION.

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C07058 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 444.1 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 7:59 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1330	4805 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.2488	4.3343 %	9.0204	WEIGHT TAKEN
LUNG (LU)	1.5343	3.455 %	7.190	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7072	3.844 %	8.000	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8782	3.779 %	7.864	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2944	7.418 %	1.5438	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LIVER (LI)	MICRO: -SLIGHT, FOCAL -SLIGHT	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
PROSTATE (PR)	GROSS: -MASS(ES) MICRO: -MODERATE, FOCAL	-RIGHT SIDE: SINGLE MASS, TAN AND FIRM, 10 MM IN DIAMETER; ON SECTION EXUDED GREEN CREAMY SEMIFLUID; COLLECTED INTACT; REGIONAL LN (LUMBAR) NORMAL (CAP 8) -INFLAMMATION, CHRONIC ACTIVE

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CB), LF. TESTIS (TEO), LUNG (LU), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C07859 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 36 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 416.0 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 8:07 PROSECTOR: JULIE A. LANSER RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1787	.5237 %	1.0000	WEIGHT TAKEN
LIVER (LI)	24.7761	5.9558 %	11.3720	WEIGHT TAKEN
LUNG (LU)	1.8584	.3982 %	.7603	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5126	.3636 %	.6943	WEIGHT TAKEN
RT. TESTIS (TEI)	1.4907	.3583 %	.6842	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.3142	.5583 %	1.0622	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MODERATE, FOCAL -SLIGHT	-NECROSIS, COAGULATIVE -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 8329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87680 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/81 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 557.8 GRAMS
DATE AND TIME OF NECROPSY: 05/17/81 8:18 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DENNIS HOFFMAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.3758	.4258 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.8458	3.7013 %	8.8908	WEIGHT TAKEN
LUNG (LU)	1.7257	.3094 %	.7264	WEIGHT TAKEN
LF TESTIS (TEO)	1.7347	.3110 %	.7302	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7808	.3182 %	.7495	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.8045	.6821 %	1.8015	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HWI 8329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87861 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 412.9 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 9:22 PROSECTOR: KEVIN BILLINGS RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1541	.5217 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.9125	4.3382 %	8.3155	WEIGHT TAKEN
LUNG (LU)	1.4235	.3448 %	.8608	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5288	.3703 %	.7097	WEIGHT TAKEN
RT. TESTIS (TE1)	1.5247	.3693 %	.7078	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.5689	.6222 %	1.1926	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HWI 8329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87882 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 431.7 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 7:50 PROSECTOR: RUTH SCHMITZ RECORDER: RUTH SCHMITZ
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0559	.4782 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.0101	4.6352 %	9.7330	WEIGHT TAKEN
LUNG (LU)	1.3732	.3181 %	.6679	WEIGHT TAKEN
LF. TESTIS (TE0)	1.5487	.3587 %	.7533	WEIGHT TAKEN
RT. TESTIS (TE1)	1.5113	.3501 %	.7351	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2098	.7435 %	1.5813	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LIVER (LI)	MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
MANDIB/CERV LN (MN)	GROSS: -LARGE MICRO: -MODERATE, FOCAL	-RIGHT: UP TO 18 X 8 X 8 MM (FOR COMPARISON LEFT IS 5 X 4 X 2 MM) (CAP 8) -HYPERPLASIA, LYMPHORETICULAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87683 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 413.9 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 7:57 PROSECTOR: NANCY DIEDRICH RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0214	.4884 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.1079	5.0998 %	10.4422	WEIGHT TAKEN
LUNG (LU)	1.4956	.3613 %	.7389	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6313	.3941 %	.8070	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8523	.3992 %	.8174	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.3713	.5729 %	1.1731	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, MULTI-FOCAL -MINIMAL	-INFILTRATES, MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

MWI 8329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87884 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/18/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 894.3 GRAMS
DATE AND TIME OF NECROPSY: 05/18/91 7:34 PROSECTOR: GAIL M. NOVAK RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1989	.3187 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.9493	3.0173 %	9.5272	WEIGHT TAKEN
LUNG (LU)	2.0241	.2915 %	.9205	WEIGHT TAKEN
LF. TESTIS (TED)	1.6828	.2424 %	.7853	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6949	.2441 %	.7708	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.3942	.6329 %	1.9984	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL	-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TED), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67885 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 387.8 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 9:28 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0135	.5192 %	1.0000	WEIGHT TAKEN
LIVER (LI)	27.8819	7.1898 %	13.8475	WEIGHT TAKEN
LUNG (LU)	1.5150	.3907 %	.7524	WEIGHT TAKEN
LF. TESTIS (TED)	1.7585	.4529 %	.8724	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7867	.4607 %	.8874	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.4348	.6278 %	1.2091	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

GENERAL INFORMATION (XX) NECROPSY NOTE: ANIMAL DIED PRIOR TO EXSANGUINATION

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TED), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87888 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 809.1 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 7:48 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2312	.3663 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.4575	3.1945 %	8.7208	WEIGHT TAKEN
LUNG (LU)	1.6434	.2698 %	.7386	WEIGHT TAKEN
LF. TESTIS (TEO)	1.4773	.2425 %	.6621	WEIGHT TAKEN
RT. TESTIS (TEI)	1.4605	.2398 %	.6546	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.0238	.6606 %	1.8034	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HWI 8329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67667 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 56 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 494.5 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 8:20 PROSECTOR: JULIE A. LARSEN RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1607	.4369 %	1.0000	WEIGHT TAKEN
LIVER (LI)	25.7940	5.2162 %	11.9378	WEIGHT TAKEN
LUNG (LU)	1.4690	.2971 %	.6799	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6719	.3381 %	.7738	WEIGHT TAKEN
RT. TESTIS (TE1)	1.7338	.3506 %	.8024	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5244	.7127 %	1.6311	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS: LIVER (LI)	-ALL TISSUES/ORGANS NORMAL	
MICRO: LIVER (LI)	-MINIMAL, FOCAL -MINIMAL	-INFLAMMATION, GRANULOMATOUS -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF, TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87689 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 523.5 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 9:20 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0615	.3938 %	1.0000	WEIGHT TAKEN
LIVER (LI)	24.0587	4.5854 %	11.6695	WEIGHT TAKEN
LUNG (LU)	1.5817	.3021 %	.7873	WEIGHT TAKEN
LF. TESTIS (TE0)	1.7825	.3405 %	.8647	WEIGHT TAKEN
RT. TESTIS (TE1)	1.7785	.3397 %	.8627	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.6348	.6943 %	1.7631	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HWI 6329-100

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ANIMAL NUMBER: C87870 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/18/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 620.5 GRAMS
DATE AND TIME OF NECROPSY: 05/18/91 8:38 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2129	.3588 %	1.0000	WEIGHT TAKEN
LIVER (LI)	24.0443	3.8750 %	10.8855	WEIGHT TAKEN
LUNG (LU)	1.7924	.2889 %	.8100	WEIGHT TAKEN
LF. TESTIS (TEO)	1.9480	.3139 %	.8803	WEIGHT TAKEN
RT. TESTIS (TEI)	1.9042	.3089 %	.8805	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.0490	.6525 %	1.8297	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL
GENERAL INFORMATION (XX)
GROSS:

NECROPSY NOTE: SMALL MOVEABLE TISSUE MASS (VENTRAL HIND RIGHT) NOTED IN
CLINICAL OBSERVATIONS, INADVERTENTLY NOT COMMENTED ON AS TO
ABSENCE OR PRESENCE AT TIME OF NECROPSY

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
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ANIMAL NUMBER: C67671 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 550.6 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 9:49 PROSECTOR: JACK SERFORT RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2283	.4047 %	1.0000	WEIGHT TAKEN
LIVER (LI)	28.0610	5.2598 %	12.9989	WEIGHT TAKEN
LUNG (LU)	1.7189	.3122 %	.7714	WEIGHT TAKEN
LF. TESTIS (TEO)	1.9708	.3578 %	.8844	WEIGHT TAKEN
RT. TESTIS (TEI)	1.9721	.3582 %	.8850	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5087	.6373 %	1.5748	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL -SLIGHT	-INFILTRATES, MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.PRINTED: 18-OCT-91
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ANIMAL NUMBER: C07672 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
 DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 459.5 GRAMS
 DATE AND TIME OF NECROPSY: 03/25/91 7:20 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
 POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1400	.4857 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.0820	4.3704 %	9.3841	WEIGHT TAKEN
LUNG (LU)	1.4048	.3057 %	.8564	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8798	.3855 %	.7840	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8773	.3850 %	.7838	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.3349	.7258 %	1.5584	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, MULTI-FOCAL -MINIMAL	-INFILTRATES, MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
 BRAIN (BR), COAGULATING GLO (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87673 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 501.8 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 7:14 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.3388	.4857 %	1.0000	WEIGHT TAKEN
LIVER (LI)	23.3503	4.6533 %	9.9924	WEIGHT TAKEN
LUNG (LU)	1.5036	.2986 %	.6434	WEIGHT TAKEN
LF. TESTIS (TE0)	1.7336	.3455 %	.7419	WEIGHT TAKEN
RT. TESTIS (TE1)	1.7085	.3405 %	.7311	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.3838	.6743 %	1.4480	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -SLIGHT	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLO (CG), LF. TESTIS (TE0), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87674 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/16/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 655.4 GRAMS
DATE AND TIME OF NECROPSY: 05/16/91 8:51 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2178	.3384 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.8330	3.3007 %	0.7543	WEIGHT TAKEN
LUNG (LU)	1.8911	.2580 %	.7625	WEIGHT TAKEN
LF. TESTIS (TEO)	1.9854	.2999 %	.8862	WEIGHT TAKEN
RT. TESTIS (TEI)	1.9083	.2912 %	.8604	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.9142	.5972 %	1.7649	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

MANDIB/CERV LN (MN)
GROSS: -LARGE
MICRO: -MODERATE, MULTI-FOCAL
-BILATERAL: EACH IS UP TO 15 X 10 X 5 MM; COLLECTED
-HYPERPLASIA, LYMPHORETICULAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67675 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 36 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 408.9 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 7:19 PROSECTOR: DENNIS HOFFMAN RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0458	.5003 %	1.0000	WEIGHT TAKEN
LIVER (LI)	29.9182	7.3168 %	14.6242	WEIGHT TAKEN
LUNG (LU)	1.4415	.3525 %	.7046	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5370	.3781 %	.7517	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5878	.3883 %	.7781	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.7515	.6728 %	1.3450	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.PRINTED: 18-OCT-81
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ANIMAL NUMBER: C87878 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
 DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 399.4 GRAMS
 DATE AND TIME OF NECROPSY: 05/17/91 8:37 PROSECTOR: DEBBIE PIRKEL RECORDER: JOE N. KIZZIEE
 POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DENNIS HOFFMAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2129	.5541 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.8177	3.9854 %	7.1931	WEIGHT TAKEN
LUNG (LU)	1.8120	.4036 %	.7285	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7404	.4358 %	.7865	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8794	.4205 %	.7589	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.5874	1.1438 %	2.0840	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ANIMAL THIN	
LUMBAR/ILIAC LN (LM)	GROSS: -LARGE MICRO: -SLIGHT, MULTI-FOCAL	-BILATERAL: UP TO 20 X 10 X 5 MM (CAP 6) -HYPERPLASIA, LYMPHORETICULAR CELL
PROSTATE (PR)	GROSS: -MASS(ES) MICRO: -SEVERE, MULTI-FOCAL	-INVOLVING ENTIRE PROSTATE: SINGLE MASS, 20 X 20 X 10 MM, RED TAN, SOFT AND GELATINOUS; SAME ON CUT SURFACE; COLLECTED INTACT; REGIONAL LN (SEE LUMBAR) -INFLAMMATION, CHRONIC ACTIVE

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
 BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87677 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/28/91 STUDY DAY OF DEATH: 87 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 532.1 GRAMS
DATE AND TIME OF NECROPSY: 03/28/91 9:04 PROSECTOR: DEBBIE PIRKEL RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1273	.3888 %	1.0000	WEIGHT TAKEN
LIVER (LI)	23.0049	4.3234 %	10.8141	WEIGHT TAKEN
LUNG (LU)	1.4376	.2702 %	.8758	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6225	.3049 %	.7627	WEIGHT TAKEN
RT. TESTIS (TE1)	1.6322	.3087 %	.7673	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.6019	.4890 %	1.2231	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, FOCAL -MINIMAL	-INFILTRATES, MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87878 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
 DATE OF DEATH: 05/18/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 552.5 GRAMS
 DATE AND TIME OF NECROPSY: 05/18/91 8:50 PROSECTOR: DEBBIE PIRKEL RECORDER: JOE N. KIZZIEE
 POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0849	.3737 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.4957	3.5286 %	9.4415	WEIGHT TAKEN
LUNG (LU)	1.4101	.2552 %	.8829	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7275	.3127 %	.8368	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7204	.3114 %	.8332	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.8058	.6528 %	1.7461	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
 BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
 URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87879 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 437.4 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 9:01 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0367	.4656 %	1.0000	WEIGHT TAKEN
LIVER (LI)	28.2020	6.4478 %	13.8489	WEIGHT TAKEN
LUNG (LU)	1.5392	.3519 %	.7557	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8515	.4233 %	.9091	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7870	.4040 %	.8878	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0584	.6992 %	1.5018	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
KIDNEY(S) (KD)	GROSS: -LARGE PELVIS(ES) MICRO: -PRESENT	-RIGHT: BOTH COLLECTED -DILATATION, PELVIC
LIVER (LI)	MICRO: -SLIGHT	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67680 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 430.0 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 8:42 PROSECTOR: NANCY DIEDRICH RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0122	.4670 %	1.0000	WEIGHT TAKEN
LIVER (LI)	30.3922	7.0532 %	15.1040	WEIGHT TAKEN
LUNG (LU)	1.5508	.3588 %	.7708	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5587	.3617 %	.7748	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5218	.3531 %	.7582	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8374	.6585 %	1.4101	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -SLIGHT	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67681 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 372.9 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 7:12 PROSECTOR: JULIE A. LARSEN RECORDER: JACK SERFORT
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0276	.5437 %	1.0000	WEIGHT TAKEN
LIVER (LI)	25.8118	6.9487 %	12.7795	WEIGHT TAKEN
LUNG (LU)	1.4507	.3890 %	.7155	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6282	.4366 %	.8030	WEIGHT TAKEN
RT. TESTIS (TE1)	1.6029	.4288 %	.7905	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.7151	.7281 %	1.3391	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, MULTI-FOCAL -SLIGHT	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U S A.

