

AR226 - 3282

TRADE SECRET*Study Title*

H-25134: Four-Week Inhalation Toxicity Study in Male Rats

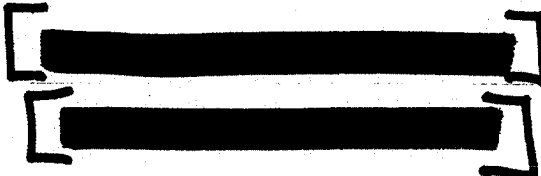
TEST GUIDELINES: OECD Guideline for the Testing of Chemicals
Section 4: Health Effects, Number 412 (1981)

AUTHOR: Linda A. Malley, Ph.D., D.A.B.T.

STUDY COMPLETED ON: June 25, 2003

PERFORMING LABORATORY: E.I. du Pont de Nemours and Company
Haskell Laboratory for Health and Environmental Sciences
Elkton Road, P.O. Box 50
Newark, Delaware 19714-0050

LABORATORY PROJECT ID: DuPont-11414



Company Sanitized. Does not contain TSCA CBI

GOOD LABORATORY PRACTICE COMPLIANCE STATEMENT

This study was conducted in compliance with U.S. EPA TSCA (40 CFR part 792) Good Laboratory Practice Standards, which are consistent with the OECD Principles of Good Laboratory Practice (as revised in 1997) published in ENV/MC/CHEM(98)17 and MAFF Japan Good Laboratory Practice Standards (59 NohSan No. 3850) except for the item documented below. The item listed does not impact the validity of the study.

The sponsor characterized the test substance. Although the characterization was not performed under Good Laboratory Practice Standards, both the validity and accuracy of the analysis was considered acceptable and therefore sufficient for the purpose of this study.

Applicant / Sponsor: E.I. du Pont de Nemours and Company
Wilmington, Delaware 19898
U.S.A.

Study Director: _____

Linda A. Malley

Linda A. Malley, Ph.D., D.A.B.T.
Senior Research Toxicologist

25 - June - 2003
Date

Applicant / Sponsor: _____

DuPont Representative

Date

Company Sanitized. Does not contain TSCA CBI

QUALITY ASSURANCE STATEMENT

Haskell Sample Number(s):

25134

Dates of Inspections:

Protocol: September 20, 2002; October 7, 2002

Conduct: October 14,15, 2002; November 1, 2002

Records, Reports: February 3,6,26-28, 2003; March 20,21,24, 2003; April 7, 2003;
May 27-30, 2003; June 1, 2003

Dates Findings Reported to:

Study Director: September 20, 2002; October 15, 2002; November 3, 2002; March
5,25, 2003; April 7, 2003; June 2, 2003

Management: October 20, 2002; November 3, 2002; March 5, 2003; April 7,29,
2003; May 9, 2003; June 9, 2003

Reported by:

Matthew T. Frentzel
Matthew T. Frentzel, BS.
Quality Assurance Auditor

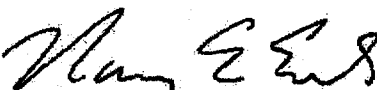
25-Jun-2003
Date

Company Sanitized. Does not contain TSCA CBI

CERTIFICATION

We, the undersigned, declare that this report provides an accurate evaluation of data obtained from this study.

Clinical Pathology
Evaluation Reported by:

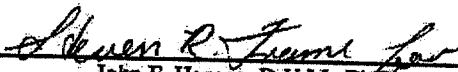


Nancy E. Everds, D.V.M.
Diplomate A.C.V.P.

Principal Research Clinical Pathologist and Manager

25-June-2003
Date

Anatomic Pathology
Evaluation Reported by:

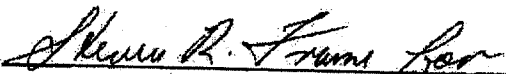


John F. Hansen, D.V.M., Ph.D.
Diplomate A.C.V.P.

Principal Research Pathologist

25-June-2003
Date

Anatomic Pathology
Evaluation Peer
Reviewed by:

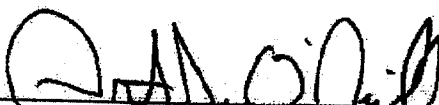


Steven R. Frame, D.V.M., Ph.D.
Diplomate A.C.V.P.

Principle Research Pathologist and Research Manager

25-June-2003
Date

Approved by:



Arthur J. O'Neill, B.S.
Supervisor

25-JUNE-2003
Date

Issued by Study Director:



Linda A. Malley, Ph.D., D.A.B.T.
Senior Research Toxicologist

25-June-2003
Date

Company Sanitized. Does not contain TSCA CBI

TABLE OF CONTENTS

	Page
GOOD LABORATORY PRACTICE COMPLIANCE STATEMENT	2
QUALITY ASSURANCE STATEMENT	3
CERTIFICATION	4
LIST OF TABLES	7
LIST OF FIGURES	8
LIST OF APPENDICES	8
STUDY INFORMATION	9
STUDY PERSONNEL	10
SUMMARY	11
INTRODUCTION	13
STUDY DESIGN	13
MATERIALS AND METHODS	14
A. Test Guidelines	14
B. Test Substance	14
C. Test Species	14
D. Animal Husbandry	14
1. Animal Housing	14
2. Cage and Cage Rack Changes	14
3. Environmental Conditions	14
4. Feed and Water	15
5. Animal Health and Environmental Monitoring Program	15
E. Pretest Period	15
F. Assignment to Groups	16
G. Inhalation Exposure System	16
1. Atmosphere Generation	16
2. Chamber Construction and Design	17
3. Exposure Mode	17
H. Characterization of Chamber Atmosphere	17
1. Test Substance Sampling and Analysis	17
2. Particle Size Determination	17
3. Environmental Monitoring	17
I. Body Weights and Clinical Observations	18
J. Food Consumption and Food Efficiency	18
K. Clinical Pathology Evaluation	18
1. Hematology and Coagulation	19

Company Sanitized. Does not contain TSCA CBI

TABLE OF CONTENTS (Continued)

	Page
2. Clinical Chemistry.....	19
3. Urinalysis	20
4. Recovery	20
L. Blood Fluorine Analysis	20
M. Recovery Period	21
N. Anatomic Pathology Evaluation	21
O. Statistical Analyses	23
RESULTS AND DISCUSSION	24
In-Life Animal Measurements.....	24
A. Chamber Concentrations of the Test Substance	24
B. Chamber Environmental Conditions.....	24
C. Body Weights and Body Weight Gains	25
D. Food Consumption and Food Efficiency	25
E. Post-Exposure Clinical Observations and Clinical Observations at the Time of Body Weight Determinations	25
Clinical Pathology Evaluation	26
A. Hematology and Coagulation.....	26
B. Clinical Chemistry	26
C. Urinalysis	27
D. Plasma and Urine Fluoride.....	27
E. Conclusions.....	27
Blood Fluorine Analysis	27
A. Blood Fluorine Analysis	27
Anatomic Pathology Evaluation	28
A. Mortality.....	28
B. Organ Weights	28
C. Gross Observations	29
D. Microscopic Findings.....	29
E. Conclusions.....	30
CONCLUSIONS	31
RECORDS AND SAMPLE STORAGE	31
REFERENCES.....	32
TABLES.....	34
FIGURES.....	84
APPENDICES	89

LIST OF TABLES

	Page
1. CHAMBER CONCENTRATIONS OF H-25134	38
2. PARTICLE SIZE DISTRIBUTION OF H-25134	38
3. CHAMBER ENVIRONMENTAL CONDITIONS.....	39
4. MEAN BODY WEIGHTS OF MALE RATS.....	40
5. MEAN BODY WEIGHT GAINS OF MALE RATS.....	42
6. MEAN DAILY FOOD CONSUMPTION BY MALE RATS.....	44
7. MEAN DAILY FOOD EFFICIENCY OF MALE RATS.....	45
8. SUMMARY OF CLINICAL OBSERVATIONS IN MALE RATS PRIOR TO EXPOSURE.....	46
9. SUMMARY OF CLINICAL OBSERVATIONS IN MALE RATS AFTER EXPOSURE	47
10. SUMMARY OF HEMATOLOGY VALUES FOR MALE RATS.....	48
11. SUMMARY OF COAGULATION VALUES FOR MALE RATS.....	50
12. SUMMARY OF CLINICAL CHEMISTRY VALUES FOR MALE RATS	51
13. SUMMARY OF URINALYSIS VALUES FOR MALE RATS	54
14. SUMMARY OF BLOOD FLUORINE ANALYSIS.....	55
15. MEAN FINAL BODY AND ORGAN WEIGHTS FROM MALE RATS DAY 25 SACRIFICE.....	56
16. MEAN FINAL BODY AND ORGAN WEIGHTS FROM MALE RATS DAY 56 SACRIFICE.....	59
17. INCIDENCES OF GROSS OBSERVATIONS IN MALE RATS DAY 25 SACRIFICE	62
18. INCIDENCES OF GROSS OBSERVATIONS IN MALE RATS DAY 56 SACRIFICE.....	68
19. INCIDENCES AND LESION GRADES OF MICROSCOPIC OBSERVATIONS IN MALE RATS DAY 25 SACRIFICE.....	74
20. INCIDENCES AND LESION GRADES OF MICROSCOPIC OBSERVATIONS IN MALE RATS DAY 56 SACRIFICE.....	83

Company Sanitized. Does not contain TSCA CBI

LIST OF FIGURES

	Page
1. SCHEMATIC OF EXPOSURE SYSTEM.....	85
2. MEAN DAILY CHAMBER CONCENTRATIONS	86
3. MEAN BODY WEIGHTS OF MALE RATS.....	87
4. MEAN BLOOD FLUORINE OF MALE RATS.....	88

LIST OF APPENDICES

	Page
A. DAILY CHAMBER CONCENTRATIONS.....	90
B. DAILY CHAMBER ENVIRONMENTAL CONDITIONS	93
C. INDIVIDUAL BODY WEIGHTS.....	98
D. INDIVIDUAL FOOD CONSUMPTION.....	103
E. INDIVIDUAL CLINICAL OBSERVATIONS AND MORTALITY RECORDS.....	109
F. INDIVIDUAL ANIMAL CLINICAL PATHOLOGY DATA.....	126
G. INDIVIDUAL ANIMAL BLOOD FLUORINE	154
H. INDIVIDUAL ANIMAL FINAL BODY AND ORGAN WEIGHTS	157
I. INDIVIDUAL ANIMAL PATHOLOGY DATA	166

Company Sanitized. Does not contain TSCA CBI

STUDY INFORMATION

Substance Tested: [REDACTED]

Synonyms/Codes: [REDACTED]
• H-25134
[REDACTED]

Submitter's Notebook Number(s): [REDACTED]

Haskell Number: 25134

CAS Registry Number: [REDACTED]

Composition: [REDACTED]

Known Impurities: [REDACTED]

Physical Characteristics: Dark brown solid

Stability: The test substance appeared to be stable under the conditions of the study; no evidence of instability was observed.

Sponsor: E.I. du Pont de Nemours and Company
Wilmington, Delaware 19898
U.S.A.

Study Initiated/Completed: October 4, 2002 / (see report cover page)

Company Sanitized. Does not contain TSCA CBI

STUDY PERSONNEL

Study Director: Linda A. Malley, Ph.D., D.A.B.T.

Management: Arthur J. O'Neill, B.S.

Primary Technician: William E. Ellis, Jr.

Clinical Pathologist: Nancy E. Everds, D.V.M.

Management: Steven R. Frame, D.V.M., Ph.D.

Anatomic Pathologist: John F. Hansen, D.V.M., Ph.D.

Management: Steven R. Frame, D.V.M., Ph.D.

Peer Review Anatomic Pathologist: Steven R. Frame, D.V.M., Ph.D.

Blood Fluorine Data Analysis: Vladimir Čapka, Ph.D.

Management: S. Mark Kennedy, Ph.D.

Toxicology Report Preparation: Maryanne M. Wilford, B.A.

Management: Nancy S. Selzer, M.S.

Laboratory Veterinarian: Thomas W. Mayer, D.V.M., A.C.L.A.M.

Company Sanitized. Does not contain TSCA CBI

SUMMARY

The purpose of this study was to assess the potential subchronic toxicity of exposure to H-25134 in adult male rats. Young adult male Crl:CD[®](IGS)BR rats (15 rats/exposure concentration) were exposed to atmosphere containing 0, 5, 30, or 100 mg/m³ H-25134 for 6 hours per day, over a 4-week period for a total of 20 exposures. Body weight and food consumption were determined weekly and clinical signs of toxicity were monitored throughout the study. Blood samples were collected on test days 0, 7, 14, 25, and 54 for analysis of fluorine concentration. Blood samples and urine samples were collected at the end of the exposure period from 10 rats/concentration for evaluation of clinical pathology and urinalysis parameters. After the last exposure, 10 rats/concentration underwent gross necropsy. Selected tissues were processed for histopathology and examined. Additional blood samples were collected for future analysis of perfluorooctanoic acid (PFOA) concentration. At the end of an approximately one-month recovery period, blood samples and urine samples were collected from all surviving rats for evaluation of selected clinical pathology and urinalysis parameters, and fluorine concentration. All surviving rats underwent gross necropsy, selected tissues were processed for histopathology, and were examined by light microscopy.

Test substance-related, statistically significant decreases in body weight gain and food efficiency occurred in rats exposed to 30 or 100 mg/m³. Although slightly decreased body weight gain for rats exposed to 5 mg/m³ also appeared to be test substance-related, it was not considered to be adverse since the mean body weights were only 4.3% lower than the control value. Unscheduled mortality did not occur during the study. Incidences of clinical signs following exposure and at the time of body weight determination were similar for all groups.

Cholesterol concentration was mildly decreased in males exposed to 100 mg/m³ at test day 25; these changes were considered to be potentially adverse. After 31 days of recovery, cholesterol concentrations for all test groups were similar to control. Triglycerides were mildly decreased in males exposed to 5, 30, or 100 mg/m³. Although these changes showed a flat concentration-response, they were considered to be test substance-related. However, the mildly decreased concentrations were not associated with histological changes, and therefore, they were not considered to be adverse. After 31 days of recovery, the triglyceride concentrations for all test groups were similar to the control values. Blood fluorine (but not plasma fluoride) concentration was slightly increased above background concentration in rats exposed to 30 or 100 mg/m³. Urine fluoride was also increased in rats exposed to 30 or 100 mg/m³. At the end of the one-month recovery period, blood fluorine concentrations and urine fluoride amounts were similar to control. There were no other treatment-related changes in clinical pathology parameters for any test group.

Statistically significant changes in organ weight and relative organ weight (relative to body weight or brain weight) that were secondary to decreased body weight occurred in the heart and testes. Squamous metaplasia/hyperplasia of the ventral laryngeal mucosa was observed in rats exposed to 5, 30, or 100 mg/m³ at the sacrifice on test day 25. The lesion was minimal, focal, and not concentration-related with respect to incidence or severity. Squamous metaplasia of the

ventral larynx of rats is a common, nonspecific response to irritants and is generally considered an adaptive response. This lesion was not present in animals sacrificed after a one-month recovery.

The no-observed-effect level (NOEL) for this study is defined as the highest concentration at which toxicologically important effects attributable to the test substance were not detected. Thus for this study, the NOEL is equivalent to the NOEL as defined by the United States Environmental Protection Agency (1985), and the no-observed-adverse effect level (NOAEL) as defined by the European Union (1994). Under the conditions of the study, the NOEL was 5 mg/m³ based on decreased body weight gain at 30 mg/m³ and above. The minimal morphological changes in the larynx observed at all exposure concentrations were considered to be a nonspecific, adaptive response and is of equivocal toxicological significance.

Company Sanitized. Does not contain TSCA CBI

INTRODUCTION

The test substance contains an organofluoride melt additive and is used as a protectant for textiles. The exposure concentrations of the test substance were selected on the basis of range-finding exposures and a knowledge about the physical and chemical properties of the test substance.

In a one-week range-finding study, groups of 5 male rats were exposed to 0, 5, 30, or 100 mg/m³ H-25134 for 6 hours per day for 5 consecutive days. There were no test substance-related effects on clinical signs or body weight for any exposure concentration. The 4-hour approximate lethal concentration (ALC) was determined to be 377 mg/m³.⁽¹⁾ Based on these data, the exposure concentrations for the main study were selected to be 0, 5, 30, and 100 mg/m³.

The objective of this study was to evaluate the subchronic toxicity of H-25134 when administered by inhalation to male CrI:CD[®](SD)IGS BR rats over a 4-week period. An air-exposed group of male rats served as the negative control. The inhalation route of exposure was chosen because it is the potential route for human exposure.

STUDY DESIGN

Four groups of male rats (15 rats each) were exposed to concentrations of H-25134 targeted to 0, 5, 30, or 100 mg/m³. The first 10 rats per group were designated for subchronic toxicity, and the remaining rats per group were designated for blood fluorine analysis and recovery. Rats were exposed nose-only for 6 hours per day for a total of 20 exposures (excluding weekends). Throughout the exposure period, blood was collected weekly from the rats designated for blood fluorine analysis. At the end of the exposure period, blood and urine samples were collected for clinical analyses, and 10 rats per group were sacrificed for pathology examination. All remaining rats were allowed to recover for approximately a 4-week period. At the end of the recovery period, all surviving rats were bled for blood fluorine analysis and sacrificed for pathology examination.

All rats were weighed weekly during the exposure phase of the study. At every weighing, each rat was individually handled and examined for abnormal behavior and appearance. During the daily exposures, rats were checked for viability. Immediately following each exposure, each rat was individually handled and examined for abnormal behavior and appearance. The amount of food consumed by each rat was determined weekly during the exposure phase of the study. Surviving rats were weighed and individually observed for clinical signs of toxicity throughout the recovery period.

Company Sanitized. Does not contain TSCA CB1

MATERIALS AND METHODS

A. Test Guidelines

The study design complies with the following test guidelines:

- Organisation for Economic Co-Operation and Development (OECD) (1981). 412 Repeated Dose Inhalation Toxicity: 28-Day or 14-Day Study. *Guideline for Testing of Chemicals*.

B. Test Substance

The test substance, H-25134, was supplied by the sponsor as a dark brown solid. Purity was not supplied by the sponsor. The test substance was assumed to be stable throughout the exposure phase of the study; no evidence of instability was observed.

C. Test Species

A total of 66 male Crl:CD[®](SD)IGS BR rats was received from Charles River Laboratories, Inc., Raleigh, North Carolina. The male rats were approximately 5 weeks old on the day of arrival.

Rats have historically been used in safety evaluation studies for inhalation toxicity testing. The Crl:CD[®](SD)IGS BR rat was selected based on consistently acceptable health status and on extensive experience with the strain at Haskell Laboratory.

D. Animal Husbandry

1. Animal Housing

Rats were housed singly in stainless steel, wire-mesh cages suspended above cage boards.

2. Cage and Cage Rack Changes

Cages and cage racks were changed at least every other week.

3. Environmental Conditions

Rats were housed in one room in proximity to the inhalation chambers. Animal rooms were targeted at a temperature of $23 \pm 1^\circ\text{C}$ and a relative humidity of $50 \pm 10\%$. Animal rooms were artificially illuminated (fluorescent light) on an approximate 12-hour light/ dark cycle. Excursions outside of these ranges on 2 occasions were of insufficient magnitude and/or duration to have adversely affected the validity of the study.

Company Sanitized. Does not contain TSCA CBI

4. Feed and Water

Except during exposures, PMI[®] Nutrition International, LLC Certified Rodent LabDiet[®] 5002 and tap water were available *ad libitum*. During the urine collection period, rats were fasted overnight for approximately 16 hours; water, however, was available *ad libitum*.

5. Animal Health and Environmental Monitoring Program

As specified in the Haskell Laboratory animal health and environmental monitoring program, the following procedures are performed periodically to ensure that contaminant levels are below those that would be expected to impact the scientific integrity of the study:

- Water samples are analyzed for total bacterial counts, and the presence of coliforms, lead, and other contaminants.
- Feed samples are analyzed for total bacterial, spore, and fungal counts.
- Samples from freshly washed cages and cage racks are analyzed to ensure adequate sanitation by the cagewashers.

Certified animal feed is used, guaranteed by the manufacturer to meet specified nutritional requirements and not to exceed stated maximum concentrations of key contaminants, including specified heavy metals, aflatoxin, chlorinated hydrocarbons, and organophosphates. The presence of these contaminants below the maximum concentration stated by the manufacturer would not be expected to impact the integrity of the study.

The animal health and environmental monitoring program is administered by the attending laboratory animal veterinarian. Evaluation of these data did not indicate any conditions that affected the validity of the study.

E. Pretest Period

Upon arrival at Haskell Laboratory, all rats were housed 1 per cage in quarantine. The rats were:

- quarantined for 6 days.
- identified temporarily by cage identification.
- weighed 3 times during quarantine and once prior to initiation of exposures.
- observed with respect to weight gain and any gross signs of disease or injury.

The rats were released from quarantine by the laboratory animal veterinarian or designee on the basis of body weights and clinical signs.

Company Sanitized. Does not contain TSCA CBI

F. Assignment to Groups

Rats were selected for use on study on the bases of adequate body weight gain and freedom from any clinical signs of disease or injury. They were distributed by computerized, stratified randomization into study groups as designated in the Study Design, so that there were no statistically significant differences among group body weight means. The weight variation of selected rats did not exceed $\pm 20\%$ of the mean weight. The first 10 rats in each group were designated for subchronic toxicity, and the remaining rats in each group were designated for blood fluorine analysis and recovery.

After assignment to groups, each rat was housed individually. Each rat was assigned a unique 6-digit Haskell animal number and an individual cage identification number. After assignment to groups, the cage identification number was tattooed on the tail of each rat. The Haskell animal number and cage identification number were both included on the cage label.

At study start (test day 0), male rats were approximately 7 weeks of age and weighed between 245 and 306 grams. On test day 0, when possible, rats with body weights that are not within $\pm 20\%$ of the mean were removed from study and replaced with rats having body weights within that range (subject to the same selection criteria as the original rats).

Rats that were not assigned to a test group or which were removed from study on test day 0, for out-of-range body weights, were released for other laboratory purposes or sacrificed by carbon dioxide asphyxiation and discarded without pathology evaluation, at the discretion of the study director.

G. Inhalation Exposure System

(Figure 1)

1. Atmosphere Generation

Chamber atmospheres were generated by heating the test substance in a glass 250, 500, or 1000 mL, three-necked flask. The test substance was stirred constantly during heating using stir rods attached to FMI pumps. The flasks were heated to 280°C using either a 500 or 1000 mL heating mantel. A measured amount of the test substance was added to the flask prior to heating. House-line-air was metered into the flask with a Brooks Flowmeter. The resulting particulate stream exiting the flask was split between the inhalation chamber and a collection flask that removed excess test material from the air stream. The particulate stream was further mixed with dilution air, controlled by a Brooks Mass Flow Controller, at the top of the inhalation chamber. A stainless steel baffle was used to ensure a homogeneous distribution of the particulate stream through the chamber. Tubing between the generation flask and the chamber was heated by heat tape controlled with a Variac voltage controller. Vacuum pumps controlled the exhaust and the amount of air that was split from the generation stream to the collection flask. The heating mantel and mass flow controllers were controlled and monitored by the Camile Inhalation Toxicology Automated Data System (CITADS). Since the test material was a solid, waxy material prior to heating, the heating mantels and stirring rods were turned on prior to placing the

Company Sanitized. Does not contain TSCA CBI

restrainers containing the rats in the chamber portholes. When the heating mantel reached the target temperature, the rats were placed in the portholes, and the daily exposure was initiated. The animals were exposed for 6 hours after being placed into the portholes. After 6 hours, the heating mantels and stirrers were turned off, and the rats were removed from the chambers.

2. Chamber Construction and Design

All exposure chambers were constructed of stainless steel and glass (NYU style) with a nominal internal volume of 150 L. A baffle inside the chamber promoted uniform chamber distribution of the test atmosphere.

3. Exposure Mode

During exposure, animals were individually restrained in perforated stainless steel cylinders with conical nose pieces. The restrainers were inserted into a polymethylmethacrylate and stainless steel faceplate which was attached to the exposure chamber so that the nose of each animal extended into the exposure chamber. Approximately 1 week before the start of the exposure phase, animals were placed in restrainers on 2 separate days for approximately 15 minutes each day to acclimate the animals to the restrainers.

H. Characterization of Chamber Atmosphere

1. Test Substance Sampling and Analysis

The concentration of H-25134 in each chamber was determined by gravimetric analysis at approximately 60-minute intervals during each exposure, except for the control chamber, which was not sampled. Known volumes of chamber atmosphere were drawn from the sampling port through a 25 mm filter cassette that contained a pre-weighed Gelman glass fiber (Type A/E) filter. The filters were weighed on a Cahn model C-33 Microbalance®. The filter weights were automatically transferred to the CITADS, which calculated the chamber concentrations based on the difference in pre- and post-sampling filter weights divided by the volume of chamber atmosphere sampled. Gravimetric sample start- and stop-times for each sample were also controlled and recorded by CITADS.

2. Particle Size Determination

A sample to determine particle size distribution (mass median aerodynamic diameter and percent particles less than 1, 3, and 10 µm diameter) was taken from each test chambers once per week with a Sierra® Series 210 Cyclone Preseparator/Cascade Impactor and Sierra® Series 110 Constant Flow Air Sampler.⁽²⁾

3. Environmental Monitoring

Chamber airflow was set at the beginning of each exposure to achieve at least 12 air changes per hour and was monitored continually with a calibrated Brooks model 5851E Mass Flow Controller. Chamber temperature was targeted at $22 \pm 3^{\circ}\text{C}$ and was measured with an Omega

thermocouple. Chamber relative humidity was targeted at $50 \pm 20\%$ and was measured with Jumo model PT100 wet-bulb/dry-bulb resistance temperature detectors. Airflow, temperature, and relative humidity were monitored continually with CITADS and recorded at 15-minute intervals during each exposure. Chamber oxygen concentration was targeted to be at least 19%. Chamber oxygen concentration was measured with a Biosystems model 3100R Oxygen Analyzer and was recorded twice during each exposure.

I. Body Weights and Clinical Observations

All rats were weighed once a week. At every weighing, each rat was individually handled and examined for abnormal behavior and appearance.

After loading the animals into the restrainers, and placing the restrainers into the chambers, rats were checked for viability prior to each exposure, 2 to 3 times during the exposure, and at the end of the exposure, prior to removing them from the chamber portholes.

Each rat was individually handled and examined for abnormal behavior and appearance when it was removed from the chamber at the end of the daily exposure period. Fur stains and hair loss associated with restraint and deposition of the test substance were not recorded for individual rats following the daily exposures.

Cage-site examinations to detect moribund or dead rats and abnormal behavior and appearance among rats were conducted prior to loading the animals into the chamber on exposure days, and at least once daily on non-exposure days.

J. Food Consumption and Food Efficiency

The amount of food consumed by each animal over each weighing interval was determined by weighing each feeder at the beginning and end of the interval and subtracting the final weight and the amount of spillage from the feeder during the interval from the initial weight. From these measurements, mean daily food consumption over the interval was determined. From the food consumption and body weight data, the mean daily food efficiency were calculated. Food consumption and food efficiency were not determined during the recovery phase.

K. Clinical Pathology Evaluation

A clinical pathology evaluation was conducted on the first 10 rats/group approximately 25 days after initiation of the study. The day before collection of samples for the clinical pathology evaluation, the animals were placed in metabolism cages. These animals were fasted overnight (approximately 16 hours) and urine was collected from each animal. Blood samples for hematology and clinical chemistry measurements were collected from the orbital sinus of each animal while the animal was under light carbon dioxide anesthesia. Blood samples for coagulation parameters were collected at sacrifice from the abdominal vena cava of each animal while the animal was under carbon dioxide anesthesia. Additional blood collected from the

vena cava was divided into 2 aliquots. One aliquot was processed to plasma for analysis of plasma fluoride. The second aliquot was processed to plasma and frozen at -20°C for future analysis of PFOA). Additional blood was placed in a serum tube, processed to serum, and stored at -80°C for possible future analysis. Bone marrow smears were prepared at the sacrifice from all surviving animals. Bone marrow smears were stained with Wright's stain, but analysis was not necessary to support experimental findings.

1. Hematology and Coagulation

Blood samples were evaluated for quality by visual examination prior to analysis. Complete blood counts, including reticulocytes, were determined on a Bayer® Advia 120 hematology analyzer or determined from microscopic evaluation of the blood smear. Wright-stained blood smears from all animals were examined microscopically for confirmation of automated results and evaluation of cellular morphology. Blood smears, stained with new methylene blue, were prepared from each animal undergoing a hematology evaluation but were not needed for examination. Coagulation times were determined on a Sysmex® CA-1000 Coagulation Analyzer.

The following hematology and coagulation parameters were determined:

red blood cell count	red cell distribution width
hemoglobin	absolute reticulocyte count
hematocrit	platelet count
mean corpuscular volume	white blood cell count
mean corpuscular hemoglobin	differential white blood cell count
mean corpuscular hemoglobin concentration	microscopic blood smear examination
prothrombin time	
activated partial thromboplastin time	

2. Clinical Chemistry

Serum clinical chemistry parameters were determined on a Roche Diagnostics (BMC)/Hitachi® 717 clinical chemistry analyzer. Plasma fluoride was determined using a phi 12 pH meter and a fluoride-selective electrode.

The following clinical chemistry parameters were determined:

aspartate aminotransferase	total protein
alanine aminotransferase	albumin
sorbitol dehydrogenase	globulin
alkaline phosphatase	calcium
total bilirubin	inorganic phosphorus
urea nitrogen	sodium
creatinine	potassium
cholesterol	chloride

Company Sanitized. Does not contain TSCA CBI

triglycerides
glucose

fluoride^a

3. Urinalysis

Urine volume and appearance (quality, color, and clarity) were measured and evaluated visually, respectively. Urine constituents were semi-quantitatively measured on a Bayer Clinitek[®] Atlas[™] Automated Urine Chemistry analyzer. Urine protein was measured on a Roche Diagnostics (BMC)/Hitachi[®] 717 clinical chemistry analyzer. Urine osmolality was determined using an Advanced Osmometer 3900. Urine fluoride was determined using a phi12 pH meter and a fluoride-selective electrode. Sediments from all urine specimens were evaluated microscopically.

The following urinalysis parameters were determined:

quality	ketone
color	bilirubin
clarity	blood
volume	urobilinogen
osmolality	fluoride ^b
pH	protein
glucose	microscopic urine sediment examination

4. Recovery

Near the end of the recovery period blood and urine samples were collected from all surviving rats according to the procedures described above. The following parameters were evaluated according to the methods detailed above: cholesterol, triglycerides, total protein, albumin, globulin, and urine fluoride.

L. Blood Fluorine Analysis

On test days 0, 7, 14, 21, 25, and 54, blood (approximately 0.5 mL) was collected from the orbital sinus of designated animals (5 rats/concentration), while the animals were under light carbon dioxide anesthesia, for total blood fluorine analysis. On the day of blood collection, blood was collected from the animals approximately 1 hour after the daily exposure. The blood was collected in plastic tubes containing EDTA while on ice and stored frozen.

The total fluorine content of the blood samples was determined on selected blood samples using a Wickbold torch combustion method, followed by analysis with a fluoride ion selective electrode. The liquid blood was decomposed or volatilized in the presence of wet oxygen and swept through an oxy-hydrogen flame in a closed quartz apparatus. The combustion products were collected in an aqueous absorbing solution and analyzed using a fluoride ion selective

a Fluoride determination was analyzed on EDTA plasma.

b Fluoride determination was analyzed from urine with EDTA added.

electrode. Rationale for the number of blood samples analyzed was documented in study records.

M. Recovery Period

At the conclusion of the 4-week exposure period, the 5 rats per concentration designated for blood fluorine analysis were allowed to recover for approximately 1 month. During the recovery period, exposures were not conducted; however, body weights were collected weekly. At every weighing, each rat was individually handled and examined for abnormal behavior and appearance. Cage-site examinations to detect moribund or dead rats and abnormal behavior and appearance among rats were conducted once daily.

As described in section L. above, blood samples for blood fluorine analysis were collected at the end of the recovery period (test day 54).

N. Anatomic Pathology Evaluation

Ten animals per group were sacrificed and necropsied following the last exposure (initial sacrifice animals). The other 5 animals per group were allowed to recover (recovery animals) for approximately 4 weeks and were then sacrificed and necropsied.

