44894

FOR

PERCHLORATE STUDY GROUP

Study Title

ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

Data Requirement

U.S. Environmental Protection Agency
Pesticide Assessment Guidelines
Subdivision F, 83-3

U.S. Environmental Protection Agency
Toxic Substances Control Act Test Guidelines
Health Effects Testing Guidelines - 798.4900

Author

Raymond G. York, Ph.D., DABT
(Study Director)

Study Completed On

10 September 1998
(Report Amendment)

Performing Laboratory

Argus Research Laboratories, Inc.
905 Sheehy Drive, Building A
Horsham, Pennsylvania 19044

Laboratory Project ID

Argus Research Laboratories, Inc., Protocol Number: 1416-002

This page to be supplied by the Sponsor.

GOOD LABORATORY PRACTICE STATEMENT

This study was conducted according to U.S. Environmental Protection Agency (FIFRA/TSCA) *Good Laboratory Practice Standards; Final Rule* (40 CFR Part 160/792). Any areas of noncompliance are documented in the study record. No deviations existed that significantly affected the validity of the study.

10-SEP-98

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Associate Director of Research and
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Sponsor: 9.14.98

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Submitter: 9.10.98

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REPORT AMENDMENT 1
10 SEPTEMBER 1998

PROTOCOL 1416-002

ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

FINAL REPORT

1. The lot numbers and expiration dates for the reagent kits used to assay Rabbit TSH, T_3 and T_4, are being submitted as a report amendment to the final report at the request of the Sponsor.

	Lot Number	Expiration Date
Rabbit TSH	98-0244	22-JUN-98
Total T3	1015	31-JUL-98
Total T4	1379	31-JUL-98

This change did not affect the results of the study.

Raymond G. York 10-SEP-98

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

Kathleen A Moran 10 SEP 98

Kathleen A. Moran, M.S. Date
Manager of Regulatory Compliance

Study Title

ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

Data Requirement

U.S. Environmental Protection Agency
Pesticide Assessment Guidelines
Subdivision F, 83-3U.S.

Environmental Protection Agency
Toxic Substances Control Act Test Guidelines
Health Effects Testing Guidelines - 798.4900

Author

Raymond G. York, Ph.D., DABT
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Study Completed On

1 September 1998
(Final Report)

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Argus Research Laboratories, Inc., Protocol Number: 1416-002

Reserved for Regulatory Submission Information

GOOD LABORATORY PRACTICE STATEMENT

This study was conducted according to U.S. Environmental Protection Agency (FIFRA/TSCA) *Good Laboratory Practice Standards; Final Rule* (40 CFR Part 160/792). Any areas of noncompliance are documented in the study record. No deviations existed that significantly affected the validity of the study.

01 Sep 98

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

Flagging Page
Reserved for Regulatory Submission Information

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

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TITLE: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

ARGUS RESEARCH LABORATORIES, INC.
PROTOCOL NUMBER: 1416-002

I. SUMMARY AND CONCLUSION

A. Methods[a]

One hundred-fifty naturally-bred female New Zealand White [Hra:(NZW)SPF] rabbits were randomly assigned to six dosage groups (Groups 1 through 6), 25 rabbits per dosage group. The rabbits were given continual access to the test substance, ammonium perchlorate, or the vehicle, reverse osmosis membrane processed deionized water (R.O. deionized water) on days 6 through 28 of presumed gestation (DGs 6 to 28) at target dosages of 0 (Carrier), 0.1, 1.0, 10.0, 30.0 and 100.0 mg/kg/day. Test substance concentrations were evaluated weekly based on actual water consumption levels recorded the previous week and adjusted as necessary to more closely achieve the target dosage levels.

All rabbits were observed for viability at least twice daily during the study. Rabbits were observed for clinical observations of test substance effects, deaths, abortions and premature deliveries daily during the exposure period (DGs 6 to 28) and on the day of sacrifice (DG 29). Body weights were recorded daily during the exposure period and at sacrifice. Feed and water consumption values were recorded daily after arrival of the rabbits at the Testing Facility.

On DG 29 rabbits were anesthetized via an intravenous injection of sodium pentobarbitol followed by blood collection from the inferior vena cava and exsanguination. Approximately 3 mL of blood was collected in a serum separator tube to yield approximately 1500 µL of serum which was analyzed for

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

TSH, T_3 and T_4 levels. Following blood sample collection, a gross necropsy of the thoracic, abdominal and pelvic viscera of each rabbit was performed. Pregnancy status was confirmed and gross lesions were retained. Gravid uterine weights were recorded. The thyroids/parathyroids and a section of the trachea of all rabbits were excised and fixed. Following fixation, the thyroid/parathyroid tissue samples were carefully trimmed, weighed and evaluated histologically.

The number of corpora lutea in each ovary was recorded. The uterus was excised and examined for pregnancy, number and distribution of implantations, early and late resorptions and live and dead fetuses. Each Caesarean-delivered fetus was weighed and examined for gross external alterations and sex. Live fetuses were sacrificed. A single cross-section was made between the parietal and frontal bones, and the brain was examined *in situ* for approximately one-half of the fetuses in each litter. Cavitated organs were evaluated in all fetuses by dissection. The remaining half of the fetuses in each litter were decapitated, the heads fixed in Bouin's solution and subsequently examined by free-hand cross-sectioning. All fetuses were examined for skeletal and cartilaginous alterations after staining with alizarin red S. Skeletal preparations were retained in glycerin with thymol added as a preservative.

B. Results

The average actual consumed daily dosages for the rabbits during gestation ranged from -20% to +14% of the targeted dosages, which were 0 (Carrier), 0.1, 1.0, 10.0, 30.0 and 100.0 mg/kg/day.

There were no deaths attributed to the test substance. Two does in the 1.0 mg/kg/day dosage group aborted on DG 28 and were sacrificed. One doe in the 100.0 mg/kg/day dosage group prematurely delivered on DG 27. Both abortions were considered unrelated to the test substance because the incidences were not dosage-dependent. The mating date of the doe that prematurely delivered was incorrectly identified. All other does survived to scheduled sacrifice.

All clinical observations were considered unrelated to the test substance. The only adverse necropsy observation was a mottled liver in one 1.0 mg/kg/day dosage group rabbit that aborted. Microscopic examination of the thyroid glands revealed hypertrophy of the follicular epithelium in the rabbits in the 10.0, 30.0 and 100.0 mg/kg/day dosage groups that was considered treatment-related. In the affected thyroids, there was an increased height or enlargement (hypertrophy) of the follicular epithelium, which occasionally resulted in a decrease in the lumen of the follicles, which contained pale and occasionally vacuolated colloid.

Serum T_4 levels appeared to decrease in an exposure-related pattern. There was a statistically significant decrease in serum T_4 levels at the 30.0 and 100.0 mg/kg/day target dosages, compared to the control group values.

There were no statistically significant differences in average maternal body weights, gravid uterine weights, body weight gains or corrected DG 29 body weights (DG 29 body weight minus the gravid uterine weight) during gestation. Average terminal body weights, absolute thyroid weights or ratio of thyroid weight to terminal body weight did not significantly differ. Absolute (g/day) and relative (g/kg/day) water and feed consumption values were generally comparable among the six dosage groups for the entire gestation period.

Dosages as high as 100.0 mg/kg/day did not affect DG 29 Caesarean-sectioning or litter parameters and no fetal alterations were attributable to exposures of the test substance as high as 100.0 mg/kg/day.