PRINTED: 18-OCT-91
PAGE: 236

ANIMAL NUMBER: C67682 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 373.0 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 7:18 PROSECTOR: NANCY DIEDRICH RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1455	.5752 %	1.0000	WEIGHT TAKEN
LIVER (LI)	26.8262	7.2188 %	12.5501	WEIGHT TAKEN
LUNG (LU)	1.3795	.3698 %	.8430	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5366	.4120 %	.7162	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5994	.4288 %	.7455	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8357	.7602 %	1.3217	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS: -ALL TISSUES/ORGANS NORMAL		
LIVER (LI)	MICRO: -SLIGHT	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
PAGE: 237

ANIMAL NUMBER: C67683 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/16/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 593.0 GRAMS
DATE AND TIME OF NECROPSY: 05/16/91 8:02 PROSECTOR: GAIL M. NOVAK RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1457	.3618 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.4588	2.9441 %	8.1366	WEIGHT TAKEN
LUNG (LU)	1.5412	.2589 %	.7183	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5834	.2638 %	.7286	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5733	.2653 %	.7332	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.6391	.6137 %	1.6960	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -SLIGHT, FOCAL	-INFILTRATES, MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-81
PAGE: 238

ANIMAL NUMBER: C87684 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 490.9 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 8:18 PROSECTOR: DEBBIE PIRKEL RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DENNIS HOFFMAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0711	.4219 %	1.0000	WEIGHT TAKEN
LIVER (LI)	14.1733	2.8872 %	6.8434	WEIGHT TAKEN
LUNG (LU)	1.4541	.2962 %	.7021	WEIGHT TAKEN
LF. TESTIS (TE0)	1.6550	.3371 %	.7981	WEIGHT TAKEN
RT. TESTIS (TE1)	1.7138	.3491 %	.8275	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.4774	.5047 %	1.1962	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
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ANIMAL NUMBER: C67685 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: UNSCHEDULED (M)
DATE OF DEATH: 01/16/91 STUDY DAY OF DEATH: 28 STUDY WEEK OF DEATH: 4 TERMINAL BODY WEIGHT: NOT ENTERED
DATE AND TIME OF NECROPSY: 01/16/91 13:30 PROSECTOR: DEBBIE PIRKEL RECORDER: DEBBIE PIRKEL
POST-FIX WEIGHTER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHTER: NOT AVAILABLE

*** ANIMAL HAS NO ORGAN WEIGHTS RECORDED ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS / HISTOPATHOLOGIC FINDINGS
LIVER (LI)	MICRO: -SLIGHT, FOCAL -MINIMAL	-INFILTRATES, MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
SKIN (SK)	GROSS: -ABRASION(S)/ULCERATION(S) MICRO: -SEVERE, FOCAL -SEVERE, FOCAL	-BILATERAL, CERVICAL REGION: TWO TAN AND RED ABRADED AREAS, ONE IS 25 X 10 MM AND THE OTHER IS 15 X 10 MM (CAP 6) -DERMATITIS -ULCERATION

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF, TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
PAGE: 240

ANIMAL NUMBER: C87686 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: NOT ENTERED
DATE AND TIME OF NECROPSY: 03/22/91 7:22 PROSECTOR: KEVIN BILLINGS RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1931	-----	1.0000	EXCLUDE
LIVER (LI)	25.9482	-----	11.8317	EXCLUDE
LUNG (LU)	1.6253	-----	.7411	EXCLUDE
LF. TESTIS (TEO)	1.8843	-----	.8592	EXCLUDE
RT. TESTIS (TE1)	1.8268	-----	.8330	EXCLUDE
ACCESS/SEX ORG (SO)	3.1612	-----	1.4414	EXCLUDE

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, FOCAL -SLIGHT	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
GENERAL INFORMATION (XX)		
GROSS:		NECROPSY NOTE: >BODY WEIGHT INADVERTENTLY NOT TAKEN PRIOR TO EXSANGUINATION THEREFORE, ANIMAL WAS EXCLUDED FROM STATISTICAL ANALYSIS

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
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ANIMAL NUMBER: C87887 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 383.1 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 7:30 PROSECTOR: JULIE A. LARSEN RECORDER: JACK SERFORT
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2291	.5819 %	1.0000	WEIGHT TAKEN
LIVER (LI)	22.9772	5.9977 %	10.3078	WEIGHT TAKEN
LUNG (LU)	1.4440	.3789 %	.8478	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5960	.4166 %	.7160	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7054	.4452 %	.7851	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.4818	.6425 %	1.1043	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -SLIGHT	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
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ANIMAL NUMBER: C67888 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 412.5 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 8:14 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2203	5383 %	1.0000	WEIGHT TAKEN
LIVER (LI)	25.7541	6.2434 %	11.5984	WEIGHT TAKEN
LUNG (LU)	1.4103	.3419 %	.6352	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5410	.3736 %	.6941	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6223	.3933 %	.7307	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.3841	.5780 %	1.0738	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION OBSERVATIONS GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
LIVER (LI) GROSS: -ALL TISSUES/ORGANS NORMAL
 MICRO: -SLIGHT

-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

GENERAL INFORMATION (XX)
GROSS:

NECROPSY NOTE: ANIMAL DIED PRIOR TO EXSANGUINATION; BLOOD SAMPLE COLLECTED

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:

BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
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ANIMAL NUMBER: C67689 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 392.4 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 9:32 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0018	.5101 %	1.0000	WEIGHT TAKEN
LIVER (LI)	27.4930	7.0084 %	13.7341	WEIGHT TAKEN
LUNG (LU)	1.4382	.3680 %	.7175	WEIGHT TAKEN
LF. TESTIS (TEO)	1.4394	.3688 %	.7191	WEIGHT TAKEN
RT. TESTIS (TEI)	1.4378	.3684 %	.7183	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.2388	.5705 %	1.1184	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL -MINIMAL	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
GENERAL INFORMATION (XX)		
GROSS:	NECROPSY NOTE: ANIMAL DIED PRIOR TO EXSANGUINATION	
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION: BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)		

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
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ANIMAL NUMBER: C67680 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 385.2 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 7:44 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9734	.5404 %	1.0000	WEIGHT TAKEN
LIVER (LI)	25.5843	7.0001 %	12.9544	WEIGHT TAKEN
LUNG (LU)	1.4011	.3827 %	.7100	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5479	.4238 %	.7844	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5556	.4280 %	.7883	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.4551	.6723 %	1.2441	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -SLIGHT, MULTI-FOCAL -SLIGHT	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-01
PAGE: 245

ANIMAL NUMBER: C67891 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/01 STUDY DAY OF DEATH: 86 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 405.9 GRAMS
DATE AND TIME OF NECROPSY: 03/25/01 7:30 PROSECTOR: JACK SERFORT RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9935	.4911 X	1.0000	WEIGHT TAKEN
LIVER (LI)	19.6478	4.8408 X	9.8559	WEIGHT TAKEN
LUNG (LU)	1.2889	.3200 X	.6516	WEIGHT TAKEN
LF. TESTIS (TE0)	1.5029	.3703 X	.7539	WEIGHT TAKEN
RT. TESTIS (TE1)	1.4089	.3471 X	.7087	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8857	.7109 X	1.4478	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -SLIGHT	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
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ANIMAL NUMBER: C67692 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 36 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 390.9 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 9:20 PROSECTOR: DENNIS HOFFMAN RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0512	.5247 %	1.0000	WEIGHT TAKEN
LIVER (LI)	26.0918	6.6748 %	12.7203	WEIGHT TAKEN
LUNG (LU)	1.6213	.4148 %	.7904	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7223	.4406 %	.8397	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7144	.4386 %	.8358	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8217	.7218 %	1.3758	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL -MINIMAL	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C07893 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 36 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 402.0 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 8:44 PROSECTOR: DENNIS HOFFMAN RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0524	.5105 %	1.0000	WEIGHT TAKEN
LIVER (LI)	22.4973	5.5983 %	10.9815	WEIGHT TAKEN
LUNG (LU)	1.4325	.3583 %	.6980	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5361	.3821 %	.7484	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5114	.3780 %	.7384	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1287	.7783 %	1.5244	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI)
MICRO: -SLIGHT

-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87894 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/18/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 595.7 GRAMS
DATE AND TIME OF NECROPSY: 05/18/91 9:09 PROSECTOR: GAIL M. NOVAK RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2788	3825 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.0263	3381 %	8.7881	WEIGHT TAKEN
LUNG (LU)	1.7747	2979 %	.7788	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8411	3091 %	.8079	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7286	2902 %	.7586	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.1212	6918 %	1.8085	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC) GROSS: -ALL TISSUES/ORGANS NORMAL
LIVER (LI) MICRO: -MINIMAL, MULTI-FOCAL -INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87695 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 385.9 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 7:27 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1189	.5491 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.7897	5.6485 %	10.2835	WEIGHT TAKEN
LUNG (LU)	1.3370	.3485 %	.8310	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8195	.4715 %	.8587	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7250	.4470 %	.8141	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0488	.7900 %	1.4389	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL
LIVER (LI)
MICRO: -SLIGHT

-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67696 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 350.6 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 7:39 PROSECTOR: DENNIS HOFFMAN RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PINKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.8948	.5404 %	1.0000	WEIGHT TAKEN
LIVER (LI)	24.8083	7.0780 %	13.0942	WEIGHT TAKEN
LUNG (LU)	1.2528	.3573 %	.8612	WEIGHT TAKEN
LF. TESTIS (TE0)	1.0894	.3107 %	.5750	WEIGHT TAKEN
RT. TESTIS (TE1)	1.5889	.4478 %	.8288	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.3883	.6749 %	1.2490	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
KIDNEY(S) (KD)	GROSS: -LARGE PELVIS(ES) MICRO: -PRESENT	-BILATERAL: BOTH COLLECTED -DILATATION, PELVIC
LF. TESTIS (TE0)	GROSS: -CONTAINS FLUID MICRO: -MODERATE, DIFFUSE	-LEFT: CLEAR FLUID -ATROPHY/DEGENERATION
LIVER (LI)	MICRO: -MODERATE, FOCAL -MINIMAL	-NECROSIS, COAGULATIVE -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67696 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 350.8 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 7:38 PROSECTOR: DENNIS HOFFMAN RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67897 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/28/91 STUDY DAY OF DEATH: 87 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 481.7 GRAMS
DATE AND TIME OF NECROPSY: 03/28/91 7:48 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1143	.4388 %	1.0000	WEIGHT TAKEN
LIVER (LI)	30.4173	6.3148 %	14.3865	WEIGHT TAKEN
LUNG (LU)	1.4679	.3047 %	.6943	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8159	.3770 %	.8580	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8220	.3782 %	.8618	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.1308	.8575 %	1.9537	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS: LIVER (LI)	-ALL TISSUES/ORGANS NORMAL	
MICRO: LIVER (LI)	-MINIMAL, FOCAL -SLIGHT	-INFILTRATES, MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.PRINTED: 18-OCT-91
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ANIMAL NUMBER: C87698 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
 DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 389.8 GRAMS
 DATE AND TIME OF NECROPSY: 01/25/91 7:33 PROSECTOR: NANCY DIEDRICH RECORDER: JACK SERFORT
 POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0041	.5144 %	1.0000	WEIGHT TAKEN
LIVER (LI)	23.9691	6.1522 %	11.9800	WEIGHT TAKEN
LUNG (LU)	1.3583	.3486 %	.6778	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6598	.4280 %	.8282	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8212	.4161 %	.8089	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8825	.7347 %	1.4283	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
KIDNEY(S) (KD)	GROSS: -LARGE PELVIS(ES) -SEMIFLUID MATERIAL-PELVIS MICRO: -PRESENT	-LEFT: BOTH KIDNEYS COLLECTED -LEFT: FILLED WITH CLEAR FLUID; BOTH KIDNEYS COLLECTED -DILATATION, PELVIC
LIVER (LI)	MICRO: -SLIGHT, FOCAL -SLIGHT	-NECROSIS, COAGULATIVE -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
 BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67699 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 451.9 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 8:03 PROSECTOR: RUTH SCHMITZ RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9812	.4384 %	1.0000	WEIGHT TAKEN
LIVER (LI)	23.8852	5.2412 %	11.9550	WEIGHT TAKEN
LUNG (LU)	1.8440	.3838 %	.8298	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7874	.3955 %	.8022	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8750	.3707 %	.8454	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.5243	.5588 %	1.2741	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS: -ALL TISSUES/ORGANS NORMAL		
LIVER (LI)	MICRO: -MINIMAL, FOCAL -SLIGHT	-INFILTRATES, MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 8329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67700 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 558.8 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 7:21 PROSECTOR: JACK SERFORT RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0545	.3678 %	1.0000	WEIGHT TAKEN
LIVER (LI)	34.0432	6.0944 %	16.5701	WEIGHT TAKEN
LUNG (LU)	1.7753	.3178 %	.8641	WEIGHT TAKEN
LF. TESTIS (TEO)	2.0474	.3685 %	.9985	WEIGHT TAKEN
RT. TESTIS (TEI)	1.9584	.3508 %	.9532	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.1528	.7434 %	2.0213	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -SLIGHT	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67701 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/18/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 541.8 GRAMS
DATE AND TIME OF NECROPSY: 05/18/91 9:04 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN S T A T U S
BRAIN (BR)	2.0228	.3733 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.0280	3.5120 %	9.4068	WEIGHT TAKEN
LUNG (LU)	1.8734	.3089 %	.8273	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7353	.3203 %	.8570	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7266	.3187 %	.8536	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.8046	.8868 %	2.3752	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87702 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 462.8 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 8:48 PROSECTOR: DENNIS HOFFMAN RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9730	.4283 %	1.0000	WEIGHT TAKEN
LIVER (LI)	25.0007	5.4021 %	12.8714	WEIGHT TAKEN
LUNG (LU)	1.7193	.3715 %	.8714	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5538	.3357 %	.7874	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5152	.3274 %	.7880	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1093	.6718 %	1.5759	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67703 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
 DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 473.9 GRAMS
 DATE AND TIME OF NECROPSY: 02/14/91 7:52 PROSECTOR: RUTH SCHMITZ RECORDER: JILL BEVAN
 POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1138	.4481 %	1.0000	WEIGHT TAKEN
LIVER (LI)	27.2381	5.7472 %	12.8843	WEIGHT TAKEN
LUNG (LU)	1.8909	.3588 %	.7899	WEIGHT TAKEN
LF. TESTIS (TE0)	1.7440	.3680 %	.8250	WEIGHT TAKEN
RT. TESTIS (TE1)	1.6816	.3548 %	.7855	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1259	.6596 %	1.4787	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -SLIGHT	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
URETHRA (UR)	MICRO: -SECTION EXAMINED; TISSUE NOT PRESENT	