Rats were euthanatized by carbon dioxide anesthesia and exsanguination. Gross examinations were performed on all rats.

Company Sanitized. Does not contain TSCA CBI

The following tissues were collected from rats that were found dead or sacrificed by design.

Digestive System

liver
esophagus
stomach
duodenum
jejunum
ileum
cecum
colon
rectum
salivary glands
pancreas

Urinary System

kidneys
urinary bladder

Respiratory System

lungs
trachea
nose (4 cross sections)
larynx
pharynx

Cardiovascular System

heart
aorta

Hematopoietic System

spleen
thymus
mandibular lymph node
mesenteric lymph node
bone marrow^a

Endocrine System

pituitary gland
thyroid gland
parathyroid glands
adrenal glands

Nervous System

brain (including cerebrum,
cerebellum, medulla/pons)
spinal cord (cervical,
mid-thoracic, lumbar)
sciatic nerve

Musculoskeletal System

skeletal muscle
femur/knee joint
sternum

Reproductive System

testes
epididymides
prostate
seminal vesicles

Miscellaneous

skin
eyes (including optic nerve)
gross observations^b

a Bone marrow was collected with the femur and sternum.

b Gross observations made at necropsy for which histopathology is not appropriate (e.g., fluid, ruffled fur, and missing anatomic parts) will generally not be collected.

The liver, kidneys, lungs, heart, spleen, brain, thymus, adrenal glands, testes and epididymides were weighed at necropsy, and organ weight/final body weight and organ weight/brain weight ratios were calculated. Final body weights determined just prior to necropsy were used in the assessment of organ weight changes.

Testes, epididymides, and eyes were fixed in Bouin's solution. All other tissues were fixed in 10% neutral buffered formalin. Processed tissues were embedded in paraffin, cut at a nominal thickness of 5 micrometers, stained with hematoxylin and eosin (H&E), and examined microscopically.

All collected tissues from rats sacrificed at the end of the exposure period from control and high concentration groups were processed and received a full histopathological examination. The pharynx/larynx was identified as a target tissue by histopathology, and was processed from the low and intermediate group initial sacrifice animals and from the control and high exposure group recovery animals.

Company Sanitized. Does not contain TSC.

The key to the pathology lesion grading system used in this study can be found within the pathology tables and appendices.

O. Statistical Analyses

Significance was judged at $p < 0.05$.

Parameter	Preliminary Test	Method of Statistical Analysis	
		If preliminary test is not significant	If preliminary test is significant
Exposure Concentration Data Environmental Data Blood Fluorine Analysis	None	Descriptive statistics (e.g., mean, standard deviation)	
Body Weight Body Weight Gain Food Consumption Food Efficiency Organ Weight	Test for lack of trend ⁽³⁾	Sequential application ⁽⁴⁾ of the Jonckheere-Terpstra trend test ⁽⁵⁾	Preliminary tests for pairwise comparison
	OR ^a		
	Levene's test for homogeneity ⁽⁶⁾ and Shapiro-Wilk test ⁽⁷⁾ for normality ^b	One-way analysis of variance ⁽⁸⁾ followed with Dunnett's test ⁽⁹⁾	Kruskal-Wallis test ⁽¹⁰⁾ followed with Dunn's test ⁽¹¹⁾
Incidence of Clinical Observations	None	Cochran-Armitage test for trend ^{(8)c}	
Clinical Pathology ^d	Levene's test for homogeneity ⁽⁶⁾ and Shapiro-Wilk test ⁽⁷⁾ for normality ^b	One-way analysis of variance ⁽⁸⁾ followed with Dunnett's test ⁽⁹⁾	Kruskal-Wallis test ⁽¹⁰⁾ followed with Dunn's test ⁽¹¹⁾

- a Pairwise comparisons and associated preliminary tests are only conducted if the test for lack of trend is significant.
- b If the Shapiro-Wilk test is not significant but Levene's test is significant, a robust version of Dunnett's test will be used. If the Shapiro-Wilk test is significant, Kruskal-Wallis test is followed by Dunn's test.
- c If the incidence is not significant, but a significant lack of fit occurs, then Fisher's Exact test⁽¹²⁾ with a Bonferroni correction is used.
- d When an individual observation is recorded as being less than a certain value, calculations are performed on half the recorded value. For example, if bilirubin is reported as <0.1 , 0.05 is used for any calculations performed with that bilirubin data.

Company Sanitized. Does not contain TSCA CBI

RESULTS AND DISCUSSION

In-Life Animal Measurements

A. Chamber Concentrations of the Test Substance (Tables 1-2, Figure 2, Appendix A)

The mean concentrations $\pm$ standard error of the mean for the gravimetric samples over the 20 exposures were 5.1 ± 0.19 , 31 ± 0.93 , and 100 ± 2.4 mg/m³ in chambers targeted at 5, 30, and 100 mg/m³, respectively. Daily mean concentrations ranged from 74-138% of the nominal concentration for the 5 mg/m³ group. Daily mean concentrations ranged from 67-123% of the nominal concentration for the 30 mg/m³ group. Daily mean concentrations ranged from 66-120% of the nominal concentration for the 100 mg/m³ group. Although the mean daily chamber concentrations were occasionally less than 90% of the nominal concentrations, the mean concentrations for each week were consistent (Figure 2), and were acceptable for evaluating the toxicity at the targeted concentrations.

The mass median aerodynamic diameter (MMAD) ranged from 3.0-3.8 μ m for the 5 mg/m³ group, 4.7-5.2 μ m for the 30 mg/m³ group, and 3.9-4.5 μ m for the 100 mg/m³ group. The geometric standard deviation (GSD) ranged from 1.5 to 1.6 for the 5 mg/m³ group, 1.7-2.0 for the 30 mg/m³ group, and 1.4-3.1 for the 100 mg/m³ group. In the 5 mg/m³ group, 0.2-0.4% of the particles were less than 1 μ m, 32-50% of the particles were less than 3 μ m, and 98-100% of the particles were less than 10 μ m. In the 30 mg/m³ group, 0.1-0.2% of the particles were less than 1 μ m, 20-32% of the particles were less than 3 μ m, and 93-100% of the particles were less than 10 μ m. In the 100 mg/m³ group, <1-7% of the particles were less than 1 μ m, 10-70% of the particles were less than 3 μ m, and 99-100% of the particles were less than 10 μ m. These data indicate that the generation system provided particles that were in the respirable range for rats.

Nominal concentrations of the test substance were not calculated since a portion of the air stream containing the test substance was diverted to a water scrubber.

B. Chamber Environmental Conditions (Table 3, Appendix B)

The overall mean chamber temperatures in the 4 exposure chambers during the 20 exposures were 21-25°C. The temperature range of the daily means for all 4 chambers was 19-25°C. Although the chamber temperatures slightly exceeded the targeted range of 22-24°C, the slightly lower and higher temperatures did not adversely affect the health of the animals, based on their clinical appearance.

The overall mean relative humidity in the 4 exposure chambers during the 20 exposures was 37-65%. The humidity range of daily means for all 4 chambers was 33-74%. The slightly higher humidity values did not adversely affect the health of the animals, based on their clinical appearance.

The overall mean chamber airflow in the 4 exposure chambers during the 20 exposures was 35-50 L/min. The airflow in the chamber was adequate to achieve at least 12 air changes per hour.

C. Body Weights and Body Weight Gains
(Tables 4-5, Figure 3, Appendix C)

A non-linear decrease in body weight gain was observed males exposed to 5, 30 or 100 mg/m³, however, the mean values were only statistically significant for the 30 and 100 mg/m³ concentrations for test days 7-21 and over the interval of test days 0-25. Mean body weight values were slightly (not statistically) lower than the control values by test day 25. The lower body weight gain was correlated with slightly lower (not statistically significant) food consumption and significantly lower food efficiency values for males exposed to 30 or 100 mg/m³. In addition, during the recovery period, the body weight gain values were similar to controls. Although a clear concentration-response relationship is not evident, when the lower body weight gain for the rats exposed to 30, and 100 mg/m³ is considered together with the food consumption, food efficiency, and the recovery of these parameters during the recovery period, the decreased body weight gain appears to be test substance-related and is considered to be adverse for rats exposed to 30 or 100 mg/m³.

D. Food Consumption and Food Efficiency
(Tables 6-7, Appendix D)

Food consumption was slightly (not statistically significant) lower in males exposed to 30 or 100 mg/m³ compared to the control value. In addition, food efficiency was significantly lower for rats exposed to 30 or 100 mg/m³ during test days 14-21, and over the interval of test days 0-21. These observations correlate with the lower body weight and weight gain values observed in these groups, and were considered to be test substance-related and adverse. There were no statistically significant changes in food consumption or food efficiency observed in males exposed to 5 mg/m³.

E. Post-Exposure Clinical Observations and Clinical Observations at the Time of Body Weight Determinations
(Tables 8-9, Appendix E)

Post-exposure Observations

There were no adverse or test substance-related clinical signs of toxicity observed in any exposure group following the daily exposure periods. The incidences of discharge from the eye/nose were similar among all exposure groups and are commonly observed in rats restrained

in nose-only inhalation exposure systems. Clinical signs of hair loss due to the restrainers, and fur/skin stains associated with urination and defecation during exposure were not recorded for post-exposure observations.

Clinical Observations at the Time of Body Weight Determination

There were no adverse or test substance-related clinical signs of toxicity observed in any exposure group at the time of body weight determination. All clinical signs observed were common in this strain of rat.

Clinical Pathology Evaluation

A. Hematology and Coagulation (Table 10-11, Appendix F)

There were no treatment-related or statistically significant changes in hematologic parameters in rats exposed to H-25134.

B. Clinical Chemistry (Table 12, Appendix F)

Cholesterol concentration was mildly decreased in males exposed to 100 mg/m³ at test day 25. Mean cholesterol concentration (33 mg/dL) in this group was 69% of the control group mean (48 mg/dL). Cholesterol concentration was also minimally decreased (change in mean not statistically significant) in some males exposed to 5 or 30 mg/m³. Decreased cholesterol was considered to be potentially adverse at 100 mg/m³, due to the magnitude of the change. After 31 days of recovery, cholesterol concentrations of rats previously exposed to H-25134 were similar to control group values.

There were no other adverse changes in clinical chemistry parameters in male rats exposed to H-25134. The following statistically significant and/or treatment-related change in mean clinical chemistry parameters were considered to be non-adverse or not related to exposure to the test compound:

- Triglycerides were mildly decreased in males exposed to 5, 30, or 100 mg/m³ (statistically significant only in males exposed to 5 or 30 mg/m³). Although these changes showed a flat concentration response (55, 64, and 75% of control group mean, respectively), they were considered to be treatment-related due to the consistency of the response. However, the changes were not considered to be adverse, because mildly decreased triglycerides concentrations are not associated with adverse effects. After 31 days of recovery, triglyceride concentrations of rats previously exposed to H-25134 were similar to control group values.

The following statistically significant changes in clinical chemistry parameters were considered to be unrelated to exposure to the test compound because there was no concentration-response relationship.

- Minimally decreased inorganic phosphorus in males exposed to 30 mg/m³
- Minimally increased chloride in males exposed to 5 mg/m³

C. Urinalysis
(Table 13, Appendix F)

There were no treatment-related changes in urine volume.

D. Plasma and Urine Fluoride
(Tables 12-13, Appendix F)

Exposure to H-25134 caused increased mean urine fluoride in males exposed to 30 or 100 mg/m³ (statistically significant only at 100 mg/m³). Increased mean urine fluoride indicates exposure to and metabolism of a fluoride-containing molecule, and is considered to be non-adverse in isolation. After 31 days of recovery, urine fluorides were similar in all groups, including controls.

E. Conclusions

In conclusion, exposure of male rats to 100 mg/m³ H-25134 resulted in potentially adverse mild decreases in serum cholesterol. Treatment related but non-adverse changes included mildly decreased serum triglycerides in male rats exposed to 5, 30, or 100 mg/m³, and increased urine fluoride in males exposed to 30 or 100 mg/m³. After 31 days of recovery, serum cholesterol, serum triglycerides, and urine fluoride of rats previously exposed to H-25134 were similar to control group values.

Therefore, under the conditions of this study and for the clinical pathology parameters measured, the no-adverse-effect level for male rats was 30 mg/m³ H-25134, the highest exposure in this study.

Blood Fluorine Analysis

A. Blood Fluorine Analysis
(Table 14, Appendix G)

Blood fluorine concentration was slightly increased above background concentration in rats exposed to 30 mg/m³ on test day 25, and in rats exposed to 100 mg/m³ on test days 7, 14, and 25.

However, on test day 54, following approximately a one-month recovery period, blood fluorine concentrations in rats exposed to 5, 30, or 100 mg/m³ were similar to the control value. The test substance contains fluorine in the chemical structure, and the increase in blood fluorine concentration is considered to be a marker of exposure, and was not considered to be adverse.

Anatomic Pathology Evaluation

A. Mortality

There were no test substance-related deaths in this study.

B. Organ Weights

(Tables 15-16, Appendix H)

Absolute and relative to brain mean heart weights were significantly lower than the control in the 30 and 100 mg/m³ groups at the initial sacrifice. There were no test substance-related gross or microscopic effects in the heart. This weight change was attributed to lower mean final body weights in these groups.

Absolute and relative to brain mean thymus weights were significantly higher than the control in the 100 mg/m³ group, and the relative to body mean thymic weights were significantly higher than the control in all test exposure groups at the initial sacrifice. The relative (to body and to brain) and absolute mean weights of the thymus were lower than controls in the 30 and 100 mg/m³ groups at the recovery sacrifice. There were no test substance-related gross or microscopic effects in the thymus at either time point, and there was no clear concentration relationship in the weight effect. Thus, this fluctuation of thymus weight (higher at the initial sacrifice and then lower at the recovery sacrifice) was considered to be spurious.

The relative to body mean testes weights were significantly higher than the control in all test exposure groups at the initial sacrifice and were attributed to lower mean final body weights in these groups.

The relative to body mean adrenal weight was significantly higher (statistically) than control in the 100 mg/m³ group at the initial sacrifice. The higher mean adrenal weight was primarily due to an unusually high weight (0.112 g) in one animal (664860). Thus, higher relative to body mean adrenal weight in the 100 mg/m³ males was considered to be spurious. The absolute and relative to brain, mean adrenal weights in 100 mg/m³ animals and the mean relative to body, adrenal weights in the 30 and 100 mg/m³ groups were significantly higher than the control at the recovery sacrifice. There were no gross or microscopic test substance effects in the adrenal gland at either sacrifice and the magnitude of the weight differences were small. The adrenal gland, as do other organs, would be expected to increase slightly in weight as young animals grow and increase in body weight. In comparing organ weights from control animals in the initial and recovery sacrifices this is indeed the fact, except for the adrenal gland, which actually had a

lower mean absolute weight in recovery controls than in the younger initial sacrifice controls (0.055g VS 0.051g). Thus, the statistically significant adrenal weight changes in 30 mg/m³ and in 100 mg/m³ recovery animals were considered to be spurious and not test substance related or biologically important.

The relative to body, mean kidney weight was significantly higher in 100 mg/m³ animals at the recovery sacrifice. The magnitude of the change was extremely miniscule and there were no test substance-effects in the kidney. Thus, this weight change was considered to be spurious.

There were no other significant organ weight changes at either time point.

C. Gross Observations

(Tables 17-18, Appendix I)

Gross observations noted were sporadic across groups and were not test substance-related.

D. Microscopic Findings

(Tables 19-20, Appendix I)

Squamous metaplasia/hyperplasia of the ventral pharyngeal mucosa was observed at all exposure concentrations of H-25134 in initial sacrifice animals and was considered test substance-related. This lesion was limited in location to a very small and specific portion of the ventral epiglottis and was extremely minimal in its extent and severity. The specific location of the lesion was not always present in the slides examined, which accounts for the apparent lower incidence of this lesion in the highest exposure group. There was no apparent concentration response across exposure groups, either in incidence or severity, indicating that all exposure concentrations were above the irritant threshold for this substance.

This lesion was not present in recovery animals, indicating reversibility of the lesion.

Squamous metaplasia of the ventral laryngeal mucosa in rats is a common, nonspecific response to irritants and represents replacement of normal pseudostratified epithelium with squamous epithelium. This squamous epithelium is indistinguishable from that which normally lines other areas of larynx. Squamous metaplasia of the larynx occurring absent more severe changes, such as keratinization or ulceration, is generally considered an adaptive response where one epithelial type is replaced by a more resistant one.^(13,14,15) In the present study, squamous metaplasia was minimal and focal, reversible, and not associated with other histological changes. Therefore, these changes can be regarded as adaptive and of equivocal toxicological significance.

Other microscopic observations noted are known to occur spontaneously in rats of this strain and age and were not present in a concentration response fashion in either incidence or severity.

E. Conclusions

There were no compound-related mortality, organ weight, or gross findings in rats exposed to H-25134.

The NOEL for anatomic pathology was 100 mg/m³. The minimal microscopic squamous metaplasia/hyperplasia of the pharyngeal mucosa at all exposure levels represents a common adaptive response to an irritant exposure and is of equivocal toxicological significance. Laryngeal squamous metaplasias was not present in recovery animals indicating reversibility of the lesion.

Company Sanitized. Does not contain TSCA CBI

CONCLUSIONS

Test substance-related, statistically significant decreases in body weight gain and food efficiency occurred in rats exposed to 30 or 100 mg/m³. Although slightly decreased body weight gain for rats exposed to 5 mg/m³ also appeared to be test substance-related, it was not considered to be adverse since the mean body weights were only 4.3% lower than the control value. Unscheduled mortality did not occur during the study. Incidences of clinical signs following exposure and at the time of body weight determination were similar for all groups.

Cholesterol concentration was mildly decreased in males exposed to 100 mg/m³ at test day 25; these changes were considered to be potentially adverse. After 31 days of recovery, cholesterol concentrations for all test groups were similar to control. Triglycerides were mildly decreased in males exposed to 5, 30, or 100 mg/m³. Although these changes showed a flat concentration-response, they were considered to be test substance-related. However, the mildly decreased concentrations were not associated with histological changes, and therefore, they were not considered to be adverse. After 31 days of recovery, the triglyceride concentrations for all test groups were similar to the control values. Blood fluorine (but not plasma fluoride) concentration was slightly increased above background concentration in rats exposed to 30 or 100 mg/m³. Urine fluoride was also increased in rats exposed to 30 or 100 mg/m³. At the end of the one-month recovery period, blood fluorine concentrations and urine fluoride amounts were similar to control. There were no other treatment-related changes in clinical pathology parameters for any test group.

Statistically significant changes in organ weight and relative organ weight (relative to body weight or brain weight) that were secondary to decreased body weight occurred in the heart and testes. Squamous metaplasia/hyperplasia of the ventral laryngeal mucosa was observed in rats exposed to 5, 30, or 100 mg/m³ at the sacrifice on test day 25. The lesion was minimal, focal, and not concentration-related with respect to incidence or severity. Squamous metaplasia of the ventral larynx of rats is a common, nonspecific response to irritants and is generally considered an adaptive response. This lesion was not present in animals sacrificed after a one-month recovery.

The no-observed-effect level (NOEL) for this study is defined as the highest concentration at which toxicologically important effects attributable to the test substance were not detected. Thus for this study, the NOEL is equivalent to the NOEL as defined by the United States Environmental Protection Agency (1985), and the no-observed-adverse effect level (NOAEL) as defined by the European Union (1994). Under the conditions of the study, the NOEL was 5 mg/m³ based on decreased body weight gain at 30 mg/m³ and above. The minimal morphological changes in the larynx observed at all exposure concentrations were considered to be a nonspecific, adaptive response and is of equivocal toxicological significance.

Company Sanitized. Does not contain TSCA CBI

RECORDS AND SAMPLE STORAGE

All data and records for analytical characterizations conducted by the sponsor will be retained by the sponsor. Laboratory-specific or site-specific raw data, such as personnel files and equipment records will be retained by the facility where the work was done.

A sample of the test substance will be collected for archive purposes and retained at Haskell Laboratory, Newark, Delaware. Specimens (if applicable), raw data, and the final report will be retained at Haskell Laboratory, Newark, Delaware, or at Iron Mountain Records Management, Wilmington, Delaware.

REFERENCES

[REDACTED]

2. Calculation described in Sierra Instruments, Inc., Bulletin 7-79-219IM, Instruction Manual: Series 210 Ambient Cascade Impactors and Cyclone Preseparators.
3. Draper, N.R. and Smith, H. (1981). Applied Regression Analysis, 2nd edition, pp 266-273. Wiley, New York.
4. Selwyn, M.R. (1995). The use of trend tests to determine a no-observable-effect level in animal safety studies. *Journal of the American College of Toxicology* **14**(2), 158-168.
5. Jonckheere, A.R. (1954). A distribution-free K-sample test against ordered alternatives. *Biometrika* **41**, 133-145.
6. Levene, H. (1960). Robust test for equality of variances. *Contributions to Probability and Statistics* (J. Olkin, ed.), pp 278-292. Stanford University Press, Palo Alto.
7. Shapiro, S.S. and Wilk, M.B. (1965). An analysis of variance test for normality (complete samples). *Biometrika* **52**, 591-611.
8. Snedecor, G.W. and Cochran, W.G. (1967). *Statistical Methods*, 6th edition, pp 246-248 and 349-352. The Iowa State University Press, Iowa.
9. Dunnett, C.W. (1955). A multiple comparison procedure for comparing several treatments with a control. *J. Amer. Statist. Assoc.* **50**, 1096-1121.
10. Kruskal, W.H. and Wallis, W.A. (1952). Use of ranks in one-criterion analysis of variance. *J. Amer. Statist. Assoc.* **47**, 583-621.
11. Dunn, O.J. (1964). Multiple contrasts using rank sums. *Technometrics* **6**, 241-252.

Company Sanitized. Does not contain TSCA CBI

12. Fisher, R.A. (1985). *Statistical Methods for Research Workers*, 13th edition. Haffner, New York.
13. Lewis, D.J. (1991). Morphological assessment of pathological changes within the rat larynx. *Toxicol. Pathol.* **19**(4 Pt1), 352-357.
14. Burger G.T., Renne R.A., Sagartz J.W., Ayres P.H., Coggins C.R., Mosberg A.T., and Hayes A.W. (1989). Histologic changes in the respiratory tract induced by inhalation of xenobiotics: physiologic adaptation or toxicity? *Toxicol. Appl. Pharmacol.* **101**(3), 521-542.
15. Kilgour J.D., Foster J., Soames A., Farrar D.G., and Hext P.M. (2002). Responses in the respiratory tract of rats following exposure to sulphuric acid aerosols for 5 or 28 days. *J. Appl. Toxicol.* **22**(6), 387-395.

Company Sanitized. Does not contain TSCA CBI

TABLES

Company Sanitized. Does not contain TSCA CBI

TABLES

EXPLANATORY NOTES

ABBREVIATIONS:**Chamber Concentrations of H-25134****Chamber Environmental Conditions**

- S.D. - standard deviation
S.E.M. - standard error of the mean
mg/m³ - milligrams per cubic meter
n - number of samples

Summary of Hematology Values

- RBC - red blood cell count
HGB - hemoglobin
HCT - hematocrit
MCV - mean corpuscular volume
MCH - mean corpuscular hemoglobin
MCHC - mean corpuscular hemoglobin concentration
RDW - red cell distribution width
ARET - absolute reticulocyte count
PLT - platelet count
WBC - white blood cell count
ANEU - absolute neutrophil (all forms)
ALYM - absolute lymphocyte
AMON - absolute monocyte
AEOS - absolute eosinophil
ABAS - absolute basophil
ALUC - absolute large unstained cell

Summary of Coagulation Values

- PT - prothrombin time
APTT - activated partial thromboplastin time

Company Sanitized. Does not contain TSCA CBI

TABLES

EXPLANATORY NOTES (Continued)

ABBREVIATIONS (Continued):**Summary of Clinical Chemistry Values**

AST	-	aspartate aminotransferase
ALT	-	alanine aminotransferase
SDH	-	sorbitol dehydrogenase
ALKP	-	alkaline phosphatase
BILI	-	total bilirubin
BUN	-	urea nitrogen
CREA	-	creatinine
CHOL	-	cholesterol
TRIG	-	triglycerides
GLUC	-	glucose
TP	-	total protein
ALB	-	albumin
GLOB	-	globulin
CALC	-	calcium
IPHS	-	inorganic phosphorous
NA	-	sodium
K	-	potassium
CL	-	chloride
PFLU	-	plasma fluoride

Summary of Urinalysis Values

VOL	-	volume
UOSM	-	urine osmolality
pH	-	the logarithm of the reciprocal of the hydrogen ion concentration
URO	-	urobilinogen
UFLU	-	urine fluoride
UMTP	-	urine protein

Company Sanitized. Does not contain TSCA CBI

TABLES

EXPLANATORY NOTES (Continued)**NOTES:****Chamber Concentrations of H-25134****Particle Size Distribution of H-25134****Chamber Environmental Conditions**

Values are reported to 2 significant figures.

Calculations were performed prior to rounding values.

Summary of Hematology Values**Summary of Coagulation Values****Summary of Clinical Chemistry Values****Summary of Urinalysis Values**

When an individual observation was recorded as being less than a certain value, calculations were performed on half the recorded value. For example, if bilirubin was reported as <0.1, 0.05 was used for any calculations performed with that bilirubin data.

Company Sanitized. Does not contain TSCA CBI

TABLE 1
CHAMBER CONCENTRATIONS OF H-25134

DESIGN CONCENTRATION (mg/m ³)	GROUP	MEASURED CONCENTRATION ^a (mg/m ³)			
		MEAN	S.E.M.	RANGE	n
5	III	5.1	0.19	3.7 - 6.9	20
30	V	31	0.93	20 - 37	20
100	VII	100	2.4	66 - 120	20

a Values represent the mean, standard error of the mean (S.E.M.), and range of the daily mean values obtained from n exposures.

TABLE 2
PARTICLE SIZE DISTRIBUTION OF H-25134

DESIGN CONCENTRATION (mg/m ³)	EXPOSURE NUMBER	MASS MEDIAN AERODYNAMIC DIAMETER (μm)	GEOMETRIC STANDARD DEVIATION	% PARTICLES BY MASS		
				<1 μm	<3 μm	<10 μm
5	4	3.7	1.6	0.2	34	99
	8	3.0	1.5	0.4	50	100
	13	3.8	1.6	0.2	32	100
	17	3.7	1.6	0.3	33	98
30	3	4.7	1.7	0.15	20	93
	6	4.7	1.7	0.2	22	93
	11	5.2	1.9	>1	23	100
	16	4.7	2.0	0.1	32	99
100	2	3.9	1.5	>1	26	99
	7	4.0	3.1	7	70	100
	12	4.4	1.4	>1	10	100
	16	4.5	1.6	>1	13	99

Company Sanitized. Does not contain TSCA CBI

TABLE 3
CHAMBER ENVIRONMENTAL CONDITIONS

DESIGN CONCENTRATION (mg/m ³)	GROUP	TEMPERATURE (°C) ^a		RELATIVE HUMIDITY (%) ^a		AIRFLOW (L/min) ^a		n
		MEAN	S.E.M. RANGE	MEAN	S.E.M. RANGE	MEAN	S.E.M. RANGE	
0	I	24	0.13 22 - 25	58	1.7 45 - 67	35	0.032 35	20
5	III	21	0.20 19 - 23	65	1.6 52 - 74	50	0.0087 50	20
30	V	24	0.090 23 - 25	37	0.54 33 - 41	50	0.011 50	20
100	VII	25	0.090 24 - 25	58	0.41 55 - 61	50	0.0079 50	20

^a Values represent the mean, standard error of the mean (S.E.M.), and range of the daily mean values obtained from n exposures.

TABLE 4
MEAN BODY WEIGHTS OF MALE RATS

DAYS ON TEST	MEAN BODY WEIGHTS (g)			
	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
<i>EXPOSURE</i>				
0	275.5 13.2(15)	272.1 14.3(15)	273.4 13.9(15)	271.7 15.6(15)
7	304.7 21.3(15)	295.8 18.3(15)	295.8 18.9(15)	294.9 24.5(15)
14	333.2 26.8(15)	320.7 21.7(15)	314.8 22.8(15)	318.6 29.4(15)
21	358.2 31.4(15)	345.3 25.3(15)	333.6 27.8(15)	340.7 33.0(15)
25 ^a	343.7 34.5(10)	329.0 26.9(10)	315.2 28.9(10)	323.3 35.6(10)

Company Sanitized. Does not contain TSCA CBI

TABLE 4 (Continued)

MEAN BODY WEIGHTS OF MALE RATS

DAYS ON TEST	MEAN BODY WEIGHTS (g)			
	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
<i>RECOVERY</i>				
28	359.9 21.2(5)	346.8 15.4(5)	350.3 20.1(5)	357.0 32.7(5)
35	397.4 30.6(5)	386.9 18.9(5)	392.9 20.7(5)	395.2 36.2(5)
42	430.6 24.4(5)	414.4 19.1(5)	426.8 22.1(5)	429.2 40.0(5)
49	460.4 21.4(5)	438.9 22.4(5)	456.0 27.7(5)	454.5 47.1(5)
56 ^a	447.1 21.0(5)	422.1 21.5(5)	439.7 27.1(5)	441.6 46.0(5)

Data arranged as: Mean
Standard deviation (Number of values included in calculation)

There were no statistically significant differences from control at $p < 0.05$.

a Weight losses due to fasting of rats prior to clinical pathology evaluation.

Company Sanitized. Does not contain TSCA CBI

TABLE 5
MEAN BODY WEIGHT GAINS OF MALE RATS

DAYS ON TEST	MEAN BODY WEIGHT GAINS (g)			
	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
<i>EXPOSURE</i>				
0 - 7	29.2 11.6(15)	23.7 7.5(15)	22.3 6.4(15)	23.2 11.0(15)
7 - 14	28.5 7.9(15)	24.9 6.3(15)	19.1# 6.3(15)	23.6# 7.7(15)
14 - 21	25.0 9.4(15)	24.6 5.7(15)	18.8# 6.9(15)	22.1# 5.5(15)
21 - 25 ^a	-18.8 6.5(10)	-22.4 4.5(10)	-19.4 5.4(10)	-17.5 3.3(10)
<i>RECOVERY</i>				
28 - 35	37.6 14.8(5)	40.1 4.7(5)	42.5 6.6(5)	38.1 7.8(5)
35 - 42	33.1 11.0(5)	27.5 8.2(5)	33.9 5.7(5)	34.0 5.3(5)
42 - 49	29.9 5.3(5)	24.5 7.0(5)	29.2 7.6(5)	25.3 8.0(5)
49 - 56 ^a	-13.4 3.5(5)	-16.8 3.3(5)	-16.3 4.0(5)	-12.9 6.1(5)

Company Sanitized. Does not contain TSCA CBI

TABLE 5 (Continued)

MEAN BODY WEIGHT GAINS OF MALE RATS

DAYS ON TEST	MEAN BODY WEIGHT GAINS (g)			
	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
<i>OVERALL</i>				
0 - 25	69.0 21.9(10)	56.4 16.7(10)	39.6# 15.8(10)	51.5# 21.1(10)
28 - 56	87.2 16.0(5)	75.4 11.3(5)	89.4 17.1(5)	84.5 20.1(5)
0 - 56	170.0 23.7(5)	151.1 14.6(5)	170.6 22.1(5)	170.2 38.3(5)

Data arranged as: Mean
Standard deviation (Number of values included in calculation)

Statistically significant difference from control at $p < 0.05$ by Jonckheere-Terpstra trend test.

a Weight losses due to fasting of rats prior to clinical pathology evaluation.

Company Sanitized. Does not contain TSCA CBI

TABLE 6
MEAN DAILY FOOD CONSUMPTION BY MALE RATS

DAYS ON TEST	MEAN DAILY FOOD CONSUMED PER ANIMAL (g)			
	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
<i>EXPOSURE</i>				
7	24.6 2.3(15)	24.1 1.7(15)	23.8 1.9(15)	23.7 2.7(15)
14	24.3 2.6(15)	24.1 1.7(15)	22.6 1.8(15)	23.3 2.1(15)
21	24.4 2.9(15)	24.4 2.1(15)	22.5 2.0(15)	23.7 1.9(15)
<i>OVERALL</i> 0 - 21	24.4 2.378(15)	24.2 1.688(15)	23.0 1.727(15)	23.6 2.052(15)

Data arranged as: Mean
Standard deviation (Number of values included in calculation)

There were no statistically significant differences from control at $p < 0.05$.