C. Conclusion

Based on these data, the maternal no-observable-adverse-effect-level (NOAEL) for ammonium perchlorate is 1.0 mg/kg/day. The 10.0, 30.0 and 100.0 mg/kg/day target dosages caused hypertrophy of the follicular epithelium of the thyroid glands of the rabbits and there was a decrease in serum T_4 levels at the 30.0 and 100.0 mg/kg/day target dosages. The developmental NOAEL is greater than 100.0 mg/kg/day. There were no adverse effects on embryo-fetal development as evaluated in this study, and based on these data, ammonium perchlorate should not be identified as a developmental toxicant.

01 Sep 98

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

01 Sep 98

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

01 Sep 98

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

II. DESCRIPTION OF TEST PROCEDURES

A. Conduct of Study:

A.1. Sponsor:

Perchlorate Study Group, Highway 50 & Aerojet Road, Building 20019/ Department 0330, Rancho Cordova, California 95813-6000

A.2. Testing Facility:

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

A.3. Study Number:

1416-002

A.4. Study Design:

The requirements of the U.S. Environmental Protection Agency (EPA) Health Effects Test Guidelines[1], the U.S. Environmental Protection Agency (EPA) Pesticide Assessment Guidelines[2], the Organization for Economic Cooperation and Development (OECD) Guidelines for Testing of Chemicals[3] and Japanese Ministry of Agriculture, Forestry and Fisheries (MAFF) Guidance on Toxicology Study Data for Application of Agricultural Chemical Registration[4] were used as a basis for the study design.

A.5. Regulatory Compliance:

The study was conducted in compliance with Good Laboratory Practice (GLP) regulations of the U.S. Environmental Protection Agency (TSCA/FIFRA)[5,6], the Organization for Economic Cooperation and Development (OECD)[7] and the Japanese Ministry of Agriculture, Forestry and Fisheries(MAFF)[8]. There were no significant deviations from the GLP regulations that affected the quality or integrity of the study. Quality Assurance Unit findings derived from the inspections during the conduct of this study are documented and have been provided to the Study Director and the Testing Facility Management.

A.6. Ownership of the Study:

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

A.7. Study Monitor:

Michael F. Girard (Perchlorate Study Group Representative)

A.8. Scientific Advisor:

Michael L. Dourson, Ph.D., DABT [Toxicology Excellence for Risk Assessment (TERA), 4303 Kirby Avenue, Cincinnati, Ohio 45223]

A.9. Study Director:

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

A.10. Technical Performance:

John F. Barnett, B.S. (Director of Laboratory Operations)
Kristen Iandola Sherer, B.S. (Research Associate)
Daniel A. Nolan, B.S. (Laboratory Technician)

A.11. Report Preparation:

Raymond G. York, Ph.D., DABT
Heidi M. Green, M.S. (Study Coordinator)
Terry J. Clemson, B.S. (Data Management Specialist)
Georgia Y. Burnett, A.A.S. (Administrative Assistant)

A.12. Report Review:

Alan M. Hoberman, Ph.D., DABT (Director of Research)
Mildred S. Christian, Ph.D., Fellow, ATS (Executive Director of Research)

A.13. Date Protocol Signed:

16 April 1998

A.14. Dates of Technical Performance:

Rabbit Arrival Dates	22 APR 98 and 24 APR 98
Exposure Period (DGs[a] 6 through 28)	25 APR 98 - 21 MAY 98
Caesarean-Sectioning Period (DG 29)	18 MAY 98 - 22 MAY 98

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

A.15. Records Maintained:

The original report, raw data and reserve samples of the test substance and carrier are retained in the archives of Argus Research Laboratories, Inc. Any preserved tissues are retained in the archives of the Testing Facility for one year after the mailing of the draft final report, after which time the Sponsor will decide their final disposition. All unused prepared formulations were discarded at the Testing Facility. Unused bulk test substance will be discarded at the Testing Facility until after all studies evaluating the test substance are completed.

B. Test Substance Information:

B.1. Description:

Ammonium Perchlorate - a white, crystalline solid

B.2. Lot Number:

03907LF

B.3. Date Received and Storage Conditions:

The test substance was received on 12 January 1998, from Aldrich Chemical Company, Inc., Milwaukee, Wisconsin, and stored at room temperature.

B.4. Special Handling Instructions:

Gloves, full Tyvek® suit, half-face respirator, safety goggles or safety glasses and a face-shield were worn when handling the bulk test substance and prepared solutions.

B.5. Analysis of Purity:

The Certificate of Analysis for the test substance is available in APPENDIX E.

C. Carrier Information:

C.1. Description:

Reverse osmosis membrane processed deionized water (R.O. deionized water)

C.2. Storage Conditions:

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

C.3. Special Handling Instructions:

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

C.4. Analysis of Purity:

Neither the Sponsor nor the Study Director was aware of any potential contaminants likely to be present in the carrier that would interfere with the results of this study. Results of R.O. deionized water analyses are available in APPENDIX F.

D. Test Substance Preparation:

Formulations of ammonium perchlorate were prepared at least weekly at concentrations of 0 (Carrier), 1, 10, 100, 300, and 1000 µg/mL from a 50 mg/mL stock solution. Prepared stock formulations were stored refrigerated. Dosage solutions were brought to room temperature prior to use.

D.1. Sample Information:

Sample Type	Size	Date Retained	Storage Conditions	Shipped To	Date Shipped
Bulk Test Substance	1 g	22 JUN 98[a]	Room temperature	Testing Facility	N/A[b]
Concentration (all levels)	10 mL[c]	23 APR 98[d] 18 MAY 98[e]	Refrigerated	Lancaster Laboratories[f]	27 APR 98 18 MAY 98
Bulk Test Substance Reserve	5 g	23 APR 98	Room temperature	Testing Facility Archives	09 JUL 98
Carrier Reserve	5 mL	23 APR 98	Room temperature	Testing Facility Archives	09 JUL 98

a. Last day of treatment.
b. N/A - Not Available.
c. Duplicate samples (10 mL each) were taken from each formulation (including stock solution). One sample of each duplicate set was shipped for analysis; the remaining samples were retained at the Testing Facility as backup samples.
d. First preparation.
e. Last preparation
f. Lancaster Laboratories, Lancaster, Pennsylvania.

Information regarding the stability of the prepared solutions at concentrations bracketing the range to be used in this study is on file with the Sponsor. Stability has been established for up to 109 days.

D.2. Analytical Results:

The results of all concentration analyses were within acceptable ranges (±10%). See APPENDIX G for results of the analyses.

E. Test System:

E.1. Species:

Rabbit

E.2. Strain:

New Zealand White [Hra:(NZW)SPF]

E.3. Supplier (Source):

Covance Research Products, Inc., Denver, Pennsylvania

E.4. Sex:

Female

E.5. Rationale for Test System:

The New Zealand White [Hra:(NZW)SPF] rabbit was selected as the Test System because: 1) it is one non-rodent mammalian species accepted and widely used throughout the industry for nonclinical studies of developmental toxicity (embryo-fetal toxicity/teratogenicity); 2) this strain of rabbit has been demonstrated to be sensitive to developmental toxins; 3) historical data and experience exist at the Testing Facility[9-11]; and 4) the test substance is pharmacologically active in the species and strain.