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
 BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87704 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 597.4 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 8:17 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DENNIS HOFFMAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0053	.3357 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.9850	3.3453 %	9.9881	WEIGHT TAKEN
LUNG (LU)	1.5285	.2559 %	.7622	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8107	.2888 %	.8032	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8761	.2808 %	.8358	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0958	.5182 %	1.5438	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67705 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 488.8 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 9:14 PROSECTOR: JULIE A. LARSEN RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0859	.4285 %	1.0000	WEIGHT TAKEN
LIVER (LI)	26.4825	5.4401 %	12.8860	WEIGHT TAKEN
LUNG (LU)	1.5050	.3092 %	.7215	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8570	.3404 %	.7944	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5958	.3278 %	.7850	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.5928	.5328 %	1.2429	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS: -ALL TISSUES/ORGANS NORMAL		
LIVER (LI)	MICRO: -SLIGHT, FOCAL -MINIMAL	-INFILTRATES, MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67706 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 148 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 572.9 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 7:54 PROSECTOR: DEBBIE PIRKEL RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JACK SERFORT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1828	.3810 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.5633	3.7839 %	9.8798	WEIGHT TAKEN
LUNG (LU)	1.5680	.2737 %	.7184	WEIGHT TAKEN
LF. TESTIS (TE0)	1.7092	.2983 %	.7831	WEIGHT TAKEN
RT. TESTIS (TE1)	1.8788	.2930 %	.7692	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.4285	.5988 %	1.5713	WEIGHT TAKEN

* * * P A T H O L O G Y O B S E R V A T I O N S * * *

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION: BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)		

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87707 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 497.5 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 7:34 PROSECTOR: NANCY DIEDRICH RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1938	.4410 %	1.0000	WEIGHT TAKEN
LIVER (LI)	30.2278	6.0759 %	13.7787	WEIGHT TAKEN
LUNG (LU)	1.6584	.3329 %	.7550	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7721	.3582 %	.8078	WEIGHT TAKEN
RT. TESTIS (TE1)	1.7930	.3604 %	.8173	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1442	.6320 %	1.4332	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL
LIVER (LI) MICRO: -SLIGHT

-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67708 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 505.8 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 7:42 PROSECTOR: RUTH SCHMITZ RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2070	.4383 %	1.0000	WEIGHT TAKEN
LIVER (LI)	24.8949	4.8823 %	11.1894	WEIGHT TAKEN
LUNG (LU)	1.5957	.3155 %	.7230	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8074	.3178 %	.7283	WEIGHT TAKEN
RT. TESTIS (TE1)	1.5917	.3147 %	.7212	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.6153	.5171 %	1.1850	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87709 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/81 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 384.7 GRAMS
DATE AND TIME OF NECROPSY: 02/12/81 0:15 PROSECTOR: NANCY DIEDRICH RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1310	.5843 %	1.0000	WEIGHT TAKEN
LIVER (LI)	23.2540	6.3762 %	10.9122	WEIGHT TAKEN
LUNG (LU)	1.3845	.3798 %	.6497	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6261	.4459 %	.7631	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5577	.4271 %	.7310	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.3407	.6418 %	1.0984	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LIVER (LI)	GROSS: -DIFFUSELY DARK MICRO: -SLIGHT	-ALL LOBES: BROWN -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87710 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 453.1 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 7:24 PROSECTOR: KEVIN BILLINGS RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0812	.4593 %	1.0000	WEIGHT TAKEN
LIVER (LI)	31.2947	6.9048 %	15.0320	WEIGHT TAKEN
LUNG (LU)	1.4683	.3241 %	.7055	WEIGHT TAKEN
LF. TESTIS (TED)	1.8449	.4072 %	.8865	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8789	.3705 %	.8067	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0033	.6628 %	1.4431	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -SLIGHT	-HYPERTROPHY, HEPATOCELLULAR; CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TED), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67711 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 448.5 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 8:25 PROSECTOR: KEVIN BILLINGS RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9929	.4443 %	1.0000	WEIGHT TAKEN
LIVER (LI)	23.6898	5.2820 %	11.8870	WEIGHT TAKEN
LUNG (LU)	.9224	.2057 %	.4628	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8353	.4092 %	.9209	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8308	.4082 %	.9187	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.4993	.5573 %	1.2541	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
PROSTATE (PR)	MICRO: -MODERATE, MULTI-FOCAL	-INFLAMMATION, CHRONIC ACTIVE
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION: BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), SEMINAL VESICLE (SV), URETHRA (UR)		

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67712 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/28/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 583.8 GRAMS
DATE AND TIME OF NECROPSY: 03/28/91 7:37 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2038	.3775 %	1.0000	WEIGHT TAKEN
LIVER (LI)	33.3805	5.7178 %	15.1468	WEIGHT TAKEN
LUNG (LU)	1.8828	.2882 %	.7838	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8780	.3217 %	.8522	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8828	.3191 %	.8453	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.1255	.7067 %	1.8720	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, FOCAL -SLIGHT	-INFILTRATES, MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
PROSTATE (PR)	MICRO: -MODERATE, FOCAL	-INFLAMMATION, CHRONIC ACTIVE

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CO), LF. TESTIS (TEO), LUNG (LU), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67713 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 373.3 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 8:00 PROSECTOR: JULIE A. LARSEN RECORDER: NANCY DIEDRICH
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2337	.5984 %	1.0000	WEIGHT TAKEN
LIVER (LI)	25.8610	6.9277 %	11.5777	WEIGHT TAKEN
LUNG (LU)	1.4625	.3918 %	.6547	WEIGHT TAKEN
LF TESTIS (TEO)	1.8587	.4443 %	.7428	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8381	.4388 %	.7334	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.5155	.6739 %	1.1262	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
KIDNEY(S) (KD)	GROSS: -LARGE PELVIS(ES) MICRO: -PRESENT	-RIGHT: BOTH COLLECTED -DILATATION, PELVIC
LIVER (LI)	MICRO: -MINIMAL, FOCAL -SLIGHT	-INFILTRATES, MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

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ANIMAL NUMBER: C87714 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 90 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 415.5 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 9:58 PROSECTOR: JACK SERFORT RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1574	.5192 %	1.0000	WEIGHT TAKEN
LIVER (LI)	28.6577	6.8972 %	13.2834	WEIGHT TAKEN
LUNG (LU)	1.4941	.3596 %	.8925	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6833	.4003 %	.7710	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7522	.4217 %	.8122	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2741	.7880 %	1.5176	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, FOCAL -SLIGHT	-INFILTRATES, MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 8329-100

HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87715 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 387.8 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 8:14 PROSECTOR: DENNIS HOFFMAN RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.8928	.5139 %	1.0000	WEIGHT TAKEN
LIVER (LI)	28.0457	6.7183 %	13.0899	WEIGHT TAKEN
LUNG (LU)	1.4185	.3658 %	.7118	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7886	.4612 %	.8975	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8534	.4779 %	.9300	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.7785	.7185 %	1.3943	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)

LIVER (LI) GROSS: -ALL TISSUES/ORGANS NORMAL

MICRO: -SLIGHT

-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:

BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87718 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 464.7 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 9:05 PROSECTOR: KEVIN BILLINGS RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2060	.4747 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.3482	4.5935 %	9.6764	WEIGHT TAKEN
LUNG (LU)	1.5976	.3438 %	.7242	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6894	.3635 %	.7658	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6342	.3517 %	.7408	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8111	.6049 %	1.2743	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LIVER (LI)	MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87717 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 381.0 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 7:59 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0388	.5842 %	1.0000	WEIGHT TAKEN
LIVER (LI)	25.1588	8.9895 %	12.3528	WEIGHT TAKEN
LUNG (LU)	1.3688	.3792 %	.6720	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8172	.4480 %	.7940	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6543	.4583 %	.8122	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.2787	.6312 %	1.1188	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL		
LIVER (LI)	MICRO: -MINIMAL		-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67718 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 479.7 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 8:40 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1511	.4484 %	1.0000	WEIGHT TAKEN
LIVER (LI)	34.0853	7.1014 %	15.8382	WEIGHT TAKEN
LUNG (LU)	1.5717	.3278 %	.7308	WEIGHT TAKEN
LF. TESTIS (TE0)	1.4320	.2985 %	.8657	WEIGHT TAKEN
RT. TESTIS (TE1)	1.5203	.3189 %	.7088	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.9688	.6184 %	1.3791	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -SLIGHT, FOCAL -SLIGHT	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRILOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67719 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 476.3 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 7:20 PROSECTOR: RUTH SCHMITZ RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1788	.4570 %	1.0000	WEIGHT TAKEN
LIVER (LI)	30.9586	6.4988 %	14.2221	WEIGHT TAKEN
LUNG (LU)	1.5670	.3280 %	.7199	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6091	.3378 %	.7392	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6220	.3405 %	.7451	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.0267	.6145 %	1.3445	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL -SLIGHT	-INFILTRATES MONONUCLEAR CELL -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOLOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67720 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 658.1 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 7:12 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9403	.2948 %	1.0000	WEIGHT TAKEN
LIVER (LI)	36.3471	5.5230 %	18.7327	WEIGHT TAKEN
LUNG (LU)	1.5044	.2286 %	.7753	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7913	.2722 %	.9232	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7786	.2703 %	.9167	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.4059	.6695 %	2.2707	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
LIVER (LI)	MICRO: -SLIGHT	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".
MANDIB/CERV LN (MN)	GROSS: -LARGE MICRO: -MODERATE, MULTI-FOCAL	-RIGHT: 15 X 10 MM (FOR COMPARISON, LEFT IS 7 X 3 X 2 MM) (CAP 6) -HYPERPLASIA, LYMPHORETICULAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87721 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 56 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 451.9 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 7:17 PROSECTOR: DENNIS HOFFMAN RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0855	.4615 %	1.0000	WEIGHT TAKEN
LIVER (LI)	28.5484	6.3174 %	13.6890	WEIGHT TAKEN
LUNG (LU)	1.4156	.3193 %	.6788	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8758	.4150 %	.8994	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8333	.4057 %	.8791	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8522	.6312 %	1.3676	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC) GROSS: -ALL TISSUES/ORGANS NORMAL
LIVER (LI) MICRO: -SLIGHT -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67722 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 429.8 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 8:57 PROSECTOR: NANCY DIEDRICH RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9811	.4809 %	1.0000	WEIGHT TAKEN
LIVER (LI)	25.0187	5.8210 %	12.6287	WEIGHT TAKEN
LUNG (LU)	1.5412	.3586 %	.7780	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6711	.3888 %	.8435	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6720	.3890 %	.8440	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.9523	.6869 %	1.4902	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL -SLIGHT, FOCAL -MINIMAL	-INFILTRATES MONONUCLEAR CELL -NECROSIS, COAGULATIVE -HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CO), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87723 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST POST-RECOV SAC
DATE OF DEATH: 05/17/91 STUDY DAY OF DEATH: 149 STUDY WEEK OF DEATH: 22 TERMINAL BODY WEIGHT: 561.3 GRAMS
DATE AND TIME OF NECROPSY: 05/17/91 8:51 PROSECTOR: DEBBIE PIRKEL RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DENNIS HOFFMAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1428	.3818 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.9088	3.0124 %	7.8910	WEIGHT TAKEN
LUNG (LU)	1.6659	.2968 %	.7774	WEIGHT TAKEN
LF. TESTIS (TEO)	2.0423	.3639 %	.9531	WEIGHT TAKEN
RT. TESTIS (TEI)	1.9492	.3473 %	.9097	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2844	.5851 %	1.5328	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -SLIGHT, FOCAL	-INFILTRATES, MONONUCLEAR CELL
PROSTATE (PR)	MICRO: -SLIGHT, FOCAL	-INFLAMMATION, CHRONIC ACTIVE

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), SEMINAL VESICLE (SV), URETHRA (UR)

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HWI 6329-100

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ANIMAL NUMBER: C67724 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 472.1 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 7:32 PROSECTOR: JULIE A. LARSEN RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1162	.4483 %	1.0000	WEIGHT TAKEN
LIVER (LI)	31.7972	6.7353 %	15.0256	WEIGHT TAKEN
LUNG (LU)	1.5794	.3345 %	.7463	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7527	.3713 %	.8282	WEIGHT TAKEN
RT. TESTIS (TE1)	1.7111	.3624 %	.8086	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2705	.6947 %	1.5497	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	OBSERVATIONS GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS: -ALL TISSUES/ORGANS NORMAL		
LIVER (LI)	MICRO: -MINIMAL	-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67725 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 348.6 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 9:08 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9228	.5548 %	1.0000	WEIGHT TAKEN
LIVER (LI)	22.9038	6.6081 %	11.9117	WEIGHT TAKEN
LUNG (LU)	1.3277	.3831 %	.8905	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7531	.5058 %	.9117	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7120	.4939 %	.8904	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.6365	.7607 %	1.3712	WEIGHT TAKEN

ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION OBSERVATIONS GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)

LIVER (LI)

GROSS: -ALL TISSUES/ORGANS NORMAL

MICRO: -SLIGHT

-HYPERTROPHY, HEPATOCELLULAR: CHARACTERIZED BY AN ACCENTUATED CENTRIOBLULATED PATTERN IN WHICH THE HEPATOCYTES APPEAR TO HAVE A MORE HOMOGENEOUS CYTOPLASM AND THE CELL BORDERS ARE MORE ROUNDED GIVING THE CELLS A MORE "PLUMP" APPEARANCE. EXCEPT FOR THIS "ENLARGED" APPEARANCE, THE CELLS ARE OTHERWISE "NORMAL".