Company Sanitized. Does not contain TSCA CBI

TABLE 7
MEAN DAILY FOOD EFFICIENCY OF MALE RATS

DAYS ON TEST	MEAN DAILY FOOD EFFICIENCY (g WEIGHT GAIN/g FOOD CONSUMED)			
	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
<i>EXPOSURE</i>				
0 - 7	0.167 0.055(15)	0.139 0.038(15)	0.133 0.033(15)	0.135 0.056(15)
14	0.165 0.035(15)	0.147 0.033(15)	0.119# 0.036(15)	0.143# 0.039(15)
21	0.144 0.046(15)	0.143 0.025(15)	0.118# 0.040(15)	0.132# 0.027(15)
<i>OVERALL</i>				
0 - 21	0.159 0.031(15)	0.143 0.025(15)	0.123# 0.030(15)	0.138# 0.032(15)

Data arranged as: Mean
Standard deviation (Number of values included in calculation)

Statistically significant difference from control at $p < 0.05$ by Jonckheere-Terpstra trend test.

Company Sanitized. Does not contain TSCA CBI

TABLE 8

SUMMARY OF CLINICAL OBSERVATIONS IN MALE RATS PRIOR TO EXPOSURE

	Group I 0 mg/m ³		Group III 5 mg/m ³		Group V 30 mg/m ³		Group VII 100 mg/m ³	
	15	15	15	15	15	15	15	15
ANIMAL COUNT:								
Exophthalmus								
Incidence	1 (7%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (7%)		
Mean onset (Days)	28	-	-	-	-	28		
Enophthalmus								
Incidence	1 (7%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (7%)		
Mean onset (Days)	42	-	-	-	-	42		
Discharge								
Incidence	1 (7%)	1 (7%)	1 (7%)	1 (7%)	1 (7%)	1 (7%)		
Mean onset (Days)	35	28	28	28	28	28		
Hair Loss								
Incidence	2 (13%)	1 (7%)	1 (7%)	1 (7%)	3 (20%)	3 (20%)		
Mean onset (Days)	23	20	20	22	22	23		
Wound								
Incidence	0 (0%)	1 (7%)	1 (7%)	2 (13%)	2 (13%)	0 (0%)		
Mean onset (Days)	-	21	21	14	14	-		

Incidence - The number of animals (percent of group) for which an observation was recorded.

Mean onset (Days) - The mean of the test days each observation was first recorded for that group.

A dash indicates a clinical observation was not observed, therefore, there is no mean onset day.

There were no statistically significant differences from control at $p < 0.05$.

TABLE 9

SUMMARY OF CLINICAL OBSERVATIONS IN MALE RATS AFTER EXPOSURE

	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
ANIMAL COUNT:	15	15	15	15
Discharge				
Incidence	12 (80%)	13 (87%)	12 (80%)	12 (80%)
Mean onset (Days)	9	11	9	7
Wound				
Incidence	0 (0%)	1 (7%)	2 (13%)	1 (7%)
Mean onset (Days)		8	11	4

Incidence - The number of animals (percent of group) for which an observation was recorded.
 Mean onset (Days) - The mean of the test days each observation was first recorded for that group.
 A dash indicates a clinical observation was not observed, therefore, there is no mean onset day.

There were no statistically significant differences from control at $p < 0.05$.

TABLE 10

SUMMARY OF HEMATOLOGY VALUES FOR MALE RATS

	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
RBC (x10 ⁶ /μL)				
DAY 25	7.93 0.26(10)	7.85 0.28(9)	8.13 0.36(10)	7.95 0.25(10)
HGB (g/dL)				
DAY 25	15.7 0.4(10)	15.7 0.4(9)	15.8 0.5(10)	15.7 0.6(10)
HCT (%)				
DAY 25	46.1 1.3(10)	45.6 1.1(9)	46.0 1.4(10)	45.9 1.7(10)
MCV (fl)				
DAY 25	58.1 1.4(10)	58.1 1.9(9)	56.6 1.5(10)	57.7 1.6(10)
MCH (pg)				
DAY 25	19.8 0.5(10)	20.0 0.6(9)	19.5 0.6(10)	19.8 0.7(10)
MCHC (g/dL)				
DAY 25	34.1 0.5(10)	34.3 0.6(9)	34.4 0.5(10)	34.2 0.6(10)
RDW (%)				
DAY 25	10.9 0.3(10)	10.8 0.5(9)	11.0 0.4(10)	10.7 0.3(10)
ARET (x10 ³ /μL)				
DAY 25	169.5 46.6(10)	175.2 31.0(9)	134.0 35.0(10)	149.5 21.7(10)
PLT (x10 ³ /μL)				
DAY 25	1207 136(6)	1261 134(4)	1100 159(5)	1133 100(8)
WBC (x10 ³ /μL)				
DAY 25	11.48 2.55(10)	12.08 1.55(9)	12.21 2.85(10)	12.27 2.71(10)
ANEU (x10 ³ /μL)				
DAY 25	1.49 0.60(10)	1.57 0.65(9)	1.20 0.47(10)	1.29 0.35(10)
ALYM (x10 ³ /μL)				
DAY 25	9.50 2.05(10)	10.06 1.47(9)	10.46 2.27(10)	10.51 2.66(10)

TABLE 10 (Continued)

SUMMARY OF HEMATOLOGY VALUES FOR MALE RATS

	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
AMON (x10 ³ /μL)				
DAY 25	0.25 0.11(10)	0.21 0.08(9)	0.22 0.12(10)	0.22 0.13(10)
AEOS (x10 ³ /μL)				
DAY 25	0.09 0.05(10)	0.09 0.02(9)	0.10 0.06(10)	0.09 0.05(10)
ABAS (x10 ³ /μL)				
DAY 25	0.07 0.03(10)	0.07 0.03(9)	0.09 0.05(10)	0.08 0.04(10)
ALUC (x10 ³ /μL)				
DAY 25	0.08 0.02(10)	0.08 0.02(9)	0.13 0.12(10)	0.08 0.06(10)

Data arranged as: Mean
Standard deviation (Number of values included in calculation)

There were no statistically significant differences from control at $p < 0.05$.

Company Sanitized. Does not contain TSCA CBI

TABLE 11

SUMMARY OF COAGULATION VALUES FOR MALE RATS

	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
PT (seconds)				
DAY 25	15.7 1.4(10)	16.1 2.1(10)	15.5 0.8(10)	15.4 0.4(10)
APTT (seconds)				
DAY 25	20.9 1.5(10)	20.8 1.5(10)	19.9 1.7(10)	19.7 1.6(10)

Data arranged as: Mean
Standard deviation (Number of values included in calculation)

There were no statistically significant differences from control at $p < 0.05$.

Company Sanitized. Does not contain TSCA CBI

TABLE 12

SUMMARY OF CLINICAL CHEMISTRY VALUES FOR MALE RATS

	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
AST (U/L)				
DAY 25	103 19(10)	100 11(10)	109 14(9)	101 13(10)
ALT (U/L)				
DAY 25	31 5(10)	33 5(10)	36 8(9)	35 7(10)
SDH (U/L)				
DAY 25	12.4 5.4(10)	12.7 5.0(7)	11.3 5.3(8)	13.1 4.4(9)
ALKP (U/L)				
DAY 25	197 34(10)	215 28(10)	174 31(9)	213 40(10)
BILI (mg/dL)				
DAY 25	0.08 0.03(10)	0.08 0.03(10)	0.10 0.03(9)	0.08 0.03(10)
BUN (mg/dL)				
DAY 25	15 1(10)	15 1(10)	15 1(10)	14 2(10)
CREA (mg/dL)				
DAY 25	0.32 0.05(10)	0.31 0.07(10)	0.33 0.05(10)	0.33 0.05(10)
CHOL (mg/dL)				
DAY 25	48 7(10)	43 9(10)	44 9(10)	33* 10(10)
DAY 56	52 8(5)	52 7(5)	51 13(5)	51 18(5)
TRIG (mg/dL)				
DAY 25	36 11(10)	20* 9(10)	23* 6(9)	27 6(10)
DAY 56	54 11(5)	52 23(5)	61 24(5)	64 24(5)

Company Sanitized. Does not contain TSCA CBI

TABLE 12 (Continued)

SUMMARY OF CLINICAL CHEMISTRY VALUES FOR MALE RATS

	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
GLUC (mg/dL)				
DAY 25	88 8(10)	92 15(10)	92 7(10)	91 11(10)
TP (g/dL)				
DAY 25	6.3 0.2(10)	6.1 0.3(10)	6.4 0.3(9)	6.2 0.4(10)
DAY 56	6.6 0.2(5)	6.6 0.3(5)	6.3 0.1(5)	6.5 0.3(5)
ALB (g/dL)				
DAY 25	4.3 0.2(10)	4.3 0.2(10)	4.4 0.2(9)	4.2 0.2(10)
DAY 56	4.2 0.1(5)	4.4 0.2(5)	4.2 0.2(5)	4.2 0.2(5)
GLOB (g/dL)				
DAY 25	2.0 0.1(10)	1.8 0.1(10)	2.0 0.2(9)	2.0 0.2(10)
DAY 56	2.4 0.2(5)	2.2 0.2(5)	2.2 0.1(5)	2.3 0.1(5)
CALC (mg/dL)				
DAY 25	10.8 0.4(10)	10.8 0.2(10)	10.6 0.4(10)	10.7 0.4(10)
IPHS (mg/dL)				
DAY 25	9.6 0.9(10)	9.6 0.9(10)	8.7@ 0.7(10)	9.0 1.0(10)
NA (mmol/L)				
DAY 25	146.9 1.5(10)	147.4 2.1(10)	148.4 2.4(10)	149.2 2.6(10)
K (mmol/L)				
DAY 25	5.97 0.35(10)	6.09 0.54(10)	5.89 0.41(9)	5.89 0.21(10)

Company Sanitized. Does not contain TSCA CBI

TABLE 12 (Continued)

SUMMARY OF CLINICAL CHEMISTRY VALUES FOR MALE RATS

	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
CL (mmol/L)				
DAY 25	102.0	104.0*	102.3	103.3
	1.6(10)	2.2(10)	1.4(10)	1.8(10)
PFLU (µg/mL)				
DAY 25	0.1	0.1	0.1	0.1
	0.0(10)	0.1(10)	0.0(10)	0.0(9)

Data arranged as: Mean
Standard deviation (Number of values included in calculation)

* Statistically significant difference from control at $p < 0.05$ by Dunnett/Tamhane-Dunnett test.

@ Statistically significant difference from control at $p < 0.05$ by Dunn's test.

Company Sanitized. Does not contain TSCA CBI

TABLE 13
SUMMARY OF URINALYSIS VALUES FOR MALE RATS

	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
VOL (mL)				
DAY 25	6.2 4.6(10)	5.6 3.6(10)	4.8 2.8(10)	6.6 4.4(10)
UOSM (mOsm)				
DAY 25	1547 964(10)	1330 859(10)	1390 848(10)	1129 692(10)
pH				
DAY 25	6.7 0.5(10)	6.9 0.5(10)	6.6 0.5(10)	6.5 0.5(10)
URO (EU/dL)				
DAY 25	0.2 0.0(10)	0.2 0.0(10)	0.2 0.0(10)	0.2 0.0(10)
UFLU (µg)				
DAY 25	13.2 3.0(7)	12.8 5.1(9)	18.6 5.2(8)	23.9* 8.4(8)
DAY 56	14.7 5.0(5)	13.0 3.3(5)	11.7 2.0(5)	13.9 3.5(5)
UMTP (mg/dL)				
DAY 25	129 72(10)	102 72(10)	86 62(10)	75 66(10)

Data arranged as: Mean
Standard deviation (Number of values included in calculation)

* Statistically significant difference from control at $p < 0.05$ by Dunnett/Tamhane-Dunnett test.

Company Sanitized. Does not contain TSCA CBI

TABLE 14
SUMMARY OF BLOOD FLUORINE ANALYSIS

DAYS ON TEST	BLOOD FLUORINE (ppm)			
	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
0	1.3 0.11(5)	a	a	1.7 0.21(5)
7	1.4 0.11(5)	a	a	2.1 0.23(5)
14	1.0 0.19(5)	a	a	3.1 0.71(5)
25	1.1 0.04(5)	1.4 0.08(5)	2.5 0.24(4)	3.8 0.53(5)
54	1.2 0.12(5)	1.3 0.22(5)	1.8 0.16(5)	1.7 0.29(5)

Data arranged as: Mean
Standard deviation (Number of values included in calculation)

a Samples not evaluated for this timepoint.

Company Sanitized. Does not contain TSCA CBI

TABLE 15
MEAN FINAL BODY AND ORGAN WEIGHTS FROM MALE RATS
DAY 25 SACRIFICE

	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
MEAN FINAL BODY AND ABSOLUTE ORGAN WEIGHTS (grams)				
LIVER	9.990 1.280(10)	9.607 0.787(10)	9.115 1.031(10)	9.535 1.275(10)
KIDNEYS	2.921 0.408(10)	2.982 0.346(10)	2.800 0.259(10)	2.966 0.361(10)
LUNGS	1.691 0.203(10)	1.673 0.198(10)	1.561 0.185(10)	1.657 0.183(10)
HEART	1.373 0.214(10)	1.365 0.165(10)	1.199# 0.116(10)	1.239# 0.150(10)
SPLEEN	0.583 0.130(10)	0.606 0.072(10)	0.575 0.131(10)	0.579 0.098(10)
BRAIN	1.957 0.138(10)	1.977 0.085(10)	1.964 0.094(10)	1.980 0.086(10)
THYMUS	0.375 0.099(10)	0.429 0.055(10)	0.402 0.082(10)	0.455# 0.065(10)
ADRENAL GLANDS	0.055 0.012(10)	0.066 0.005(10)	0.060 0.015(10)	0.070 0.017(10)
TESTES	3.057 0.302(10)	3.241 0.253(10)	3.252 0.352(10)	3.251 0.285(10)
EPIDIDYMIDES	1.018 0.105(10)	1.077 0.195(10)	0.979 0.101(10)	1.059 0.129(10)
FINAL BODY WEIGHT (grams)	343.690 34.542(10)	328.990 26.854(10)	315.200 28.945(10)	323.340 35.591(10)

TABLE 15 (Continued)

MEAN FINAL BODY AND ORGAN WEIGHTS FROM MALE RATS
DAY 25 SACRIFICE

	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
MEAN RELATIVE ORGAN WEIGHTS (% of body weight)				
LIVER/ FINAL BODY * 100	2.906 0.230(10)	2.922 0.120(10)	2.893 0.228(10)	2.948 0.209(10)
KIDNEYS/ FINAL BODY * 100	0.850 0.091(10)	0.905 0.052(10)	0.891 0.080(10)	0.917 0.040(10)
LUNGS/ FINAL BODY * 100	0.492 0.040(10)	0.509 0.046(10)	0.495 0.038(10)	0.515 0.053(10)
HEART/ FINAL BODY * 100	0.398 0.039(10)	0.415 0.032(10)	0.382 0.037(10)	0.384 0.035(10)
SPLEEN/ FINAL BODY * 100	0.169 0.027(10)	0.184 0.014(10)	0.182 0.039(10)	0.179 0.020(10)
BRAIN/ FINAL BODY * 100	0.573 0.053(10)	0.603 0.033(10)	0.627 0.049(10)	0.620 0.083(10)
THYMUS/ FINAL BODY * 100	0.108 0.020(10)	0.130# 0.013(10)	0.128# 0.028(10)	0.141# 0.013(10)
ADRENAL GLANDS/ FINAL BODY * 100	0.016 0.004(10)	0.020 0.002(10)	0.019 0.005(10)	0.022# 0.004(10)
TESTES/ FINAL BODY * 100	0.893 0.088(10)	0.988# 0.076(10)	1.036# 0.111(10)	1.009# 0.060(10)
EPIDIDYMIDES/ FINAL BODY * 100	0.299 0.041(10)	0.327 0.044(10)	0.313 0.041(10)	0.330 0.041(10)

Company Sanitized. Does not contain TSCA CBI

TABLE 15 (Continued)

MEAN FINAL BODY AND ORGAN WEIGHTS FROM MALE RATS
DAY 25 SACRIFICE

	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
MEAN RELATIVE ORGAN WEIGHTS (organ to brain weight ratio)				
LIVER/ BRAIN * 100	510.099 51.485(10)	485.628 28.495(10)	464.261 51.808(10)	482.222 66.222(10)
KIDNEYS/ BRAIN * 100	149.057 16.981(10)	150.650 14.019(10)	142.608 12.456(10)	150.138 19.996(10)
LUNGS/ BRAIN * 100	86.257 6.599(10)	84.461 7.714(10)	79.368 7.616(10)	83.705 8.594(10)
HEART/ BRAIN * 100	70.019 8.664(10)	68.903 6.147(10)	61.056# 5.645(10)	62.623# 7.408(10)
SPLEEN/ BRAIN * 100	29.690 5.707(10)	30.582 2.762(10)	29.226 6.493(10)	29.290 5.021(10)
THYMUS/ BRAIN * 100	19.188 4.908(10)	21.668 2.342(10)	20.424 4.020(10)	23.031# 3.425(10)
ADRENAL GLANDS/ BRAIN * 100	2.819 0.587(10)	3.313 0.234(10)	3.029 0.733(10)	3.531 0.816(10)
TESTES/ BRAIN * 100	156.386 13.738(10)	164.101 13.377(10)	165.435 13.748(10)	164.535 16.688(10)
EPIDIDYMIDES/ BRAIN * 100	52.166 5.496(10)	54.384 8.519(10)	49.807 4.358(10)	53.488 5.963(10)

Data arranged as: Mean
Standard deviation (Number of values included in calculation)

Statistically significant difference from control at $p < 0.05$ by trend test (Jonckheere-Terpstra).

Company Sanitized. Does not contain TSCA CBI

TABLE 16

MEAN FINAL BODY AND ORGAN WEIGHTS FROM MALE RATS
DAY 56 SACRIFICE

	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
MEAN FINAL BODY AND ABSOLUTE ORGAN WEIGHTS (grams)				
LIVER	12.850 0.739(5)	11.943 1.666(5)	13.727 1.443(5)	13.911 3.387(5)
KIDNEYS	3.523 0.357(5)	3.423 0.190(5)	3.635 0.274(5)	3.865 0.565(5)
LUNGS	1.878 0.227(5)	2.001 0.247(5)	2.150 0.292(5)	2.076 0.470(5)
HEART	1.553 0.083(5)	1.618 0.221(5)	1.591 0.109(5)	1.701 0.289(5)
SPLEEN	0.867 0.051(5)	0.746 0.108(5)	0.828 0.136(5)	0.859 0.239(5)
BRAIN	2.028 0.138(5)	2.113 0.111(5)	2.115 0.093(5)	2.082 0.132(5)
THYMUS	0.543 0.056(5)	0.454 0.110(5)	0.418# 0.024(5)	0.408# 0.053(5)
ADRENAL GLANDS	0.051 0.006(5)	0.052 0.011(5)	0.064 0.004(5)	0.070# 0.009(5)
TESTES	3.324 0.298(5)	3.452 0.199(5)	3.358 0.234(5)	3.235 0.200(5)
EPIDIDYIMIDES	1.279 0.159(5)	1.293 0.056(5)	1.379 0.090(5)	1.346 0.185(5)
FINAL BODY WEIGHT (grams)	447.060 20.987(5)	422.120 21.505(5)	439.700 27.084(5)	441.560 45.978(5)

TABLE 16 (Continued)

MEAN FINAL BODY AND ORGAN WEIGHTS FROM MALE RATS
DAY 56 SACRIFICE

	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
MEAN RELATIVE ORGAN WEIGHTS (% of body weight)				
LIVER/ FINAL BODY * 100	2.874 0.098(5)	2.826 0.325(5)	3.117 0.174(5)	3.114 0.463(5)
KIDNEYS/ FINAL BODY * 100	0.787 0.055(5)	0.811 0.018(5)	0.826 0.022(5)	0.874# 0.065(5)
LUNGS/ FINAL BODY * 100	0.420 0.044(5)	0.474 0.045(5)	0.489 0.058(5)	0.466 0.064(5)
HEART/ FINAL BODY * 100	0.348 0.018(5)	0.383 0.041(5)	0.362 0.017(5)	0.384 0.038(5)
SPLEEN/ FINAL BODY * 100	0.194 0.008(5)	0.176 0.020(5)	0.188 0.030(5)	0.192 0.037(5)
BRAIN/ FINAL BODY * 100	0.455 0.042(5)	0.502 0.042(5)	0.483 0.039(5)	0.474 0.034(5)
THYMUS/ FINAL BODY * 100	0.121 0.009(5)	0.107 0.024(5)	0.095# 0.006(5)	0.092# 0.007(5)
ADRENAL GLANDS/ FINAL BODY * 100	0.011 0.001(5)	0.012 0.002(5)	0.015# 0.001(5)	0.016# 0.003(5)
TESTES/ FINAL BODY * 100	0.746 0.089(5)	0.818 0.028(5)	0.766 0.075(5)	0.739 0.089(5)
EPIDIDYMIDES/ FINAL BODY * 100	0.287 0.036(5)	0.307 0.008(5)	0.314 0.020(5)	0.304 0.019(5)

Company Sanitized. Does not contain TSCA CBI

TABLE 16 (Continued)

MEAN FINAL BODY AND ORGAN WEIGHTS FROM MALE RATS
DAY 56 SACRIFICE

	Group I 0 mg/m ³	Group III 5 mg/m ³	Group V 30 mg/m ³	Group VII 100 mg/m ³
MEAN RELATIVE ORGAN WEIGHTS (organ to brain weight ratio)				
LIVER/ BRAIN * 100	635.644 52.028(5)	568.638 102.669(5)	650.438 76.152(5)	663.344 130.705(5)
KIDNEYS/ BRAIN * 100	174.355 20.595(5)	162.469 14.260(5)	172.253 16.007(5)	184.981 16.942(5)
LUNGS/ BRAIN * 100	92.982 12.504(5)	94.718 10.315(5)	101.597 11.829(5)	99.177 18.738(5)
HEART/ BRAIN * 100	76.909 7.491(5)	76.730 11.376(5)	75.287 4.756(5)	81.300 9.197(5)
SPLEEN/ BRAIN * 100	43.015 5.174(5)	35.527 6.596(5)	39.076 5.767(5)	40.855 8.988(5)
THYMUS/ BRAIN * 100	26.875 3.578(5)	21.354 4.424(5)	19.818# 1.880(5)	19.554# 1.374(5)
ADRENAL GLANDS/ BRAIN * 100	2.505 0.225(5)	2.463 0.437(5)	3.016 0.280(5)	3.355# 0.446(5)
TESTES/ BRAIN * 100	164.553 19.967(5)	163.618 10.273(5)	159.371 17.720(5)	155.735 12.248(5)
EPIDIDYMIDES/ BRAIN * 100	63.089 6.557(5)	61.401 5.265(5)	65.401 6.687(5)	64.464 6.055(5)

Data arranged as: Mean
Standard deviation (Number of values included in calculation)

Statistically significant difference from control at $p < 0.05$ by trend test (Jonckheere-Terpstra).

TABLE 17

INCIDENCES OF GROSS OBSERVATIONS IN MALE RATS
DAY 25 SACRIFICE

LESIONS	LESION INCIDENCE (Animal No)				
	TREATMENT	0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII
LIVER NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10
KIDNEYS NO ABNORMALITY DETECTED DILATATION, RIGHT.		(10) 10	(10) 7 3	(10) 10	(10) 10
LUNGS NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10
HEART NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10
SKELETAL MUSCLE NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10
SPLEEN NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10
AORTA NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10

Figures in parentheses is the number of animals grossly examined for this tissue
The absence of a number indicates the finding specified was not identified

TABLE 17 (Continued)

INCIDENCES OF GROSS OBSERVATIONS IN MALE RATS
DAY 25 SACRIFICE

LESIONS	TREATMENT	LESION INCIDENCE (Animal No				
		0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII	
BRAIN NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10	
SPINAL CORD NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10	
STOMACH NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10	
DUODENUM NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10	
JEJUNUM NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10	
ILEUM NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10	
PANCREAS NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10	

Figures in parentheses is the number of animals grossly examined for this tissue
The absence of a number indicates the finding specified was not identified

TABLE 17 (Continued)

INCIDENCES OF GROSS OBSERVATIONS IN MALE RATS

DAY 25 SACRIFICE

LESIONS	TREATMENT	LESION INCIDENCE (Animal No)			
		0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII
CECUM					
NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10
COLON					
NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10
RECTUM					
NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10
MESENTERIC LYMPH NODE					
NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10
SALIVARY GLANDS					
NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10
MANDIBULAR LYMPH NODE					
NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10
THYMUS					
NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10

Figures in parentheses is the number of animals grossly examined for this tissue
The absence of a number indicates the finding specified was not identified

TABLE 17 (Continued)

INCIDENCES OF GROSS OBSERVATIONS IN MALE RATS
DAY 25 SACRIFICE

LESIONS	TREATMENT	LESION INCIDENCE (Animal No				
		0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII	
ADRENAL GLANDS NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10	
SCIATIC NERVE NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10	
PITUITARY GLAND NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10	
THYROID GLAND NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10	
PARATHYROID GLANDS NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10	
TRACHEA NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10	
ESOPHAGUS NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10	

Figures in parentheses is the number of animals grossly examined for this tissue
The absence of a number indicates the finding specified was not identified

TABLE 17 (Continued)

INCIDENCES OF GROSS OBSERVATIONS IN MALE RATS
DAY 25 SACRIFICE

LESIONS	LESION INCIDENCE (Animal No)				
	TREATMENT	0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII
PHARYNX/LARYNX					
NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10
EYE(S) WITH OPTIC NERVE					
NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10
SKIN					
NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10
PROSTATE					
NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10
SEMINAL VESICLES					
NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10
URINARY BLADDER					
NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10
TESTES					
NO ABNORMALITY DETECTED		(10) 10	(10) 10	(10) 10	(10) 10

Figures in parentheses is the number of animals grossly examined for this tissue
The absence of a number indicates the finding specified was not identified

TABLE 17 (Continued)

INCIDENCES OF GROSS OBSERVATIONS IN MALE RATS
DAY 25 SACRIFICE

LESIONS	TREATMENT					LESION INCIDENCE (Animal No)			
						0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII
EPIDIDYMIDES									
NO ABNORMALITY DETECTED						(10)	(10)	(10)	(10)
DISCOLORATION, TAN, RAISED, RIGHT, 7 MM DIA..						9	9	10	10
DISCOLORATION, YELLOW, RAISED, RIGHT, 5MM DIA..						1	1		
FEMUR/KNEE JOINT									
NO ABNORMALITY DETECTED						(10)	(10)	(10)	(10)
						10	10	10	10
STERNUM									
NO ABNORMALITY DETECTED						(10)	(10)	(10)	(10)
						10	10	10	10
NOSE									
NO ABNORMALITY DETECTED						(10)	(10)	(10)	(10)
						10	10	10	10

Figures in parentheses is the number of animals grossly examined for this tissue
The absence of a number indicates the finding specified was not identified

TABLE 18

INCIDENCES OF GROSS OBSERVATIONS IN MALE RATS
DAY 56 SACRIFICE

LESIONS	TREATMENT					LESION INCIDENCE (Animal No)			
						0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII
LIVER									
NO ABNORMALITY DETECTED						(5) 5	(5) 5	(5) 5	(5) 5
KIDNEYS									
NO ABNORMALITY DETECTED						(5) 5	(5) 5	(5) 4	(5) 4
DILATATION, LEFT.								1	1
DILATATION, RIGHT.									
LUNGS									
NO ABNORMALITY DETECTED						(5) 5	(5) 5	(5) 5	(5) 5
HEART									
NO ABNORMALITY DETECTED						(5) 5	(5) 5	(5) 5	(5) 5
SKELETAL MUSCLE									
NO ABNORMALITY DETECTED						(5) 5	(5) 5	(5) 5	(5) 5
SPLEEN									
NO ABNORMALITY DETECTED						(5) 5	(5) 5	(5) 5	(5) 5
AORTA									
NO ABNORMALITY DETECTED						(5) 5	(5) 5	(5) 5	(5) 5

Figures in parentheses is the number of animals grossly examined for this tissue
The absence of a number indicates the finding specified was not identified

TABLE 18 (Continued)

INCIDENCES OF GROSS OBSERVATIONS IN MALE RATS
DAY 56 SACRIFICE

LESIONS	LESION INCIDENCE (Animal No)				
	TREATMENT	0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII
BRAIN NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5
SPINAL CORD NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5
STOMACH NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5
DUODENUM NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5
JEJUNUM NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5
ILEUM NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5
PANCREAS NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5

Figures in parentheses is the number of animals grossly examined for this tissue
The absence of a number indicates the finding specified was not identified

TABLE 18 (Continued)

INCIDENCES OF GROSS OBSERVATIONS IN MALE RATS
DAY 56 SACRIFICE

LESIONS	TREATMENT	INCIDENCE (Animal No)			
		0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII
CECUM NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5
COLON NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5
RECTUM NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5
MESENTERIC LYMPH NODE NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5
SALIVARY GLANDS NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5
MANDIBULAR LYMPH NODE NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5
THYMUS NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5

Figures in parentheses is the number of animals grossly examined for this tissue
The absence of a number indicates the finding specified was not identified

TABLE 18 (Continued)

INCIDENCES OF GROSS OBSERVATIONS IN MALE RATS

DAY 56 SACRIFICE

LESION INCIDENCE (Animal No)					
LESIONS	TREATMENT	0	5	30	100
		mg/m ³ I	mg/m ³ III	mg/m ³ V	mg/m ³ VII
ADRENAL GLANDS NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5
SCIATIC NERVE NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5
PITUITARY GLAND NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5
THYROID GLAND NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5
PARATHYROID GLANDS NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5
TRACHEA NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5
ESOPHAGUS NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5

Figures in parentheses is the number of animals grossly examined for this tissue
The absence of a number indicates the finding specified was not identified

TABLE 18 (Continued)

INCIDENCES OF GROSS OBSERVATIONS IN MALE RATS
DAY 56 SACRIFICE

LESIONS	TREATMENT	LESION INCIDENCE (Animal No				
		0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII	
PHARYNX/LARYNX NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5	
EYE(S) WITH OPTIC NERVE NO ABNORMALITY DETECTED RUPTURE, RIGHT.		(5) 4 1	(5) 5	(5) 5	(5) 4 1	
SKIN NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5	
PROSTATE NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5	
SEMINAL VESICLES NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5	
URINARY BLADDER NO ABNORMALITY DETECTED CALCULUS\CALCULI.		(5) 5	(5) 5	(5) 5	(5) 4 1	

Figures in parentheses is the number of animals grossly examined for this tissue
The absence of a number indicates the finding specified was not identified

TABLE 18 (Continued)

INCIDENCES OF GROSS OBSERVATIONS IN MALE RATS
DAY 56 SACRIFICE

LESIONS	TREATMENT	LESION INCIDENCE (Animal No)				
		0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII	
TESTES NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5	
EPIDIDYMIDES NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5	
FEMUR/KNEE JOINT NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5	
STERNUM NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5	
NOSE NO ABNORMALITY DETECTED		(5) 5	(5) 5	(5) 5	(5) 5	

Figures in parentheses is the number of animals grossly examined for this tissue
The absence of a number indicates the finding specified was not identified

TABLE 19

INCIDENCES AND LESION GRADES OF MICROSCOPIC OBSERVATIONS IN MALE RATS
DAY 25 SACRIFICE

LESIONS	TREATMENT	LESION INCIDENCE (NUMERIC)				
		0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII	
DIGESTIVE SYSTEM						
LIVER		(10)			(10)	
NO ABNORMALITY DETECTED		2			2	
INFLAMMATION, SUBACUTE/CHRONIC, FOCAL.		8			8	
minimal		8			8	
total observations per lesion						
PANCREAS		(10)			(10)	
NO ABNORMALITY DETECTED		8			10	
ATROPHY, FOCAL.		2				
minimal		2				
total observations per lesion						
ESOPHAGUS		(10)			(10)	
NO ABNORMALITY DETECTED		10			10	
STOMACH		(10)			(10)	
NO ABNORMALITY DETECTED		10			10	
DUODENUM		(10)			(10)	
NO ABNORMALITY DETECTED		10			10	

Figure in parentheses is number of animals microscopically examined for this tissue
The absence of a number indicates the lesion specified was not identified

TABLE 19 (Continued)