E.6. Test System Data:

	Shipment 1	Shipment 2
Number of Rabbits	90	64
Approximate Dates of Birth	13 SEP 97 and 22 NOV 97	22 NOV 97
Approximate Ages at Arrival	7 months and 5 months	5 months
Weight (kg) on DG 0	2.93 to 4.24	2.74 to 4.18
Weight (kg) the Day After Arrival	2.94 to 4.25	2.74 to 4.06

E.7. Method of Randomization:

Upon arrival,150 rabbits were assigned to individual housing on the basis of computer-generated random units. Rabbits were assigned to one of six dosage groups (Groups 1 through 6), 25 rabbits per dosage group, using a computer-generated (weight-ordered) randomization procedure based on body weights recorded by and at the Supplier on DG 0.

E.8. System of Identification:

Cage tags were marked with the study number, permanent rabbit number, sex, test substance identification and dosage level. Each rabbit was individually identified with a Monel® self-piercing ear tag (Gey Band and Tag Co., Inc., No. MSPT 20103) inscribed with the rabbit's designated unique permanent number.

F. Husbandry:

F.1. Research Facility Registration:

USDA Registration No. 23-R-099 under the Animal Welfare Act, 7 U.S.C. 2131 *et seq.*

F.2. Study Rooms:

The study rooms were maintained under conditions of positive airflow relative to a hallway and independently supplied with a minimum of ten changes per hour of 100% fresh air that had been passed through 99.97% HEPA filters (Airo Clean® rooms). Room temperature and humidity were monitored constantly throughout the study. Room temperature was targeted at 61°F (16°C) to 72°F (22°C). Room humidity was targeted at 30% to 70%, see APPENDIX F (ENVIRONMENTAL AND HUSBANDRY REPORTS).

F.3. Housing:

Rabbits were individually housed. All cage sizes and housing conditions are in compliance with the *Guide for the Care and Use of Laboratory Animals*[12].

F.4. Lighting:

An automatically-controlled fluorescent light cycle was maintained at 12-hours light:12-hours dark, with each dark period beginning at 1900 hours EST.

F.5. Sanitization:

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

F.6. Feed:

From the day of arrival until DG 6, each rabbit was given approximately 150 g of Certified Rabbit Chow® #5322 (PMI Nutrition International, St. Louis, Missouri) daily in an individual stainless-steel "J-type" feeder attached to each cage. Beginning on DG 6, the first day of exposure, each rabbit was given approximately 180 g of Certified Rabbit Chow® #5322 daily.

F.7. Feed Analysis:

Analyses were routinely performed by the feed supplier. No contaminants at levels exceeding the maximum concentration limits for certified feed or deviations from expected nutritional requirements were detected by these analyses. Iodine concentration in the Certified Rabbit Chow® #5322 was approximately 1.1 ppm (PMI Nutrition International, St. Louis, Missouri). Copies of the results of the feed analyses are available in APPENDIX F and in the raw data.

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

F.8. Water:

During the acclimation and pre-exposure periods, rabbits were given local water that had been processed by passage through a reverse osmosis membrane (R.O. water) *ad libitum* from individual amber bottles attached to the cages. During the exposure period, rabbits were given either R.O. deionized water only (carrier control group) or test drinking water prepared using R.O. deionized water and the test substance. These were available *ad libitum* from individual bottles attached to the cages. Chlorine was not added to the processed water as a bacteriostat.

F.9. Water Analysis:

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

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

G. Methods:

G.1. Dosage Administration:

Dosage Group	Target Dosage (mg/kg/day)	Concentration (µg/mL)[a]	Number of Female Rabbits	Assigned Numbers
1	0 (Carrier)	0	25	7651-7675
2	0.1	1	25	7676-7700
3	1.0	10	25	7701-7725
4	10.0	100	25	7726-7750
5	30.0	300	25	7751-7775
6	100.0	1000	25	7776-7800

a. Based on average water consumption of 400 mL/rabbit/day (100 mL/kg/day) for a 4 kg female rabbit.

The test substance was considered 100% active for the purpose of dosage calculations. Initial test substance concentrations were calculated to deliver the target dosage based on average water consumption of 400 mL/rabbit/day (100 mL/kg/day) for a 4 kg female rabbit. Concentrations were adjusted based on actual water consumption and body weights recorded the previous week. The actual test substance concentrations offered to the rabbits were as follows:

Actual Dosage Concentrations:

Preparation Dates	Dosage Group Concentrations (µg/mL)				
	Group 2	Group 3	Group 4	Group 5	Group 6
24 APR 98	1.17	11.67	116.67	350.00	1170.00
28 APR 98	1.17	11.67	116.67	350.00	1170.00
30 APR 98	1.17	11.67	116.67	350.00	1170.00
04 MAY 98	1.17	11.67	116.67	350.00	1170.00
06 MAY 98	1.17	11.67	116.67	350.00	1170.00
07 MAY 98	1.17	11.67	116.67	350.00	1170.00
11 MAY 98	1.17	11.67[a]	116.67	350.00	1170.00
12 MAY 98	1.17		116.67	350.00	1170.00
13 MAY 98	1.09	10.82	108.19	290.30	1042.78
14 MAY 98	1.09	10.82	108.19	290.30	1042.78
14 MAY 98	1.17	11.67	116.67	350.00	1170.00
18 MAY 98	1.09	10.82	108.19	290.30	1042.78

a. A sufficient amount of this concentration remained for dosage of Group 3 rabbits, so it was unnecessary to prepare additional quantities of this concentration on 12 May 1998.

G.2. Rationale for Dosage Selection:

Dosages were selected on the basis of a dosage-range study (Argus Research Laboratories, Inc., Study 1416-002P). In that study, thyroid histopathology was evident at 20, 50 and 100 mg/kg/day; T_3, T_4 and TSH hormone levels were reduced at all dosages; and three malformed fetuses from three litters in the 20 mg/kg/day dosage group were observed at gross external examination.

G.3. Route of Administration:

Oral (drinking water)

G.4. Rationale for Route of Administration:

The oral (drinking water) route was selected for use because it is the most likely route of human exposure.

G.5. Frequency of Administration:

A constant concentration of the test substance equivalent to the target dosages was offered to the rabbits (via drinking water) to naturally-bred rabbits on DGs 6 through 28.

G.6. Length of Study:

Approximately 4 weeks

G.7. Method of Study Performance:

The female rabbits were naturally bred by breeder male rabbits of the same source and strain before shipment to the Testing Facility. The rabbits were mated on five consecutive days and shipped to the Testing Facility on the day after the last day of mating to arrive on DGs 1, 2 or 3. The day of mating was considered to be DG 0.

All rabbits were observed for viability at least twice daily (once in the morning and once in the afternoon) during the study. Rabbits were observed for general appearance at least once during the pre-exposure period. The rabbits were also examined for clinical observations of effects of the test substance, abortions, premature deliveries and deaths daily during the exposure period (DGs 6 to 28) and on the day of sacrifice (DG 29).

Body weights were recorded on DG 0, the day of arrival at the Testing Facility, daily during the exposure period and at sacrifice. Feed and water consumption values were recorded daily after arrival of the rabbits at the Testing Facility.

G.8. Gross Necropsy:

On DG 29 rabbits were anesthetized via an intravenous injection of sodium pentobarbitol followed by blood collection from the inferior vena cava and exsanguination. Approximately 3 mL of blood was collected in a serum separator tube to yield approximately 1500 µL of serum. The serum was aliquoted into three vials (approximately 500 µL/vial) and frozen at -70°C. Throughout the sample collection and euthanasia procedures, every effort was made to avoid inducing stress in the rabbits, since this could affect scheduled hormone evaluations (e.g., no excess noise or radio). After the last day of sample collection, the blood samples were shipped (frozen on dry ice) for analysis of TSH, T_3 and T_4 levels to Ani Lytics, Inc., 200 Girard Street, Suite 200, Gaithersburg, Maryland.