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:

BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D

HWI 6329-100

INDIVIDUAL ANIMAL PATHOLOGY DATA

HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87728 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
 DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 371.4 GRAMS
 DATE AND TIME OF NECROPSY: 01/23/91 9:20 PROSECTOR: NANCY DIEDRICH RECORDER: JILL BEVAN
 POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0124	.5418 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.4989	4.4424 %	8.1988	WEIGHT TAKEN
LUNG (LU)	1.4624	.3938 %	.7267	WEIGHT TAKEN
LF. TESTIS (TEO)	1.2929	.3481 %	.6425	WEIGHT TAKEN
RT. TESTIS (TEI)	1.3782	.3705 %	.6839	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.4971	.6723 %	1.2409	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, FOCAL	-INFILTRATES, MONONUCLEAR CELL
PROSTATE (PR)	MICRO: -MODERATE, MULTI-FOCAL	-INFLAMMATION, CHRONIC ACTIVE
GENERAL INFORMATION (XX)	GROSS:	NECROPSY NOTE: ANIMAL DIED PRIOR TO EXSANGUINATION

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
 BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), SEMINAL VESICLE (SV), URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67727 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 388.9 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 7:09 PROSECTOR: NANCY DIEDRICH RECORDER: JACK SERFORT
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0154	.5182 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.3142	3.9378 %	7.5986	WEIGHT TAKEN
LUNG (LU)	1.6498	.4242 %	.8186	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8110	.4142 %	.7993	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5435	.3989 %	.7659	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8367	.7294 %	1.4075	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

PROSTATE (PR)	GROSS: -NOODULAR MICRO: -SLIGHT, FOCAL	-DIFFUSELY RED AND FIRM -INFLAMMATION, CHRONIC ACTIVE

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67728 SEX: MALE DOSE GROUP: 6 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
 DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 438.8 GRAMS
 DATE AND TIME OF NECROPSY: 02/13/91 7:30 PROSECTOR: DENNIS HOFFMAN RECORDER: KEVIN BILLINGS
 POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0153	.4593 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.4515	3.7492 %	8.1833	WEIGHT TAKEN
LUNG (LU)	1.3873	.3182 %	.6884	WEIGHT TAKEN
LF. TESTIS (TE0)	1.8152	.3881 %	.8015	WEIGHT TAKEN
RT. TESTIS (TE1)	1.8580	.3774 %	.8217	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.8721	.8389 %	1.8221	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
 ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)

GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI)

MICRO: -SLIGHT, FOCAL

-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:

BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67729 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 460.8 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 8:17 PROSECTOR: RUTH SCHMITZ RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0389	.4425 %	1.0000	WEIGHT TAKEN
LIVER (LI)	19.8395	4.3054 %	9.7305	WEIGHT TAKEN
LUNG (LU)	1.4868	.3227 %	.7292	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7331	.3761 %	.8500	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6801	.3648 %	.8240	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1071	.6743 %	1.5239	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87730 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 490.1 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 9:33 PROSECTOR: JACK SERFORT RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0387	.4180 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.3508	3.3382 %	8.0202	WEIGHT TAKEN
LUNG (LU)	1.5931	.3251 %	.7814	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6753	.3418 %	.8217	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8759	.3420 %	.8220	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.3668	.6869 %	1.6513	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION: BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)		

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ANIMAL NUMBER: C87731 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 448.5 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 7:20 PROSECTOR: NANCY DIEDRICH RECORDER: DENNIS HOFFMAN
POST-FIX WEAHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEAHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0238	.4512 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.1915	3.6101 %	8.0005	WEIGHT TAKEN
LUNG (LU)	1.8026	.3573 %	.7919	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7209	.3837 %	.8503	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7494	.3901 %	.8644	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5167	.7841 %	1.7377	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)

GROSS: -ALL TISSUES/ORGANS NORMAL

URETHRA (UR)

MICRO: -SECTION EXAMINED; TISSUE NOT PRESENT

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:

BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87732 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/28/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 532.2 GRAMS
DATE AND TIME OF NECROPSY: 03/28/91 7:52 PROSECTOR: DEBBIE PIRKEL RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2338	.4197 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.6333	2.9375 %	6.8991	WEIGHT TAKEN
LUNG (LU)	1.5758	.2981 %	.7054	WEIGHT TAKEN
LF. TESTIS (TEO)	2.0543	.3880 %	.9197	WEIGHT TAKEN
RT. TESTIS (TEI)	1.9868	.3733 %	.8895	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.2448	.4218 %	1.0050	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67733 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 384.1 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 7:33 PROSECTOR: NANCY DIEDRICH RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.8318	.4788 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.7275	4.3550 %	9.1327	WEIGHT TAKEN
LUNG (LU)	1.5339	.3993 %	.8375	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7851	.4585 %	.9837	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7714	.4612 %	.9671	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	1.8099	.4191 %	.8790	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -SLIGHT, FOCAL -SLIGHT, DIFFUSE	-NECROSIS COAGULATIVE -FATTY CHANGE

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C87734 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 416.5 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 8:35 PROSECTOR: KEVIN BILLINGS RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0770	.4987 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.5895	3.7382 %	7.4981	WEIGHT TAKEN
LUNG (LU)	1.4530	.3489 %	.6986	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5371	.3691 %	.7401	WEIGHT TAKEN
RT. TESTIS (TE1)	1.5238	.3659 %	.7337	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0402	.7299 %	1.4837	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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INDIVIDUAL ANIMAL PATHOLOGY DATA

HAZLETON LABORATORIES AMERICA, INC.
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ANIMAL NUMBER: C67735 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 36 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 383.7 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 7:53 PROSECTOR: DENNIS HOFFMAN RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9243	.5015 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.0568	4.4453 %	8.8638	WEIGHT TAKEN
LUNG (LU)	1.5482	.4035 %	.8048	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5107	.3937 %	.7851	WEIGHT TAKEN
RT. TESTIS (TEI)	1.4701	.3831 %	.7640	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.2190	.5783 %	1.1531	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL	-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67736 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 516.5 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 9:27 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1141	.4093 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.8738	3.0733 %	7.5085	WEIGHT TAKEN
LUNG (LU)	1.4705	.2847 %	.8958	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7649	.3417 %	.8348	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7359	.3381 %	.8211	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2384	.6270 %	1.5318	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)

GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI)

MICRO: -SLIGHT, FOCAL

-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:

BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87737 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/81 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 460.5 GRAMS
DATE AND TIME OF NECROPSY: 02/12/81 8:47 PROSECTOR: RUTH SCHMITZ RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1844	.4700 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.9088	3.4547 %	7.3502	WEIGHT TAKEN
LUNG (LU)	1.8510	.3585 %	.7628	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5674	.3404 %	.7242	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5173	.3285 %	.7010	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1873	.6921 %	1.4728	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:		
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)		

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ANIMAL NUMBER: C67738 SEX: MALE DOSE GROUP: 0 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 96 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 523.1 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 9:42 PROSECTOR: JACK SERFORT RECORDER: JOE N. KIZZIE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1388	.4091 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.0909	3.2672 %	7.9871	WEIGHT TAKEN
LUNG (LU)	1.8276	.3112 %	.7606	WEIGHT TAKEN
LF. TESTIS (TE0)	1.9505	.3729 %	.9115	WEIGHT TAKEN
RT. TESTIS (TE1)	1.7333	.3314 %	.8100	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.2127	.6142 %	1.5014	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL	-INFILTRATES, MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLO (CG), LF. TESTIS (TE0), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D

HWI 6329-100

INDIVIDUAL ANIMAL PATHOLOGY DATA

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67739 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 487.4 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 7:13 PROSECTOR: KEVIN BILLINGS RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1328	.4583 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.0550	3.4350 %	7.5273	WEIGHT TAKEN
LUNG (LU)	1.4085	.3009 %	.6594	WEIGHT TAKEN
LF. TESTIS (TEO)	1.4698	.3145 %	.6891	WEIGHT TAKEN
RT. TESTIS (TEI)	1.4416	.3084 %	.6759	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.0103	.4301 %	.9425	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC) GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67740 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 466.7 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 9:29 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1000	.4500 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.2555	3.2688 %	7.2845	WEIGHT TAKEN
LUNG (LU)	1.3691	.2934 %	.6520	WEIGHT TAKEN
LF. TESTIS (TE0)	1.6609	.3559 %	.7909	WEIGHT TAKEN
RT. TESTIS (TE1)	1.6389	.3514 %	.7808	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0985	.6635 %	1.4745	WEIGHT TAKEN

* * * P A T H O L O G Y O B S E R V A T I O N S * * *
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67741 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 393.5 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 7:30 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9498	.4955 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.8120	3.9875 %	8.0070	WEIGHT TAKEN
LUNG (LU)	1.5300	.3888 %	.7847	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8557	.4208 %	.8492	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7416	.4426 %	.8932	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8005	.7117 %	1.4363	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9377	5.020 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.1284	4.1778 %	8.3224	WEIGHT TAKEN
LUNG (LU)	1.2800	.3316 %	.6606	WEIGHT TAKEN
LF TESTIS (TEO)	1.6971	.4397 %	.8758	WEIGHT TAKEN
RT TESTIS (TEI)	1.6902	.4379 %	.8723	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8718	.7440 %	1.4821	WEIGHT TAKEN

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C87743 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 56 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 438.9 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 7:17 PROSECTOR: JULIE A. LARSEN RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2613	.5152 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.8532	4.0221 %	7.8087	WEIGHT TAKEN
LUNG (LU)	1.6951	.3862 %	.7496	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6251	.3703 %	.7187	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5289	.3483 %	.6761	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.2889	.5211 %	1.0113	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -SLIGHT, MULTI-FOCAL	-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87744 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/28/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 503.7 GRAMS
DATE AND TIME OF NECROPSY: 03/28/91 8:51 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHTER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHTER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2132	.4394 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.5820	3.2920 %	7.4923	WEIGHT TAKEN
LUNG (LU)	1.5768	.3130 %	.7125	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6972	.3369 %	.7669	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7381	.3451 %	.7853	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.6774	.9288 %	2.1134	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67745 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 396.0 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 9:07 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0090	.5073 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.1598	3.8282 %	7.5459	WEIGHT TAKEN
LUNG (LU)	1.5159	.3828 %	.7548	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7783	.4491 %	.8852	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7378	.4388 %	.8650	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.4131	.6094 %	1.2011	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)

GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:

BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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MADISON, WISCONSIN U S A.

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ANIMAL NUMBER: C67746 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 98 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 474.3 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 8:27 PROSECTOR: JACK SERFORT RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1138	.4458 %	1.0000	WEIGHT TAKEN
LIVER (LI)	14.3227	3.0198 %	6.7784	WEIGHT TAKEN
LUNG (LU)	1.7248	.3637 %	.8180	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8021	.3378 %	.7580	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5788	.3324 %	.7460	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.4288	.7228 %	1.8223	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
LIVER (LI) GROSS: -ALL TISSUES/ORGANS NORMAL
 MICRO: -MINIMAL, FOCAL -INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67747 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/26/91 STUDY DAY OF DEATH: 97 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 536.4 GRAMS
DATE AND TIME OF NECROPSY: 03/26/91 8:19 PROSECTOR: STEVE VAN ADESTINE RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1360	.3982 %	1.0000	WEIGHT TAKEN
LIVER (LI)	20.8888	3.8943 %	9.7794	WEIGHT TAKEN
LUNG (LU)	1.4978	.2792 %	.7012	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6121	.3005 %	.7547	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5408	.2872 %	.7213	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.5381	.6592 %	1.6555	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS: -ALL TISSUES/ORGANS NORMAL		
GENERAL INFORMATION (XX)		
GROSS:		NECROPSY NOTE: ANIMAL DIED PRIOR TO EXSANGUINATION; BLOOD SAMPLE COLLECTED
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:		
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)		

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ANIMAL NUMBER: C67748 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 503.4 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 0:00 PROSECTOR: KEVIN BILLINGS RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1320	.4235 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.8957	3.1715 %	7.5027	WEIGHT TAKEN
LUNG (LU)	1.8252	.3228 %	.7623	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8987	.3378 %	.7972	WEIGHT TAKEN
RT. TESTIS (TE1)	1.7398	.3458 %	.8159	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.7221	.7394 %	1.7458	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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HWI 6329-100

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ANIMAL NUMBER: C87749 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 83 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 495.6 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 8:12 PROSECTOR: KEVIN BILLINGS RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1303	.4288 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.2508	3.2780 %	7.6284	WEIGHT TAKEN
LUNG (LU)	1.5980	.3224 %	.7501	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6322	.3293 %	.7882	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5716	.3171 %	.7377	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8874	.5828 %	1.3554	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, MULTI-FOCAL	-INFILTRATES, MONONUCLEAR CELL
PROSTATE (PR)	MICRO: -SLIGHT, FOCAL	-INFLAMMATION, CHRONIC ACTIVE