INCIDENCES AND LESION GRADES OF MICROSCOPIC OBSERVATIONS IN MALE RATS
DAY 25 SACRIFICE

LESIONS	LESION INCIDENCE (NUMERIC)				
	TREATMENT	0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII
DIGESTIVE SYSTEM					
JEJUNUM		(10)			(10)
NO ABNORMALITY DETECTED		10			10
ILEUM		(10)			(10)
NO ABNORMALITY DETECTED		10			10
CECUM		(10)			(10)
NO ABNORMALITY DETECTED		10			10
COLON		(10)			(10)
NO ABNORMALITY DETECTED		10			10
RECTUM		(10)			(10)
NO ABNORMALITY DETECTED		10			10
SALIVARY GLANDS		(10)			(10)
NO ABNORMALITY DETECTED		10			10

Figure in parentheses is number of animals microscopically examined for this tissue
The absence of a number indicates the lesion specified was not identified

TABLE 19 (Continued)

INCIDENCES AND LESION GRADES OF MICROSCOPIC OBSERVATIONS IN MALE RATS
DAY 25 SACRIFICE

LESIONS	LESION INCIDENCE (NUMERIC)				
	TREATMENT	0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII
URINARY SYSTEM					
KIDNEYS					
NO ABNORMALITY DETECTED		(10) 6	(3)		(10) 9
NEPHROPATHY, CHRONIC PROGRESSIVE.					
minimal		4			1
mild			1		
total observations per lesion		4	1		1
HYDRONEPHROSIS, UNILATERAL.					
minimal		1	2		
mild			1		
total observations per lesion		1	3		
URINARY BLADDER					
NO ABNORMALITY DETECTED		(10) 10			(10) 10
RESPIRATORY SYSTEM					
LUNGS					
NO ABNORMALITY DETECTED		(10) 10			(10) 10
TRACHEA					
NO ABNORMALITY DETECTED		(10) 10			(10) 10

Figure in parentheses is number of animals microscopically examined for this tissue
The absence of a number indicates the lesion specified was not identified

TABLE 19 (Continued)

INCIDENCES AND LESION GRADES OF MICROSCOPIC OBSERVATIONS IN MALE RATS
DAY 25 SACRIFICE

LESIONS	TREATMENT					LESION INCIDENCE (NUMERIC)				
						0	5	30	100	
						mg/m ³ I	mg/m ³ III	mg/m ³ V	mg/m ³ VII	
RESPIRATORY SYSTEM										
PHARYNX/LARYNX						(10) 10	(10) 3	(10) 3	(10) 5	
NO ABNORMALITY DETECTED										
HYPERPLASIA/SQUAMOUS METAPLASIA.							7	7	5	
minimal							7	7	5	
total observations per lesion										
NOSE						(10) 10			(10) 10	
NO ABNORMALITY DETECTED										
CARDIOVASCULAR SYSTEM										
HEART						(10) 9			(10) 9	
NO ABNORMALITY DETECTED										
CARDIOMYOPATHY.						1			1	
minimal						1			1	
total observations per lesion										
AORTA						(10) 10			(10) 10	
NO ABNORMALITY DETECTED										

Figure in parentheses is number of animals microscopically examined for this tissue
The absence of a number indicates the lesion specified was not identified

TABLE 19 (Continued)

INCIDENCES AND LESION GRADES OF MICROSCOPIC OBSERVATIONS IN MALE RATS
DAY 25 SACRIFICE

LESIONS	LESION INCIDENCE (NUMERIC)				
	TREATMENT	0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII
LYMPHATIC AND HEMATOPOIETIC SYSTEM					
SPLEEN		(10) 10			(10) 10
NO ABNORMALITY DETECTED					
THYMUS		(9) 9			(10) 10
NO ABNORMALITY DETECTED					
MANDIBULAR LYMPH NODE		(10) 10			(10) 10
NO ABNORMALITY DETECTED					
MESENTERIC LYMPH NODE		(10) 10			(10) 10
NO ABNORMALITY DETECTED					
BONE MARROW		(10) 10			(10) 10
NO ABNORMALITY DETECTED					
ENDOCRINE SYSTEM					
PITUITARY GLAND		(10) 10			(10) 10
NO ABNORMALITY DETECTED					

Figure in parentheses is number of animals microscopically examined for this tissue
The absence of a number indicates the lesion specified was not identified

TABLE 19 (Continued)

INCIDENCES AND LESION GRADES OF MICROSCOPIC OBSERVATIONS IN MALE RATS
DAY 25 SACRIFICE

LESIONS	TREATMENT					LESION INCIDENCE (NUMERIC)				
						0	5	30	100	
						mg/m ³ I	mg/m ³ III	mg/m ³ V	mg/m ³ VII	
ENDOCRINE SYSTEM										
THYROID GLAND						(10) 10			(10) 10	
NO ABNORMALITY DETECTED										
PARATHYROID GLANDS						(8) 8			(8) 8	
NO ABNORMALITY DETECTED										
ADRENAL GLANDS						(10) 10			(10) 10	
NO ABNORMALITY DETECTED										
NERVOUS SYSTEM										
BRAIN						(10) 10			(10) 10	
NO ABNORMALITY DETECTED										
SPINAL CORD						(10) 10			(10) 10	
NO ABNORMALITY DETECTED										
SCIATIC NERVE						(10) 10			(10) 10	
NO ABNORMALITY DETECTED										

Figure in parentheses is number of animals microscopically examined for this tissue
The absence of a number indicates the lesion specified was not identified

TABLE 19 (Continued)

INCIDENCES AND LESION GRADES OF MICROSCOPIC OBSERVATIONS IN MALE RATS
DAY 25 SACRIFICE

LESIONS	LESION INCIDENCE (NUMERIC)					
	TREATMENT	0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII	
MUSCULAR AND SKELETAL SYSTEM						
SKELETAL MUSCLE		(10)			(10)	
NO ABNORMALITY DETECTED		10			10	
FEMUR/KNEE JOINT		(10)			(10)	
NO ABNORMALITY DETECTED		10			10	
STERNUM		(10)			(10)	
NO ABNORMALITY DETECTED		10			10	
REPRODUCTIVE SYSTEM						
TESTES		(10)			(10)	
NO ABNORMALITY DETECTED		10			8	
DEGENERATION/ATROPHY, SEMINIFEROUS TUBULES, UNILATERAL. minimal					1	
total observations per lesion					1	
DEGENERATION/ATROPHY, SEMINIFEROUS TUBULES. minimal					1	
total observations per lesion					1	

Figure in parentheses is number of animals microscopically examined for this tissue
The absence of a number indicates the lesion specified was not identified

TABLE 19 (Continued)

INCIDENCES AND LESION GRADES OF MICROSCOPIC OBSERVATIONS IN MALE RATS
DAY 25 SACRIFICE

LESIONS	LESION INCIDENCE (NUMERIC)				
	TREATMENT	0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII
REPRODUCTIVE SYSTEM					
EPIDIDYIMIDES		(10) 9	(1)		(10) 9
NO ABNORMALITY DETECTED					
SPERMATOCELE.					
mild			1		
moderate		1			
total observations per lesion		1	1		
OLIGOSPERMIA/GERM CELL DEBRIS.					
minimal					1
total observations per lesion					1
PROSTATE					
NO ABNORMALITY DETECTED		(10) 9			(10) 8
INFLAMMATION, SUBACUTE/CHRONIC.					
minimal		1			2
total observations per lesion		1			2
SEMINAL VESICLES					
NO ABNORMALITY DETECTED		(10) 10			(10) 10

Figure in parentheses is number of animals microscopically examined for this tissue
The absence of a number indicates the lesion specified was not identified

TABLE 19 (Continued)

INCIDENCES AND LESION GRADES OF MICROSCOPIC OBSERVATIONS IN MALE RATS
DAY 25 SACRIFICE

LESIONS	LESION INCIDENCE (NUMERIC)				
	TREATMENT	0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII
CUTANEOUS SYSTEM					
SKIN		(10) 10			(10) 10
NO ABNORMALITY DETECTED					
SPECIAL SENSES SYSTEM					
EYE(S) WITH OPTIC NERVE		(10) 10			(10) 10
NO ABNORMALITY DETECTED					
OPTIC NERVE NOT PRESENT.					2

Figure in parentheses is number of animals microscopically examined for this tissue
The absence of a number indicates the lesion specified was not identified

TABLE 20

INCIDENCES AND LESION GRADES OF MICROSCOPIC OBSERVATIONS IN MALE RATS
DAY 56 SACRIFICE

LESIONS	TREATMENT	LESION INCIDENCE (NUMERIC)				
		0 mg/m ³ I	5 mg/m ³ III	30 mg/m ³ V	100 mg/m ³ VII	
RESPIRATORY SYSTEM						
PHARYNX/LARYNX		(5)				(5)
NO ABNORMALITY DETECTED		5				5

Figure in parentheses is number of animals microscopically examined for this tissue
The absence of a number indicates the lesion specified was not identified

FIGURES

FIGURE 1

SCHEMATIC OF EXPOSURE SYSTEM

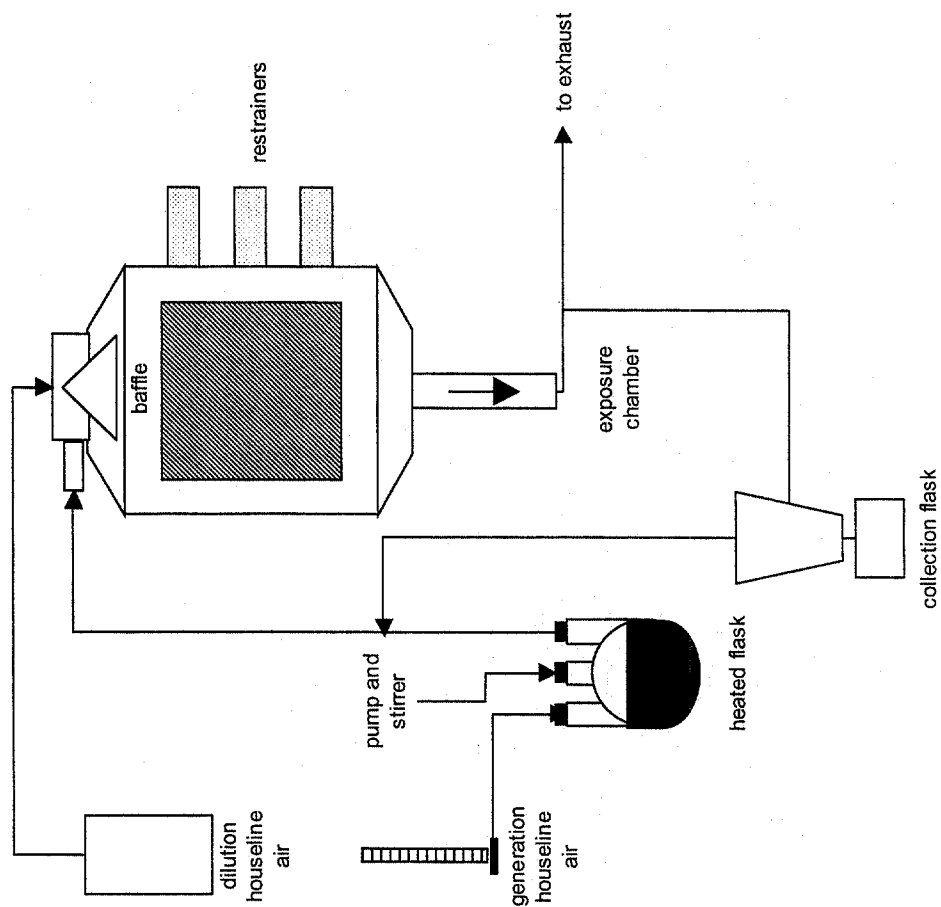
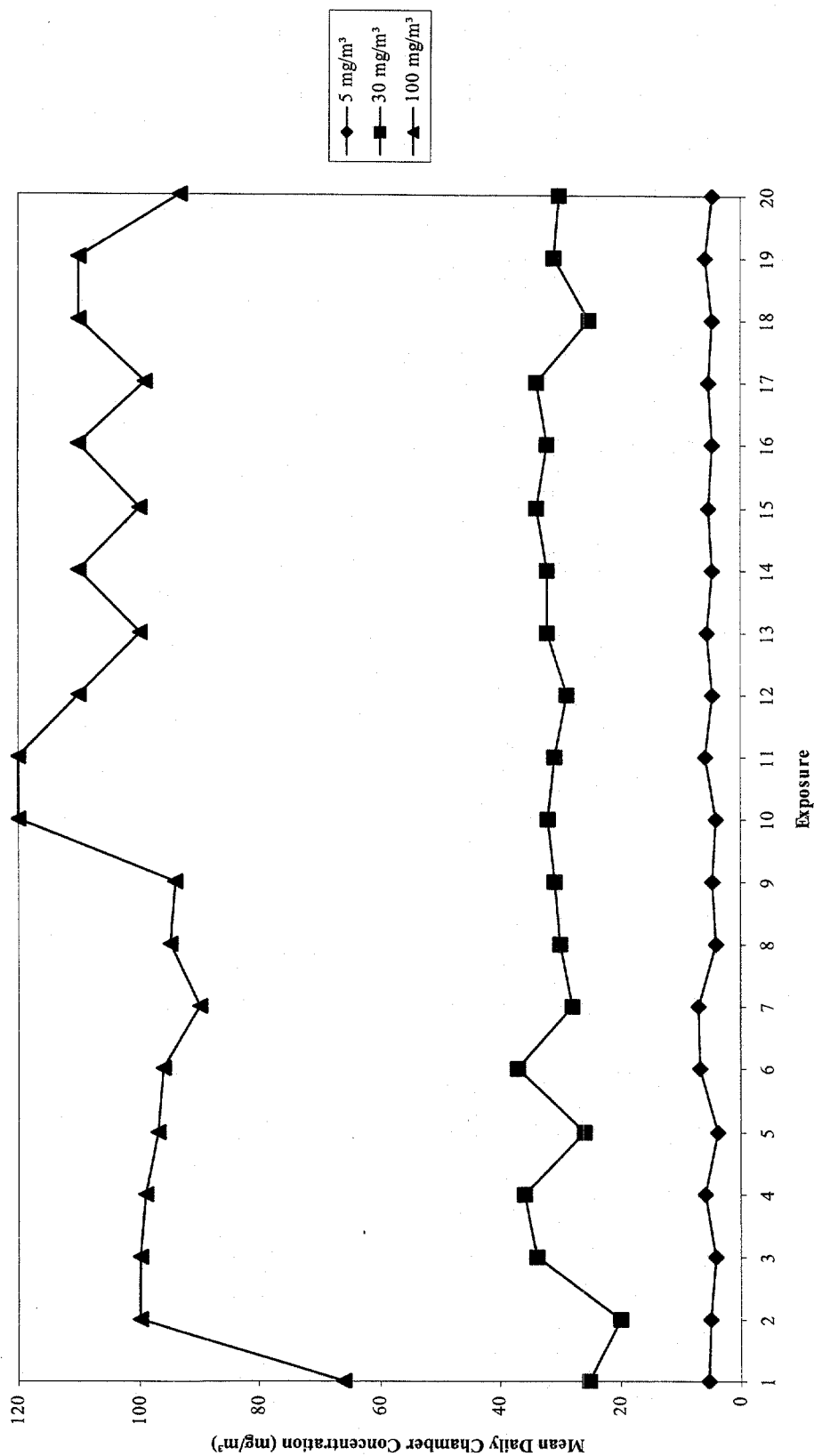
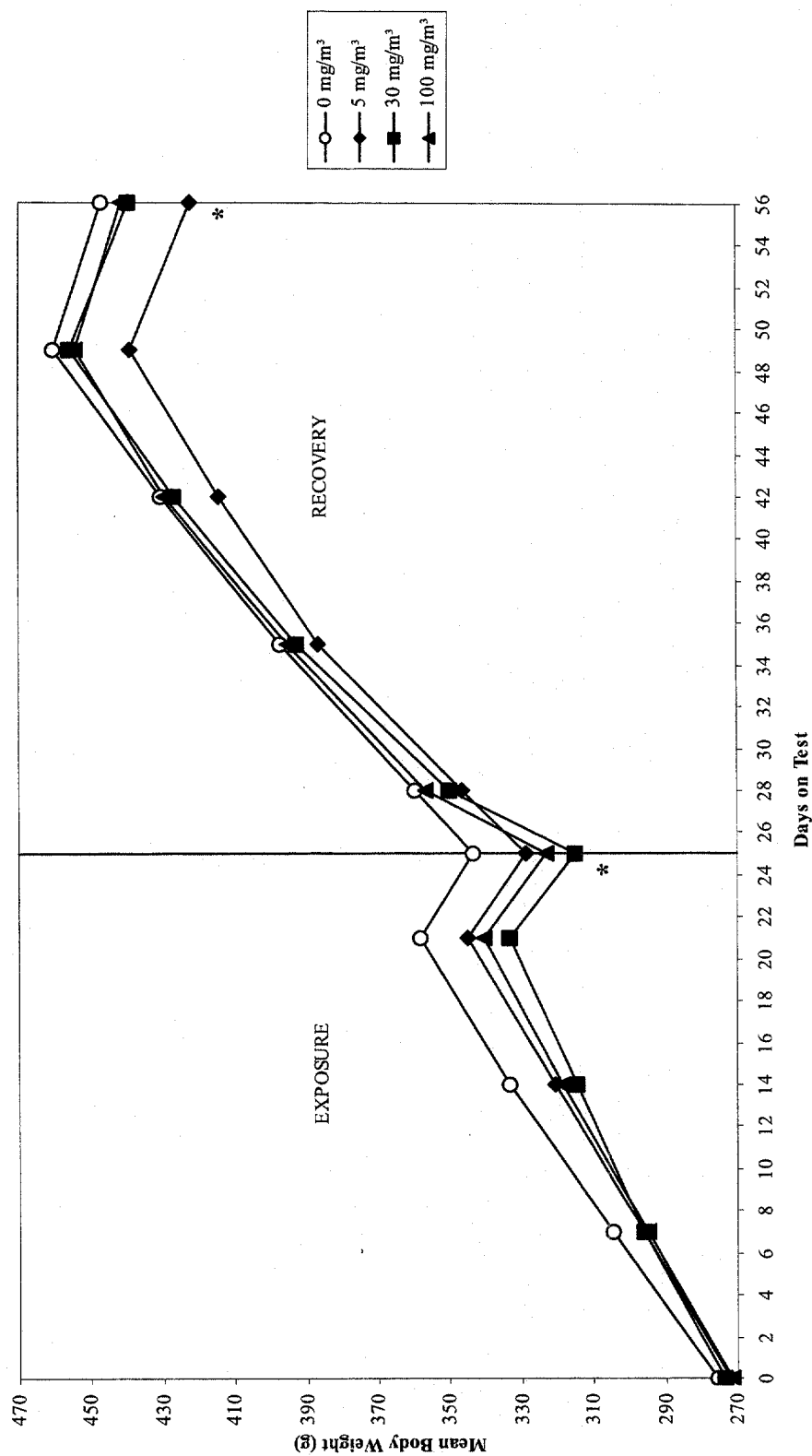


FIGURE 2
MEAN DAILY CHAMBER CONCENTRATIONS



Company Sanitized. Does not contain TSCA CBI

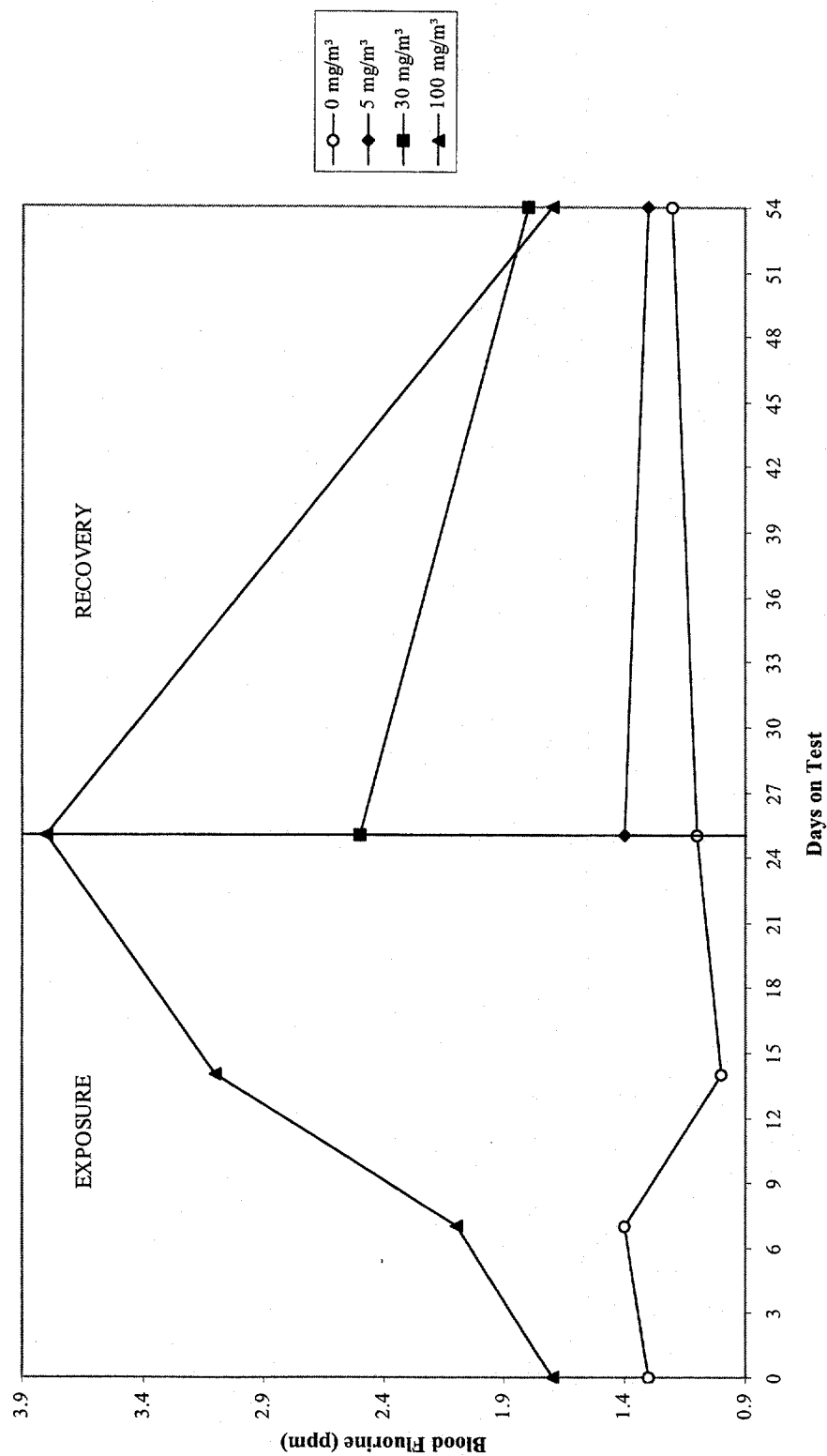
FIGURE 3
MEAN BODY WEIGHTS OF MALE RATS



* Weight losses due to fasting of rats prior to clinical pathology evaluation.

Company Sanitized. Does not contain TSCA CBI

FIGURE 4
MEAN BLOOD FLUORINE OF MALE RATS



Company Sanitized. Does not contain TSCA CBI

APPENDICES

Company Sanitized. Does not contain TSCA CBI

APPENDIX A

Daily Chamber Concentrations

Company Sanitized. Does not contain TSCA CBI

DAILY CHAMBER CONCENTRATIONS

EXPLANATORY NOTES

ABBREVIATIONS:

S.D. - standard deviation
mg/m³ - milligrams per cubic meter
n - number of samples

FOOTNOTES:

- a Weekly means, standard errors of the mean, ranges, and n are calculated from daily means for the chamber during the specified week.

NOTES:

Values are reported to 2 significant figures.
Calculations were performed prior to rounding values.

Company Sanitized. Does not contain TSCA CBI

Daily Chamber Concentrations (mg/m³)

Exposure	5 mg/m ³				30 mg/m ³				100 mg/m ³			
	Mean	S.D.	Range	n	Mean	S.D.	Range	n	Mean	S.D.	Range	n
1	5.4	0.55	4.6 - 6.2	6	25	14	8.8 - 50	8	66	40	28 - 150	9
2	5.0	2.3	1.1 - 8.0	6	20	13	4.4 - 43	6	100	71	31 - 250	9
3	4.2	2.0	1.6 - 6.8	6	34	16	17 - 62	6	100	24	81 - 150	7
4	5.7	1.9	3.6 - 8.9	6	36	17	10 - 63	7	99	43	42 - 180	8
5	3.7	2.3	0.43 - 6.9	7	26	10	11 - 40	7	97	42	36 - 150	7
Week 1 ^a	4.8	0.38	3.7 - 5.7	5	28	3.0	20 - 36	5	93	7.0	66 - 100	5
6	6.6	2.3	3.3 - 8.9	6	37	12	21 - 53	6	96	35	77 - 170	7
7	6.9	1.7	4.2 - 9.1	6	28	10	13 - 40	6	90	51	24 - 160	8
8	4.0	1.9	2.0 - 7.5	6	30	7.8	20 - 41	6	95	25	68 - 140	6
9	4.7	2.6	2.3 - 8.3	6	31	10	18 - 47	6	94	37	48 - 140	6
10	4.2	2.8	1.2 - 8.5	6	32	11	21 - 49	6	120	33	62 - 160	7
Week 2	5.3	0.62	4.0 - 6.9	5	32	1.4	28 - 37	5	98	4.5	90 - 120	5
11	5.8	1.8	3.2 - 7.8	6	31	5.2	20 - 35	6	120	51	17 - 180	8
12	4.7	3.3	0.75 - 9.1	6	29	7.4	22 - 43	6	110	29	62 - 140	6
13	5.5	1.6	3.2 - 8.0	6	32	6.5	25 - 41	6	100	34	56 - 160	7
14	4.7	2.6	1.9 - 8.4	6	32	8.8	22 - 48	6	110	34	60 - 170	7
15	5.4	1.8	3.2 - 7.8	6	34	8.2	25 - 46	6	100	16	88 - 130	6
Week 3	5.2	0.21	4.7 - 5.8	5	32	0.9	29 - 34	5	110	2.1	100 - 120	5
16	4.7	1.1	3.5 - 6.8	6	32	11	21 - 49	6	110	13	89 - 120	6
17	5.4	1.1	3.6 - 6.6	6	34	5.3	25 - 40	6	99	38	53 - 160	7
18	4.7	1.6	2.6 - 7.1	6	25	2.5	22 - 28	6	110	7.4	98 - 120	6
19	5.8	1.8	4.0 - 8.4	6	31	4.7	22 - 34	6	110	22	88 - 150	7
20	4.6	1.7	2.8 - 6.6	6	30	3.9	26 - 38	6	93	15	79 - 120	6
Week 4	5.0	0.23	4.6 - 5.8	5	30	1.4	25 - 34	5	100	3.0	93 - 110	5

Company Sanitized. Does not contain TSCA CBI

APPENDIX B

Daily Chamber Environmental Conditions

Company Sanitized. Does not contain TSCA CBI

DAILY CHAMBER ENVIRONMENTAL CONDITIONS

EXPLANATORY NOTES

ABBREVIATIONS:

n - number of observations

FOOTNOTES:

Weekly means, standard errors of the mean, ranges, and n are calculated from daily means for the chamber during the specified week.

NOTES:

Values are reported to 2 significant figures.
Calculations were performed prior to rounding values.

Company Sanitized. Does not contain TSCA CBI

Daily Chamber Environmental Conditions - Temperature (°C)

Exposure	0 mg/m ³			5 mg/m ³			30 mg/m ³			100 mg/m ³		
	Mean	S.D.	n	Mean	S.D.	n	Mean	S.D.	n	Mean	S.D.	n
1	24	1.3	22 - 26	24	0.40	21 - 22	24	0.49	23 - 25	24	0.28	24 - 25
2	24	1.1	21 - 26	24	0.26	18 - 19	24	0.81	22 - 25	24	0.67	22 - 25
3	24	0.64	23 - 26	24	0.33	20 - 21	24	0.41	23 - 25	24	0.37	24 - 25
4	23	0.48	22 - 24	24	0.32	21 - 22	24	0.35	24 - 25	24	0.46	24 - 26
5	24	0.58	22 - 25	24	0.34	21 - 22	24	0.26	24 - 25	24	0.30	24 - 25
Week 1 ^a	24	0.17	23 - 24	5	21	0.46	19 - 22	5	24	0.17	24 - 25	5
6	24	0.50	23 - 25	24	0.41	19 - 21	24	0.39	23 - 25	24	0.61	23 - 25
7	24	1.0	22 - 25	24	1.2	17 - 21	24	0.93	22 - 25	24	1.1	22 - 25
8	24	0.84	21 - 26	24	0.33	21 - 23	24	0.28	24 - 25	24	0.42	24 - 26
9	22	0.42	21 - 23	24	0.40	20 - 21	24	0.31	23 - 24	24	0.37	24 - 25
10	23	1.5	19 - 25	24	1.2	17 - 22	24	1.1	21 - 25	24	1.0	21 - 25
Week 2	24	0.40	22 - 24	5	21	0.37	20 - 22	5	24	0.13	24	5
11	23	0.81	20 - 24	24	0.36	21 - 22	24	0.40	23 - 25	24	0.58	24 - 26
12	24	0.35	23 - 24	24	0.24	21 - 22	24	0.28	24 - 25	24	0.45	24 - 26
13	24	0.80	21 - 25	24	0.28	21 - 22	24	0.24	24 - 25	24	0.45	24 - 26
14	24	0.31	23 - 25	24	0.27	21 - 22	24	0.27	24 - 25	24	0.37	24 - 25
15	24	0.46	23 - 25	24	0.34	21 - 22	24	0.26	24 - 25	24	0.50	23 - 26
Week 3	24	0.12	23 - 24	5	22	0.10	21 - 22	5	24	0.040	24	5
16	24	0.81	23 - 28	24	0.43	21 - 23	24	0.26	23 - 24	24	0.46	23 - 25
17	24	0.39	23 - 25	24	0.27	22 - 23	24	0.37	23 - 24	24	0.34	24 - 25
18	24	1.2	22 - 26	24	0.41	20 - 21	24	0.51	22 - 24	24	0.48	23 - 25
19	25	1.1	22 - 28	24	0.41	21 - 22	24	0.23	23 - 24	24	0.33	23 - 25
20	24	0.70	23 - 25	24	0.31	20 - 21	24	0.28	23 - 24	24	0.27	24 - 25
Week 4	24	0.20	24 - 25	5	21	0.40	20 - 23	5	24	0.10	23 - 24	5

Company Sanitized. Does not contain TSCA CBI

Daily Chamber Environmental Conditions - Relative Humidity (%)