Following blood sample collection, a gross necropsy of the thoracic, abdominal and pelvic viscera of each rabbit was performed. Uteri of apparently nonpregnant rabbits were stained with 10% ammonium sulfide to confirm the absence of implantation sites[13]. Gross lesions were retained in neutral buffered 10% formalin. Gravid uterine weights were recorded. The thyroids/parathyroids and a section of the trachea of all rabbits were excised and immersed in neutral buffered 10% formalin immediately after collection. Following fixation, the thyroid/parathyroid tissue samples were carefully trimmed and weighed. The same technician performed all trimming. Thyroids/parathyroids samples were shipped for histological analysis to Research Pathology Services, Inc., New Britain, Pennsylvania, see APPENDIX H.

The number of corpora lutea in each ovary was recorded. The uterus was excised and examined for pregnancy, number and distribution of implantations, early and late resorptions and live and dead fetuses. An early resorption was defined as one in which organogenesis was not grossly evident. A late resorption was defined as one in which the occurrence of organogenesis was grossly evident. A live fetus was defined as a term fetus that responded to stimuli. Nonresponding term fetuses are considered to be dead. Dead fetuses and late resorptions are differentiated by the degree of autolysis present; marked to extreme autolysis indicated that the fetus was a late resorption.

Each Caesarean-delivered fetus was weighed, examined for gross external alterations and individually identified with a tag noting study number, litter number, and uterine distribution. Live fetuses were sacrificed by an intraperitoneal injection of Beuthanasia®-D Special.

All fetuses were examined internally to determine sex. Cavitated organs were evaluated in all fetuses by dissection[14]. A single cross-section was made between the parietal and frontal bones, and the brain was examined *in situ* for approximately one-half of the fetuses in each litter. The remaining half of the fetuses in each litter were decapitated and the heads retained in Bouin's solution. The decapitated heads were examined using Wilson's sectioning technique[15]. All fetuses were examined for skeletal and cartilaginous alterations after staining with alizarin red S[a][16]. Skeletal preparations were retained in glycerin with thymol added as a preservative.

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

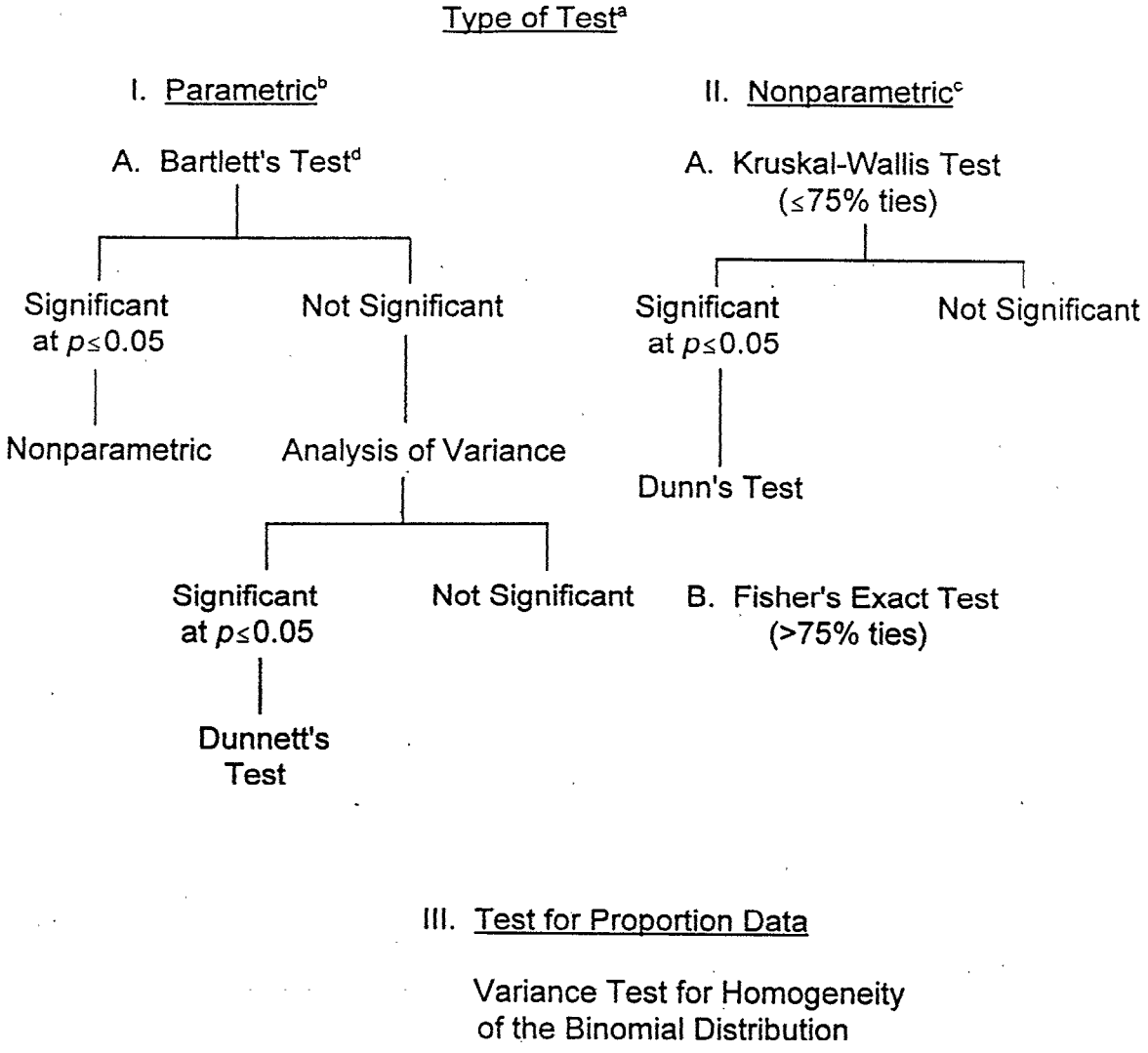
Representative photographs of fetal gross, soft tissue and skeletal alterations were taken.

Rabbits that were sacrificed because of abortion or premature delivery were examined on the day the observation was made. Pregnancy status and uterine contents were recorded. Gravid uterine weights were not recorded. Aborted fetuses and/or delivered pups were examined to the extent possible, using the same methods described for fetuses. Thyroids/parathyroids were excised, retained and weighed as described previously. The same technician performing the trimming of thyroid/parathyroid tissues at scheduled sacrifice also trimmed the tissues of rabbits sacrificed due to abortion or premature delivery. Thyroids/parathyroids samples were shipped to Research Pathology Services, Inc., at the previously cited address for histological analysis.