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87750 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
 DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 448.0 GRAMS
 DATE AND TIME OF NECROPSY: 02/13/91 7:15 PROSECTOR: RUTH SCHMITZ RECORDER: KEVIN BILLINGS
 POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9788	.4419 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.5428	3.4694 %	7.8515	WEIGHT TAKEN
LUNG (LU)	1.3520	.3018 %	.8830	WEIGHT TAKEN
LF. TESTIS (TEO)	1.4122	.3152 %	.7134	WEIGHT TAKEN
RT. TESTIS (TEI)	13.4880	3.0058 %	8.8024	EXCLUDE
ACCESS/SEX ORG (SO)	2.8175	.5843 %	1.3222	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
 ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
 GENERAL COMMENT (GC) GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
 BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
 URETHRA (UR)

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ANIMAL NUMBER: C67751 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 387.0 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 8:15 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0547	.5309 %	1.0000	WEIGHT TAKEN
LIVER (LI)	14.2522	3.6827 %	6.9384	WEIGHT TAKEN
LUNG (LU)	1.5778	.4077 %	.7679	WEIGHT TAKEN
LF. TESTIS (TEO)	1.4513	.3750 %	.7083	WEIGHT TAKEN
RT. TESTIS (TEI)	1.4922	.3858 %	.7282	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.4998	.6459 %	1.2166	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67752 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 490.0 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 7:18 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1800	.4449 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.8719	3.8514 %	8.6568	WEIGHT TAKEN
LUNG (LU)	1.5844	.3233 %	.7268	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7874	.3607 %	.8107	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7358	.3542 %	.7981	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.0811	.5431 %	1.2207	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67753 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 475.7 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 7:47 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN S T A T U S
BRAIN (BR)	1.8936	.4191 %	1.0000	WEIGHT TAKEN
LIVER (LI)	21.3720	4.4927 %	10.7203	WEIGHT TAKEN
LUNG (LU)	1.8053	.3775 %	.8052	WEIGHT TAKEN
LF. TESTIS (TE0)	1.8930	.3559 %	.8492	WEIGHT TAKEN
RT. TESTIS (TE1)	1.7542	.3688 %	.8799	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.1831	.6691 %	1.5967	WEIGHT TAKEN

* * * P A T H O L O G Y O B S E R V A T I O N S * * *

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:		
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),		
URETHRA (UR)		

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ANIMAL NUMBER: C67754 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 96 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 546.3 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 7:56 PROSECTOR: JACK SERFORT RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1798	.3990 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.1830	3.3284 %	8.3416	WEIGHT TAKEN
LUNG (LU)	1.7289	.3187 %	.7936	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7984	.3292 %	.8250	WEIGHT TAKEN
RT. TESTIS (TEI)	1.8086	.3311 %	.8297	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	4.4033	.8080 %	2.0200	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)

GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI)

MICRO: -MINIMAL, FOCAL

-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:

BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C87755 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 473.7 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 9:27 PROSECTOR: KEVIN BILLINGS RECORDER: JOE N. KIZZIEEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1551	.4550 %	1.0000	WEIGHT TAKEN
LIVER (LI)	13.9650	2.9481 %	6.4800	WEIGHT TAKEN
LUNG (LU)	1.7195	.3630 %	.7979	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7228	.3637 %	.7984	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7385	.3670 %	.8067	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.2831	.4820 %	1.0594	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
LIVER (LI) GROSS: -ALL TISSUES/ORGANS NORMAL
 MICRO: -MINIMAL, FOCAL -INFILTRATES, MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67756 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/28/91 STUDY DAY OF DEATH: 87 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 490.0 GRAMS
DATE AND TIME OF NECROPSY: 03/28/91 7:10 PROSECTOR: STEVE VAN ADESTINE RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JOE N. KIZZIEE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0271	.4137 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.3285	3.3323 %	8.0551	WEIGHT TAKEN
LUNG (LU)	1.5033	.3088 %	.7418	WEIGHT TAKEN
LF. TESTIS (TE0)	1.5453	.3154 %	.7623	WEIGHT TAKEN
RT. TESTIS (TE1)	1.5535	.3170 %	.7684	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0085	.6138 %	1.4832	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)

GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI)

MICRO: -MINIMAL, FOCAL

-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:

BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67757 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 403.1 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 9:23 PROSECTOR: DENNIS HOFFMAN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1807	.5410 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.2709	4.0384 %	7.4813	WEIGHT TAKEN
LUNG (LU)	1.5378	.3815 %	.7052	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8187	.4018 %	.7423	WEIGHT TAKEN
RT. TESTIS (TE1)	1.8308	.4048 %	.7478	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.9108	.7221 %	1.3348	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67758 SEX: MALE DOSE GROUP: 6 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/14/91 STUDY DAY OF DEATH: 57 STUDY WEEK OF DEATH: 9 TERMINAL BODY WEIGHT: 445.6 GRAMS
DATE AND TIME OF NECROPSY: 02/14/91 9:01 PROSECTOR: RUTH SCHMITZ RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: VAL QUINN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1977	.4932 %	1.0000	WEIGHT TAKEN
LIVER (LI)	14.8527	3.2883 %	6.8873	WEIGHT TAKEN
LUNG (LU)	1.5914	.3571 %	.7241	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5823	.3551 %	.7200	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6445	.3691 %	.7483	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.9298	.6575 %	1.3330	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -MINIMAL, MULTI-FOCAL	-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67759 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/24/91 STUDY DAY OF DEATH: 38 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 402.3 GRAMS
DATE AND TIME OF NECROPSY: 01/24/91 7:08 PROSECTOR: KEVIN BILLINGS RECORDER: VAL QUINN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: DEBBIE PIRKEL

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0779	.5185 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.2773	3.7875 %	7.3523	WEIGHT TAKEN
LUNG (LU)	1.4004	.3481 %	.8739	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5886	.3949 %	.7845	WEIGHT TAKEN
RT. TESTIS (TEI)	1.4905	.3705 %	.7173	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	1.0775	.4015 %	.9517	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***
ORGAN NAME KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67760 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/22/91 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 496.1 GRAMS
DATE AND TIME OF NECROPSY: 03/22/91 8:49 PROSECTOR: RUTH SCHMITZ RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1114	.4258 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.8452	3.1538 %	7.4099	WEIGHT TAKEN
LUNG (LU)	1.8650	.3358 %	.7886	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5840	.3153 %	.7407	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5850	.3155 %	.7412	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.7857	.5575 %	1.3089	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67761 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 391.9 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 7:45 PROSECTOR: JULIE A. LARSEN RECORDER: JACK SERFORT
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0687	.5279 %	1.0000	WEIGHT TAKEN
LIVER (LI)	15.4561	3.9439 %	7.4714	WEIGHT TAKEN
LUNG (LU)	1.4140	.3808 %	.8835	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5977	.4077 %	.7723	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5825	.4064 %	.7698	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8981	.6880 %	1.3033	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C87762 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/23/91 STUDY DAY OF DEATH: 35 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 388.8 GRAMS
DATE AND TIME OF NECROPSY: 01/23/91 8:21 PROSECTOR: NANCY DIEDRICH RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: GAIL M. NOVAK

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0710	.5327 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.7585	4.3103 %	8.0920	WEIGHT TAKEN
LUNG (LU)	1.5928	.4097 %	.7891	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6789	.4313 %	.8097	WEIGHT TAKEN
RT. TESTIS (TEI)	1.6002	.4118 %	.7727	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8827	.8849 %	1.2857	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)

LIVER (LI)

GROSS: -ALL TISSUES/ORGANS NORMAL

MICRO: -MINIMAL, FOCAL

-INFILTRATES, MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:

BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

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ANIMAL NUMBER: C67763 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 56 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 479.9 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 8:38 PROSECTOR: RUTH SCHMITZ RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0385	.4248 %	1.0000	WEIGHT TAKEN
LIVER (LI)	18.8615	3.8303 %	9.2528	WEIGHT TAKEN
LUNG (LU)	1.6338	.3404 %	.8015	WEIGHT TAKEN
LF. TESTIS (TEO)	1.7633	.3674 %	.8650	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7638	.3675 %	.8651	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.4933	.5195 %	1.2231	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	PATHOLOGY OBSERVATIONS	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
MANDIB/CERV LN (MN)	GROSS: -LARGE MICRO: -MODERATE, MULTI-FOCAL	-RIGHT: UP TO 19 X 9 X 5 MM (FOR COMPARISON LEFT IS 6 X 3 X 2 MM) (CAP 6) -HYPERPLASIA, LYMPHORETICULAR CELL	

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

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ANIMAL NUMBER: C67764 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 6 TERMINAL BODY WEIGHT: 392.0 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 9:17 PROSECTOR: NANCY DIEDRICH RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9914	.5080 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.5557	4.2234 %	8.3138	WEIGHT TAKEN
LUNG (LU)	1.7763	.4531 %	.8920	WEIGHT TAKEN
LF. TESTIS (TE0)	1.6393	.4182 %	.8232	WEIGHT TAKEN
RT. TESTIS (TE1)	1.6390	.4181 %	.8230	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.4532	.6258 %	1.2319	WEIGHT TAKEN

ORGAN NAME *** PATHOLOGY OBSERVATIONS ***
KEYWORDS, SEVERITY, DISTRIBUTION GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC) GROSS: -ALL TISSUES/ORGANS NORMAL

URETHRA (UR) MICRO: -SECTION EXAMINED; TISSUE NOT PRESENT

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TE0), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
PAGE: 320

ANIMAL NUMBER: C87785 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/13/91 STUDY DAY OF DEATH: 58 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 439.3 GRAMS
DATE AND TIME OF NECROPSY: 02/13/91 8:45 PROSECTOR: DENNIS HOFFMAN RECORDER: KEVIN BILLINGS
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: JILL BEVAN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1586	.4816 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.4708	3.7493 %	7.6288	WEIGHT TAKEN
LUNG (LU)	1.7457	.3874 %	.8083	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5518	.3532 %	.7188	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5485	.3525 %	.7170	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.9217	.6651 %	1.3528	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)	GROSS: -ALL TISSUES/ORGANS NORMAL	
THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION: BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)		

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C87786 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 392.4 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 7:20 PROSECTOR: KEVIN BILLINGS RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	1.9598	.4994 %	1.0000	WEIGHT TAKEN
LIVER (LI)	12.4009	3.1603 %	6.3278	WEIGHT TAKEN
LUNG (LU)	1.4526	.3702 %	.7412	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5927	.4059 %	.8127	WEIGHT TAKEN
RT. TESTIS (TEI)	1.5825	.3982 %	.7973	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.8584	.7279 %	1.4575	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -MINIMAL, FOCAL	-INFILTRATES MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67767 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, TERMINAL SACRIFICE
DATE OF DEATH: 03/25/91 STUDY DAY OF DEATH: 96 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 503.9 GRAMS
DATE AND TIME OF NECROPSY: 03/25/91 7:45 PROSECTOR: JULIE A. LARSEN RECORDER: JOE N. KIZZIEE
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: STEVE VAN ADESTINE

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.2220	.4410 %	1.0000	WEIGHT TAKEN
LIVER (LI)	16.1837	3.2117 %	7.2834	WEIGHT TAKEN
LUNG (LU)	1.5364	.3049 %	.6914	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8959	.3388 %	.7832	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7503	.3474 %	.7877	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	3.0260	.6005 %	1.3618	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
LIVER (LI)	GROSS: -ALL TISSUES/ORGANS NORMAL MICRO: -SLIGHT, FOCAL	-INFILTRATES, MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67768 SEX: MALE DOSE GROUP: 6 SACRIFICE STATUS: SCHEDULED, SECOND INTERIM SACRIFICE
DATE OF DEATH: 02/12/91 STUDY DAY OF DEATH: 55 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 437.3 GRAMS
DATE AND TIME OF NECROPSY: 02/12/91 8:28 PROSECTOR: NANCY DIEDRICH RECORDER: DENNIS HOFFMAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0700	.4734 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.7753	4.0848 %	8.5871	WEIGHT TAKEN
LUNG (LU)	1.7744	.4058 %	.8572	WEIGHT TAKEN
LF. TESTIS (TEO)	1.8289	.4178 %	.8828	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7633	.4032 %	.8518	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.7252	.8232 %	1.3185	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

LIVER (LI)
MICRO: -MINIMAL, FOCAL -INFILTRATES, MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

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ANIMAL NUMBER: C67769 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 402.7 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 7:19 PROSECTOR: NANCY DIEDRICH RECORDER: JACK SERFORT
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.1204	.5285 %	1.0000	WEIGHT TAKEN
LIVER (LI)	17.3502	4.3085 %	8.1825	WEIGHT TAKEN
LUNG (LU)	1.7430	.4328 %	.8220	WEIGHT TAKEN
LF. TESTIS (TEO)	1.6998	.4221 %	.8015	WEIGHT TAKEN
RT. TESTIS (TEI)	1.7401	.4321 %	.8206	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.2768	.5654 %	1.0738	WEIGHT TAKEN

*** PATHOLOGY OBSERVATIONS ***

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

GENERAL COMMENT (GC)
GROSS: -ALL TISSUES/ORGANS NORMAL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LIVER (LI), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV),
URETHRA (UR)

APPENDIX D
INDIVIDUAL ANIMAL PATHOLOGY DATA

HWI 6329-100

HAZLETON LABORATORIES AMERICA, INC.
MADISON, WISCONSIN U.S.A.