Exposure	0 mg/m ³				5 mg/m ³				30 mg/m ³				100 mg/m ³			
	Mean	S.D.	Range	n	Mean	S.D.	Range	n	Mean	S.D.	Range	n	Mean	S.D.	Range	n
1	67	2.6	61 - 71	24	74	1.6	71 - 76	24	41	2.0	38 - 45	24	61	0.8	59 - 62	24
2	63	2.0	60 - 67	22	71	2.3	64 - 74	24	41	6.5	35 - 51	24	58	1.4	55 - 62	24
3	64	1.5	61 - 67	24	71	1.5	69 - 74	24	37	1.6	34 - 39	24	58	1.5	56 - 60	24
4	66	1.3	62 - 69	24	70	1.3	68 - 73	24	39	1.5	37 - 43	24	60	1.3	58 - 65	24
5	64	1.5	61 - 66	24	71	2.0	67 - 74	24	41	0.90	39 - 42	24	60	2.0	58 - 67	24
Week 1 ^a	65	0.75	63 - 67	5	71	0.64	70 - 74	5	40	0.68	37 - 41	5	59	0.55	58 - 61	5
6	59	1.7	56 - 64	24	67	2.7	63 - 72	24	39	1.6	36 - 41	24	59	1.3	57 - 63	24
7	60	2.4	56 - 65	24	68	2.0	64 - 72	24	37	1.2	35 - 40	24	60	4.6	55 - 73	24
8	61	1.4	58 - 64	24	68	1.9	65 - 72	24	36	0.55	35 - 37	24	56	1.0	54 - 59	24
9	64	1.5	59 - 66	24	68	1.6	65 - 71	24	37	1.5	35 - 40	24	57	1.3	56 - 60	24
10	60	1.9	58 - 67	24	68	1.2	65 - 70	24	36	1.0	34 - 38	24	56	1.1	55 - 59	24
Week 2	61	0.90	59 - 64	5	68	0.29	67 - 68	5	37	0.54	36 - 39	5	58	0.79	56 - 60	5
11	64	1.7	60 - 68	24	72	1.8	69 - 77	24	39	1.2	37 - 43	24	61	1.9	60 - 67	24
12	62	1.5	60 - 66	24	72	1.5	69 - 75	24	36	1.2	34 - 39	24	61	3.2	57 - 72	24
13	60	1.1	57 - 62	24	67	1.9	63 - 71	24	36	2.4	33 - 40	24	59	2.9	55 - 69	24
14	60	1.5	58 - 63	24	66	1.5	64 - 70	24	35	0.87	34 - 37	24	60	3.0	57 - 72	24
15	58	1.5	55 - 61	24	68	1.1	65 - 69	24	34	0.77	33 - 36	24	57	3.5	55 - 70	24
Week 3	61	1.0	58 - 64	5	69	1.2	66 - 72	5	36	0.84	34 - 39	5	60	0.74	57 - 61	5
16	48	1.7	44 - 51	24	55	1.3	53 - 58	24	38	1.2	35 - 40	24	57	1.9	49 - 59	24
17	47	1.1	44 - 48	24	56	1.1	54 - 58	24	36	0.92	34 - 37	24	56	2.4	54 - 66	24
18	45	2.2	42 - 49	24	53	1.5	51 - 56	24	34	1.1	32 - 36	24	57	1.5	55 - 60	24
19	45	1.2	43 - 47	24	54	1.7	51 - 57	24	34	1.3	31 - 36	24	58	0.95	56 - 59	24
20	46	2.4	42 - 49	24	52	1.7	48 - 55	24	33	0.6	31 - 34	24	55	1.2	53 - 59	24
Week 4	46	0.49	45 - 48	5	54	0.76	52 - 56	5	35	0.85	33 - 38	5	57	0.39	55 - 58	5

Company Sanitized. Does not contain TSCA CBI

Daily Chamber Environmental Conditions - Airflow (L/min)

Exposure	0 mg/m ³			5 mg/m ³			30 mg/m ³			100 mg/m ³		
	Mean	S.D.	n	Mean	S.D.	n	Mean	S.D.	n	Mean	S.D.	n
1	35	0.013	35	50	0.026	50	50	0.030	50	50	0.034	50
2	35	0.015	35	50	0.023	50	50	0.036	50	50	0.038	50
3	35	0.015	35	50	0.023	50	50	0.035	50	50	0.048	50
4	35	0.018	35	50	0.030	50	50	0.028	50	50	0.039	50
5	35	0.013	35	50	0.014	50	50	0.021	50	50	0.025	50
Week 1 ^a	35	0.0031	35	50	0.0050	50	50	0.020	50	50	0.025	50
6	35	0.013	35	50	0.023	50	50	0.025	50	50	0.034	50
7	35	0.012	35	50	0.048	50	50	0.031	50	50	0.043	50
8	35	0.014	35	50	0.022	50	50	0.032	50	50	0.034	50
9	35	0.017	35	50	0.031	50	50	0.030	50	50	0.025	50
10	35	0.012	35	50	0.052	50	50	0.033	50	50	0.041	50
Week 2	35	0.0036	35	50	0.021	50	50	0.022	50	50	0.014	50
11	35	0.024	35	50	0.020	50	50	0.021	50	50	0.032	50
12	35	0.012	35	50	0.021	50	50	0.028	50	50	0.027	50
13	35	0.018	35	50	0.026	50	50	0.031	50	50	0.037	50
14	35	0.015	35	50	0.020	50	50	0.034	50	50	0.034	50
15	35	0.009	35	50	0.022	50	50	0.025	50	50	0.021	50
Week 3	35	0.0067	35	50	0.012	50	50	0.020	50	50	0.012	50
16	35	0.057	35	50	0.032	50	50	0.033	50	50	0.029	50
17	35	0.044	35	50	0.030	50	50	0.027	50	50	0.031	50
18	35	0.087	35 - 36	50	0.036	50	50	0.037	50	50	0.031	50
19	35	0.096	35 - 36	50	0.028	50	50	0.025	50	50	0.031	50
20	35	0.10	35	50	0.033	50	50	0.027	50	50	0.032	50
Week 4	35	0.069	35	50	0.023	50	50	0.023	50	50	0.0054	50

Company Sanitized. Does not contain TSCA CBI

APPENDIX C

Individual Body Weights

Company Sanitized. Does not contain TSCA CBI

Body Weight
g
Day 56

Male, 10 mg/m³

664812	422.0
664813	475.7
664814	434.0
664815	444.8
664816	458.8
664817	
664818	
664819	
664820	
664821	
664822	
664823	
664824	
664825	
664826	

DuPont-11414

Body WeightMale, III 5 mg/m³

664827	437.6
664828	431.8
664829	434.2
664830	421.9
664831	385.1
664832	
664833	
664834	
664835	
664836	
664837	
664838	
664839	
664840	
664841	

H-25134: Four-Week Inhalation Toxicity Study in Male Rats

	Individual Body Weights									
	Body Weight	Body Weight	Body Weight	Body Weight	Body Weight	Body Weight	Body Weight	Body Weight	Body Weight	Body Weight
	g	g	g	g	g	g	g	g	g	g
	Day 0	Day 7	Day 14	Day 21	Day 25	Day 28	Day 35	Day 42	Day 49	
Male, V 30 mg/m ³										
664842	254.6	271.4	287.4	292.9	276.8					
664843	284.6	315.3	337.6	369.0	339.8					
664844	305.7	333.3	355.8	372.8	354.7					
664845	290.5	319.3	337.6	367.1	346.1					
664846	257.4	267.8	272.0	279.9	267.4					
664847	272.5	292.4	305.6	318.2	307.4					
664848	270.9	294.7	314.4	333.6	310.3					
664849	271.2	305.4	330.5	352.7	330.4					
664850	282.4	303.0	322.0	343.8	321.4					
664851	265.8	280.9	296.7	315.9	297.7					
664852	278.7	302.7	329.1	349.7			415.9	454.7	485.2	
664853	264.0	284.1	301.7	319.9			393.8	433.8	473.3	
664854	279.9	306.2	326.5	342.1			396.3	423.4	447.2	
664855	266.6	287.1	318.3	341.4			399.2	428.6	460.8	
664856	256.5	272.8	287.5	305.5			359.2	393.4	413.5	

Body Weight

g

Day 56

Male, V 30 mg/m³

664842	471.4
664843	455.1
664844	434.6
664845	438.5
664846	398.9
664847	
664848	
664849	
664850	
664851	
664852	
664853	
664854	
664855	
664856	

Company Sanitized. Does not contain TSCA CBI

Individual Body Weights

Male, VII 100 mg/m ³	Body Weight	Body Weight	Body Weight	Body Weight	Body Weight	Body Weight	Body Weight	Body Weight	Body Weight
	g	g	g	g	g	g	g	g	g
	Day 0	Day 7	Day 14	Day 21	Day 25	Day 28	Day 35	Day 42	Day 49
664857	248.3	269.3	290.8	308.4	293.9				
664858	286.3	311.6	329.3	350.3	332.2				
664859	296.8	317.5	344.6	371.3	352.0				
664860	292.2	331.4	356.5	381.0	360.6				
664861	249.1	257.8	264.4	281.4	268.3				
664862	271.1	293.6	324.1	355.2	337.7				
664863	274.7	300.4	324.6	346.5	322.3				
664864	273.9	298.9	318.6	333.8	315.6				
664865	281.2	327.6	360.7	390.1	375.1				
664866	245.3	255.0	269.2	290.2	275.7				
664867	277.6	304.7	328.4	350.1		372.8	412.4	442.8	468.6
664868	274.2	299.7	323.9	340.3		364.9	413.8	454.4	490.4
664869	278.0	304.3	343.0	375.1		398.5	433.3	470.5	499.7
664870	270.1	293.3	315.6	333.7		332.8	372.5	406.9	426.8
664871	257.0	258.8	284.7	302.8		316.2	343.8	371.2	386.8

Body Weight

Male, VII	Day 56
664857	461.5
664858	480.7
664859	478.9
664860	408.9
664861	377.8
664862	
664863	
664864	
664865	
664866	
664867	
664868	
664869	
664870	
664871	

APPENDIX D

Individual Food Consumption

Company Sanitized. Does not contain TSCA CBI

INDIVIDUAL FOOD CONSUMPTION

EXPLANATORY NOTES

ABBREVIATIONS:

Cons. - consumption
g/anm/day - grams of food consumed per animal per day

NOTES:

Since only a partial food consumption period would have occurred at the end of the in-life period, and since that period would have included fasting prior to sacrifice, food consumption measurements were discontinued after test day 21.

Company Sanitized. Does not contain TSCA CBI

Individual Food Consumption

	Food Cons. g/anm/day Day 7	Food Cons. g/anm/day Day 14	Food Cons. g/anm/day Day 21
Male, I 0 mg/m ³			
664812	21.5	21.5	21.5
664813	26.2	24.6	24.5
664814	29.5	29.4	31.5
664815	28.7	28.9	25.8
664816	22.1	23.2	19.8
664817	24.4	23.8	24.7
664818	21.8	21.1	22.3
664819	24.2	25.4	23.3
664820	24.4	24.4	24.7
664821	24.2	25.7	26.9
664822	25.0	20.6	22.1
664823	26.1	24.6	26.8
664824	22.9	23.3	23.9
664825	23.4	25.5	26.8
664826	24.1	22.1	22.1

Company Sanitized. Does not contain TSCA CBI

Individual Food Consumption			
	Food Cons. g/anm/day Day 7	Food Cons. g/anm/day Day 14	Food Cons. g/anm/day Day 21
Male, III 5 mg/m ³			
664827	23.2	24.2	24.6
664828	24.3	25.6	26.4
664829	27.2	27.6	27.5
664830	25.8	25.4	26.5
664831	23.8	22.6	21.1
664832	25.3	25.8	26.4
664833	25.1	21.9	22.6
664834	22.0	22.8	22.5
664835	25.7	26.0	27.1
664836	25.7	24.8	24.5
664837	24.1	24.1	23.3
664838	23.0	23.2	22.5
664839	23.1	23.8	25.4
664840	21.3	22.1	24.4
664841	22.1	21.9	21.5

Company Sanitized. Does not contain TSCA CBI

Individual Food Consumption			
	Food Cons. g/anm/day Day 7	Food Cons. g/anm/day Day 14	Food Cons. g/anm/day Day 21
Male, V 30 mg/m ³			
664842	23.2	22.1	20.1
664843	23.5	22.0	22.1
664844	28.0	23.9	21.9
664845	24.2	23.1	23.9
664846	19.9	18.3	17.7
664847	23.6	21.9	21.7
664848	22.0	20.8	21.9
664849	25.8	25.6	26.3
664850	24.9	23.9	23.7
664851	22.8	21.0	22.1
664852	23.7	24.5	23.7
664853	23.0	22.5	23.6
664854	25.6	24.6	22.4
664855	24.8	23.0	24.0
664856	21.7	21.7	21.9

Company Sanitized. Does not contain TSCA CBI

Individual Food Consumption

	Food Cons. g/arm/day Day 7	Food Cons. g/arm/day Day 14	Food Cons. g/arm/day Day 21
Male, VII 100 mg/m ³			
664857	21.6	21.6	21.4
664858	26.3	23.8	23.7
664859	23.5	24.0	23.1
664860	26.2	25.3	26.5
664861	21.6	20.4	21.2
664862	21.8	21.9	24.2
664863	24.6	23.2	22.8
664864	25.9	22.2	22.4
664865	27.4	27.0	26.5
664866	18.8	19.2	21.0
664867	23.8	24.2	24.7
664868	25.1	23.7	24.2
664869	24.7	26.6	27.2
664870	25.4	23.7	24.2
664871	18.2	22.8	22.8

Company Sanitized. Does not contain TSCA CBI

APPENDIX E

Individual Clinical Observations and Mortality Records

Company Sanitized. Does not contain TSCA CBI

Individual Clinical Observations Prior to Exposure and Mortality Records

Sex	Group	Animal	Observation	Days
M	I	664812	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	I	664813	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	I	664814	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	I	664815	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	I	664816	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	I	664817	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	I	664818	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	I	664819	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	I	664820	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	I	664821	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Hair Loss, Forelimb, Bilateral Hair Loss, Forepaw, Bilateral Sacrificed by design	0-7 25 14-25 14-25 25

Individual Clinical Observations Prior to Exposure and Mortality Records

Sex	Group	Animal	Observation	Days
M	I	664822	General observation, No Abnormality Detected	0-21
			Eye Observations, Exophthalmus, Right	42-56
			Eye Observations, Exophthalmus, Right	28-35
			Eye Observations, Bled via Orbital for Clin Path, Left	56
			Discharge, Eye right, Black	35
			Hair Loss, Face, Right	42-56
			Sacrificed by design	56
M	I	664823	General observation, No Abnormality Detected	0-56
			Eye Observations, Bled via Orbital for Clin Path, Right	56
			Sacrificed by design	56
M	I	664824	General observation, No Abnormality Detected	0-56
			Eye Observations, Bled via Orbital for Clin Path, Right	56
			Sacrificed by design	56
M	I	664825	General observation, No Abnormality Detected	0-56
			Eye Observations, Bled via Orbital for Clin Path, Right	56
			Sacrificed by design	56
M	I	664826	General observation, No Abnormality Detected	0-56
			Eye Observations, Bled via Orbital for Clin Path, Right	56
			Sacrificed by design	56

Company Sanitized. Does not contain TSCA CBI

Individual Clinical Observations Prior to Exposure and Mortality Records

Sex	Group	Animal	Observation	Days
M	III	664827	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	III	664828	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	III	664829	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	III	664830	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Hair Loss, Forelimb, Bilateral Hair Loss, Forepaw, Bilateral Sacrificed by design	0-7 25 25 14-25 25
M	III	664831	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	III	664832	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	III	664833	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	III	664834	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	III	664835	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	III	664836	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	III	664837	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-56 56 56

Individual Clinical Observations Prior to Exposure and Mortality Records

Sex	Group	Animal	Observation	Days
M	III	664838	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-56 56 56
M	III	664839	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Wound, Superficial, Tail Sacrificed by design	0-14, 49-56 56 21-42 56
M	III	664840	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Discharge, Nose, Black Sacrificed by design	0-21, 35-56 56 28 56
M	III	664841	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-56 56 56

Company Sanitized. Does not contain TSCA CBI

H-25134: Four-Week Inhalation Toxicity Study in Male Rats

DuPont-11414

Individual Clinical Observations Prior to Exposure and Mortality Records

Sex	Group	Animal	Observation	Days
M	V	664842	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	V	664843	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	V	664844	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Hair Loss, Forepaw, Bilateral Sacrificed by design	0 25 7-25 25
M	V	664845	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	V	664846	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	V	664847	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	V	664848	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Hair Loss, Forepaw, Bilateral Wound, Superficial, Tail Sacrificed by design	0-7 25 25 14-25 25
M	V	664849	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	V	664850	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Wound, Superficial, Tail Wound, Deep, Tail Sacrificed by design	0 25 21-25 7-14 25
M	V	664851	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	V	664852	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-56 56 56

Company Sanitized. Does not contain TSCA CBI

Individual Clinical Observations Prior to Exposure and Mortality Records

Sex	Group	Animal	Observation	Days
M	V	664853	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-56 56 56
M	V	664854	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-56 56 56
M	V	664855	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Discharge, Nose, Black Sacrificed by design	0-21, 35-56 56 28 56
M	V	664856	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Hair Loss, Forelimb, Bilateral Hair Loss, Forepaw, Bilateral Sacrificed by design	0-21 56 28-56 28-56 56

Company Sanitized. Does not contain TSCA CBI

H-25134: Four-Week Inhalation Toxicity Study in Male Rats

DuPont-11414

Individual Clinical Observations Prior to Exposure and Mortality Records

Sex	Group	Animal	Observation	Days
M	VII	664857	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	VII	664858	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Hair Loss, Shoulder, Right Sacrificed by design	0-14 25 21-25 25
M	VII	664859	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	VII	664860	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	VII	664861	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	VII	664862	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	VII	664863	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	VII	664864	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	VII	664865	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-25 25 25
M	VII	664866	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Hair Loss, Forepaw, Bilateral Hair Loss, Forepaw, Left Sacrificed by design	0 25 21-25 7-14 25
M	VII	664867	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-56 56 56

Individual Clinical Observations Prior to Exposure and Mortality Records

Sex	Group	Animal	Observation	Days
M	VII	664868	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-56 56 56
M	VII	664869	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-56 56 56
M	VII	664870	General observation, No Abnormality Detected Eye Observations, Enophthalmus, Right Eye Observations, Exophthalmus, Right Eye Observations, Bled via Orbital for Clin Path, Left Discharge, Eye right, Black Hair Loss, Face, Right Sacrificed by design	0-21 42-56 28-35 56 28-35 42 56
M	VII	664871	General observation, No Abnormality Detected Eye Observations, Bled via Orbital for Clin Path, Right Sacrificed by design	0-56 56 56

Individual Clinical Observations After Exposure

Sex	Group	Animal	Observation	Days
M	I	664812	General observation, No Abnormality Detected Discharge, Eye right, Brown	0, 2-25 1
M	I	664813	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Discharge, Nose, Red Discharge, Eye left, Black Discharge, Eye left, Brown Discharge, Eye right, Brown	2, 8, 23 9-21 1, 3-7 0 24-25 22 0
M	I	664814	General observation, No Abnormality Detected	0-25
M	I	664815	General observation, No Abnormality Detected	0-25
M	I	664816	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Discharge, Eye left, Brown Discharge, Eye right, Black	0-10, 14-15, 17, 21-22, 25 18 23-24 16 11
M	I	664817	General observation, No Abnormality Detected	0-25
M	I	664818	General observation, No Abnormality Detected Discharge, Eye left, Brown	0-17, 22, 24 18-21, 23, 25
M	I	664819	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Discharge, Eye left, Black Discharge, Eye left, Brown	0, 3-4, 8, 10, 15, 21-25 2, 16-18 1 7, 9 11-14
M	I	664820	General observation, No Abnormality Detected Discharge, Eye bilateral, Brown	0, 2-25 1
M	I	664821	General observation, No Abnormality Detected Discharge, Eye bilateral, Brown Discharge, Eye right, Brown	0, 2-16, 21, 24 1, 22-23, 25 17-18
M	I	664822	General observation, No Abnormality Detected Discharge, Eye bilateral, Brown	0-21, 23-25 22
M	I	664823	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye right, Brown	3-7, 22-24 0-2, 8-21 25

Individual Clinical Observations After Exposure

Sex	Group	Animal	Observation	Days
M	I	664824	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Discharge, Eye left, Black Discharge, Eye right, Black	0, 2-3, 8-9, 17 10-16, 18-25 1 7 4
M	I	664825	General observation, No Abnormality Detected Discharge, Eye bilateral, Brown	0, 2-21, 24-25 1, 22-23
M	I	664826	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Discharge, Eye left, Brown	2-22, 24 0 1 23, 25

Company Sanitized. Does not contain TSCA CBI

Individual Clinical Observations After Exposure

Sex	Group	Animal	Observation	Days
M	III	664827	General observation, No Abnormality Detected Discharge, Eye left, Brown	0-22, 24-25 23
M	III	664828	General observation, No Abnormality Detected Discharge, Eye bilateral, Brown Discharge, Eye left, Brown	0, 2-8, 16-18, 23-25 1 9-15, 21-22
M	III	664829	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Discharge, Eye left, Black	0-3, 9, 18-23, 25 4-8, 14-17 24 10-11
M	III	664830	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Discharge, Nose, Brown	0-11, 15-16, 18-25 17 14 14
M	III	664831	General observation, No Abnormality Detected	0-25
M	III	664832	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Discharge, Eye left, Black Discharge, Eye left, Brown	2, 4, 23 10-22, 24-25 1, 3 7-9 0
M	III	664833	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Discharge, Eye left, Black Discharge, Eye right, Brown	2, 4, 8, 25 9-24 1, 3 7 0
M	III	664834	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye left, Brown Discharge, Eye right, Brown	0-15, 18-22 16-17 23-24 25
M	III	664835	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Discharge, Eye right, Black	0-1, 4 9 10-25 2-3, 7-8
M	III	664836	General observation, No Abnormality Detected Discharge, Eye left, Brown Discharge, Eye right, Brown	0-8, 10-14, 16-22, 24-25 23 9, 15
M	III	664837	General observation, No Abnormality Detected Discharge, Eye bilateral, Brown Discharge, Eye left, Brown	0-14, 16, 24-25 22-23 15, 17-21

Individual Clinical Observations After Exposure

Sex	Group	Animal	Observation	Days
M	III	664838	General observation, No Abnormality Detected Discharge, Eye bilateral, Brown Discharge, Eye left, Brown	0, 2-8, 11, 15-17, 23-24 1, 10, 22 9, 14, 18-21, 25
M	III	664839	General observation, No Abnormality Detected Wound, Superficial, Hindpaw, left	0-7 8-25
M	III	664840	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Discharge, Eye left, Black Discharge, Eye left, Brown	0-3, 7-8, 10, 14, 18, 22, 24-25 23 15-17 4 9, 11, 21
M	III	664841	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Discharge, Eye right, Brown	0, 2-8, 11-22, 24-25 23 1 9-10

Individual Clinical Observations After Exposure

Sex	Group	Animal	Observation	Days
M	V	664842	General observation, No Abnormality Detected	0-25
M	V	664843	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Discharge, Eye left, Brown Discharge, Eye right, Brown	0-4, 8-10, 15, 17, 24 21-23 7, 16 11-14, 25 18
M	V	664844	General observation, No Abnormality Detected Discharge, Eye left, Brown	0, 4-9, 14-17, 21-25 1-3, 10-11, 18
M	V	664845	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Discharge, Eye left, Black Discharge, Eye left, Brown Discharge, Eye right, Brown	1, 4-9, 11, 17, 22, 24 23 2-3, 16 0 10, 14-15, 25 18-21
M	V	664846	General observation, No Abnormality Detected	0-25
M	V	664847	General observation, No Abnormality Detected	0-25
M	V	664848	General observation, No Abnormality Detected Discharge, Eye bilateral, Brown Discharge, Eye left, Black Discharge, Eye left, Brown Wound, Superficial, Tail	0, 2-3, 7-9 1, 22-23 4, 10-17 21 14-25
M	V	664849	General observation, No Abnormality Detected Discharge, Eye bilateral, Brown Discharge, Eye left, Brown	0-8, 10-14, 18-25 15-17 9
M	V	664850	General observation, No Abnormality Detected Discharge, Eye bilateral, Brown Discharge, Eye left, Brown Wound, Deep, Tail	0, 4 1-3, 9-11, 16-21 23-25 7-25
M	V	664851	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Discharge, Eye left, Brown Discharge, Eye right, Brown	0, 4-14, 16-17, 21, 24 15 1-3, 22-23 18 25
M	V	664852	General observation, No Abnormality Detected Discharge, Eye bilateral, Brown	0-10, 21-22, 24-25 11-18, 23

Individual Clinical Observations After Exposure

Sex	Group	Animal	Observation	Days
M	V	664853	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Discharge, Eye left, Black	4, 17, 21-22 7, 9-16 1-3, 18, 23-25 0, 8
M	V	664854	General observation, No Abnormality Detected Discharge, Eye bilateral, Brown	0, 2, 4-14, 17-25 1, 3, 15-16
M	V	664855	General observation, No Abnormality Detected Discharge, Eye right, Brown	0, 2-8, 10-21, 24-25 1, 9, 22-23
M	V	664856	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Discharge, Eye right, Black Discharge, Eye right, Brown	2-3, 7, 15 0, 8-9 11-14, 17-25 4, 10 1, 16

Company Sanitized. Does not contain TSCA CBI

H-25134: Four-Week Inhalation Toxicity Study in Male Rats

DuPont-11414

Individual Clinical Observations After Exposure

Sex	Group	Animal	Observation	Days
M	VII	664857	General observation, No Abnormality Detected Discharge, Eye left, Brown	0, 2-4, 11-21, 23, 25 1, 7-10, 22, 24
M	VII	664858	General observation, No Abnormality Detected Discharge, Eye left, Brown	0-10, 14-25 11
M	VII	664859	General observation, No Abnormality Detected	0-25
M	VII	664860	General observation, No Abnormality Detected	0-25
M	VII	664861	General observation, No Abnormality Detected Discharge, Eye bilateral, Brown Discharge, Eye left, Brown Discharge, Eye right, Brown	0-1, 4-16, 18 17, 22-25 21 2-3
M	VII	664862	General observation, No Abnormality Detected Discharge, Eye bilateral, Brown Discharge, Eye right, Black	4 3, 7-25 0-2
M	VII	664863	General observation, No Abnormality Detected	0-25
M	VII	664864	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Discharge, Nose, Brown Discharge, Eye right, Black Discharge, Eye right, Brown	0, 10, 15 9 3, 11-14, 16-25 4-8 7-8 1-2
M	VII	664865	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown	0-8, 10-11, 15-18, 25 9 14, 21-24
M	VII	664866	General observation, No Abnormality Detected Discharge, Eye left, Brown	0-9, 11-25 10
M	VII	664867	General observation, No Abnormality Detected Discharge, Eye bilateral, Brown Discharge, Eye right, Brown	0, 2, 4-8, 10-25 3 1, 9
M	VII	664868	General observation, No Abnormality Detected Discharge, Eye right, Brown	0-8, 11-25 9-10
M	VII	664869	General observation, No Abnormality Detected Discharge, Eye bilateral, Black Discharge, Eye bilateral, Brown Wound, Superficial, Hindpaw, Left	0, 7 8-25 1-4 4

Company Sanitized. Does not contain TSCA CB

Sex	Group	Animal	Observation	Individual Clinical Observations After Exposure	
				Days	
M	VII	664870	General observation, No Abnormality Detected	0-1, 3-10, 15-17, 25	
			Discharge, Eye bilateral, Brown	2, 11	
			Discharge, Eye right, Black	14	
M	VII	664871	Discharge, Eye right, Brown	18-24	
			General observation, No Abnormality Detected	0-10, 14-25	
			Discharge, Eye left, Brown	11	

APPENDIX F

Individual Animal Clinical Pathology Data

Company Sanitized. Does not contain TSCA CBI

INDIVIDUAL ANIMAL CLINICAL PATHOLOGY DATA

EXPLANATORY NOTES

ABBREVIATIONS:**General:**

ADEQ - adequate
CLOT - sample clotted
DECR - decreased
NT - not taken or not performed
NT-HEMOL - not taken due to hemolysis
OK - sample condition OK for testing
QNS - quantity not sufficient for testing
RNV - result not valid
< - less than

Individual Hematology Values:

COND - sample condition
RBC - red blood cell count
HGB - hemoglobin
HCT - hematocrit
MCV - mean corpuscular volume
MCH - mean corpuscular hemoglobin
MCHC - mean corpuscular hemoglobin concentration
RDW - red cell distribution width
ARET - absolute reticulocyte count
PLT - platelet count
WBC - white blood cell count
ANEU - absolute neutrophil (all forms)
ALYM - absolute lymphocyte
AMON - absolute monocyte
AEOS - absolute eosinophil
ABAS - absolute basophil
ALUC - absolute large unstained cell

Individual Red Blood Cell Morphology Values:

NORM - Normal
ANIS - anisocytosis
MIC - microcytes
MAC - macrocytes
POLY - polychromasia
HYPO - hypochromasia
ECHI - echinocytes
ACAN - acanthocytes
TARG - Target cells
RX - rouleaux
HJB - Howell-Jolly body
- - not observed or not examined; see whole blood sample condition

Individual White Blood Cell / Platelet Morphology Values:

NORM - Normal
SM - Smudge white blood cells
TOX - toxic neutrophils
DB - Döhle bodies
VC - vacuolated cytoplasm
BC - basophilic cytoplasm
PCE - platelet clumps / estimate
GP - giant platelets
BP - bizarre platelets
- - not observed or not examined; see whole blood sample condition

Company Sanitized. Does not contain TSCA CBI

INDIVIDUAL ANIMAL CLINICAL PATHOLOGY DATA

EXPLANATORY NOTES (Continued)

ABBREVIATIONS: (Continued)**Individual Coagulation Values:**

PHEM - plasma hemolysis
PLIP - plasma lipemia
PICT - plasma icterus
PT - prothrombin time
APTT - activated partial thromboplastin time

Individual Clinical Chemistry Values:

SHEM - serum hemolysis
SLIP - serum lipemia
SICT - serum icterus
AST - aspartate aminotransferase
ALT - alanine aminotransferase
SDH - sorbitol dehydrogenase
ALKP - alkaline phosphatase
BILI - total bilirubin
BUN - urea nitrogen
CREA - creatinine
CHOL - cholesterol
TRIG - triglycerides
GLUC - glucose
TP - total protein
ALB - albumin
GLOB - globulin
CALC - calcium
IPHS - inorganic phosphorous
NA - sodium
K - potassium
CL - chloride
PHEM - plasma hemolysis from blood sample for fluoride determination
PLIP - plasma lipemia from blood sample for fluoride determination
PICT - plasma icterus from blood sample for fluoride determination
PFLU - plasma fluoride

Individual Urinalysis Values:

QUAL - quality (modifies color)
COL - color
CLAR - clarity
VOL - volume
UOSM - urine osmolality
PH - the logarithm of the reciprocal of the hydrogen ion concentration
UGLU - urine glucose
KET - ketone
UBIL - urine bilirubin
BLD - blood
URO - urobilinogen
UFLU - urine fluoride
UMTP - urine protein
SPEC - special observations

Individual Urine Microscopic Examination Values:

EPIT - epithelial cells
UWBC - urine white blood cells
URBC - urine red blood cells
NCRY - normal crystals
MICR - microorganisms
SPER - sperm

Company Sanitized. Does not contain TSCA CBI

INDIVIDUAL ANIMAL CLINICAL PATHOLOGY DATA

EXPLANATORY NOTES (Continued)

NOTES:

When individual animal data are not reported, it may be due to one of the following reasons or other reasons, all of which are explained in the study records:

the sample was clotted (CLOT)
there was insufficient sample for testing (QNS)
a valid result could not be obtained (RNV)
the sample was not suitable for testing
the animal died prior to sample collection
no sample was available for testing (NSR)

When an individual observation was recorded as being less than a certain value, calculations were performed on half the recorded value. For example, if bilirubin was reported as <0.1, 0.05 was used for any calculations performed with that bilirubin data.