Serum thyroid hormone levels [triiodothyronine (T_3), thyroxine (T_4) and thyroid-stimulating hormone (TSH)] were determined in control and ammonium perchlorate exposed rabbits by AniLytics, Inc. Assays for T_3 and T_4 were performed using radioimmunoassay (RIA) kits according to manufacturer's standard procedures. Assay kits from the same batch number and with the same expiration date were used for the T_3 and T_4 measurements for each rabbit. The rabbit TSH assay was a double antibody RIA procedure developed and performed by AniLytics, Inc. In this assay, standards and samples were allowed to compete with freshly labeled ^{125}I-RTSH for limited antibody binding sites. Overnight incubation was carried out at room temperature. At the end of the incubation, the bound and the free ^{125}I-RTSH were separated by the addition of second antibody-PEG complex and centrifugation. Supernates were carefully removed and radioactivity was determined in the precipitates. The concentration of TSH in the test samples was determined from the standard curve. The standard curve linearity range was 0.4 to 25 ng/mL. Reference ranges for T_3 and T_4 levels are from *The Clinical Chemistry Of Laboratory Animals*[26]. There is no standard reference range for rabbit serum TSH values.

G.9. Statistical Analysis:

The following schematic represents the statistical analyses of the data:



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

Clinical observation and other proportion data were analyzed using the Variance Test for Homogeneity of the Binomial Distribution[17].

Continuous data (e.g., maternal body weights, body weight changes, feed and water consumption values and litter averages for percent male fetuses, percent resorbed conceptuses, fetal body weights, fetal anomaly data, fetal ossification site data and thyroid hormone levels) were analyzed using Bartlett's Test of Homogeneity of Variances[18] and the Analysis of Variance[19], when appropriate [i.e., Bartlett's Test was not significant ($p>0.05$)]. If the Analysis of Variance was significant ($p\leq0.05$), Dunnett's Test[20] was used to identify the statistical significance of the individual groups. If the Analysis of Variance was not appropriate [i.e., Bartlett's Test was significant ($p\leq0.05$)], the Kruskal-Wallis Test[21] was used, when less than or equal to 75% ties were present; when more than 75% ties were present, Fisher's Exact Test[22] was used. In cases in which the Kruskal-Wallis Test was statistically significant ($p\leq0.05$), Dunn's Method of Multiple Comparisons[23] was used to identify the statistical significance of the individual groups.

Count data obtained at Caesarean-sectioning were evaluated using the procedures previously described for the Kruskal-Wallis Test[21].

III. RESULTS

A. Consumed Dosages (Summary - Table 1)

The average actual consumed daily dosages for the rabbits for the first portion of the gestation period (calculated as days 6 to 19 of gestation) were 0, 0.1, 1.0, 10.8, 33.9 and 114.2 mg/kg/day for the 0 (Carrier), 0.1, 1.0, 10.0, 30.0 and 100.0 mg/kg/day target dosages, or 100%, 100%, 108%, 113% and 114% of target, respectively. The average actual consumed daily dosages for the latter portion of the gestation period (calculated as days 19 to 29 of gestation) were 0, 0.1, 0.8, 10.0, 26.7 and 90.4 mg/kg/day for the 0 (Carrier), 0.1, 1.0, 10.0, 30.0 and 100.0 mg/kg/day target dosages, or 100%, 80%, 100%, 89% and 90% of target, respectively.

B. Mortality, Abortion, Premature Delivery, Clinical and Necropsy Observations and Histopathology (Summaries - Tables 2 and 9; Individual Data - Tables 10, 20 and 24; APPENDIX H)

B.1. Mortality

There were no deaths attributed to the test substance. Two does in the 1.0 mg/kg/day dosage group aborted on day 28 of gestation (DG 28) and were sacrificed. One doe in the 100.0 mg/kg/day dosage group prematurely delivered on DG 27. Both abortions were considered unrelated to the test substance because the incidences were not dosage-dependent. The mating date of the doe that prematurely delivered was incorrectly identified. All other does survived to scheduled sacrifice. Observations in the does that aborted or delivered are described in the following sections.

B.1.a. Aborted and Sacrificed

Doe 7721 in the 1.0 mg/kg/day dosage group aborted two dead pups and ten late resorptions on DG 28. Clinical observations were limited to a red perivaginal substance on DG 28. This doe had a normal pattern of small body weight gains and losses after DG 10 and consistent body weight loss after DG 23. Water consumption was generally comparable to other does in this group until DG 24, after which values were reduced. Feed consumption was severely reduced after DG 23. All tissues appeared normal at necropsy.

Doe 7724 in the 1.0 mg/kg/day dosage group aborted two late resorptions on DG 28. Clinical observations were limited to a red perivaginal substance on DG 28. This doe had a normal pattern of small body weight gains and losses after DG 8 and consistent body weight loss after DG 25. Water consumption was generally comparable to other does in this group until DG 26, after which values were reduced. Feed consumption was severely reduced after DG 26.

Five late resorptions and one early resorption were found *in utero*. Necropsy revealed all lobes of the liver were mottled; all other tissues appeared normal.

B.1.b. Premature Delivery

Doe 7776 in the 100.0 mg/kg/day dosage group delivered nine pups on DG 27. This doe had normal clinical observations, body weight gains and water and feed consumption. Because rabbits normally deliver on DG 31 and the pups appeared to be full term (they had fur and were nursing), it was assumed that this rabbit had been incorrectly identified and shipped by the supplier on the wrong day of gestation.

B.2. Clinical and Necropsy Observations

All clinical observations were considered unrelated to the test substance because: 1) the incidences were not dosage-dependent; 2) the observation was associated with abortion of a litter; and/or 3) the observations are commonly seen in rabbits in the laboratory environment. These observations included localized alopecia, ungroomed coat, scant, soft or liquid feces, and a red perivaginal, perinasal or perioral substance.

The only adverse necropsy observation was the mottled liver that occurred in the 1.0 mg/kg/day dosage group rabbit that aborted and was previously described. There were no additional necropsy observations for rabbits at Caesarean-sectioning.

B.3. Histopathology (APPENDIX H)

Microscopic examination of the thyroid glands revealed hypertrophy of the follicular epithelium in the rabbits in the 10.0, 30.0 and 100.0 mg/kg/day dosage groups that was considered treatment-related. In the affected thyroids, there was an increased height or enlargement (hypertrophy) of the follicular epithelium, which occasionally resulted in a decrease in the lumen of the follicles, which contained pale and occasionally vacuolated colloid.

C. Maternal Body Weights, Gravid Uterine Weights and Body Weight Changes (Figure 1; Summaries - Tables 3 and 4; Individual Data - Table 21)

The maternal body weights in the control group were consistently lower than the treated groups over the gestation period (DGs 0 to 29). There were, however, no statistically significant differences in average maternal body weights, gravid uterine weights, body weight gains or corrected DG 29 body weights (DG 29 body weight minus the gravid uterine weight) during gestation.

D. Terminal Body Weights and Thyroid Weights and Ratios (%) of Thyroid Weight To Terminal Body Weight (Summary - Table 11; Individual Data - Table 25)

There were no statistically significant differences in average terminal body weights, absolute thyroid weights or ratio of thyroid weight to terminal body weight.

E. Maternal Absolute (g/day) and Relative (g/kg/day) Water Consumption Values (Summaries - Tables 5 and 6; Individual Data - Table 22)

Absolute (g/day) and relative (g/kg/day) water consumption values were generally comparable among the six dosage groups for the entire gestation period. The significant reduction ($p \leq 0.05$) in the absolute water consumption value for the 1.0 mg/kg/day dosage group on DGs 12 to 15 was not considered test substance-related because it was not dosage-dependent and it was a single occurrence.

F. Maternal Absolute (g/day) and Relative (g/kg/day) Feed Consumption Values (Summaries - Tables 7 and 8; Individual Data - Table 23)

Absolute (g/day) and relative (g/kg/day) feed consumption values during the gestation period were comparable in the six dosage groups and did not significantly differ.