PRINTED: 18-OCT-91
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ANIMAL NUMBER: C67770 SEX: MALE DOSE GROUP: 8 SACRIFICE STATUS: SCHEDULED, FIRST INTERIM SACRIFICE
DATE OF DEATH: 01/25/91 STUDY DAY OF DEATH: 37 STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 362.5 GRAMS
DATE AND TIME OF NECROPSY: 01/25/91 8:53 PROSECTOR: JULIE A. LARSEN RECORDER: JILL BEVAN
POST-FIX WEIGHER: NOT AVAILABLE PATHOLOGIST: DR. TOM PALMER WEIGHER: PATHOLOGY DEPARTMENT

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GRAMS)	ORGAN WEIGHT RELATIVE TO BODY WEIGHT (%)	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
BRAIN (BR)	2.0136	.5555 %	1.0000	WEIGHT TAKEN
LIVER (LI)	13.0996	3.6137 %	6.5056	WEIGHT TAKEN
LUNG (LU)	1.5011	.4141 %	.7455	WEIGHT TAKEN
LF. TESTIS (TEO)	1.5705	.4332 %	.7799	WEIGHT TAKEN
RT. TESTIS (TEI)	1.4855	.4098 %	.7377	WEIGHT TAKEN
ACCESS/SEX ORG (SO)	2.6226	.7235 %	1.3024	WEIGHT TAKEN

ORGAN NAME	KEYWORDS, SEVERITY, DISTRIBUTION	GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
GENERAL COMMENT (GC)		
GROSS:	-ALL TISSUES/ORGANS NORMAL	
LIVER (LI)	MICRO: -SLIGHT, FOCAL	-INFILTRATES, MONONUCLEAR CELL

THE FOLLOWING TISSUES WERE UNREMARKABLE AT MICROSCOPIC EXAMINATION:
BRAIN (BR), COAGULATING GLD (CG), LF. TESTIS (TEO), LUNG (LU), PROSTATE (PR), SEMINAL VESICLE (SV), URETHRA (UR)

HWI 6329-100

APPENDIX E

Quality Assurance Statement
Individual Hormone Analysis Data



TRUE & EXACT COPY
Bland 6/17/91

CORNING Laboratory Services Company

HWI 6329-100

QUALITY ASSURANCE UNIT

Project No.: 2200-164

Project Title: rLH; rapid Estradiol; rapid Testosterone

Assay Run No.: 17, 18, 19, 20, 22, 23, 86, 87, 88, 90, 92, 1266, 1277, 1293, 1294, 1304

This report has been inspected by the Quality Assurance Unit and accurately reflects the data generated during the conduct of the study.

<u>Inspection/Date</u>	<u>Findings Reported</u>	<u>Auditor</u>
2/28/91	2/28/91	D. Bland
4/29, 30/91	5/7/91	B. Yeatts
4/30/91; 5/1/91	5/3/91	B. Yeatts
5/1, 2/91	5/6/91	B. Yeatts
6/12/91	6/12/91	B. Yeatts
6/12/91	6/14/91	B. Yeatts

Desiree Bland for
Quality Assurance Unit
Christopher M. Lee

6-17-91
Date Released

Individual Hormone Data
Week 5

<u>Animal Number</u>	<u>Estradiol (pg/mL)</u>	<u>Testosterone (ng/mL)</u>	<u>Luteinizing (ng/mL)</u>
<u>0 ppm T-5180</u>			
C67457	<20.0	77,000	0.4
C67461	20.1	106,000	0.9
C67464	<20.0	25,000	0.5
C67468	<20.0	48,000	0.6
C67476	<20.0	211,000 ^a	0.6
C67491	<20.0	45,000	0.3
C67492	<20.0	85,000	0.3
C67500	<20.0	45,000	0.4
C67502	<20.0	19,000	0.5
C67503	<20.0	63,000	0.3
<u>1 ppm T-5180</u>			
C67511	<20.0	55,000	0.4
C67514	<20.0	35,000	1.0
C67515	<20.0	45,000	0.7
C67524	20.7	29,000	0.5
C67525	<20.0	27,000	0.9
C67544	<20.0	289,000 ^a	1.2
C67550	<20.0	-	0.4
C67555	<20.0	36,000	0.5
C67558	21.3	64,000	0.7
C67559	<20.0	16,000	0.4
<u>10 ppm T-5180</u>			
C67562	-	-	0.6
C67568	<20.0	63,000	0.6
C67569	<20.0	28,000	0.4
C67574	<20.0	117,000	0.6
C67576	<20.0	60,000	0.5
C76591	<20.0	66,000	0.5
C67592	<20.0	85,000	0.6
C67595	<20.0	47,000	0.5
C67597	<20.0	16,000	1.0
C67601	<20.0	82,000	0.6

^a Ressay value.

Individual Hormone Data
Week 5

<u>Animal Number</u>	<u>Estradiol (pg/mL)</u>	<u>Testosterone (ng/mL)</u>	<u>Luteinizing (ng/mL)</u>
<u>30 ppm T-5180</u>			
C67627	-	25,000	0.6
C67630	28.8	46,000	0.6
C67632	24.5	82,000	0.5
C67633	21.7	39,000	0.4
C67636	<20.0	42,000	0.3
C67640	<20.0	16,000	0.7
C67648	<20.0	76,000	0.6
C67654	<20.0	82,000	1.0
C67659	32.0	43,000	0.6
C67663	<20.0	51,000	0.4
<u>100 ppm T-5180</u>			
C67675	24.1	10,000	<0.3
C67681	25.7	10,000	0.4
C67682	31.3	45,000	0.6
C67687	46.3	13,000	0.5
C67690	38.8	19,000	<0.3
C67696	52.6	24,000	0.7
C67698	36.5	70,000	0.4
C67713	23.1	50,000	0.6
C67715	25.8	18,000	0.4
C67717	32.7	65,000	0.6
<u>0 ppm T-5180^b</u>			
C67727	<20.0	7,000	0.3
C67733	<20.0	48,000	0.6
C67735	<20.0	104,000	0.5
C67741	<20.0	40,000	0.7
C67742	22.5	7,000	0.3
C67751	<20.0	63,000	0.7
C67759	<20.0	26,000	0.4
C67761	<20.0	22,000	0.7
C67762	20.1	82,000	0.5
C67769	<20.0	22,000	0.9

^b Animals were pair-fed with the high-dose animals throughout treatment.

Individual Hormone Data
Week 8

<u>Animal Number</u>	<u>Estradiol (pg/mL)</u>	<u>Testosterone (ng/mL)</u>	<u>Luteinizing (ng/mL)</u>
<u>0 ppm T-5180</u>			
C67455	<20.0	28,300	0.4
C67458	<20.0	50,100	0.6
C67463	<20.0	149,700	0.4
C67466	22.6	29,800	0.7
C67472	<20.0	34,300	0.7
C67478	<20.0	4,820	<0.3
C67481	<20.0	30,700	0.4
C67484	<20.0	32,500	0.5
C67495	<20.0	40,700	0.6
C67498	<20.0	64,700	0.6
<u>1 ppm T-5180</u>			
C67512	<20.0	12,200	0.4
C67531	<20.0	227,700 ^a	0.9
C67532	<20.0	68,400	0.5
C67539	<20.0	33,100	0.6
C67540	<20.0	18,500	0.5
C67542	-	19,900	0.7
C67545	<20.0	14,700	0.4
C67554	<20.0	7,430	0.7
C67557	<20.0	73,200	0.5
C67560	<20.0	24,000	<0.3
<u>10 ppm T-5180</u>			
C67570	<20.0	2,840	<0.3
C67578	<20.0	50,600	0.5
C67581	<20.0	44,300	0.6
C67582	<20.0	35,300	0.5
C67584	34.2	86,300	0.5
C67585	<20.0	24,100	0.4
C67586	<20.0	15,900	<0.3
C67587	<20.0	41,800	0.4
C67594	<20.0	22,800	0.4
C67614	<20.0	35,900	0.3

a Ressay value.

Individual Hormone Data
Week 8

<u>Animal Number</u>	<u>Estradiol (pg/mL)</u>	<u>Testosterone (ng/mL)</u>	<u>Luteinizing (ng/mL)</u>
<u>30 ppm T-5180</u>			
C67617	20.4	47,900	0.4
C67629	34.3	12,200	0.4
C67634	23.9	38,800	0.4
C67639	34.1	252,000 ^a	0.6
C67644	24.4	286,200 ^a	0.4
C67647	<20.0	32,300	0.5
C67656	<20.0	9,800	0.4
C67661	<20.0	14,300	0.5
C67662	<20.0	21,400	<0.3
C67667	37.3	23,200	0.8
<u>100 ppm T-5180</u>			
C67680	<20.0	26,100	0.6
C67699	<20.0	73,900	0.6
C67703	32.4	91,700	0.5
C67708	29.3	25,900	0.7
C67709	<20.0	35,800	0.3
C67710	<20.0	26,600	0.4
C67711	<20.0	62,000	0.4
C67721	32.4	37,000	0.6
C67722	33.7	134,800	0.6
C67724	55.0	43,000	0.5
<u>0 ppm T-5180^b</u>			
C67728	<20.0	42,400	0.4
C67729	<20.0	11,500	0.5
C67734	<20.0	23,200	0.3
C67737	<20.0	47,400	<0.3
C67739	20.6	10,700	0.4
C67743	<20.0	18,000	0.3
C67750	<20.0	26,300	0.7
C67752	20.6	10,800	0.5
C67753	20.4	138,800	0.8
C67768	<20.0	15,000	0.8

a Ressay value.

b Animals were pair-fed with the high-dose animals throughout treatment.

Individual Hormone Data
Week 14

<u>Animal Number</u>	<u>Estradiol (pg/mL)</u>	<u>Testosterone (ng/mL)</u>	<u>Luteinizing (ng/mL)</u>
<u>0 ppm T-5180</u>			
C67460	<20.0	32,200	0.5
C67470	<20.0	37,200	0.4
C67473	<20.0	48,200	0.4
C67475	<20.0	7,960	0.4
C67485	<20.0	21,200	0.4
C67487	<20.0	17,200	0.3
C67488	<20.0	24,100	0.4
C67499	<20.0	8,820	<0.2
C67504	<20.0	30,600	0.3
C67505	<20.0	18,300	0.3
<u>1 ppm T-5180</u>			
C67507	<20.0	67,200	0.5
C67519	<20.0	4,990	0.6
C67521	<20.0	23,800	0.3
C67523	<20.0	88,000	0.5
C67533	<20.0	10,000	0.3
C67535	<20.0	24,200	0.4
C67536	<20.0	26,400	0.5
C67549	<20.0	16,200	0.4
C67553	<20.0	63,600	0.5
C67556	<20.0	32,100	0.5
<u>10 ppm T-5180</u>			
C67563	20.4	22,200	0.4
C67564	<20.0	30,400	0.3
C67571	<20.0	19,000	0.6
C67596	<20.0	43,400	0.4
C67598	22.2	7,850	0.3
C67607	<20.0	50,300	0.6
C67608	20.1	16,100	0.6
C67611	<20.0	76,400	0.6
C67613	<20.0	6,230	0.3
C67615	<20.0	42,900	0.3

Individual Hormone Data
Week 14

<u>Animal Number</u>	<u>Estradiol (pg/mL)</u>	<u>Testosterone (ng/mL)</u>	<u>Luteinizing (ng/mL)</u>
<u>30 ppm T-5180</u>			
C67616	<20.0	18,000	0.4
C67618	<20.0	53,100	0.3
C67621	<20.0	10,200	0.3
C67623	23.7	13,000	0.5
C67624	29.6	7,470	0.8
C67641	<20.0	16,700	0.3
C67643	<20.0	51,500	0.3
C67652	<20.0	47,400	0.5
C67658	<20.0	11,800	<0.2
C67668	<20.0	6,600	0.7

<u>100 ppm T-5180</u>			
C67672	<20.0	7,670	0.3
C67673	<20.0	7,420	0.4
C67686	<20.0	29,700	0.5
C67688	<20.0	3,560	1.8
C67691	25.4	23,500	0.5
C67695	31.7	27,800	0.5
C67697	24.6	42,000	0.3
C67700	31.0	2,480	0.5
C67712	<20.0	39,700	0.3
C67720	<20.0	20,300	0.4

<u>0 ppm T-5180^b</u>			
C67732	<20.0	19,200	0.5
C67744	<20.0	58,500	0.6
C67746	<20.0	6,830	0.3
C67747	<20.0	13,200	0.4
C67748	<20.0	12,800	0.7
C67749	<20.0	16,400	0.4
C67754	<20.0	26,800	0.4
C67756	<20.0	5,590	0.3
C67760	<20.0	5,900	0.5
C67767	<20.0	29,400	0.3

b Animals were pair-fed with the high-dose animals throughout treatment.

Individual Hormone Data
Week 22

<u>Animal Number</u>	<u>Estradiol (pg/mL)</u>	<u>Testosterone (ng/mL)</u>	<u>Luteinizing (ng/mL)</u>
<u>0 ppm T-5180</u>			
C67453	<20.0	7,480	0.4
C67456	<20.0	10,800	0.4
C67483	<20.0	11,300	0.3
C67490	<20.0	8,850	0.5
C67496	<20.0	5,140	0.4
<u>1 ppm T-5180</u>			
C67508	26.0	21,800	0.4
C67516	25.7	15,500	<0.3
C67534	34.9	17,500	0.3
C67538	<20.0	23,600	0.4
C67543	<20.0	30,000	0.5
<u>10 ppm T-5180</u>			
C67567	29.8	16,500	0.5
C67575	25.8	3,940	0.7
C67579	22.0	21,000	0.4
C67589	27.7	3,390	0.4
C67593	21.1	14,900	0.5
<u>30 ppm T-5180</u>			
C67626	<20.0	17,800	0.5
C67628	21.0	5,830	0.4
C67637	33.5	9,170	1.1
C67664	21.4	20,100	0.3
C67670	<20.0	15,400	0.4
<u>100 ppm T-5180</u>			
C67674	<20.0	29,500	0.7
C67678	<20.0	8,190	<0.3
C67683	27.1	6,130	0.4
C67694	27.2	101,000	0.9
C67701	23.3	34,500	0.5

APPENDIX F

Results of Individual Test Material Residue Analyses

Results of Individual Test Material Residue Analyses
Week 5 - Males

<u>Animal Number</u>	<u>T-5180 (ppm)</u>	<u>Mean (ppm)</u>
	<u>Group 1</u>	
C67457	-	-
C67461	-	-
C67464	a	-
C67468	a	-
C67476	-	-
C67491	-	-
C67492	-	-
C67500	a	-
C67502	a	-
C67503	a	-
	-	-
	<u>Group 2</u>	
C67511	8.33	8.23
	8.12	
C67514	6.35	6.61
	6.87	
C67515	6.66	6.82
	6.98	
C67524	6.81	6.88
	6.95	
C67525	6.69	7.24
	7.79	
C67544	5.85	5.83
	5.81	

a Below the limit of detection.