Company Sanitized. Does not contain TSCA CBI

Individual Hematology Values

Animal Number	COND	RBC $\times 10^6/\mu\text{L}$	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RDW %	ARET $\times 10^3/\mu\text{L}$	PLT $\times 10^3/\mu\text{L}$	WBC $\times 10^3/\mu\text{L}$
Male, Group I - 0 mg/m ³ - Day 25											
664812	OK	8.33	16.5	48.3	58.0	19.8	34.1	11.2	194.6	1422	12.79
664813	OK	7.68	15.4	45.7	59.5	20.0	33.6	11.4	206.6	1017	11.60
664814	OK	7.85	15.7	47.2	60.1	20.0	33.3	10.6	270.2	1136	10.36
664815	OK	7.99	15.9	45.6	57.0	19.8	34.8	10.7	186.5	1266	10.37
664816	OK	7.86	15.3	45.1	57.4	19.4	33.9	10.7	149.2	RNV	11.36
664817	OK	7.94	15.1	44.8	56.4	19.0	33.7	11.2	137.6	RNV	14.18
664818	OK	8.14	16.0	46.8	57.5	19.7	34.2	10.8	125.5	1226	8.74
664819	OK	7.46	15.6	45.0	60.3	20.9	34.6	10.9	111.6	1173	7.86
664820	OK	8.22	16.2	47.6	57.9	19.7	34.1	10.3	163.3	RNV	10.97
664821	OK	7.81	15.3	44.6	57.1	19.6	34.3	11.2	149.9	RNV	16.61
Male, Group III - 5 mg/m ³ - Day 25											
664827	OK	7.99	15.5	45.0	56.3	19.4	34.5	10.9	176.1	1425	11.74
664828	OK	7.43	14.7	44.1	59.3	19.8	33.4	11.0	227.4	RNV	10.42
664829	OK	7.72	15.7	47.0	60.8	20.4	33.5	11.7	208.2	1096	13.04
664830	OK	8.22	15.8	46.5	56.5	19.2	34.0	10.0	155.4	1265	14.65
664831	OK	7.77	15.8	46.1	59.4	20.4	34.3	10.5	153.4	1259	11.96
664832	CLOT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
664833	OK	8.30	16.2	46.7	56.3	19.6	34.7	10.8	127.0	RNV	9.46
664834	OK	7.67	15.8	44.9	58.5	20.6	35.1	11.0	169.3	RNV	13.21
664835	OK	7.65	16.0	45.9	60.0	20.9	34.8	10.4	162.6	RNV	11.60
664836	OK	7.92	15.4	44.2	55.8	19.4	34.8	10.6	197.5	RNV	12.65

Company Sanitized. Does not contain TSCA CBI

Individual Hematology Values

Animal Number	COND	RBC $\times 10^6/\mu\text{L}$	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RDW %	ARET $\times 10^3/\mu\text{L}$	PLT $\times 10^3/\mu\text{L}$	WBC $\times 10^3/\mu\text{L}$
Male, Group V - 30 mg/m ³ - Day 25											
664842	OK	8.54	16.8	48.1	56.3	19.7	35.0	10.5	110.5	1313	9.29
664843	OK	7.77	15.3	44.2	56.8	19.7	34.7	11.0	147.9	RNV	13.62
664844	OK	8.15	15.5	46.0	56.4	19.0	33.6	11.3	153.3	1004	11.83
664845	OK	7.48	15.3	43.7	58.5	20.5	35.0	10.6	163.3	RNV	14.19
664846	OK	8.44	16.2	46.8	55.5	19.1	34.5	10.7	103.2	904	11.52
664847	OK	8.02	16.1	47.3	59.0	20.1	34.0	11.0	176.5	RNV	8.64
664848	OK	8.46	16.1	46.3	54.7	19.0	34.8	11.3	144.3	RNV	11.72
664849	OK	8.12	15.3	45.2	55.7	18.8	33.7	10.9	81.5	1089	12.27
664850	OK	8.48	15.8	46.6	54.9	18.7	34.0	11.9	88.6	RNV	10.35
664851	OK	7.81	15.6	45.5	58.2	20.0	34.3	10.6	170.7	1189	18.66
Male, Group VII - 100 mg/m ³ - Day 25											
664857	OK	7.89	16.3	46.9	59.4	20.7	34.8	10.6	167.9	1055	16.38
664858	OK	8.16	16.5	47.9	58.7	20.3	34.5	10.2	162.3	1311	16.40
664859	OK	7.81	15.1	44.3	56.8	19.3	34.0	10.7	138.6	1151	9.94
664860	OK	8.00	15.3	45.6	57.0	19.1	33.5	11.2	142.0	1011	14.06
664861	OK	7.85	15.4	44.9	57.3	19.6	34.3	11.3	131.7	1165	11.96
664862	OK	7.46	15.0	42.7	57.3	20.2	35.2	10.6	135.9	1140	9.45
664863	OK	7.82	15.8	46.7	59.8	20.2	33.8	10.6	130.1	RNV	10.44
664864	OK	7.97	15.5	46.2	58.0	19.5	33.6	10.9	166.2	1027	13.50
664865	OK	8.23	16.8	48.3	58.7	20.4	34.8	10.8	193.2	RNV	11.48
664866	OK	8.32	15.3	45.2	54.3	18.4	33.9	10.4	126.9	1200	9.08

Company Sanitized. Does not contain TSCA CBI

Individual Hematology Values

Animal Number	ANEU x10 ³ /μL	ALYM x10 ³ /μL	AMON x10 ³ /μL	AEOS x10 ³ /μL	ABAS x10 ³ /μL	ALUC x10 ³ /μL
Male, Group I - 0 mg/m ³ - Day 25						
664812	1.54	10.84	0.16	0.12	0.06	0.07
664813	1.45	9.81	0.19	0.03	0.05	0.08
664814	0.51	9.34	0.31	0.07	0.03	0.11
664815	1.26	8.68	0.26	0.06	0.04	0.07
664816	2.34	8.58	0.16	0.12	0.05	0.10
664817	1.84	11.76	0.32	0.09	0.07	0.10
664818	1.38	6.96	0.16	0.08	0.08	0.09
664819	1.08	6.47	0.14	0.08	0.04	0.04
664820	1.04	9.41	0.29	0.06	0.10	0.08
664821	2.49	13.18	0.50	0.21	0.13	0.09

Male, Group III - 5 mg/m³ - Day 25

664827	0.97	10.44	0.11	0.07	0.07	0.08
664828	1.54	8.48	0.21	0.11	0.03	0.05
664829	1.98	10.65	0.17	0.12	0.06	0.06
664830	1.51	12.51	0.35	0.06	0.11	0.10
664831	3.05	8.38	0.32	0.09	0.04	0.08
664832	NT	NT	NT	NT	NT	NT
664833	0.86	8.30	0.15	0.07	0.04	0.06
664834	1.29	11.48	0.17	0.12	0.06	0.10
664835	1.34	9.75	0.21	0.12	0.08	0.09
664836	1.62	10.53	0.24	0.09	0.10	0.08

Company Sanitized. Does not contain TSCA CBI

H-25134: Four-Week Inhalation Toxicity Study in Male Rats

Individual Hematology Values

Animal Number	ANEU x10 ³ /μL	ALYM x10 ³ /μL	AMON x10 ³ /μL	AEOS x10 ³ /μL	ABAS x10 ³ /μL	ALUC x10 ³ /μL
Male, Group V - 30 mg/m ³ - Day 25						
664842	0.94	7.99	0.10	0.11	0.07	0.08
664843	1.09	11.67	0.17	0.06	0.17	0.45
664844	1.41	9.79	0.20	0.19	0.12	0.12
664845	1.28	12.22	0.32	0.15	0.11	0.11
664846	0.80	10.19	0.21	0.13	0.10	0.09
664847	0.86	7.78	0.00	0.00	0.00	0.00
664848	1.06	10.29	0.20	0.07	0.05	0.05
664849	1.44	10.28	0.31	0.06	0.08	0.10
664850	0.79	8.88	0.23	0.19	0.15	0.10
664851	2.36	15.50	0.44	0.08	0.09	0.19

Male, Group VII - 100 mg/m³ - Day 25

Individual Red Blood Cell Morphology Values

Animal Number	NORM	ANIS	MIC	MAC	POLY	HYPO	ECHI	ACAN	TARG	RX	HJB
Male, Group I - 0 mg/m ³ - Day 25											
664812	NO	-	-	-	TRACE	-	TRACE	FEW	-	-	-
664813	NO	-	-	-	TRACE	-	TRACE	-	-	-	-
664814	NO	-	-	-	TRACE	-	TRACE	-	-	-	-
664815	NO	-	-	-	TRACE	-	FEW	MODERATE	-	-	-
664816	NO	-	-	-	TRACE	-	-	-	-	-	-
664817	NO	-	-	-	TRACE	-	MANY	FEW	-	-	-
664818	NO	-	-	-	TRACE	-	MANY	-	-	-	-
664819	NO	-	-	-	TRACE	-	-	-	-	-	-
664820	NO	-	-	-	TRACE	-	TRACE	-	-	-	-
664821	NO	-	-	-	TRACE	-	-	TRACE	-	-	-
Male, Group III - 5 mg/m ³ - Day 25											
664827	NO	-	-	-	TRACE	-	MODERATE	TRACE	-	-	-
664828	NO	-	-	-	TRACE	-	FEW	TRACE	-	-	-
664829	NO	-	-	-	TRACE	-	MANY	FEW	-	-	-
664830	NO	-	-	-	TRACE	-	-	-	-	-	-
664831	NO	-	-	-	TRACE	-	-	-	-	-	-
664832	CLOT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
664833	NO	-	-	-	TRACE	-	FEW	MODERATE	-	-	-
664834	NO	-	-	-	TRACE	-	-	-	-	-	-
664835	NO	-	-	-	TRACE	-	FEW	TRACE	-	-	-
664836	NO	-	-	-	TRACE	-	-	FEW	-	-	-

Company Sanitized. Does not contain TSCA CBI

H-25134: Four-Week Inhalation Toxicity Study in Male Rats

Individual Red Blood Cell Morphology Values

Animal Number	NORM	ANIS	MIC	MAC	POLY	HYPO	ECHI	ACAN	TARG	RX	HJB
Male, Group V - 30 mg/m ³ - Day 25											
664842	NO	-	-	-	TRACE	-	-	TRACE	-	-	-
664843	NO	-	-	-	TRACE	-	MANY	FEW	-	-	-
664844	NO	-	-	-	TRACE	-	FEW	-	-	-	-
664845	NO	-	-	-	TRACE	-	FEW	MODERATE	-	-	-
664846	NO	-	-	-	TRACE	-	TRACE	-	-	-	-
664847	NO	-	-	-	TRACE	-	-	-	-	-	-
664848	NO	-	-	-	TRACE	-	-	-	-	-	-
664849	NO	-	-	-	TRACE	-	-	-	-	-	-
664850	NO	TRACE	TRACE	-	TRACE	-	FEW	FEW	-	-	-
664851	NO	-	-	-	TRACE	-	-	-	-	-	-
Male, Group VII - 100 mg/m ³ - Day 25											
664857	NO	-	-	-	TRACE	-	TRACE	-	-	-	-
664858	NO	-	-	-	TRACE	-	-	-	-	-	-
664859	NO	-	-	-	TRACE	-	TRACE	MODERATE	-	-	-
664860	NO	-	-	-	TRACE	-	-	-	-	-	-
664861	NO	-	-	-	TRACE	-	TRACE	-	-	-	-
664862	NO	-	-	-	TRACE	-	FEW	MODERATE	-	-	-
664863	NO	-	-	-	TRACE	-	MANY	-	-	-	-
664864	NO	-	-	-	TRACE	-	-	-	-	-	-
664865	NO	-	-	-	TRACE	-	-	-	-	-	-
664866	NO	-	-	-	TRACE	-	-	-	-	-	-

Company Sanitized. Does not contain TSCA CBI

Individual White Blood Cell / Platelet Morphology Values

Animal Number	NORM	SM	TOX	DB	VC	BC	PCE	GP	BP
Male, Group I - 0 mg/m ³ - Day 25									
664812	YES	-	-	-	-	-	-	-	-
664813	YES	-	-	-	-	-	-	-	-
664814	YES	-	-	-	-	-	-	-	-
664815	YES	-	-	-	-	-	-	-	-
664816	NO	-	-	-	-	-	YES/ADEQ	-	-
664817	NO	-	-	-	-	-	YES/DECR	-	-
664818	YES	-	-	-	-	-	-	-	-
664819	YES	-	-	-	-	-	-	-	-
664820	NO	-	-	-	-	-	YES/ADEQ	-	-
664821	NO	-	-	-	-	-	YES/ADEQ	-	-
Male, Group III - 5 mg/m ³ - Day 25									
664827	YES	-	-	-	-	-	-	-	-
664828	NO	-	-	-	-	-	YES/ADEQ	-	-
664829	YES	-	-	-	-	-	-	-	-
664830	YES	-	-	-	-	-	-	-	-
664831	YES	-	-	-	-	-	-	-	-
664832	CLOT	NT	NT	NT	NT	NT	NT	NT	NT
664833	NO	-	-	-	-	-	YES/ADEQ	-	-
664834	NO	-	-	-	-	-	YES/ADEQ	-	-
664835	NO	-	-	-	-	-	YES/ADEQ	-	-
664836	NO	-	-	-	-	-	YES/ADEQ	-	-

Company Sanitized. Does not contain TSCA CBI

Individual White Blood Cell / Platelet Morphology Values

Animal Number	NORM	SM	TOX	DB	VC	BC	PCE	GP	BP
Male, Group V - 30 mg/m ³ - Day 25									
664842	YES	-	-	-	-	-	-	-	-
664843	NO	-	-	-	-	-	YES/ADEQ	-	-
664844	YES	-	-	-	-	-	-	-	-
664845	NO	-	-	-	-	-	YES/ADEQ	-	-
664846	YES	-	-	-	-	-	-	-	-
664847	NO	-	-	-	-	-	YES/DECR	-	-
664848	NO	-	-	-	-	-	YES/ADEQ	-	-
664849	YES	-	-	-	-	-	-	-	-
664850	NO	-	-	-	-	-	YES/ADEQ	-	-
664851	YES	-	-	-	-	-	-	-	-
Male, Group VII - 100 mg/m ³ - Day 25									
664857	YES	-	-	-	-	-	-	-	-
664858	YES	-	-	-	-	-	-	-	-
664859	YES	-	-	-	-	-	-	-	-
664860	YES	-	-	-	-	-	-	-	-
664861	YES	-	-	-	-	-	-	-	-
664862	YES	-	-	-	-	-	-	-	-
664863	NO	-	-	-	-	-	YES/ADEQ	-	-
664864	YES	-	-	-	-	-	-	-	-
664865	NO	-	-	-	-	-	YES/DECR	-	-
664866	YES	-	-	-	-	-	-	-	-

Company Sanitized. Does not contain TSCA CBI

H-25134: Four-Week Inhalation Toxicity Study in Male Rats

Individual Coagulation Values

Animal Number	PHEM	PLIP	PICT	PT sec	APTT sec
------------------	------	------	------	-----------	-------------

Male, Group I - 0 mg/m³ - Day 25

664812	TRACE	NONE	NONE	15.3	23.8
664813	NONE	NONE	NONE	15.1	19.5
664814	NONE	NONE	NONE	14.4	20.1
664815	NONE	NONE	NONE	13.8	20.1
664816	NONE	NONE	NONE	15.1	19.9
664817	NONE	NONE	NONE	16.8	21.8
664818	NONE	NONE	NONE	18.0	22.9
664819	NONE	NONE	NONE	18.0	20.4
664820	NONE	NONE	NONE	15.1	21.2
664821	NONE	NONE	NONE	15.3	19.6

Male, Group III - 5 mg/m³ - Day 25

664827	NONE	NONE	NONE	15.6	21.9
664828	NONE	NONE	NONE	15.6	18.1
664829	NONE	NONE	NONE	15.6	21.2
664830	NONE	NONE	NONE	14.8	20.2
664831	NONE	NONE	NONE	15.1	19.9
664832	NONE	NONE	NONE	17.1	23.6
664833	NONE	NONE	NONE	21.6	22.3
664834	NONE	NONE	NONE	15.4	20.9
664835	NONE	NONE	NONE	14.9	20.4
664836	NONE	NONE	NONE	14.9	19.9

Company Sanitized. Does not contain TSQA CBI

Individual Coagulation Values

Animal Number	PHEM	PLIP	PICT	PT sec	APTT sec
Male, Group V - 30 mg/m ³ - Day 25					
664842	NONE	NONE	NONE	16.1	23.5
664843	NONE	NONE	NONE	14.6	17.8
664844	NONE	NONE	NONE	15.1	19.9
664845	NONE	NONE	NONE	15.2	18.1
664846	NONE	NONE	NONE	17.3	21.9
664847	NONE	NONE	NONE	15.9	19.6
664848	NONE	NONE	NONE	15.7	19.6
664849	NONE	NONE	NONE	15.1	18.6
664850	NONE	NONE	NONE	15.9	20.4
664851	NONE	NONE	NONE	14.4	19.7
Male, Group VII - 100 mg/m ³ - Day 25					
664857	NONE	NONE	NONE	15.5	22.8
664858	NONE	NONE	NONE	15.3	21.2
664859	NONE	NONE	NONE	15.9	19.9
664860	NONE	NONE	NONE	15.2	21.1
664861	NONE	NONE	NONE	14.8	19.5
664862	NONE	NONE	NONE	15.1	18.7
664863	NONE	NONE	NONE	15.1	17.7
664864	NONE	NONE	NONE	16.0	19.4
664865	NONE	NONE	NONE	14.9	18.5
664866	NONE	NONE	NONE	15.8	18.3

Company Sanitized. Does not contain TSCA CBI

Individual Clinical Chemistry Values

Animal Number	SHEM	SLIP	SICT	AST U/L	ALT U/L	SDH U/L	ALKP U/L	BILI mg/dL	BUN mg/dL	CREA mg/dL	CHOL mg/dL
Male, Group I - 0 mg/m ³ - Day 25											
664812	NONE	NONE	NONE	109	27	6.4	219	0.10	16	0.44	48
664813	NONE	NONE	NONE	87	27	19.5	249	<0.10	16	0.32	40
664814	TRACE	NONE	NONE	88	28	17.1	257	<0.10	15	0.36	49
664815	NONE	NONE	NONE	82	23	12.0	192	0.11	15	0.30	49
664816	NONE	NONE	NONE	110	35	6.5	165	<0.10	14	0.30	60
664817	NONE	NONE	NONE	133	35	11.1	162	0.10	15	0.34	56
664818	NONE	NONE	NONE	94	31	12.5	177	0.11	13	0.31	45
664819	TRACE	NONE	NONE	106	29	6.2	191	0.12	14	0.33	46
664820	TRACE	NONE	NONE	136	37	21.1	184	0.10	12	0.30	42
664821	TRACE	NONE	NONE	86	34	11.1	170	<0.10	15	0.23	40

Male, Group III - 5 mg/m³ - Day 25

664827	TRACE	NONE	NONE	111	40	13.4	231	0.11	15	0.38	35
664828	TRACE	NONE	NONE	93	27	RVN	237	0.12	16	0.32	31
664829	TRACE	NONE	NONE	92	32	23.2	212	<0.10	13	0.33	47
664830	TRACE	NONE	NONE	120	40	RVN	225	0.10	16	0.39	45
664831	NONE	NONE	NONE	114	39	9.0	181	<0.10	16	0.31	49
664832	NONE	NONE	NONE	90	28	10.5	197	0.10	14	0.39	45
664833	TRACE	NONE	NONE	100	28	RVN	187	0.11	15	0.21	38
664834	TRACE	NONE	NONE	93	30	8.4	191	<0.10	16	0.28	63
664835	TRACE	NONE	NONE	93	31	11.3	271	<0.10	14	0.27	44
664836	TRACE	NONE	NONE	93	34	13.0	216	<0.10	12	0.22	33

Individual Clinical Chemistry Values

Animal Number	SHEM	SLIP	SICT	AST U/L	ALT U/L	SDH U/L	ALKP U/L	BILI mg/dL	BUN mg/dL	CREA mg/dL	CHOL mg/dL
Male, Group V - 30 mg/m ³ - Day 25											
664842	TRACE	NONE	NONE	95	35	10.2	189	0.10	14	0.31	29
664843	TRACE	NONE	NONE	93	39	22.5	143	0.10	17	0.28	53
664844	TRACE	NONE	NONE	101	27	7.9	145	<0.10	14	0.37	44
664845	MODERATE	NONE	NONE	NT-HEMOL	NT-HEMOL	RNV	NT-HEMOL	NT-HEMOL	15	0.32	56
664846	TRACE	NONE	NONE	107	33	10.9	226	0.13	14	0.34	39
664847	TRACE	NONE	NONE	98	31	10.9	129	<0.10	17	0.45	40
664848	NONE	NONE	NONE	132	31	5.1	165	0.10	17	0.32	53
664849	TRACE	NONE	NONE	122	50	14.2	179	0.13	16	0.26	32
664850	SMALL	NONE	NONE	118	47	8.4	187	0.11	14	0.30	48
664851	SMALL	NONE	NONE	118	33	RNV	200	0.13	16	0.31	49
Male, Group VII - 100 mg/m ³ - Day 25											
664857	NONE	NONE	NONE	100	32	22.6	287	0.10	14	0.37	29
664858	TRACE	NONE	NONE	96	27	10.2	202	0.10	15	0.34	21
664859	TRACE	NONE	NONE	111	41	8.7	201	<0.10	17	0.39	28
664860	TRACE	NONE	NONE	110	40	13.5	128	0.12	16	0.41	42
664861	NONE	NONE	NONE	84	33	16.6	218	0.13	13	0.28	49
664862	NONE	NONE	NONE	112	33	RNV	198	<0.10	12	0.29	32
664863	SMALL	NONE	NONE	121	41	10.5	248	0.11	13	0.29	43
664864	TRACE	NONE	NONE	86	28	8.7	225	<0.10	12	0.26	20
664865	TRACE	NONE	NONE	86	28	14.3	217	<0.10	16	0.35	26
664866	TRACE	NONE	NONE	106	48	12.7	209	<0.10	15	0.29	38

Individual Clinical Chemistry Values

Animal Number	TRIG mg/dL	GLUC mg/dL	TP g/dL	ALB g/dL	GLOB g/dL	CALC mg/dL	IPHS mg/dL	NA mmol/L	K mmol/L	CL mmol/L
Male, Group I - 0 mg/m ³ - Day 25										
664812	19	99	6.4	4.7	1.7	10.6	11.4	145.1	5.77	101.4
664813	48	96	6.1	4.2	1.9	10.7	9.9	146.2	5.56	99.8
664814	49	85	6.2	4.4	1.8	10.9	10.4	144.9	6.64	101.5
664815	51	81	6.4	4.4	2.0	10.8	9.1	146.1	5.87	101.4
664816	39	81	6.1	4.1	2.0	10.5	9.5	147.2	5.58	103.9
664817	26	97	6.3	4.2	2.1	10.2	8.3	146.1	5.85	99.9
664818	31	84	6.4	4.3	2.1	10.8	8.9	148.0	6.21	101.3
664819	29	79	6.6	4.5	2.1	11.1	9.5	147.9	5.97	102.9
664820	34	98	6.4	4.3	2.1	11.6	10.0	149.3	6.42	103.4
664821	33	84	6.1	4.0	2.1	10.9	8.9	148.4	5.81	104.7
Male, Group III - 5 mg/m ³ - Day 25										
664827	16	85	6.1	4.3	1.8	10.3	8.7	144.0	5.65	101.2
664828	21	82	5.9	4.1	1.8	10.5	9.6	145.7	6.16	104.6
664829	23	77	5.8	4.0	1.8	11.0	11.6	148.4	6.96	102.4
664830	44	82	6.4	4.6	1.8	10.8	8.5	148.2	5.80	102.9
664831	12	79	5.8	4.1	1.7	10.6	9.1	150.3	6.16	107.5
664832	11	126	6.4	4.5	1.9	10.9	9.5	145.0	5.38	102.3
664833	17	95	5.8	4.3	1.5	10.6	9.9	146.1	6.89	104.2
664834	16	96	6.4	4.4	2.0	10.9	9.1	147.9	5.54	104.4
664835	20	98	6.4	4.4	2.0	11.0	9.6	149.1	6.38	102.8
664836	15	98	6.1	4.3	1.8	11.0	10.4	149.7	6.02	107.7

Company Sanitized. Does not contain TSCA CBI

Individual Clinical Chemistry Values

Animal Number	TRIG mg/dL	GLUC mg/dL	TP g/dL	ALB g/dL	GLOB g/dL	CALC mg/dL	IPHS mg/dL	NA mmol/L	K mmol/L	CL mmol/L
Male, Group V - 30 mg/m ³ - Day 25										
664842	22	98	6.3	4.4	1.9	10.5	8.4	145.3	5.88	101.5
664843	21	88	6.1	4.2	1.9	10.2	8.3	146.2	5.22	99.6
664844	32	88	6.3	4.0	2.3	11.0	8.3	151.9	5.92	104.3
664845	NT-HEMOL	84	NT-HEMOL	NT-HEMOL	NT-HEMOL	10.2	8.6	147.4	NT-HEMOL	101.8
664846	25	87	6.4	4.6	1.8	10.6	8.4	150.0	5.87	103.3
664847	10	106	6.5	4.4	2.1	10.7	10.7	146.1	5.52	102.0
664848	23	98	6.2	4.3	1.9	10.2	8.5	145.9	5.60	102.5
664849	20	86	6.0	4.4	1.6	10.8	8.5	149.3	6.09	101.3
664850	23	88	6.6	4.4	2.2	11.1	8.9	150.2	6.45	102.9
664851	29	94	6.9	4.6	2.3	11.1	8.2	151.2	6.44	104.0
Male, Group VII - 100 mg/m ³ - Day 25										
664857	31	82	6.1	4.2	1.9	10.4	9.6	146.1	6.04	100.2
664858	21	87	6.5	4.2	2.3	10.6	9.5	146.5	5.60	101.7
664859	31	94	6.1	4.2	1.9	10.3	9.7	147.1	6.18	103.3
664860	27	97	6.2	4.2	2.0	10.5	8.4	149.9	5.83	102.6
664861	37	80	6.3	4.5	1.8	10.6	8.0	152.1	6.06	103.1
664862	30	81	5.5	3.7	1.8	10.5	9.4	146.3	6.00	102.4
664863	23	82	6.3	4.2	2.1	10.4	7.9	149.6	5.93	104.8
664864	20	93	5.8	4.0	1.8	10.5	8.6	150.7	5.50	106.2
664865	17	117	6.7	4.3	2.4	11.4	10.9	150.1	5.89	103.2
664866	30	94	6.9	4.6	2.3	11.3	8.0	153.3	5.86	105.2

Company Sanitized. Does not contain TSCA CBI

Individual Clinical Chemistry Values

Animal Number	PHEM	PLIP	PICT	PFLU pg/mL
------------------	------	------	------	---------------

Male, Group I - 0 mg/m³ - Day 25

664812	NONE	NONE	NONE	0.1
664813	NONE	NONE	NONE	0.1
664814	NONE	NONE	NONE	0.1
664815	NONE	NONE	NONE	0.1
664816	NONE	NONE	NONE	0.1
664817	NONE	NONE	NONE	0.1
664818	NONE	NONE	NONE	0.0
664819	NONE	NONE	NONE	0.1
664820	NONE	NONE	NONE	0.1
664821	NONE	NONE	NONE	0.1

Male, Group III - 5 mg/m³ - Day 25

664827	NONE	NONE	NONE	0.1
664828	NONE	NONE	NONE	0.1
664829	NONE	NONE	NONE	0.1
664830	NONE	NONE	NONE	0.1
664831	NONE	NONE	NONE	0.1
664832	NONE	NONE	NONE	0.0
664833	NONE	NONE	NONE	0.0
664834	NONE	NONE	NONE	0.0
664835	NONE	NONE	NONE	0.0
664836	NONE	NONE	NONE	0.1

Individual Clinical Chemistry Values

Animal Number	PHEM	PLIP	PICT	PFLU µg/mL
------------------	------	------	------	---------------

Male, Group V - 30 mg/m³ - Day 25

664842	NONE	NONE	NONE	0.1
664843	NONE	NONE	NONE	0.1
664844	NONE	NONE	NONE	0.1
664845	NONE	NONE	NONE	0.1
664846	NONE	NONE	NONE	0.1
664847	NONE	NONE	NONE	0.1
664848	NONE	NONE	NONE	0.1
664849	NONE	NONE	NONE	0.1
664850	NONE	NONE	NONE	0.1
664851	NONE	NONE	NONE	0.1

Male, Group VII - 100 mg/m³ - Day 25

664857	NONE	NONE	NONE	QNS
664858	NONE	NONE	NONE	0.1
664859	NONE	NONE	NONE	0.1
664860	NONE	NONE	NONE	0.1
664861	NONE	NONE	NONE	0.1
664862	NONE	NONE	NONE	0.1
664863	NONE	NONE	NONE	0.1
664864	NONE	NONE	NONE	0.1
664865	NONE	NONE	NONE	0.1
664866	NONE	NONE	NONE	0.1

Individual Clinical Chemistry Values

Animal Number	SHEM	SLIP	SICT	CHOL mg/dL	TRIG mg/dL	TP g/dL	ALB g/dL	GLOB g/dL
Male, Group I - 0 mg/m ³ - Day 56								
664822	NONE	NONE	NONE	45	57	6.7	4.3	2.4
664823	NONE	NONE	NONE	56	63	6.7	4.3	2.4
664824	NONE	NONE	NONE	48	47	6.4	4.3	2.1
664825	NONE	NONE	NONE	53	63	6.8	4.2	2.6
664826	NONE	NONE	NONE	47	38	6.4	4.0	2.4
Male, Group III - 5 mg/m ³ - Day 56								
664837	NONE	NONE	NONE	52	84	6.9	4.7	2.2
664838	TRACE	NONE	NONE	52	34	6.2	4.2	2.0
664839	NONE	NONE	NONE	46	51	6.5	4.3	2.2
664840	TRACE	NONE	NONE	62	65	6.7	4.2	2.5
664841	TRACE	NONE	NONE	46	27	6.8	4.5	2.3
Male, Group V - 30 mg/m ³ - Day 56								
664852	TRACE	NONE	NONE	51	46	6.4	4.2	2.2
664853	TRACE	NONE	NONE	71	89	6.4	4.4	2.0
664854	NONE	NONE	NONE	47	73	6.5	4.4	2.1
664855	NONE	NONE	NONE	50	71	6.2	3.9	2.3
664856	TRACE	NONE	NONE	35	28	6.2	4.0	2.2
Male, Group VII - 100 mg/m ³ - Day 56								
664867	TRACE	NONE	NONE	60	96	7.1	4.6	2.5
664868	NONE	NONE	NONE	49	78	6.4	4.2	2.2
664869	TRACE	NONE	NONE	73	64	6.4	4.1	2.3
664870	NONE	NONE	NONE	23	34	6.4	4.2	2.2
664871	TRACE	NONE	NONE	51	49	6.4	4.0	2.4

Individual Urinalysis Values

Animal Number	QUAL	COL	CLAR	VOL mL	UOSM mOsm/kg	pH	UGLU mg/dL	KET mg/dL	UBIL	BLD	URO EU/dL
Male, Group I - 0 mg/m ³ - Day 25											
664812	MEDIUM	YELLOW	HAZY	6.2	1061	7.0	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
664813	LIGHT	YELLOW	CLOUDY	6.2	1261	7.0	NEGATIVE	5	NEGATIVE	MODERATE	0.2
664814	LIGHT	YELLOW	HAZY	17.4	528	7.0	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
664815	LIGHT	YELLOW	HAZY	7.4	1028	7.0	NEGATIVE	15	NEGATIVE	NEGATIVE	0.2
664816	MEDIUM	YELLOW	HAZY	1.8	2866	6.0	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
664817	LIGHT	YELLOW	HAZY	5.4	1185	6.0	NEGATIVE	15	NEGATIVE	NEGATIVE	0.2
664818	LIGHT	YELLOW	HAZY	4.0	1478	7.5	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
664819	MEDIUM	YELLOW	CLEAR	3.6	1790	6.5	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
664820	LIGHT	YELLOW	HAZY	9.0	706	7.0	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
664821	DARK	YELLOW	HAZY	1.0	3570	6.0	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE	0.2

Male, Group III - 5 mg/m³ - Day 25

664827	LIGHT	YELLOW	CLEAR	2.4	1185	6.5	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
664828	LIGHT	YELLOW	CLEAR	3.4	1163	6.5	NEGATIVE	15	NEGATIVE	NEGATIVE	0.2
664829	LIGHT	YELLOW	CLEAR	12.0	691	6.5	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
664830	MEDIUM	YELLOW	CLOUDY	1.4	3516	6.5	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE	0.2
664831	LIGHT	YELLOW	CLEAR	4.2	974	6.5	NEGATIVE	15	NEGATIVE	NEGATIVE	0.2
664832	LIGHT	YELLOW	CLEAR	8.2	785	7.0	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
664833	LIGHT	YELLOW	CLEAR	11.0	454	6.5	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE	0.2
664834	LIGHT	YELLOW	HAZY	4.2	1328	7.0	NEGATIVE	15	NEGATIVE	NEGATIVE	0.2
664835	LIGHT	YELLOW	CLOUDY	5.0	1412	8.0	NEGATIVE	15	NEGATIVE	SMALL	0.2
664836	LIGHT	YELLOW	CLOUDY	4.0	1793	7.5	NEGATIVE	15	NEGATIVE	SMALL	0.2