G. Thyroid Hormone Analyses (Summary - Table 12; Individual Data - Table 26 and APPENDIX I)

Serum T_4 levels appeared to decrease in an exposure-related pattern. There was a statistically significant decrease ($p \leq 0.05$ and $p \leq 0.01$, respectively) in serum T_4 levels at the 30.0 and 100.0 mg/kg/day target dosages, compared to the control group values. The levels of serum T_4 in the 1.0 and 10.0 mg/kg/day dosage groups were also reduced, albeit not significantly, and the serum T_4 level in the 0.1 mg/kg/day dosage group was comparable to the control group value. There were no statistically significant differences in serum T_3 and TSH levels among the six exposure groups.

The significant decrease in serum T_4 levels at the 30.0 and 100.0 mg/kg/day target dosages was considered treatment-related and corresponds to the hypertrophy of the follicular epithelium of the thyroid glands in the 30.0 and 100.0 mg/kg/day target dosage groups that was also considered treatment-related.

H. Caesarean-Sectioning and Litter Observations (Summaries - Tables 13 and 14; Individual Data - Tables 27 through 29)

Caesarean-sectioning observations were based on 22, 24, 23, 24, 24 and 23 pregnant does that survived to DG 29 in the 0 (Carrier), 0.1, 1.0, 10.0, 30.0 and 100.0 mg/kg/day dosage groups, respectively.

Dosages as high as 100.0 mg/kg/day did not affect DG 29 Caesarean-sectioning or litter parameters. All values were within the historical ranges of the Testing Facility[a]. The litter averages for corpora lutea, implantations, litter sizes, live and dead fetuses, early and late resorptions, percent dead or resorbed conceptuses, percent male fetuses and fetal body weights were comparable and did not differ significantly in the six dosage groups. All placentae appeared normal and no doe had a litter consisting of only resorbed conceptuses.

I. Fetal Alterations (Summaries - Tables 15 through 19; Individual Data - Table 30)

Fetal alterations were defined as: 1) malformations (irreversible changes that spontaneously occur at low incidences in this species and strain); and 2) variations (common findings in this species and strain, and reversible delays or accelerations in development). Litter averages were calculated for specific fetal ossification sites as part of the evaluation of the degree of fetal ossification.

Fetal evaluations were based on 180, 184, 196, 195, 189 and 206 DG 29 Caesarean-delivered live fetuses in 22, 24, 23, 24, 24 and 23 litters in the six respective dosage groups. Each fetus was examined for gross external alterations. All of these respective fetuses were examined for soft tissue alterations, skeletal alterations and fetal ossification site averages. The heads of 86, 84, 92, 91, 88 and 100 fetuses in the six respective groups were examined using Wilson's sectioning technique. It was also possible to examine one dead fetus (7677-10) in the 0.1 mg/kg/day dosage group. This fetus appeared normal at gross external, soft tissue and skeletal examinations. All observations and values for this fetus were excluded from summary tables and statistical analyses.

I.1. Summary of Fetal Alterations (Summary - Table 15; Individual Data - Table 30)

No fetal alterations were attributable to exposures of the test substance as high as 100.0 mg/kg/day because: 1) the incidences were not dosage-dependent;

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a. See APPENDIX J (HISTORICAL CONTROL DATA).

2) the observation occurred in only one or two high dosage group fetuses; or the incidences were within the averages observed historically at the Testing Facility[a].

Combination of malformations and variations resulted in the following incidences for fetal alterations. In the 0 (Carrier), 0.1, 1.0, 10.0, 30.0 and 100.0 mg/kg/day dosage groups, respectively, 15 (68.2%), 13 (54.2%), 11 (47.8%), 13 (54.2%), 13 (54.2%) and 16 (69.5%) litters had fetuses with one or more alterations observed. In these same respective dosage groups, the total numbers of fetuses with identified alterations were 35 (19.4%), 24 (13.0%), 19 (9.7%), 25 (12.8%), 22 (11.6%) and 29 (14.1%). One or more alterations occurred in averages of 19.8%, 13.5%, 9.3%, 16.0%, 11.1% and 14.0% of the fetuses per litter in the six respective dosage groups.

I.2. Fetal Gross External Alterations (Summary - Table 16; Individual Data - Table 30)

I.2.a. Malformations

I.2.a.1. Head

One 100.0 mg/kg/day dosage group fetus (7778-4) had a short snout, protruding tongue, absent nares and papillae, a fleshy protrusion in the center of the head, a skin closure defect on the head (the skull appeared through the opening) and depressed eye bulges. Soft tissue examination of this fetus revealed absent nasal passages, close-set and disorganized eyes and a small brain. This fetus had no skeletal alterations.

I.2.a.2. Body

One control group fetus (7651-2) and one 1.0 mg/kg/day dosage group fetus (7712-4) had an umbilical hernia with protrusion of the intestines or liver through the umbilical opening as the only alteration.

Control group fetus 7672-1 had abdominal distension. Soft tissue evaluation of this fetus revealed an enlarged heart and liver. This fetus had no additional findings at skeletal examination.

I.2.a.3. Digits

One 1.0 mg/kg/day dosage group fetus had short 1st and 4th digits on the right hindpaw and a short 4th digit on the left hindpaw. Skeletal examination revealed

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a. See APPENDIX J (HISTORICAL CONTROL DATA).

the distal and medial phalanges of the 1st and 4th right hindpaw digits were missing and the distal and medial phalanges of the 4th left hindpaw digit were missing. This fetus had no additional alterations.

I.2.b. Variations

One control group fetus (7656-11) had the right forepaw flexed downward, a variation generally identified as a deformation resulting from compression *in utero*. This fetus also had depressed eye bulges and additional skull alterations at skeletal examination.

I.3. Fetal Soft Tissue Alterations (Summary - Table 17; Individual Data - Table 30)

I.3.a. Malformations

I.3.a.1. Brain, Eyes and Nasal Passages

One 100.0 mg/kg/day dosage group fetus (7778-4) had a small brain with no apparent lateral or third ventricles, close-set and disorganized eyes and absent nasal passages. This fetus had a malformed head at external examination, as previously described.

I.3.a.2. Heart and Vessels

One control group fetus (7672-1) had an enlarged heart and liver as the only visceral observations. This fetus had abdominal distension at external examination, as previously described.

One 0.1 mg/kg/day dosage group fetus (7682-8) had an absent ventricular septum and a common truncus. This fetus also had vertebral/rib alterations.

I.3.a.3. Intestines

Protruding intestines were confirmed in one control group fetus (7651-2) that had an umbilical hernia, as previously described.

I.3.a.4. Liver

Control group fetus 7672-1 had an enlarged liver and heart as the only visceral observations. This fetus had abdominal distension at external examination, as previously described.

I.3.b. Variations

I.3.b.1. Brain

One 100.0 mg/kg/day dosage group fetus (7777-5) had moderate dilation of the lateral ventricles in the brain. In addition, this fetus had a split 11th right rib.

I.3.b.2. Eyes

Folded retina of the right and/or left eye, a variation generally attributable to processing, occurred in 11, 1**, 4**, 5**, 5** and 4** fetuses from 6, 1, 4, 4, 3 and 3 litters in the six respective dosage groups. No other alterations occurred in these fetuses, except for fetus 7713-2 in the 1.0 mg/kg/day dosage group that also had a misaligned scapula and fetus 7758-10 in the 30.0 mg/kg/day dosage group that also had fused 3rd and 4th sternal centra. The significant reductions ($p \leq 0.01$) from the control group fetal incidence of this variation were considered unrelated to the test substance because this observation was made only in the heads examined with Wilson's technique and is considered an artifact of processing.