Results of Individual Test Material Residue Analyses
Week 5 - Males

<u>Animal Number</u>	<u>T-5180 (ppm)</u>	<u>Mean (ppm)</u>
<u>Group 2 (Continued)</u>		
C67550	7.78	-
C67555	-	-
	5.88	5.98
	6.07	
C67558	11.5	-
	-	-
C67559	4.46	4.71
	4.96	
<u>Group 3</u>		
C67562	-	-
	-	-
C67568	46.4	46.0
	45.5	
C67569	54.8	55.5
	56.2	
C67574	57.3	57.3
	57.3	
C67576	41.2	41.4
	41.6	
C67591	54.1	54.3
	54.5	
C67592	53.2	53.5
	53.7	
C67595	64.6	65.2
	65.9	
C67597	65.4	66.3
	67.2	
C67601	58.9	59.3
	59.8	
<u>Group 4</u>		
C67627	-	-
	-	-
C67630	91.7	92.2
	92.6	

Results of Individual Test Material Residue Analyses
Week 5 - Males

<u>Animal Number</u>	<u>T-5180 (ppm)</u>	<u>Mean (ppm)</u>
<u>Group 4 (Continued)</u>		
C67632	99.1	102
	105	
C67633	97.3	98.0
	98.7	
C67636	77.6	77.9
	78.1	
C67640	113	107
	101	
C67648	113	111
	109	
C67654	124	123
	122	
C67659	116	117
	117	
C67663	89.5	-
	-	
<u>Group 5</u>		
C67675	138	136
	133	
C67681	151	151
	150	
C67682	142	140
	137	
C67687	137	142
	147	
C67690	113	114
	115	
C67696	202	207
	211	
C67698	157	157
	156	
C67713	159	171
	183	
C67715	171	167
	163	
C67717	209	208
	206	

Results of Individual Test Material Residue Analyses
Week 5 - Males

<u>Animal Number</u>	<u>T-5180 (ppm)</u>	<u>Mean (ppm)</u>
	<u>Group 6</u>	
C67727	-	-
	-	
C67733	a	-
	-	
C67735	a	-
	-	
C67741	a	-
	-	
C67742	-	-
	-	
C67751	a	-
	-	
C67759	a	-
	-	
C67761	-	-
	-	
C67762	a	-
	-	
C67769	-	-
	-	

a Below the limit of detection.

Results of Individual Test Material Residue Analyses
Week 8 - Males

<u>Animal Number</u>	<u>T-5180 (ppm)</u>	<u>Mean (ppm)</u>
	<u>Group 1</u>	
C67455	-	-
	-	
C67458	a	-
	-	
C67463	-	-
	-	
C67466	a	-
	a	
C67472	a	-
	a	
C67478	-	-
	-	
C67481	a	-
	a	
C67484	a	-
	a	
C67495	a	-
	-	
C67498	-	-
	-	
	<u>Group 2</u>	
C67512	6.46	6.72
	6.97	
C67531	8.04	8.09
	8.13	
C67532	5.26	5.31
	5.36	
C67539	6.85	6.81
	6.77	
C67540	7.22	7.56
	7.89	
C67542	-	-
	-	
C67545	6.51	7.03
	7.55	

a Below the limit of detection.

Results of Individual Test Material Residue Analyses
Week 8 - Males

<u>Animal Number</u>	<u>T-5180 (ppm)</u>	<u>Mean (ppm)</u>
<u>Group 2 (Continued)</u>		
C67554	10.1	10.0
	9.96	
C67557	7.70	7.89
	8.07	
C67560	7.55	7.69
	7.82	
<u>Group 3</u>		
C67570	60.8	60.6
	60.3	
C67578	24.5	24.5
	24.4	
C67581	39.0	39.4
	39.9	
C67582	42.9	42.7
	42.5	
C67584	63.0	62.7
	62.5	
C67585	49.3	49.8
	50.2	
C67586	24.4	24.7
	24.9	
C67587	32.9	34.8
	36.8	
C67594	43.7	42.8
	41.9	
C67614	73.4	73.4
	73.4	
<u>Group 4</u>		
C67617	89.3	91.3
	93.3	
C67629	105	106
	107	
C67634	81.7	83.7
	85.7	

Results of Individual Test Material Residue Analyses
Week 8 - Males

<u>Animal Number</u>	<u>T-5180 (ppm)</u>	<u>Mean (ppm)</u>
	<u>Group 4 (Continued)</u>	
C67639	105	106
	106	
C67644	84.5	86.5
	88.5	
C67647	49.9	49.2
	48.5	
C67656	79.1	80.7
	82.2	
C67661	64.3	63.9
	63.4	
C67662	60.2	60.9
	61.6	
C67667	145	145
	144	
	<u>Group 5</u>	
C67680	138	150
	161	
C67699	113	113
	112	
C67703	144	143
	141	
C67708	83.4	83.4
	83.4	
C67709	137	145
	152	
C67710	173	177
	180	
C67711	139	137
	135	
C67721	157	164
	170	
C67722	155	168
	181	
C67724	203	211
	218	

Results of Individual Test Material Residue Analyses
Week 8 - Males

<u>Animal Number</u>	<u>T-5180 (ppm)</u>	<u>Mean (ppm)</u>
	<u>Group 6</u>	
C67728	-	-
C67729	-	-
C67734	a	-
C67737	a	-
C67739	a	-
C67743	a	-
C67750	a	-
C67752	a	-
C67753	-	-
C67768	a	-

a Below the limit of detection.

Results of Individual Test Material Residue Analyses
Week 14 - Males

<u>Animal Number</u>	<u>T-5180 (ppm)</u>	<u>Mean (ppm)</u>
	<u>Group 1</u>	
C67460	a	-
	a	
C67470	a	-
	a	
C67473	a	-
	a	
C67475	a	-
	a	
C67485	a	-
	a	
C67487	a	-
	a	
C67488	a	-
	a	
C67499	a	-
	a	
C67504	a	-
	a	
C67505	a	-
	a	
	<u>Group 2</u>	
C67507	7.60	8.03
	8.45	
C67519	7.82	7.91
	8.00	
C67521	8.09	8.49
	8.88	
C67523	6.24	5.95
	5.65	
C67533	5.95	5.91
	5.87	
C67535	6.71	6.76
	6.81	
C67536	7.13	7.26
	7.38	

a Below the limit of detection.

Results of Individual Test Material Residue Analyses
Week 14 - Males

<u>Animal Number</u>	<u>T-5180 (ppm)</u>	<u>Mean (ppm)</u>
<u>Group 2 (Continued)</u>		
C67549	5.41	5.13
	4.84	
C67553	6.67	7.25
	7.83	
C67556	7.99	8.42
	8.84	
<u>Group 3</u>		
C67563	51.2	50.6
	49.9	
C67564	35.6	36.9
	38.1	
C67571	32.2	32.5
	32.8	
C67596	38.0	37.8
	37.6	
C67598	65.0	63.9
	62.8	
C67607	21.9	22.1
	22.2	
C67608	58.8	59.7
	60.6	
C67611	33.9	34.8
	35.7	
C67613	39.4	39.8
	40.3	
C67615	33.1	33.6
	34.1	
<u>Group 4</u>		
C67616	68.7	65.5
	62.4	
C67618	61.0	62.6
	64.2	
C67621	70.0	68.7
	67.3	

Results of Individual Test Material Residue Analyses
Week 14 - Males

<u>Animal Number</u>	<u>T-5180 (ppm)</u>	<u>Mean (ppm)</u>
<u>Group 4 (Continued)</u>		
C67623	70.0	71.6
	73.1	
C67624	109	109
	108	
C67641	47.6	48.5
	49.4	
C67643	57.5	58.0
	58.4	
C67652	73.7	73.7
	73.7	
C67658	79.5	80.4
	81.3	
C67668	64.7	64.7
	64.7	
<u>Group 5</u>		
C67672	136	135
	133	
C67673	65.8	66.4
	66.9	
C67686	104	103
	102	
C67688	180	179
	177	
C67691	167	159
	150	
C67695	139	144
	149	
C67697	164	161
	157	
C67700	166	171
	176	
C67712	130	130
	129	
C67720	124	128
	132	

Results of Individual Test Material Residue Analyses
Week 14 - Males

<u>Animal Number</u>	<u>T-5180 (ppm)</u>	<u>Mean (ppm)</u>
	<u>Group 6</u>	
C67732	a	-
	a	
C67744	a	-
	a	
C67746	a	-
	a	
C67747	a	-
	a	
C67748	a	-
	a	
C67749	a	-
	a	
C67754	a	-
	a	
C67756	a	-
	a	
C67760	a	-
	a	
C67767	a	-
	a	

a Below the limit of detection.

Results of Individual Test Material Residue Analyses
Week 22 - Males

<u>Animal Number</u>	<u>T-5180 (ppm)</u>	<u>Mean (ppm)</u>
<u>Group 1</u>		
C67453	a	-
C67456	a	-
	a	
C67483	a	-
	a	
C67490	a	-
	a	
C67496	a	-
	a	
<u>Group 2</u>		
C67508	a	-
C67516	a	1.20
	1.18	
C67534	1.21	-
	a	
C67543	a	-
	a	

a Below the limit of detection.

Results of Individual Test Material Residue Analyses
Week 22 - Males

<u>Animal Number</u>	<u>T-5180 (ppm)</u>	<u>Mean (ppm)</u>
<u>Group 3</u>		
C67567	0.511	0.487
	0.462	
C67575	0.191	0.207
	0.222	
C67579	a	-
	a	
C67589	2.59	2.59
	2.59	
C67593	a	-
	a	
<u>Group 4</u>		
C67626	1.52	1.53
	1.53	
C67637	2.59	2.60
	2.60	
C67664	0.771	0.771
	a	
<u>Group 5</u>		
C67683	a	-
	a	
C67694	2.43	2.51
	2.58	
C67701	2.41	2.39
	2.36	

a Below the limit of detection.

APPENDIX G

Method Validation for FC-143 in Feed
Method Validation for T-5180 in Rat Serum

MP-APFO-MA
PAGE 1 OF 6
DATE: 01/04/91
REPLACES: Original
SECTION: 6001

HWI 6329-100

ASSAY TITLE: FC-143 In Rat Feed
AREA OF APPLICABILITY: Hazleton Wisconsin, Inc.
Residue Chemistry

SCOPE:

This method is applicable to the determination of FC-143 in rat feed samples at levels of 1 to 100 ppm.

PRINCIPLE:

FC-143 in the feed sample is extracted into isooctane/ether mixture under acid conditions, methylated, and determined by gas chromatography using an electron capture detector.

SENSITIVITY:

The sensitivity of this method is 1 ppm of FC-143 in rat feed.

PRECISION:

The relative standard deviation is 21% at 1 ppm (n=5), 5.4% at 10 ppm (n=6), 7.7% at 30 ppm (n=6), and 3.4% at 100 ppm (n=6).

ACCURACY:

The average recovery is 85.1% at 1 ppm (n=6), 99.4% at 10 ppm (n=6), 100% at 30 ppm (n=6), and 96.9% at 100 ppm (n=6).

REFERENCES:

Method provided by 3M and modified at Hazleton Wisconsin, Inc. (HWI).

HWI Laboratory Notebook Nos. 3418 and 3450.

MP-APFO-MA
PAGE 2 OF 6
DATE: 01/04/91
REPLACES: Original
SECTION: 6001

HWI 6329-100

APPROVED BY: M. A. Tshabalala
Mandla A. Tshabalala, PhD
Staff Scientist
Methods Development

DATE: 12/20/90

REVIEWED BY: Deborah L. Keller
Deborah L. Keller
Manager
Quality Assurance Unit

DATE: 12.21.90

(1478D)

HWI 6329-100

SAFETY PRECAUTIONS:

Observe all standard laboratory safety procedures as outlined in the HWI Safety Training Manual.

FUNDAMENTAL EQUATIONS:

FC-143 (Ammonium perfluorooctanate) formula: $\text{CF}_3(\text{CF}_2)_6\text{COO-NH}^+$.

Nonadecafluorodecanoic acid (NDFDA) formula: $\text{CF}_3(\text{CF}_2)_8\text{COOH}$

INTERFERENCES:

There may be an occasional interference peak that is observed at the 1 ppm level. When it does occur, that sample must be reassayed.

QUALITY ASSURANCE:

Two standard curves, low and high, each consisting of a minimum of four points, are used for calculation.

APPARATUS:

- o Volumetric pipettes, various sizes
- o Volumetric flasks, various sizes
- o Eppendorf digital pipettes, various sizes
- o Disposable scintillation vials, 20 ml
- o Horizontal shaker, Eberbach Corporation
- o Gas chromatograph with electron capture detector, HP 5890A, Hewlett Packard
- o Autoinjector, HP 7673, Hewlett Packard
- o Integrator, HP 3396A, Hewlett Packard

Note: Equivalent equipment may be substituted.

REAGENTS:

- o Milli-Q[®] water
- o Isooctane, high-purity solvent, B & J
- o Ethyl ether, high-purity solvent, B & J
- o Perchloric acid, concentrated, ACS reagent grade, Aldrich
- o Hydrochloric acid, concentrated, GR, EM Science
- o Diazomethane solution in ether, prepared according to procedure described in Aldrich Technical Information Bulletin No. AL-113.

Note: Equivalent reagents may be substituted.