Individual Urinalysis Values

Animal Number	QUAL	COL	CLAR	VOL mL	UOSM mOsm/kg	pH	UGLU mg/dL	KET mg/dL	UBIL	BLD	URO EU/dL
Male, Group V - 30 mg/m ³ - Day 25											
664842	LIGHT	YELLOW	CLEAR	4.4	1125	7.0	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
664843	LIGHT	YELLOW	CLEAR	10.8	775	7.0	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
664844	MEDIUM	YELLOW	HAZY	1.4	2930	6.0	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE	0.2
664845	LIGHT	YELLOW	CLEAR	5.0	1396	6.5	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
664846	LIGHT	YELLOW	CLEAR	5.6	718	7.5	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE	0.2
664847	LIGHT	YELLOW	CLEAR	3.2	1153	6.5	NEGATIVE	15	NEGATIVE	NEGATIVE	0.2
664848	LIGHT	YELLOW	CLEAR	5.6	839	6.0	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE	0.2
664849	LIGHT	YELLOW	CLEAR	3.4	1441	6.5	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
664850	MEDIUM	YELLOW	HAZY	1.4	2894	6.0	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
664851	LIGHT	YELLOW	HAZY	7.4	633	6.5	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
Male, Group VII - 100 mg/m ³ - Day 25											
664857	MEDIUM	YELLOW	CLEAR	2.4	1824	6.5	NEGATIVE	15	NEGATIVE	NEGATIVE	0.2
664858	LIGHT	YELLOW	HAZY	2.2	1645	6.5	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
664859	LIGHT	YELLOW	CLEAR	9.4	560	7.0	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
664860	LIGHT	YELLOW	HAZY	12.0	524	7.5	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
664861	MEDIUM	YELLOW	CLEAR	1.6	2521	6.5	NEGATIVE	5	SMALL	NEGATIVE	0.2
664862	LIGHT	YELLOW	CLEAR	5.0	1267	6.5	NEGATIVE	5	NEGATIVE	NEGATIVE	0.2
664863	LIGHT	YELLOW	CLEAR	11.4	471	6.0	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE	0.2
664864	LIGHT	YELLOW	CLEAR	4.0	1077	6.5	NEGATIVE	15	NEGATIVE	NEGATIVE	0.2
664865	LIGHT	YELLOW	CLEAR	13.2	463	6.0	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE	0.2
664866	LIGHT	YELLOW	HAZY	5.2	940	6.0	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE	0.2

Individual Urinalysis Values

Animal Number	UFLU µg	UMTP mg/dL	SPEC
------------------	------------	---------------	------

Male, Group I - 0 mg/m ³ - Day 25			
--	--	--	--

664812	11.7	52	
664813	12.6	163	
664814	19.3	27	
664815	14.7	110	
664816	QNS	276	
664817	11.6	67	
664818	QNS	120	
664819	10.4	146	
664820	12.3	153	
664821	QNS	180	

FECAL CONTAMINATION OBSERVED

Male, Group III - 5 mg/m ³ - Day 25			
--	--	--	--

664827	5.6	131	
664828	8.6	95	
664829	20.1	32	
664830	QNS	250	
664831	7.7	64	
664832	16.1	39	
664833	19.0	15	
664834	10.6	86	
664835	13.4	144	
664836	14.3	165	

FECAL CONTAMINATION OBSERVED
FECAL CONTAMINATION OBSERVED

Individual Urinalysis Values

Animal Number	UFLU µg	UMTP mg/dL	SPEC
------------------	------------	---------------	------

Male, Group V - 30 mg/m³ - Day 25

664842	17.7	75	
664843	30.3	25	
664844	QNS	212	
664845	20.5	97	
664846	14.6	29	
664847	17.9	108	
664848	13.6	38	
664849	17.3	82	
664850	QNS	164	
664851	16.5	34	

Male, Group VII - 100 mg/m³ - Day 25

664857	18.2	170	
664858	QNS	173	
664859	17.8	26	
664860	37.9	17	
664861	QNS	156	
664862	28.5	57	
664863	25.4	17	
664864	25.4	77	
664865	27.8	20	
664866	10.2	41	

Individual Urinalysis Values

Animal Number	UFLU µg
------------------	------------

Male, Group I - 0 mg/m³ - Day 56

664822	15.5
664823	9.4
664824	22.7
664825	13.8
664826	12.1

Male, Group III - 5 mg/m³ - Day 56

664837	9.4
664838	12.1
664839	15.4
664840	17.4
664841	10.8

Male, Group V - 30 mg/m³ - Day 56

664852	14.5
664853	11.9
664854	12.2
664855	10.7
664856	9.0

Male, Group VII - 100 mg/m³ - Day 56

664867	18.7
664868	12.6
664869	15.5
664870	9.3
664871	13.6

H-25134: Four-Week Inhalation Toxicity Study in Male Rats

DuPont-11414

Individual Urine Microscopic Values

Animal Number	EPIT	URBC	URBC	NCRY	MICR	SPER
Male, Group I - 0 mg/m ³ - Day 25						
664812	NONE	NONE	NONE	FEW	FEW	MODERATE
664813	NONE	NONE	NONE	MODERATE	MODERATE	FEW
664814	FEW	NONE	NONE	FEW	FEW	MODERATE
664815	NONE	NONE	NONE	FEW	FEW	MODERATE
664816	QNS	NT	NT	NT	NT	NT
664817	NONE	NONE	NONE	FEW	FEW	MANY
664818	FEW	NONE	NONE	FEW	FEW	MODERATE
664819	NONE	FEW	NONE	FEW	FEW	FEW
664820	NONE	NONE	NONE	MODERATE	FEW	MODERATE
664821	QNS	NT	NT	NT	NT	NT

Male, Group III - 5 mg/m³ - Day 25

664827	QNS	NT	NT	NT	NT	NT
664828	QNS	NT	NT	NT	NT	NT
664829	NONE	NONE	NONE	FEW	FEW	FEW
664830	QNS	NT	NT	NT	NT	NT
664831	NONE	NONE	NONE	FEW	FEW	FEW
664832	NONE	NONE	NONE	MODERATE	FEW	MODERATE
664833	NONE	NONE	NONE	FEW	FEW	FEW
664834	NONE	NONE	NONE	FEW	FEW	FEW
664835	NONE	NONE	NONE	FEW	FEW	NONE
664836	NONE	NONE	NONE	FEW	FEW	FEW

Company Sanitized. Does not contain TSCA CBI

Individual Urine Microscopic Values

Animal Number	EPIT	UWBC	URBC	NCRY	MICR	SPER
---------------	------	------	------	------	------	------

Male, Group V - 30 mg/m³ - Day 25

664842	NONE	NONE	NONE	FEW	MODERATE	NONE
664843	NONE	NONE	NONE	FEW	FEW	MODERATE
664844	QNS	NT	NT	NT	NT	NT
664845	NONE	NONE	NONE	FEW	FEW	FEW
664846	NONE	NONE	NONE	FEW	FEW	MANY
664847	QNS	NT	NT	NT	NT	NT
664848	NONE	NONE	NONE	FEW	FEW	FEW
664849	QNS	NT	NT	NT	NT	NT
664850	QNS	NT	NT	NT	NT	NT
664851	NONE	NONE	NONE	FEW	FEW	FEW

Male, Group VII - 100 mg/m³ - Day 25

664857	QNS	NT	NT	NT	NT	NT
664858	QNS	NT	NT	NT	NT	NT
664859	FEW	NONE	NONE	FEW	FEW	FEW
664860	FEW	NONE	NONE	FEW	FEW	MODERATE
664861	QNS	NT	NT	NT	NT	NT
664862	NONE	NONE	NONE	FEW	FEW	NONE
664863	NONE	NONE	NONE	FEW	FEW	FEW
664864	NONE	NONE	NONE	FEW	FEW	FEW
664865	NONE	NONE	NONE	FEW	FEW	FEW
664866	NONE	NONE	NONE	MODERATE	FEW	FEW

APPENDIX G

Individual Animal Blood Fluorine

Company Sanitized. Does not contain TSCA CBI

INDIVIDUAL ANIMAL BLOOD FLUORINE

EXPLANATORY NOTES

FOOTNOTES:

- a Insufficient sample size for accurate analysis.
- b Sample not analyzed.

Company Sanitized. Does not contain TSCA CBI

Individual Animal Blood Fluorine					
Blood Fluorine ppm Day 0	Blood Fluorine ppm Day 7	Blood Fluorine ppm Day 14	Blood Fluorine ppm Day 25	Blood Fluorine ppm Day 54	
Male, Group I - 0 mg/m ³					
664822	1.3	1.3	1.0	1.1	1.6
664823	1.2	1.4	0.9	1.2	1.4
664824	1.5	1.4	0.9	1.1	1.1
664825	1.3	1.2	0.8	1.1	1.1
664826	1.3	1.5	1.3	1.1	1.2
Male, Group III - 5 mg/m ³					
664837				1.4	1.1
664838				1.4	1.3
664839				1.3	1.7 ^a
664840				1.5	1.3
664841				1.3	1.1
Male, Group V - 30 mg/m ³					
664852				2.7	1.8
664853				2.6	1.8
664854				2.6 ^b	2.1
664855				2.1	1.7
664856				2.1	1.7
Male, Group VII - 100 mg/m ³					
664867	1.7	1.9	2.4	2.9	1.5
664868	1.8	2.0	3.2	4.3	1.7
664869	1.9	2.1	3.3 ^a	3.9	2.2
664870	1.9	2.5	4.3 ^a	4.6 ^a	1.8
664871	1.4	1.9	2.3	3.2	1.4

Company Sampled

Company Sample Does not contain TSCA CBI

APPENDIX H

Individual Animal Final Body and Organ Weights

Company Sanitized. Does not contain TSCA CBI

H-25134: Four-Week Inhalation Toxicity Study in Male Rats

Individual Animal Final Body and Organ Weights - Day 25 Sacrifice

Group: I Concentration: 0 mg/m³ Sex: MALES

ANIMAL	FBW (Gms)	BRAIN (Gms)	%FBW	ADRENAL GLANDS (Gms)	%FBW	%BRAIN	EPIDIDYIMIDES (Gms)	%FBW	%BRAIN	HEART (Gms)	%FBW	%BRAIN	KIDNEYS (Gms)	%FBW	%BRAIN
664812	310.10	2.049	0.6608	0.041	0.0132	2.0010	0.836	0.2696	40.800	1.199	0.3866	58.516	2.702	0.8713	131.87
664813	365.40	2.114	0.5785	0.060	0.0164	2.8382	1.052	0.2879	49.763	1.647	0.4507	77.909	3.079	0.8426	145.65
664814	414.80	2.064	0.4976	0.057	0.0137	2.7616	0.959	0.2312	46.463	1.731	0.4173	83.866	3.224	0.7772	156.20
664815	380.10	1.945	0.5117	0.053	0.0139	2.7249	0.974	0.2562	50.077	1.473	0.3875	75.733	3.539	0.9311	181.95
664816	310.40	1.697	0.5467	0.046	0.0148	2.7107	0.896	0.2887	52.799	0.975	0.3141	57.454	2.064	0.6649	121.63
664817	348.10	1.851	0.5317	0.044	0.0126	2.3771	1.002	0.2878	54.133	1.319	0.3789	71.259	2.739	0.7868	147.97
664818	308.90	1.854	0.6002	0.046	0.0149	2.4811	1.071	0.3467	57.767	1.358	0.4396	73.247	2.664	0.8624	143.69
664819	335.80	2.147	0.6394	0.057	0.0170	2.6549	1.180	0.3514	54.960	1.321	0.3934	61.528	3.083	0.9181	143.60
664820	337.40	1.923	0.5699	0.070	0.0207	3.6401	1.117	0.3311	58.086	1.301	0.3856	67.655	2.894	0.8577	150.49
664821	325.90	1.924	0.5904	0.077	0.0236	4.0021	1.093	0.3354	56.809	1.405	0.4311	73.025	3.223	0.9890	167.52
Mean	343.69	1.957	0.5727	0.055	0.0161	2.8192	1.018	0.2986	52.166	1.373	0.3985	70.019	2.921	0.8501	149.06
S.D.	34.542	0.138	0.0527	0.012	0.0035	0.5872	0.105	0.0408	5.4964	0.214	0.0392	8.6636	0.408	0.0911	16.981

Group: III Concentration: 5 mg/m³ Sex: MALES

ANIMAL	FBW (Gms)	BRAIN (Gms)	%FBW	ADRENAL GLANDS (Gms)	%FBW	%BRAIN	EPIDIDYIMIDES (Gms)	%FBW	%BRAIN	HEART (Gms)	%FBW	%BRAIN	KIDNEYS (Gms)	%FBW	%BRAIN
664827	307.30	1.930	0.6281	0.073	0.0238	3.7824	0.916	0.2981	47.461	1.232	0.4009	63.834	2.546	0.8285	131.92
664828	339.30	1.922	0.5665	0.062	0.0183	3.2258	0.923	0.2720	48.023	1.351	0.3982	70.291	3.029	0.8927	157.60
664829	379.60	2.128	0.5606	0.076	0.0200	3.5714	1.562	0.4115	73.402	1.556	0.4099	73.120	3.692	0.9726	173.50
664830	346.20	2.003	0.5786	0.066	0.0191	3.2951	1.076	0.3108	53.719	1.621	0.4682	80.929	3.319	0.9587	165.70
664831	290.30	1.954	0.6731	0.058	0.0200	2.9683	0.982	0.3383	50.256	1.269	0.4371	64.944	2.545	0.8767	130.25
664832	344.40	2.073	0.6019	0.066	0.0192	3.1838	1.010	0.2933	48.722	1.560	0.4530	75.253	3.159	0.9172	152.39
664833	297.40	1.865	0.6271	0.062	0.0208	3.3244	0.950	0.3194	50.938	1.244	0.4183	66.702	2.873	0.9660	154.05
664834	318.60	1.894	0.5945	0.065	0.0204	3.4319	1.214	0.3810	64.097	1.165	0.3657	61.510	2.954	0.9272	155.97
664835	342.80	2.059	0.6006	0.064	0.0187	3.1083	1.005	0.2932	48.810	1.429	0.4169	69.403	2.854	0.8326	138.61
664836	324.00	1.943	0.5997	0.063	0.0194	3.2424	1.135	0.3503	58.415	1.225	0.3781	63.047	2.847	0.8787	146.53
Mean	328.99	1.977	0.6031	0.066	0.0200	3.3134	1.077	0.3268	54.384	1.365	0.4146	68.903	2.982	0.9051	150.65
S.D.	26.854	0.085	0.0332	0.005	0.0015	0.2337	0.195	0.0437	8.5190	0.165	0.0318	6.1470	0.346	0.0522	14.019

FBW - Final Body Weight

H-25134: Four-Week Inhalation Toxicity Study in Male Rats

Individual Animal Final Body and Organ Weights - Day 25 Sacrifice

Group: V Concentration: 30 mg/m³ Sex: MALES

ANIMAL	FBW (Gms)	BRAIN		ADRENAL GLANDS		EPIDIDYIMIDES		HEART		KIDNEYS	
		(Gms)	%FBW	(Gms)	%FBW	(Gms)	%FBW	(Gms)	%FBW	(Gms)	%FBW
664842	276.80	1.846	0.6669	0.046	0.0166	0.853	0.3082	1.146	0.4140	2.690	0.9718
664843	339.80	2.163	0.6366	0.076	0.0224	1.118	0.3290	1.300	0.3826	2.849	0.8384
664844	354.70	2.008	0.5661	0.059	0.0166	0.839	0.2365	1.110	0.3129	2.882	0.8125
664845	346.10	1.900	0.5490	0.062	0.0179	0.927	0.2678	1.289	0.3724	2.888	0.8344
664846	267.40	1.871	0.6997	0.045	0.0168	0.943	0.3527	0.963	0.3601	2.233	0.8351
664847	307.40	1.918	0.6239	0.086	0.0280	1.119	0.3640	1.262	0.4105	3.072	0.9993
664848	310.30	2.036	0.6561	0.076	0.0245	1.073	0.3458	1.102	0.3551	2.849	0.9181
664849	330.40	1.972	0.5969	0.058	0.0176	0.933	0.2824	1.265	0.3829	3.062	0.9268
664850	321.40	1.921	0.5977	0.040	0.0124	0.959	0.2984	1.217	0.3787	2.514	0.7822
664851	297.70	2.007	0.6742	0.049	0.0165	1.022	0.3433	1.332	0.4474	2.961	0.9946
Mean	315.20	1.964	0.6267	0.060	0.0189	0.979	0.3128	1.199	0.3817	2.800	0.8913
S.D.	28.945	0.094	0.0490	0.015	0.0046	0.101	0.0415	0.116	0.0368	0.259	0.0804

Group: VII Concentration: 100 mg/m³ Sex: MALES

ANIMAL	FBW (Gms)	BRAIN		ADRENAL GLANDS		EPIDIDYIMIDES		HEART		KIDNEYS	
		(Gms)	%FBW	(Gms)	%FBW	(Gms)	%FBW	(Gms)	%FBW	(Gms)	%FBW
664857	293.90	2.067	0.7033	0.070	0.0238	0.981	0.3338	1.189	0.4046	2.885	0.9816
664858	332.20	2.047	0.6162	0.076	0.0229	1.194	0.3594	1.423	0.4284	3.234	0.9735
664859	352.00	2.056	0.5841	0.072	0.0205	1.199	0.3406	1.338	0.3801	3.263	0.9270
664860	360.60	1.961	0.5438	0.112	0.0311	1.194	0.3311	1.324	0.3672	3.293	0.9132
664861	268.30	1.980	0.7380	0.064	0.0239	0.823	0.3067	1.161	0.4327	2.452	0.9139
664862	337.70	1.820	0.5389	0.054	0.0160	0.956	0.2831	1.137	0.3367	3.095	0.9165
664863	322.30	2.018	0.6261	0.074	0.0230	1.140	0.3537	1.356	0.4207	2.961	0.9187
664864	315.60	1.865	0.5909	0.056	0.0177	1.058	0.3352	1.106	0.3504	2.732	0.8657
664865	375.10	1.932	0.5151	0.062	0.0165	0.948	0.2527	1.395	0.3719	3.393	0.9046
664866	275.70	2.054	0.7450	0.060	0.0218	1.099	0.3986	0.961	0.3486	2.351	0.8527
Mean	323.34	1.980	0.6201	0.070	0.0217	1.059	0.3295	1.239	0.3841	2.966	0.9167
S.D.	35.591	0.086	0.0830	0.017	0.0044	0.129	0.0408	0.150	0.0352	0.361	0.0400

FBW - Final Body Weight

Individual Animal Final Body and Organ Weights - Day 25 Sacrifice

Group: I Concentration: 0 mg/m³ Sex: MALES

ANIMAL	LIVER		LUNGS		SPLEEN		TESTES		THYMUS	
	(Gms)	%FBW %BRAIN	(Gms)	%FBW %BRAIN	(Gms)	%FBW %BRAIN	(Gms)	%FBW %BRAIN	(Gms)	%FBW %BRAIN
664812	9.641	3.1090 470.52	1.665	0.5369 81.259	0.459	0.1480 22.401	2.960	0.9545 144.46	0.322	0.1038 15.715
664813	10.386	2.8424 491.30	2.073	0.5673 98.061	0.812	0.2222 38.411	3.135	0.8580 148.30	0.281	0.0769 13.292
664814	11.831	2.8522 573.21	1.919	0.4626 92.975	0.651	0.1569 31.541	3.221	0.7765 156.06	0.586	0.1413 28.391
664815	11.727	3.0852 602.93	1.822	0.4793 93.676	0.787	0.2071 40.463	3.357	0.8832 172.60	0.474	0.1247 24.370
664816	7.764	2.5013 457.51	1.349	0.4346 79.493	0.432	0.1392 25.457	2.524	0.8131 148.73	0.316	0.1018 18.621
664817	9.388	2.6969 507.19	1.562	0.4487 84.387	0.529	0.1520 28.579	3.171	0.9109 171.31	0.420	0.1207 22.690
664818	8.549	2.7676 461.11	1.563	0.5060 84.304	0.484	0.1567 26.106	3.184	1.0308 171.74	0.251	0.0813 13.538
664819	10.070	2.9988 469.03	1.669	0.4970 77.736	0.579	0.1724 26.968	3.330	0.9917 155.10	0.337	0.1004 15.696
664820	9.776	2.8975 508.37	1.645	0.4876 85.543	0.528	0.1565 27.457	3.164	0.9378 164.53	0.394	0.1168 20.489
664821	10.771	3.3050 559.82	1.638	0.5026 85.135	0.568	0.1743 29.522	2.521	0.7736 131.03	0.367	0.1126 19.075
Mean	9.990	2.9056 510.10	1.691	0.4923 86.257	0.583	0.1685 29.690	3.057	0.8930 156.39	0.375	0.1080 19.188
S.D.	1.280	0.2297 51.485	0.203	0.0398 6.5988	0.130	0.0266 5.7065	0.302	0.0884 13.738	0.099	0.0196 4.9079

Group: III Concentration: 5 mg/m³ Sex: MALES

ANIMAL	LIVER		LUNGS		SPLEEN		TESTES		THYMUS	
	(Gms)	%FBW %BRAIN	(Gms)	%FBW %BRAIN	(Gms)	%FBW %BRAIN	(Gms)	%FBW %BRAIN	(Gms)	%FBW %BRAIN
664827	9.477	3.0840 491.04	1.450	0.4719 75.130	0.543	0.1767 28.135	3.388	1.1025 175.54	0.461	0.1500 23.886
664828	9.993	2.9452 519.93	1.508	0.4444 78.460	0.569	0.1677 29.605	3.580	1.0551 186.26	0.418	0.1232 21.748
664829	11.118	2.9289 522.46	1.808	0.4763 84.962	0.705	0.1857 33.130	3.623	0.9544 170.25	0.491	0.1293 23.073
664830	10.566	3.0520 527.51	1.829	0.5283 91.313	0.669	0.1932 33.400	2.935	0.8478 146.53	0.478	0.1381 23.864
664831	8.951	3.0834 458.09	1.604	0.5525 82.088	0.571	0.1967 29.222	2.853	0.9828 146.01	0.338	0.1164 17.298
664832	9.760	2.8339 470.82	1.769	0.5136 85.335	0.613	0.1780 29.571	3.307	0.9602 159.53	0.482	0.1400 23.251
664833	8.523	2.8658 457.00	1.395	0.4691 74.799	0.474	0.1594 25.416	3.113	1.0467 166.92	0.422	0.1419 22.627
664834	9.224	2.8952 487.01	1.734	0.5443 91.552	0.579	0.1817 30.570	3.326	1.0439 175.61	0.337	0.1058 17.793
664835	9.498	2.7707 461.29	2.037	0.5942 98.932	0.667	0.1946 32.394	3.126	0.9119 151.82	0.440	0.1284 21.370
664836	8.960	2.7654 461.14	1.594	0.4920 82.038	0.668	0.2062 34.380	3.158	0.9747 162.53	0.423	0.1306 21.770
Mean	9.607	2.9224 485.63	1.673	0.5087 84.461	0.606	0.1840 30.582	3.241	0.9880 164.10	0.429	0.1304 21.668
S.D.	0.787	0.1196 28.495	0.198	0.0463 7.7143	0.072	0.0142 2.7618	0.253	0.0758 13.377	0.055	0.0130 2.3420

FBW - Final Body Weight

Individual Animal Final Body and Organ Weights - Day 25 Sacrifice

Group: V Concentration: 30 mg/m³ Sex: MALES

ANIMAL	LIVER (Gms)	LIVER %FBW	LIVER %BRAIN	LUNGS (Gms)	LUNGS %FBW	LUNGS %BRAIN	SPLEEN (Gms)	SPLEEN %FBW	SPLEEN %BRAIN	TESTES (Gms)	TESTES %FBW	TESTES %BRAIN	THYMUS (Gms)	THYMUS %FBW	THYMUS %BRAIN
664842	7.804	2.8194	422.75	1.310	0.4733	70.964	0.327	0.1181	17.714	3.179	1.1485	172.21	0.246	0.0889	13.326
664843	9.180	2.7016	424.41	1.688	0.4968	78.040	0.648	0.1907	29.958	4.049	1.1916	187.19	0.474	0.1395	21.914
664844	9.378	2.6439	467.03	1.735	0.4891	86.404	0.477	0.1345	23.755	2.871	0.8094	142.98	0.341	0.0961	16.982
664845	10.344	2.9887	544.42	1.675	0.4840	88.158	0.733	0.2118	38.579	3.266	0.9437	171.89	0.337	0.0974	17.737
664846	6.898	2.5797	368.68	1.262	0.4720	67.451	0.477	0.1784	25.494	2.809	1.0505	150.13	0.430	0.1608	22.982
664847	10.162	3.3058	529.82	1.592	0.5179	83.003	0.710	0.2310	37.018	3.393	1.1038	176.90	0.465	0.1513	24.244
664848	9.252	2.9816	454.42	1.829	0.5894	89.833	0.564	0.1818	27.701	3.441	1.1089	169.01	0.331	0.1067	16.257
664849	9.273	2.8066	470.23	1.606	0.4861	81.440	0.572	0.1731	29.006	3.352	1.0145	169.98	0.499	0.1510	25.304
664850	9.473	2.9474	493.13	1.433	0.4459	74.597	0.518	0.1612	26.965	3.149	0.9798	163.93	0.448	0.1394	23.321
664851	9.387	3.1532	467.71	1.481	0.4975	73.792	0.724	0.2432	36.074	3.013	1.0121	150.12	0.445	0.1495	22.172
Mean	9.115	2.8928	464.26	1.561	0.4952	79.368	0.575	0.1824	29.226	3.252	1.0363	165.44	0.402	0.1281	20.424
S.D.	1.031	0.2280	51.808	0.185	0.0382	7.6163	0.131	0.0394	6.4935	0.352	0.1111	13.748	0.082	0.0275	4.0199

Group: VII Concentration: 100 mg/m³ Sex: MALES

ANIMAL	LIVER (Gms)	LIVER %FBW	LIVER %BRAIN	LUNGS (Gms)	LUNGS %FBW	LUNGS %BRAIN	SPLEEN (Gms)	SPLEEN %FBW	SPLEEN %BRAIN	TESTES (Gms)	TESTES %FBW	TESTES %BRAIN	THYMUS (Gms)	THYMUS %FBW	THYMUS %BRAIN
664857	9.570	3.2562	462.99	1.875	0.6380	90.711	0.610	0.2076	29.511	2.887	0.9823	139.67	0.477	0.1623	23.077
664858	10.179	3.0641	497.26	1.824	0.5491	89.106	0.629	0.1893	30.728	3.336	1.0042	162.97	0.465	0.1400	22.716
664859	10.245	2.9105	498.30	1.772	0.5034	86.187	0.651	0.1849	31.663	3.556	1.0102	172.96	0.506	0.1438	24.611
664860	11.113	3.0818	566.70	1.735	0.4811	88.475	0.728	0.2019	37.124	3.442	0.9545	175.52	0.562	0.1559	28.659
664861	8.235	3.0693	415.91	1.439	0.5363	72.677	0.446	0.1662	22.525	2.781	1.0365	140.45	0.368	0.1372	18.586
664862	8.821	2.6121	484.67	1.512	0.4477	83.077	0.485	0.1436	26.648	3.383	1.0018	185.88	0.425	0.1259	23.352
664863	9.790	3.0375	485.13	1.703	0.5284	84.390	0.544	0.1688	26.957	3.301	1.0242	163.58	0.457	0.1418	22.646
664864	8.593	2.7228	460.75	1.532	0.4854	82.145	0.610	0.1933	32.708	2.991	0.9477	160.38	0.475	0.1505	25.469
664865	11.406	3.0408	590.37	1.824	0.4863	94.410	0.655	0.1746	33.903	3.637	0.9696	188.25	0.477	0.1272	24.689
664866	7.397	2.6830	360.13	1.353	0.4908	65.871	0.434	0.1574	21.130	3.198	1.1600	155.70	0.339	0.1230	16.504
Mean	9.535	2.9478	482.22	1.657	0.5147	83.705	0.579	0.1788	29.290	3.251	1.0091	164.54	0.455	0.1407	23.031
S.D.	1.275	0.2090	66.222	0.183	0.0527	8.5941	0.098	0.0202	5.0205	0.285	0.0604	16.688	0.065	0.0131	3.4249

FBW - Final Body Weight

Individual Animal Final Body and Organ Weights - Day 56 Sacrifice

Group: I Concentration: 0 mg/m³ Sex: MALES

ANIMAL	FBW (Gms)	BRAIN (Gms)	%FBW	ADRENAL GLANDS (Gms)	%FBW	%BRAIN	EPIDIDYMIDES (Gms)	%FBW	%BRAIN	HEART (Gms)	%FBW	%BRAIN	KIDNEYS (Gms)	%FBW	%BRAIN
664822	422.00	2.042	0.4839	0.053	0.0126	2.5955	1.209	0.2865	59.207	1.597	0.3784	78.208	3.212	0.7611	157.30
664823	475.70	1.910	0.4015	0.049	0.0103	2.5654	1.122	0.2359	58.743	1.663	0.3496	87.068	3.706	0.7791	194.03
664824	434.00	2.162	0.4982	0.047	0.0108	2.1739	1.236	0.2848	57.169	1.459	0.3362	67.484	3.188	0.7346	147.46
664825	444.80	1.865	0.4193	0.045	0.0101	2.4129	1.286	0.2891	68.954	1.486	0.3341	79.678	3.473	0.7808	186.22
664826	458.80	2.162	0.4712	0.060	0.0131	2.7752	1.543	0.3363	71.369	1.559	0.3398	72.109	4.038	0.8801	186.77
Mean	447.06	2.028	0.4548	0.051	0.0114	2.5046	1.279	0.2865	63.089	1.553	0.3476	76.909	3.523	0.7871	174.36
S.D.	20.987	0.138	0.0421	0.006	0.0014	0.2253	0.159	0.0355	6.5567	0.083	0.0182	7.4906	0.357	0.0552	20.595

Group: III Concentration: 5 mg/m³ Sex: MALES

ANIMAL	FBW (Gms)	BRAIN (Gms)	%FBW	ADRENAL GLANDS (Gms)	%FBW	%BRAIN	EPIDIDYMIDES (Gms)	%FBW	%BRAIN	HEART (Gms)	%FBW	%BRAIN	KIDNEYS (Gms)	%FBW	%BRAIN
664837	437.60	2.214	0.5059	0.070	0.0160	3.1617	1.303	0.2978	58.853	1.879	0.4294	84.869	3.619	0.8270	163.46
664838	431.80	2.188	0.5067	0.055	0.0127	2.5137	1.305	0.3022	59.644	1.566	0.3627	71.572	3.366	0.7795	153.84
664839	434.20	1.967	0.4530	0.045	0.0104	2.2877	1.367	0.3148	69.497	1.817	0.4185	92.374	3.561	0.8201	181.04
664840	421.90	2.021	0.4790	0.048	0.0114	2.3751	1.279	0.3032	63.286	1.399	0.3316	69.223	3.434	0.8139	169.92
664841	385.10	2.175	0.5648	0.043	0.0112	1.9770	1.212	0.3147	55.724	1.427	0.3706	65.609	3.134	0.8138	144.09
Mean	422.12	2.113	0.5019	0.052	0.0123	2.4630	1.293	0.3065	61.401	1.618	0.3825	76.730	3.423	0.8109	162.47
S.D.	21.505	0.111	0.0416	0.011	0.0022	0.4374	0.056	0.0078	5.2655	0.221	0.0407	11.376	0.190	0.0183	14.260

FBW - Final Body Weight

H-25134: Four-Week Inhalation Toxicity Study in Male Rats

Individual Animal Final Body and Organ Weights - Day 56 Sacrifice

Group: V Concentration: 30 mg/m³ Sex: MALES

ANIMAL	FBW (Gms)	BRAIN		ADRENAL GLANDS		EPIDIDYIMIDES		HEART		KIDNEYS					
		(Gms)	%FBW	(Gms)	%FBW	(Gms)	%BRAIN	(Gms)	%FBW	(Gms)	%BRAIN				
664852	471.40	2.145	0.4550	0.059	0.0125	2.7506	1.460	0.3097	68.065	1.627	0.3451	75.851	4.021	0.8530	187.46
664853	455.10	2.201	0.4836	0.063	0.0138	2.8623	1.295	0.2846	58.837	1.762	0.3872	80.055	3.629	0.7974	164.88
664854	434.60	1.990	0.4579	0.066	0.0152	3.3166	1.478	0.3401	74.271	1.551	0.3569	77.940	3.656	0.8412	183.72
664855	438.50	2.046	0.4666	0.068	0.0155	3.3236	1.376	0.3138	67.253	1.536	0.3503	75.073	3.624	0.8265	177.13
664856	398.90	2.192	0.5495	0.062	0.0155	2.8285	1.284	0.3219	58.577	1.480	0.3710	67.518	3.246	0.8137	148.08
Mean	439.70	2.115	0.4825	0.064	0.0145	3.0163	1.379	0.3140	65.401	1.591	0.3621	75.287	3.635	0.8264	172.25
S. D.	27.084	0.093	0.0391	0.004	0.0013	0.2803	0.090	0.0202	6.6871	0.109	0.0170	4.7561	0.274	0.0220	16.007