I.3.b.3. Lungs

Absence of the intermediate lobe of the lungs occurred in 1, 1, 3, 0, 2 and 1 fetuses in 1, 1, 3, 0, 2 and 1 litters in the six respective dosage groups. In addition, control group fetus 7673-5 had unilateral ossification of the centrum of the 6th cervical vertebra; 30.0 mg/kg/day dosage group fetus 7759-8 had an incompletely ossified 1st sternal centra; and 100.0 mg/kg/day dosage fetus 7778-3 had unilateral ossification of the centrum of the 6th thoracic vertebra and small 1st ribs.

I.3.b.4. Gallbladder

Absent gallbladder occurred in two 100.0 mg/kg/day dosage group fetuses (7786-8; 7791-5) as the only alteration.

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

I.4. Fetal Skeletal Alterations (Summaries - Tables 18 and 19; Individual Data - Table 30)

I.4.a. Malformations

I.4.a.1. Skull

One control group fetus (7656-11) had small eye sockets. This fetus also had variations in skull ossification (incompletely ossified frontals and parietals and angulated hyoid alae). The right forepaw was flexed downward at external examination, as previously described.

I.4.a.2. Vertebral/Rib Malformations

Interrelated vertebral/rib malformations were observed in three littermates (7682-3,-8,-10) in the 0.1 mg/kg/day dosage group and one fetus (7735-1) in the 10.0 mg/kg/day dosage group. As a result of these alterations, the fetal incidence of fused ribs was significantly increased ($p \leq 0.01$) in the 0.1 mg/kg/day dosage group. This significant increase was not considered treatment-related because: 1) it was not dosage-dependent; and 2) the litter incidence, the more relevant parameter[24], was not significantly increased.

Fetus 7682-3 had a right hemivertebra present as the 9th thoracic vertebra and fused 3rd and 4th left ribs.

Fetus 7682-8 had a right hemivertebra present as the 1st, fused centra of the 1st and 2nd, fused arches of the 6th and 7th, small arches of the 8th and unilateral ossification of the centra of the 6th and 8th thoracic vertebrae, and fused 1st and 2nd and 8th and 9th right ribs, not ossified 7th left rib and only 11 left and 12 right ribs. This fetus also had a small arch of the 6th cervical vertebra, a common truncus and absent ventricular septum, as previously described.

Fetus 7682-10 had fused left arches of the 9th and 10th thoracic vertebrae~~,~~ fused 9th and 10th right and left ribs and an incompletely ossified 1st sternal centrum.

Fetus 7735-1 had a left hemivertebra present as the 13th thoracic vertebra and a split 13th right rib.

I.4.a.3. Caudal Vertebrae

Fused 12th and 13th, and 14th and 15th caudal vertebrae occurred in one 100.0 mg/kg/day dosage group fetus (7799-7). This fetus appeared normal at gross external and soft tissue evaluations.

I.4.a.4. Ribs

Split ribs occurred in one 10.0 mg/kg/day dosage group fetus (7735-1) that had an additional vertebral malformation, as previously described, and one 100.0 mg/kg/day dosage group fetus (7777-5). Fetus 7777-5 also had moderate dilation of the lateral ventricles of the brain, as previously described.

Small 1st ribs occurred in one 100.0 mg/kg/day dosage group fetus (7778-3). This fetus also had unilateral ossification of the centrum of the 6th thoracic vertebra and an absent intermediate lobe of the lung.

I.4.a.5. Limbs

Absent distal and medial 1st and 4th right, and distal and medial left 4th phalanges of the hindpaws occurred in one 1.0 mg/kg/day dosage group fetus (7722-1). This fetus had no other alterations.

I.4.b. Variations

I.4.b.1. Skull

Common small irregularities in ossification of the skull[25] [the presence of small ossification sites within the sutures of the calvaria (nasal, frontal or parietal bones) and/or irregular shaping or fusion of the sutures or bones] occurred in 6, 4, 2, 4, 1 and 2 fetuses in 5, 4, 2, 3, 1 and 2 litters in the 0 (Carrier), 0.1, 1.0, 10.0, 30.0 and 100.0 mg/kg/day dosage groups, respectively. Irregular ossification of the nasals (internasal and midline suture displaced) were the most common of these small irregularities in ossification patterns, occurring in 3, 3, 0, 4, 1 and 1 fetuses in 2, 3, 0, 3, 1 and 1 litters in the six respective groups. Irregular ossification of the frontals (interfrontal, irregular suture, incompletely ossified and fused) occurred in 3, 1, 2, 0, 0 and 1 fetuses in 2, 1, 2, 0, 0 and 1 litters in the six respective groups. Of these fetuses, only control group fetus 7656-11 had additional malformations (small eye sockets) and variations (angulated hyoid alae) of the skull.

A large posterior fontanelle was the only alteration in one 0.1 mg/kg/day dosage group fetus (7683-3).

I.4.b.2. Hyoid

One or both alae of the hyoid were angulated in 4, 2, 1, 3, 3 and 2 fetuses from 4, 2, 1, 3, 3 and 2 litters in the 0 (Carrier), 0.1, 1.0, 10.0, 30.0 and 100.0 mg/kg/day dosage groups, respectively. Control group fetus 7656-11 had additional external and skeletal alterations as previously described and

100.0 mg/kg/day dosage group fetus 7784-3 also had fused 3rd and 4th sternal centra. The angulation of the hyoid was the only alteration for the other fetuses.

I.4.b.3. Vertebrae

I.4.b.3.a. Cervical

The right arch of the 6th cervical vertebra was small in one 0.1 mg/kg/day dosage group fetus (7682-8). This fetus had interrelated vertebral/rib malformations, as previously described. Unilateral ossification of the centrum of the 6th cervical vertebra also occurred in control group fetus 7673-5; this fetus also had an absent intermediate lung lobe.

I.4.b.3.b. Caudal

A misaligned 15th, 16th or 17th caudal vertebra occurred in one control (7657-1), one 1.0 mg/kg/day (7705-8), one 30.0 mg/kg/day (7760-1) and one 100.0 mg/kg/day (7779-6) dosage group fetuses. No additional findings occurred for these fetuses.

I.4.b.4. Ribs

A cervical rib present at the right 7th cervical vertebra was the only alteration for one 100.0 mg/kg/day dosage group fetus (7793-8).

Thickened ribs occurred in one control (7662-4), one 1.0 mg/kg/day (7718-1), one 10.0 mg/kg/day (7735-7), one 30.0 mg/kg/day (7775-5) and one 100.0 mg/kg/day(7782-4) dosage group fetuses. No additional findings occurred for these fetuses.

I.4.b.5. Sternum

Incompletely ossified 1st sternal centra occurred in 0, 2*, 0, 1, 5** and 1 fetuses from 0, 2, 0, 1, 3 and 1 litters in the 0 (Carrier), 0.1, 1.0, 10.0, 30.0 and 100.0 mg/kg/day dosage groups, respectively. These significant increases in the fetal incidences of incompletely ossified 1st sternal centra in the 0.1 and 30.0 mg/kg/day dosage groups were not considered treatment-related because they were not dosage-dependent. Of these fetuses, 0.1 mg/kg/day dosage group fetus (7682-10) had additional skeletal alterations, as previously described.