TEST MATERIALS:

- o FC-143, Lot No. 115, purity 98%, 3M
- o Internal standard, (NDFDA), Lot No. 1120LX, purity 98%, Aldrich

PROCEDURE:

Preparation of Stock Standard Solutions

Solution A. FC-143 (20 $\mu\text{g}/\text{mL}$). Accurately weigh about 20 mg of FC-143 into a 1000-mL volumetric flask. Dissolve the solution and dilute it to volume with water. Store it at room temperature in a polyethylene bottle. Prepare fresh solution every 6 months.

Solution B. FC-143 (2,000 $\mu\text{g}/\text{mL}$). Accurately weigh about 200 mg of FC-143 into a 100-mL volumetric flask. Dissolve the solution and dilute it to volume with water. Store it at room temperature in a polyethylene bottle. Prepare fresh solution every 6 months.

Solution C. FC-143 (800 $\mu\text{g}/\text{mL}$). Using a volumetric pipette, transfer 20 mL of Solution B to a 50-mL volumetric flask. Dilute it to volume with water. Mix the solution thoroughly and transfer it to a polyethylene bottle. Store it at room temperature. Prepare fresh solution as needed.

Solution D. NDFDA (1.5 mg/mL). Accurately weigh about 30 mg of NDFDA into a 20-mL volumetric flask. Dissolve it in 90:10 v/v isooctane-ethyl ether. Add 100 μL of perchloric acid and dilute the solution to volume with isooctane-ethyl ether. Store it at room temperature and prepare fresh solution every 6 months.

Solution E. NDFDA (15 $\mu\text{g}/\text{mL}$). Using a volumetric pipette, transfer 10 mL of Solution D to a 1,000-mL volumetric flask. Dilute it to volume with isooctane-ethyl ether. Mix the solution thoroughly and store it at room temperature. Prepare fresh solution as needed.

Preparation of Working Solutions

Calibration standards. Following the scheme below, transfer aliquots of the appropriate stock solutions to separate scintillation vials containing 1 g of control rat feed, 4 mL of water, and 2 mL of hydrochloric acid. Mix the solutions thoroughly on a vortex mixer.

<u>Solution</u>	<u>Volume, μL</u>	<u>Final Conc., ppm</u>
A	25	0.5
A	50	1.0
A	100	2.0
A	200	4.0
A	400	8.0
A	600	12.0
C	25	20.0
C	50	40.0
C	75	60.0
C	100	80.0
C	150	120

Internal standard extractant (1.5 μ g/mL). Using a volumetric pipette, transfer 100 mL of Solution E to 1-L volumetric flask. Dilute it to volume with isooctane-ether. Store the solution at room temperature and prepare fresh solution every 6 months.

Sample Preparation

Weigh a 1-g feed sample into a 20-mL disposable scintillation vial. Add 4 mL of water and 2 mL of hydrochloric acid. Mix the sample thoroughly on a vortex mixer.

Sample Extraction

To each of the vials containing the standards and samples, add 5 mL of internal standard extractant. Cap the vials tightly and shake for 2 hours at high speed on a horizontal shaker. Centrifuge and transfer 1-mL aliquots of the organic layer to separate autoinjector vials. Add 0.5 mL of the diazomethane solution into each of the vials. Cap the vials and mix the samples on a vortex mixer for 10 to 15 seconds. Inject 2 μ L of each sample into the GC system.

Chromatographic Conditions

Column: 5% phenyl methyl silicone, 0.31 μ m i.d. x 50m, 1.03 μ m film, Hewlett Packard, Column No. 442-85-04
 Injection port liner: Splitless glass liner
 Purge time, minutes: ON = 1; OFF = 38
 Carrier gas: 5% methane/95% argon
 Flow rate: 1 mL/minute
 Make-up gas: 5% methane/95% argon
 Flow rate: 35 mL/minute
 Injection port temperature: 250°C
 Detector temperature: 250°C

Temperature program:
Initial oven temperature: 40°C
Initial time 10 minutes
Ramp A: 5°C/minute
Final temperature: 160°C
Ramp B: 25°C/minute
Final temperature: 230°C
Final time: 8 minutes
Injection size: 2 µL

Note: All conditions may be adjusted to optimize chromatography.

CALCULATIONS:

Compute the linear regression equation relating the peak height ratios of the calibration standards to their respective concentrations in the feed. Using the peak height ratio of the sample feed in the appropriate linear regression equation, compute the dose concentration in ppm as follows:

$$\text{ppm FC-143} = (y - b)/m \times F$$

where y = peak height ratio of the sample feed
b = intercept from the appropriate linear regression equation
m = slope from the appropriate linear regression equation (1/ppm)
F = calculation factor (1/G)
G = weight of sample feed measured out for extraction (g)

Example: For a 1 ppm sample, y = 0.159
b = 0.08895
m = 0.0846
G = 1.0222

$$\text{ppm FC-143} = (0.159 - 0.08895)/0.0846 \times \frac{1}{1.0222} = 0.810$$

Average % recovery = (Average amount found/amount claimed) x 100

Example: For a 1-ppm sample, average % recovery = (0.851/1.00) x 100
= 85.1

MP-APFS-MA
PAGE 1 OF 7
DATE: 03/05/92
REPLACES: Original
SECTION: 6011

HWI 6329-100

ASSAY TITLE: FC-143 in Rat Serum

AREA OF APPLICABILITY: Hazleton Wisconsin, Inc.
Residue Chemistry

SCOPE:

This method is applicable to the determination of FC-143 in rat serum samples at levels of 1.0 $\mu\text{g/mL}$ to 12.7 $\mu\text{g/mL}$.

PRINCIPLE:

FC-143 in the serum sample is extracted into isooctane:ethyl ether mixture under acid conditions, methylated, and determined by gas chromatography using an electron capture detector.

SENSITIVITY:

Sensitivity described as the lowest fortification level that was validated, is 0.7 $\mu\text{g/mL}$ of FC-143 in rat serum.

PRECISION:

The within day standard deviation (n=3) for FC-143 in rat serum is 0.3% at 0.794 $\mu\text{g/mL}$, 2.7% at 1.56 $\mu\text{g/mL}$, 1.7% at 3.18 $\mu\text{g/mL}$, 0.7% at 4.76 $\mu\text{g/mL}$, 0.9% at 6.35 $\mu\text{g/mL}$, 2.9% at 7.94 $\mu\text{g/mL}$, 0.9% at 9.53 $\mu\text{g/mL}$, and 0.4% at 12.7 $\mu\text{g/mL}$.

The between days standard deviation (n=6) for FC-143 in rat serum is 10.1% at 1.56 $\mu\text{g/mL}$, 10.8% at 3.18 $\mu\text{g/mL}$, 10.2% at 4.76 $\mu\text{g/mL}$, 10.2% at 6.35 $\mu\text{g/mL}$, 10.1% at 7.94 $\mu\text{g/mL}$, 9.5% at 9.53 $\mu\text{g/mL}$, and 8.4% at 12.7 $\mu\text{g/mL}$.

ACCURACY:

The average recovery is 99.9% at 0.794 $\mu\text{g/mL}$ (n=4), 99.9% at 7.99 $\mu\text{g/mL}$ (n=5), and 97.3% at 149 $\mu\text{g/mL}$ (n=5).

REFERENCES:

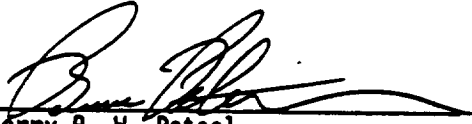
Method provided by 3M and modified at Hazleton Wisconsin, Inc. (HWI).

HWI Laboratory Notebook Nos. 3418 and 3450.

MP-APFS-MA
PAGE 2 OF 7
DATE: 03/05/92
REPLACES: Original
SECTION: 6011
HWI 6329-100

APPROVED BY: 
Mandla A. Tshabalala, PhD
Staff Scientist
Methods Development

DATE: 3-02-92

REVIEWED BY: 
Sherry R. W. Petzel
Manager
Quality Assurance Unit

DATE: 3/5/92

SAFETY PRECAUTIONS:

Observe all standard laboratory safety procedures as outlined in the Hazleton Wisconsin Safety Training Manual.

INTERFERENCES:

There may be an endogenous interference peak that elutes around the retention time for PC-143. This may be overcome by appropriate dilution or be dampened with control blank serum.

QUALITY ASSURANCE:

A standard curve consisting of a minimum of five points is used for calculation.

APPARATUS:

- Volumetric pipettes, various sizes
- Volumetric flasks, various sizes
- Eppendorf digital pipettes, various sizes
- Disposable 12 x 75 mm polypropylene test tube (with cap)
- Horizontal shaker, Eberbach Corporation
- Gas chromatograph with electron capture detector, HP 5890A, Hewlett Packard
- Autoinjector, HP 7673, Hewlett Packard
- Integrator, HP 3396A, Hewlett Packard

Note: Equivalent equipment may be substituted.

REAGENTS:

- Milli-Q water
- Isooctane, high-purity solvent, Burdick & Jackson
- Ethyl ether, high-purity solvent, Burdick & Jackson
- Perchloric acid, concentrated, ACS reagent grade, Aldrich
- Hydrochloric acid, concentrated, GR, EM Science
- Diazomethane solution in ether, prepared according to procedure described in Aldrich Technical Information Bulletin No. AL-113.

Note: Equivalent reagents may be substituted.

TEST MATERIALS:

- FC-143, purity 98%, 3M
- Internal standard, (NDFDA), purity 98%, Aldrich

PROCEDURE:

Preparation of Stock Standard Solutions

Solution O, FC-143 (320 µg/mL). Weigh 16 mg of FC-143 into a 50-mL volumetric flask. Dilute it to volume with water. Store at room temperature in a polypropylene centrifuge tube. Prepare fresh solution every 6 months.

Solution H, NDFDA (1.7 mg/mL). Weigh 43 mg of NDFDA into a 25-mL volumetric flask. Dissolve it in isooctane:ethyl ether (90:10,v/v). Add 100 µL of perchloric acid and dilute the solution to volume with isooctane:ethyl ether. Store at room temperature and prepare fresh solution every 6 months.

Preparation of Working Solution

Internal Standard Extractant (1.6 µg/mL). Using a volumetric pipette, transfer 1.0 mL of Solution H to a 1-L volumetric flask. Dilute it to volume with isooctane:ethyl ether. Store the solution at room temperature and prepare fresh solution every 6 months.

FC-143 Standard Solution. Following the scheme below, transfer aliquots of the appropriate stock solution to separate 25-mL volumetric flasks. Dilute to volume with Milli-Q water. Store at room temperature in polypropylene centrifuge tubes. Prepare fresh solution as needed.

<u>Standard Number</u>	<u>Stock Solution Concentration (µg/mL)</u>	<u>Aliquot Volume (mL)</u>	<u>Dilution Volume (mL)</u>	<u>Final Concentration (µg/mL)</u>
P-1	320	10	25	128
P-2	320	8	25	102
P-3	320	7	25	89.6
P-4	320	6	25	76.8
P-5	320	4	25	51.2

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<u>Standard Number</u>	<u>Stock Solution Concentration ($\mu\text{g}/\text{mL}$)</u>	<u>Aliquot Volume (mL)</u>	<u>Dilution Volume (mL)</u>	<u>Final Concentration ($\mu\text{g}/\text{mL}$)</u>
P-6	320	3	25	38.4
P-7	320	2	25	25.6
P-8	320	1	25	12.8
P-9	320	0.5	25	6.40

Preparation of Matrix Standard Curve

Pipette a 100- μL control serum into a 12 x 75 mm disposable polypropylene test tube (with cap). Fortify with 10 μL of standard solution and mix. Add 100 μL of Milli-Q water and 50 μL perchloric acid and mix.

Sample Preparation

Pipette a 100- μL serum sample into a 12 x 75 mm, disposable polypropylene test tube (with cap). Add 110 μL of Milli-Q water and 50 μL Perchloric acid. Mix the sample.

Note: For samples containing levels of FC-143 which exceed the standard curve, prepare a dilution of the original serum with control serum. The total volume of the matrix diluted sample taken for analysis should be 100 μL .

Sample Extraction

1. To each of the test tubes containing the standards and samples, add 2 mL of internal standard extractant, cap the test tube, and vortex vigorously (on a multiple vortexer) for 5 minutes.
2. Place the tubes in a horizontal position in a horizontal shaker.
3. Shake at high speed for 30 minutes.
4. Return the tubes to a test tube rack and allow to stand on a lab bench until the layers separate.
5. Transfer 1-mL aliquots of the organic layer (top layer) to separate autoinjector vials.

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6. Add 0.25 mL of diazomethane solution into each of the vials.
7. Cap the vials and mix the samples in a vortex mixer for 5 to 10 seconds.
8. Inject 2 μ L of each sample into the gas chromatography (GC) system.

Chromatographic Conditions

Column:	5% phenyl methyl silicone, 0.31 μ m i.d. x 50 m, 1.03 μ m film, Hewlett Packard
Injection port liner:	Splitless glass liner
Purge time, minutes:	ON = 1; OFF = 10
Carrier gas:	5% methane/95% argon
Flow rate:	1 mL/minute
Makeup gas:	5% methane/95% argon
Flow rate:	35 mL/minute
Injection port temperature:	250°C
Detector temperature:	310°C
Temperature program:	
Initial oven temperature:	70°C
Initial time:	13 minutes
Ramp A:	5°C/minute
Final temperature:	95°C
Ramp B:	25°C/minute
Final temperature:	230°C
Final time:	10 minutes
Injection size:	2 μ L

Note: All conditions may be adjusted to optimize chromatography.

CALCULATIONS:

Compute the linear regression equation relating the peak height ratios of the calibration standards to their respective concentrations in the serum. Using the peak height ratio of the sample serum in the appropriate linear regression equation, compute the dose concentration in ppm as follows:

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$$\text{ppm FC-143} = (y - b)/(m \times F)$$

where: y = Peak height ratio of the sample serum
b = Intercept from the appropriate linear regression equation
m = Slope from the appropriate linear regression equation
F = Calculation factor (100/V)
V = Volume of sample serum measured out for extraction (μL)