Group: VII Concentration: 100 mg/m³ Sex: MALES

ANIMAL	FBW (Gms)	BRAIN		ADRENAL GLANDS		EPIDIDYIMIDES		HEART		KIDNEYS					
		(Gms)	%FBW	(Gms)	%FBW	(Gms)	%BRAIN	(Gms)	%FBW	(Gms)	%BRAIN				
664867	461.50	1.993	0.4319	0.053	0.0115	2.6593	1.309	0.2836	65.680	1.583	0.3430	79.428	3.733	0.8089	187.31
664868	480.70	2.169	0.4512	0.074	0.0154	3.4117	1.596	0.3320	73.582	1.957	0.4071	90.226	4.306	0.8958	198.52
664869	478.90	2.264	0.4728	0.074	0.0155	3.2686	1.470	0.3070	64.929	2.061	0.4304	91.034	4.590	0.9584	202.74
664870	408.90	2.042	0.4994	0.073	0.0179	3.5749	1.179	0.2883	57.738	1.425	0.3485	69.785	3.306	0.8085	161.90
664871	377.80	1.944	0.5146	0.075	0.0199	3.8580	1.174	0.3107	60.391	1.478	0.3912	76.029	3.391	0.8976	174.43
Mean	441.56	2.082	0.4740	0.070	0.0160	3.3545	1.346	0.3043	64.464	1.701	0.3840	81.300	3.865	0.8738	184.98
S.D.	45.978	0.132	0.0339	0.009	0.0031	0.4461	0.185	0.0194	6.0554	0.289	0.0377	9.1966	0.565	0.0646	16.942

FBW - Final Body Weight

Individual Animal Final Body and Organ Weights - Day 56 Sacrifice

Group: I Concentration: 0 mg/m³ Sex: MALES

ANIMAL	(Gms)	LIVER %FBW	%BRAIN	(Gms)	LUNGS %FBW	%BRAIN	(Gms)	SPLEEN %FBW	%BRAIN	(Gms)	TESTES %FBW	%BRAIN	(Gms)	THYMUS %FBW	%BRAIN
664822	12.260	2.9052	600.39	1.830	0.4336	89.618	0.841	0.1993	41.185	3.461	0.8201	169.49	0.466	0.1104	22.821
664823	13.334	2.8030	698.12	1.888	0.3969	98.848	0.950	0.1997	49.738	2.881	0.6056	150.84	0.613	0.1289	32.094
664824	12.282	2.8300	568.09	1.568	0.3613	72.525	0.836	0.1926	38.668	3.215	0.7408	148.70	0.577	0.1329	26.688
664825	12.461	2.8015	668.15	1.901	0.4274	101.93	0.880	0.1978	47.185	3.678	0.8269	197.21	0.527	0.1185	28.257
664826	13.912	3.0323	643.48	2.205	0.4806	101.99	0.828	0.1805	38.298	3.384	0.7376	156.52	0.530	0.1155	24.514
Mean	12.850	2.8744	635.64	1.878	0.4200	92.982	0.867	0.1940	43.015	3.324	0.7462	164.55	0.543	0.1212	26.875
S.D.	0.739	0.0978	52.028	0.227	0.0444	12.504	0.051	0.0081	5.1742	0.298	0.0892	19.967	0.056	0.0094	3.5776

Group: III Concentration: 5 mg/m³ Sex: MALES

ANIMAL	(Gms)	LIVER %FBW	%BRAIN	(Gms)	LUNGS %FBW	%BRAIN	(Gms)	SPLEEN %FBW	%BRAIN	(Gms)	TESTES %FBW	%BRAIN	(Gms)	THYMUS %FBW	%BRAIN
664837	12.851	2.9367	580.44	2.391	0.5464	107.99	0.724	0.1654	32.701	3.632	0.8300	164.05	0.543	0.1241	24.526
664838	10.343	2.3953	472.71	2.032	0.4706	92.870	0.757	0.1753	34.598	3.659	0.8474	167.23	0.577	0.1336	26.371
664839	14.254	3.2828	724.66	2.009	0.4627	102.14	0.822	0.1893	41.790	3.466	0.7982	176.21	0.306	0.0705	15.557
664840	11.863	2.8118	586.99	1.776	0.4210	87.877	0.851	0.2017	42.108	3.290	0.7798	162.79	0.444	0.1052	21.969
664841	10.405	2.7019	478.39	1.799	0.4672	82.713	0.575	0.1493	26.437	3.215	0.8348	147.82	0.399	0.1036	18.345
Mean	11.943	2.8257	568.64	2.001	0.4736	94.718	0.746	0.1762	35.527	3.452	0.8181	163.62	0.454	0.1074	21.354
S.D.	1.666	0.3248	102.67	0.247	0.0454	10.315	0.108	0.0204	6.5956	0.199	0.0280	10.273	0.110	0.0242	4.4236

FBW - Final Body Weight

Company Sanitized. Does not contain TSCA CMR

Individual Animal Final Body and Organ Weights - Day 56 Sacrifice

Group: V Concentration: 30 mg/m³ Sex: MALES

ANIMAL	LIVER		LUNGS		SPLEEN		TESTES		THYMUS	
	(Gms)	%FBW %BRAIN	(Gms)	%FBW %BRAIN	(Gms)	%FBW %BRAIN	(Gms)	%FBW %BRAIN	(Gms)	%FBW %BRAIN
664852	15.837	3.3596 738.32	2.067	0.4385 96.364	1.005	0.2132 46.853	3.393	0.7198 158.18	0.432	0.0916 20.140
664853	13.436	2.9523 610.45	2.669	0.5865 121.26	0.786	0.1727 35.711	3.015	0.6625 136.98	0.396	0.0870 17.992
664854	13.302	3.0607 668.44	2.018	0.4643 101.41	0.631	0.1452 31.709	3.663	0.8428 184.07	0.431	0.0992 21.658
664855	14.177	3.2331 692.91	2.029	0.4627 99.169	0.853	0.1945 41.691	3.422	0.7804 167.25	0.441	0.1006 21.554
664856	11.882	2.9787 542.06	1.968	0.4934 89.781	0.864	0.2166 39.416	3.296	0.8263 150.36	0.389	0.0975 17.746
Mean	13.727	3.1169 650.44	2.150	0.4891 101.60	0.828	0.1884 39.076	3.358	0.7664 159.37	0.418	0.0952 19.818
S.D.	1.443	0.1744 76.152	0.292	0.0578 11.829	0.136	0.0298 5.7672	0.234	0.0752 17.720	0.024	0.0057 1.8796

Group: VII Concentration: 100 mg/m³ Sex: MALES

ANIMAL	LIVER		LUNGS		SPLEEN		TESTES		THYMUS	
	(Gms)	%FBW %BRAIN	(Gms)	%FBW %BRAIN	(Gms)	%FBW %BRAIN	(Gms)	%FBW %BRAIN	(Gms)	%FBW %BRAIN
664867	14.233	3.0841 714.15	2.254	0.4884 113.10	0.832	0.1803 41.746	3.200	0.6934 160.56	0.393	0.0852 19.719
664868	17.496	3.6397 806.64	2.478	0.5155 114.25	0.973	0.2024 44.859	3.297	0.6859 152.01	0.427	0.0888 19.686
664869	16.880	3.5247 745.58	2.498	0.5216 110.34	1.205	0.2516 53.224	3.385	0.7068 149.51	0.491	0.1025 21.687
664870	10.964	2.6813 536.92	1.510	0.3693 73.947	0.628	0.1536 30.754	2.906	0.7107 142.31	0.375	0.0917 18.364
664871	9.981	2.6419 513.43	1.638	0.4336 84.259	0.655	0.1734 33.693	3.388	0.8968 174.28	0.356	0.0942 18.313
Mean	13.911	3.1143 663.34	2.076	0.4657 99.177	0.859	0.1923 40.855	3.235	0.7387 155.73	0.408	0.0925 19.554
S.D.	3.387	0.4626 130.71	0.470	0.0641 18.738	0.239	0.0375 8.9881	0.200	0.0889 12.248	0.053	0.0065 1.3740

FBW - Final Body Weight

APPENDIX I

Individual Animal Pathology Data

Company Sanitized. Does not contain TSCA CBI

INDIVIDUAL ANIMAL PATHOLOGY DATA

KEY TO APPENDIXLESION GRADING:

Histopathology changes are described according to their morphologic character, distribution and severity. The distribution (extent of tissue involvement) is indicated, where appropriate, by modifiers such as focal, multifocal, diffuse, unilateral, bilateral, etc. A severity score, if appropriate, is also assigned as follows:

- MINIMAL:** The amount of change present barely exceeds that which is considered to be within normal limits.
- MILD:** In general, the lesion is easily identified but of limited severity. The lesion probably does not produce any functional impairment.
- MODERATE:** The lesion is prominent but there is significant potential for increased severity. Limited tissue or organ dysfunction is possible.
- SEVERE:** The degree of change is either as complete as considered possible or great enough in intensity or extent to expect significant tissue or organ dysfunction.

COMMENT:

Grades minimal through severe represent progressive involvement/severity along a continuum with minimal lesions being the least severe and severe lesions being the most severe. While the grades refer to the morphologic characteristics of lesions, they also indicate their relative biologic significance.

Gross observations listing multiple masses for a tissue are distinguished with letters (i.e., A, b, c, d, etc.).

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: I Concentration: 0 mg/m³ Sex: Males

Animal Ref Microscopic & Macroscopic Findings

664812 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

LIVER :

INFLAMMATION, SUBACUTE/CHRONIC, FOCAL, minimal.

THYMUS :

MISSING.

No Microscopic Abnormality Observed :

KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA,
BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM,
PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE,
SALIVARY GLANDS, MANDIBULAR LYMPH NODE, ADRENAL GLANDS,
SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
PARATHYROID GLANDS, TRACHEA, ESOPHAGUS, PHARYNX/LARYNX,
EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE, SEMINAL VESICLES,
URINARY BLADDER, TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT,
STERNUM, BONE MARROW, NOSE

ORGANS NOT EXAMINED:

THYMUS

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: I Concentration: 0 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings
-----664813 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

LIVER :

INFLAMMATION, SUBACUTE/CHRONIC, FOCAL, minimal.

HEART :

CARDIOMYOPATHY, minimal.

PROSTATE :

INFLAMMATION, SUBACUTE/CHRONIC, minimal.

No Microscopic Abnormality Observed :

KIDNEYS, LUNGS, SKELETAL MUSCLE, SPLEEN, AORTA, BRAIN,
SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM, PANCREAS,
CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE, SALIVARY
GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL GLANDS,
SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
PARATHYROID GLANDS, TRACHEA, ESOPHAGUS, PHARYNX/LARYNX,
EYE(S) WITH OPTIC NERVE, SKIN, SEMINAL VESICLES, URINARY
BLADDER, TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT, STERNUM,
BONE MARROW, NOSE

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: I Concentration: 0 mg/m³ Sex: Males

Animal Ref Microscopic & Macroscopic Findings

664814 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

PANCREAS :

ATROPHY, FOCAL, minimal.

No Microscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE,
SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL
GLANDS, SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
PARATHYROID GLANDS, TRACHEA, ESOPHAGUS, PHARYNX/LARYNX,
EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE, SEMINAL VESICLES,
URINARY BLADDER, TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT,
STERNUM, BONE MARROW, NOSE

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: I Concentration: 0 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings

664815 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

LIVER :
INFLAMMATION, SUBACUTE/CHRONIC, FOCAL, minimal.
KIDNEYS :
NEPHROPATHY, CHRONIC PROGRESSIVE, minimal.
PARATHYROID GLANDS :
MISSING.

No Microscopic Abnormality Observed :
LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA, BRAIN, SPINAL
CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM, PANCREAS, CECUM,
COLON, RECTUM, MESENTERIC LYMPH NODE, SALIVARY GLANDS,
MANDIBULAR LYMPH NODE, THYMUS, ADRENAL GLANDS, SCIATIC
NERVE, PITUITARY GLAND, THYROID GLAND, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, BONE MARROW, NOSE

ORGANS NOT EXAMINED:
PARATHYROID GLANDS

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: I Concentration: 0 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings

664816 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

LIVER :

INFLAMMATION, SUBACUTE/CHRONIC, FOCAL, minimal.

KIDNEYS :

NEPHROPATHY, CHRONIC PROGRESSIVE, minimal.

No Microscopic Abnormality Observed :

LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA, BRAIN, SPINAL
CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM, PANCREAS, CECUM,
COLON, RECTUM, MESENTERIC LYMPH NODE, SALIVARY GLANDS,
MANDIBULAR LYMPH NODE, THYMUS, ADRENAL GLANDS, SCIATIC
NERVE, PITUITARY GLAND, THYROID GLAND, PARATHYROID GLANDS,
TRACHEA, ESOPHAGUS, PHARYNX/LARYNX,
EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE, SEMINAL VESICLES,
URINARY BLADDER, TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT,
STERNUM, BONE MARROW, NOSE

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: I Concentration: 0 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings
-----664817 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

LIVER :

INFLAMMATION, SUBACUTE/CHRONIC, FOCAL, minimal.

KIDNEYS :

NEPHROPATHY, CHRONIC PROGRESSIVE, minimal.

PANCREAS :

ATROPHY, FOCAL, minimal.

No Microscopic Abnormality Observed :

LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA, BRAIN, SPINAL
CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM, CECUM, COLON,
RECTUM, MESENTERIC LYMPH NODE, SALIVARY GLANDS, MANDIBULAR
LYMPH NODE, THYMUS, ADRENAL GLANDS, SCIATIC NERVE,
PITUITARY GLAND, THYROID GLAND, PARATHYROID GLANDS,
TRACHEA, ESOPHAGUS, PHARYNX/LARYNX,
EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE, SEMINAL VESICLES,
URINARY BLADDER, TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT,
STERNUM, BONE MARROW, NOSE

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: I Concentration: 0 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings
-----664818 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

EPIDIDYMIDES :

DISCOLORATION, YELLOW, RAISED, RIGHT, 5MM DIA..

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

LIVER :

INFLAMMATION, SUBACUTE/CHRONIC, FOCAL, minimal.

EPIDIDYMIDES :

SPERMATOCELE, moderate.

No Microscopic Abnormality Observed :

KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA,
BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM,
PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE,
SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL
GLANDS, SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
PARATHYROID GLANDS, TRACHEA, ESOPHAGUS, PHARYNX/LARYNX,
EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE, SEMINAL VESICLES,
URINARY BLADDER, TESTES, FEMUR/KNEE JOINT, STERNUM, BONE
MARROW, NOSE

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: I Concentration: 0 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings

664819 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

KIDNEYS :

NEPHROPATHY, CHRONIC PROGRESSIVE, minimal.
HYDRONEPHROSIS, UNILATERAL, minimal.

No Microscopic Abnormality Observed :

LIVER, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA, BRAIN,
SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM, PANCREAS,
CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE, SALIVARY
GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL GLANDS,
SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
PARATHYROID GLANDS, TRACHEA, ESOPHAGUS, PHARYNX/LARYNX,
EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE, SEMINAL VESICLES,
URINARY BLADDER, TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT,
STERNUM, BONE MARROW, NOSE

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: I Concentration: 0 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings
-----664820 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

LIVER :

INFLAMMATION, SUBACUTE/CHRONIC, FOCAL, minimal.

PARATHYROID GLANDS :

MISSING.

No Microscopic Abnormality Observed :

KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA,
BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM,
PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE,
SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL
GLANDS, SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
TRACHEA, ESOPHAGUS, PHARYNX/LARYNX,
EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE, SEMINAL VESICLES,
URINARY BLADDER, TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT,
STERNUM, BONE MARROW, NOSE

ORGANS NOT EXAMINED:

PARATHYROID GLANDS

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: I Concentration: 0 mg/m³ Sex: Males

Animal Ref Microscopic & Macroscopic Findings

664821 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

LIVER :

INFLAMMATION, SUBACUTE/CHRONIC, FOCAL, minimal.

No Microscopic Abnormality Observed :

KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA,
BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM,
PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE,
SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL
GLANDS, SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
PARATHYROID GLANDS, TRACHEA, ESOPHAGUS, PHARYNX/LARYNX,
EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE, SEMINAL VESICLES,
URINARY BLADDER, TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT,
STERNUM, BONE MARROW, NOSE

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: I Concentration: 0 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings
-----664822 Terminal Sacrifice
Killed on Day : 56
Animal is signed off from necropsy

Gross Pathology :

EYE(S) WITH OPTIC NERVE :
RUPTURE, RIGHT.No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, SKIN, PROSTATE, SEMINAL VESICLES, URINARY
BLADDER, TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT, STERNUM,
NOSE

Histopathology :

No Microscopic Abnormality Observed :
PHARYNX/LARYNX664823 Terminal Sacrifice
Killed on Day : 56
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

No Microscopic Abnormality Observed :
PHARYNX/LARYNX

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: I Concentration: 0 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings
-----664824 Terminal Sacrifice
Killed on Day : 56
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

No Microscopic Abnormality Observed :
PHARYNX/LARYNX

664825 Terminal Sacrifice
Killed on Day : 56
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

No Microscopic Abnormality Observed :
PHARYNX/LARYNX

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: I Concentration: 0 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings
-----664826 Terminal Sacrifice
Killed on Day : 56
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYIMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

No Microscopic Abnormality Observed :

PHARYNX/LARYNX

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: III Concentration: 5 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings

664827 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

KIDNEYS :
DILATATION, RIGHT.

No Macroscopic Abnormality Observed :
LIVER, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA, BRAIN,
SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM, PANCREAS,
CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE, SALIVARY
GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL GLANDS,
SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
PARATHYROID GLANDS, TRACHEA, ESOPHAGUS, PHARYNX/LARYNX,
EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE, SEMINAL VESICLES,
URINARY BLADDER, TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT,
STERNUM, NOSE

Histopathology :

KIDNEYS :
HYDRONEPHROSIS, UNILATERAL, minimal.
PHARYNX/LARYNX :
HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.

664828 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

KIDNEYS :
DILATATION, RIGHT, mild.

No Macroscopic Abnormality Observed :
LIVER, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA, BRAIN,
SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM, PANCREAS,
CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE, SALIVARY
GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL GLANDS,
SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
PARATHYROID GLANDS, TRACHEA, ESOPHAGUS, PHARYNX/LARYNX,
EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE, SEMINAL VESICLES,
URINARY BLADDER, TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT,
STERNUM, NOSE

Histopathology :

KIDNEYS :
NEPHROPATHY, CHRONIC PROGRESSIVE, mild.
HYDRONEPHROSIS, UNILATERAL, minimal.
PHARYNX/LARYNX :
HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: III Concentration: 5 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings

664829 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

KIDNEYS :
DILATATION, RIGHT, mild.
EPIDIDYMIDES :
DISCOLORATION, TAN, RAISED, RIGHT, 7 MM DIA..

No Macroscopic Abnormality Observed :
LIVER, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA, BRAIN,
SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM, PANCREAS,
CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE, SALIVARY
GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL GLANDS,
SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
PARATHYROID GLANDS, TRACHEA, ESOPHAGUS, PHARYNX/LARYNX,
EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE, SEMINAL VESICLES,
URINARY BLADDER, TESTES, FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

KIDNEYS :
HYDRONEPHROSIS, UNILATERAL, mild.
PHARYNX/LARYNX :
HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.
EPIDIDYMIDES :
SPERMATOCELE, mild.

664830 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

No Microscopic Abnormality Observed :
PHARYNX/LARYNX

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: III Concentration: 5 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings
-----664831 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

No Microscopic Abnormality Observed :
PHARYNX/LARYNX664832 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

PHARYNX/LARYNX :
HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: III Concentration: 5 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings

664833 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

PHARYNX/LARYNX :

HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.

664834 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

PHARYNX/LARYNX :

HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: III Concentration: 5 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings

664835 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

PHARYNX/LARYNX :
HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.

664836 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

No Microscopic Abnormality Observed :
PHARYNX/LARYNX

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: III Concentration: 5 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings
-----664837 Terminal Sacrifice
 Killed on Day : 56
 Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE664838 Terminal Sacrifice
 Killed on Day : 56
 Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: III Concentration: 5 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings
-----664839 Terminal Sacrifice
Killed on Day : 56
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

664840 Terminal Sacrifice
Killed on Day : 56
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

664841 Terminal Sacrifice
Killed on Day : 56
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: V Concentration: 30 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings

664842 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

No Microscopic Abnormality Observed :
PHARYNX/LARYNX

664843 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

PHARYNX/LARYNX :
HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: V Concentration: 30 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings

664844 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

No Microscopic Abnormality Observed :
PHARYNX/LARYNX

664845 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

PHARYNX/LARYNX :
HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: V Concentration: 30 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings

664846 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMITES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

PHARYNX/LARYNX :
HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.

664847 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMITES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

PHARYNX/LARYNX :
HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: V Concentration: 30 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings
-----664848 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

PHARYNX/LARYNX :

HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.

664849 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

No Microscopic Abnormality Observed :

PHARYNX/LARYNX

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: V Concentration: 30 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings

664850 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

PHARYNX/LARYNX :
HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.

664851 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

PHARYNX/LARYNX :
HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: V Concentration: 30 mg/m³ Sex: Males

Animal Ref Microscopic & Macroscopic Findings

664852 Terminal Sacrifice
Killed on Day : 56
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYIMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

664853 Terminal Sacrifice
Killed on Day : 56
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYIMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

664854 Terminal Sacrifice
Killed on Day : 56
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYIMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: V Concentration: 30 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings
-----664855 Terminal Sacrifice
Killed on Day : 56
Animal is signed off from necropsy

Gross Pathology :

KIDNEYS :
DILATATION, RIGHT, severe.No Macroscopic Abnormality Observed :
LIVER, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA, BRAIN,
SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM, PANCREAS,
CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE, SALIVARY
GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL GLANDS,
SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
PARATHYROID GLANDS, TRACHEA, ESOPHAGUS, PHARYNX/LARYNX,
EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE, SEMINAL VESICLES,
URINARY BLADDER, TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT,
STERNUM, NOSE664856 Terminal Sacrifice
Killed on Day : 56
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: VII Concentration: 100 mg/m³ Sex: Males

Animal Ref Microscopic & Macroscopic Findings

664857 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

LIVER :
INFLAMMATION, SUBACUTE/CHRONIC, FOCAL, minimal.

No Microscopic Abnormality Observed :
KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA,
BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM,
PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE,
SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL
GLANDS, SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
PARATHYROID GLANDS, TRACHEA, ESOPHAGUS, PHARYNX/LARYNX,
EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE, SEMINAL VESICLES,
URINARY BLADDER, TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT,
STERNUM, BONE MARROW, NOSE

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: VII Concentration: 100 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings
-----664858 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

LIVER :

INFLAMMATION, SUBACUTE/CHRONIC, FOCAL, minimal.

PHARYNX/LARYNX :

HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.

No Microscopic Abnormality Observed :

KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA,
BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM,
PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE,
SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL
GLANDS, SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
PARATHYROID GLANDS, TRACHEA, ESOPHAGUS, EYE(S) WITH OPTIC
NERVE, SKIN, PROSTATE, SEMINAL VESICLES, URINARY BLADDER,
TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT, STERNUM, BONE
MARROW, NOSE**Company Sanitized. Does not contain TSCA CBI**

Individual Animal Pathology Data

Group: VII Concentration: 100 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings
-----664859 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYIMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

LIVER :

INFLAMMATION, SUBACUTE/CHRONIC, FOCAL, minimal.

EYE(S) WITH OPTIC NERVE :

OPTIC NERVE NOT PRESENT.

PROSTATE :

INFLAMMATION, SUBACUTE/CHRONIC, minimal.

No Microscopic Abnormality Observed :

KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA,
BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM,
PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE,
SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL
GLANDS, SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
PARATHYROID GLANDS, TRACHEA, ESOPHAGUS, PHARYNX/LARYNX,
EYE(S) WITH OPTIC NERVE, SKIN, SEMINAL VESICLES, URINARY
BLADDER, TESTES, EPIDIDYIMIDES, FEMUR/KNEE JOINT, STERNUM,
BONE MARROW, NOSE**Company Sanitized. Does not contain TSCA CBI**

Individual Animal Pathology Data

Group: VII Concentration: 100 mg/m³ Sex: Males

Animal Ref Microscopic & Macroscopic Findings

664860 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

LIVER :

INFLAMMATION, SUBACUTE/CHRONIC, FOCAL, minimal.

HEART :

CARDIOMYOPATHY, minimal.

No Microscopic Abnormality Observed :

KIDNEYS, LUNGS, SKELETAL MUSCLE, SPLEEN, AORTA, BRAIN,
SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM, PANCREAS,
CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE, SALIVARY
GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL GLANDS,
SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
PARATHYROID GLANDS, TRACHEA, ESOPHAGUS, PHARYNX/LARYNX,
EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE, SEMINAL VESICLES,
URINARY BLADDER, TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT,
STERNUM, BONE MARROW, NOSE

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: VII Concentration: 100 mg/m³ Sex: Males

Animal Ref Microscopic & Macroscopic Findings

664861 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

LIVER :
INFLAMMATION, SUBACUTE/CHRONIC, FOCAL, minimal.
PHARYNX/LARYNX :
HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.
TESTES :
DEGENERATION/ATROPHY, SEMINIFEROUS TUBULES, minimal.
EPIDIDYMIDES :
OLIGOSPERMIA/GERM CELL DEBRIS, minimal.

No Microscopic Abnormality Observed :
KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA,
BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM,
PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE,
SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL
GLANDS, SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
PARATHYROID GLANDS, TRACHEA, ESOPHAGUS, EYE(S) WITH OPTIC
NERVE, SKIN, PROSTATE, SEMINAL VESICLES, URINARY BLADDER,
FEMUR/KNEE JOINT, STERNUM, BONE MARROW, NOSE

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: VII Concentration: 100 mg/m³ Sex: Males

Animal Ref Microscopic & Macroscopic Findings

664862 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

LIVER :
INFLAMMATION, SUBACUTE/CHRONIC, FOCAL, minimal.
PARATHYROID GLANDS :
MISSING.
EYE(S) WITH OPTIC NERVE :
OPTIC NERVE NOT PRESENT.

No Microscopic Abnormality Observed :
KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA,
BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM,
PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE,
SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL
GLANDS, SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
TRACHEA, ESOPHAGUS, PHARYNX/LARYNX,
EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE, SEMINAL VESICLES,
URINARY BLADDER, TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT,
STERNUM, BONE MARROW, NOSE

ORGANS NOT EXAMINED:
PARATHYROID GLANDS

Company Sanitized. Does not contain TSCA GBI

Individual Animal Pathology Data

Group: VII Concentration: 100 mg/m³ Sex: Males

Animal Ref Microscopic & Macroscopic Findings

664863 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

PHARYNX/LARYNX :

HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.

No Microscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE, SEMINAL VESICLES,
URINARY BLADDER, TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT,
STERNUM, BONE MARROW, NOSE

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: VII Concentration: 100 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings
-----664864 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYIMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

LIVER :

INFLAMMATION, SUBACUTE/CHRONIC, FOCAL, minimal.

PHARYNX/LARYNX :

HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.

PROSTATE :

INFLAMMATION, SUBACUTE/CHRONIC, minimal.

No Microscopic Abnormality Observed :

KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA,
BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM,
PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE,
SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL
GLANDS, SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
PARATHYROID GLANDS, TRACHEA, ESOPHAGUS, EYE(S) WITH OPTIC
NERVE, SKIN, SEMINAL VESICLES, URINARY BLADDER, TESTES,
EPIDIDYIMIDES, FEMUR/KNEE JOINT, STERNUM, BONE MARROW, NOSE**Company Sanitized. Does not contain TSCA CBI**

Individual Animal Pathology Data

Group: VII Concentration: 100 mg/m³ Sex: Males

Animal Ref Microscopic & Macroscopic Findings

664865 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

LIVER :

INFLAMMATION, SUBACUTE/CHRONIC, FOCAL, minimal.

PHARYNX/LARYNX :

HYPERPLASIA/SQUAMOUS METAPLASIA, minimal.

No Microscopic Abnormality Observed :

KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA,
BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM,
PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE,
SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL
GLANDS, SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
PARATHYROID GLANDS, TRACHEA, ESOPHAGUS, EYE(S) WITH OPTIC
NERVE, SKIN, PROSTATE, SEMINAL VESICLES, URINARY BLADDER,
TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT, STERNUM, BONE
MARROW, NOSE

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: VII Concentration: 100 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings
-----664866 Terminal Sacrifice
Killed on Day : 25
Exposure Group : SAC1
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

KIDNEYS :

NEPHROPATHY, CHRONIC PROGRESSIVE, minimal.

PARATHYROID GLANDS :

MISSING.

TESTES :

DEGENERATION/ATROPHY, SEMINIFEROUS TUBULES, UNILATERAL,
minimal.

No Microscopic Abnormality Observed :

LIVER, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA, BRAIN,
SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM, PANCREAS,
CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE, SALIVARY
GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL GLANDS,
SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND, TRACHEA,
ESOPHAGUS, PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN,
PROSTATE, SEMINAL VESICLES, URINARY BLADDER, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, BONE MARROW, NOSE

ORGANS NOT EXAMINED:

PARATHYROID GLANDS

Company Sanitized. Does not contain TSCA CBI

Individual Animal Pathology Data

Group: VII Concentration: 100 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings
-----664867 Terminal Sacrifice
Killed on Day : 56
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

No Microscopic Abnormality Observed :
PHARYNX/LARYNX664868 Terminal Sacrifice
Killed on Day : 56
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

No Microscopic Abnormality Observed :
PHARYNX/LARYNX664869 Terminal Sacrifice
Killed on Day : 56
Animal is signed off from necropsy

Gross Pathology :

No Macroscopic Abnormality Observed :
LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE,
SEMINAL VESICLES, URINARY BLADDER, TESTES, EPIDIDYMIDES,
FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

No Microscopic Abnormality Observed :
PHARYNX/LARYNX

Company Sanitized. Does not contain TOGA GBI

Individual Animal Pathology Data

Group: VII Concentration: 100 mg/m³ Sex: Males-----
Animal Ref Microscopic & Macroscopic Findings
-----664870 Terminal Sacrifice
Killed on Day : 56
Animal is signed off from necropsy

Gross Pathology :

EYE(S) WITH OPTIC NERVE :
RUPTURE, RIGHT.

No Macroscopic Abnormality Observed :

LIVER, KIDNEYS, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN,
AORTA, BRAIN, SPINAL CORD, STOMACH, DUODENUM, JEJUNUM,
ILEUM, PANCREAS, CECUM, COLON, RECTUM, MESENTERIC LYMPH
NODE, SALIVARY GLANDS, MANDIBULAR LYMPH NODE, THYMUS,
ADRENAL GLANDS, SCIATIC NERVE, PITUITARY GLAND,
THYROID GLAND, PARATHYROID GLANDS, TRACHEA, ESOPHAGUS,
PHARYNX/LARYNX, SKIN, PROSTATE, SEMINAL VESICLES, URINARY
BLADDER, TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT, STERNUM,
NOSE

Histopathology :

No Microscopic Abnormality Observed :
PHARYNX/LARYNX664871 Terminal Sacrifice
Killed on Day : 56
Animal is signed off from necropsy

Gross Pathology :

KIDNEYS :
DILATATION, LEFT.
URINARY BLADDER :
CALCULUS\CALCULI.

No Macroscopic Abnormality Observed :

LIVER, LUNGS, HEART, SKELETAL MUSCLE, SPLEEN, AORTA, BRAIN,
SPINAL CORD, STOMACH, DUODENUM, JEJUNUM, ILEUM, PANCREAS,
CECUM, COLON, RECTUM, MESENTERIC LYMPH NODE, SALIVARY
GLANDS, MANDIBULAR LYMPH NODE, THYMUS, ADRENAL GLANDS,
SCIATIC NERVE, PITUITARY GLAND, THYROID GLAND,
PARATHYROID GLANDS, TRACHEA, ESOPHAGUS, PHARYNX/LARYNX,
EYE(S) WITH OPTIC NERVE, SKIN, PROSTATE, SEMINAL VESICLES,
TESTES, EPIDIDYMIDES, FEMUR/KNEE JOINT, STERNUM, NOSE

Histopathology :

No Microscopic Abnormality Observed :
PHARYNX/LARYNX

Company Sanitized. Does not contain TSCA CB1