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* Significantly different from the control group value ($p \leq 0.05$).
** Significantly different from the control group value ($p \leq 0.01$).

Asymmetric sternal centra occurred in two 0.1 mg/kg/day dosage group fetuses (7693-7; 7697-3) and one 30.0 mg/kg/day fetus (7773-10). Fetuses 7697-3 and 7773-10 also had fused sternal centra.

Fused sternal centra occurred in 8, 10, 2, 10, 5 and 10 fetuses from 2, 6, 2, 4, 3 and 7 litters in the 0 (Carrier), 0.1, 1.0, 10.0, 30.0 and 100.0 mg/kg/day dosage groups, respectively. Of these fetuses, one in each of the 0.1 and 30.0 mg/kg/day dosage groups also had asymmetric sternal centra (7697-3; 7773-10), one 1.0 mg/kg/day dosage group fetus also had a misaligned scapula (7717-9) and one 100.0 mg/kg/day dosage group fetus also had an angulated hyoid ala (7784-3).

I.4.b.6. Scapulae

Misaligned scapulae occurred in 1, 0, 5**, 0, 1 and 2 fetuses from 1, 0, 4, 0, 1 and 2 litters in the 0 (Carrier), 0.1, 1.0, 10.0, 30.0 and 100.0 mg/kg/day dosage groups, respectively. This significant increase in the fetal incidence of misaligned scapulae in the 1.0 mg/kg/day dosage group was not considered treatment-related because it was not dosage-dependent. Additional alterations in these fetuses were previously described.

I.4.b.7. Fetal Ossification Site Averages

The average numbers of ossification sites in the hyoid, vertebrae (cervical, thoracic, lumbar, sacral and caudal), ribs, sternum (manubrium, sternal centers and xiphoid), forelimbs (carpals, metacarpals and phalanges) and hindlimbs (tarsals, metatarsals and phalanges) occurred at similar incidences in all dosage groups and did not significantly differ. All values were within the ranges observed historically at the Testing Facility[a].

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

a. See APPENDIX J (HISTORICAL CONTROL DATA).

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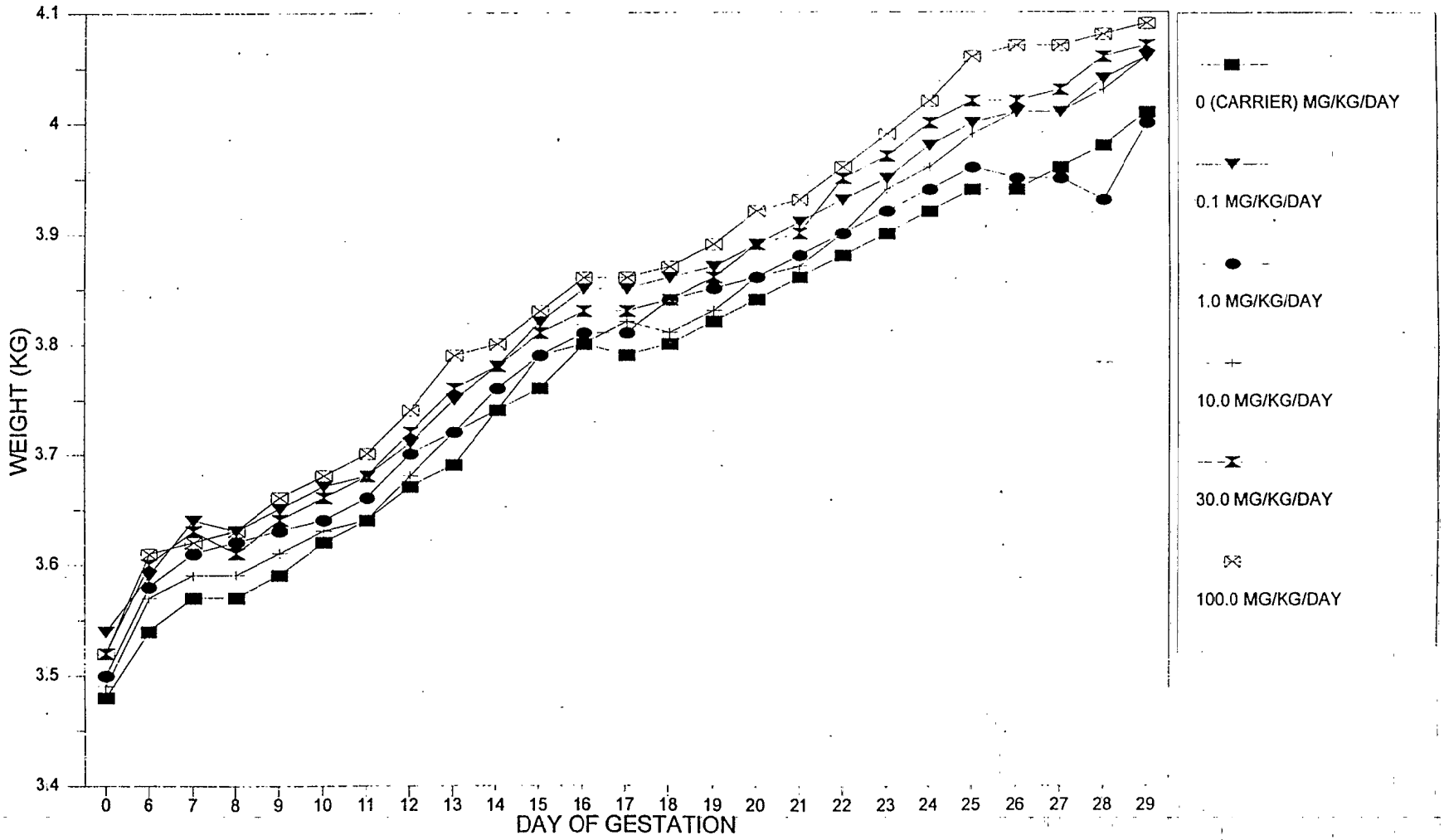
APPENDIX A

REPORT FIGURE

MATERNAL BODY WEIGHTS

Figure 1



APPENDIX B

REPORT TABLES

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 1 (PAGE 1): CONSUMED DOSAGES (MG/KG/DAY) - SUMMARY

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
RABBITS TESTED	N	25	25	25	25	25	25
PREGNANT	N	22	24	25	24	24	24
INCLUDED IN ANALYSES	N	22	24	25	24	24	23b
MATERNAL ACTUAL DOSAGE (MG/KG/DAY)							
DAYS 6 - 9	MEAN±S.D.	0.0 ± 0.0	0.1 ± 0.0	1.0 ± 0.3 [24]c	10.2 ± 2.1 [23]c	33.9 ± 8.0 [23]c	116.0 ± 30.3
DAYS 9 - 12	MEAN±S.D.	0.0 ± 0.0	0.1 ± 0.0 [23]c	1.0 ± 0.3	11.2 ± 3.3	32.9 ± 7.5	113.1 ± 26.6
DAYS 12 - 15	MEAN±S.D.	0.0 ± 0.0 [21]c	0.1 ± 0.0	1.0 ± 0.3	10.8 ± 2.7 [23]c	35.2 ± 7.8	116.6 ± 28.5 [22]c
DAYS 15 - 19	MEAN±S.D.	0.0 ± 0.0 [20]c	0.1 ± 0.0 [23]c	1.1 ± 0.3	11.4 ± 3.0 [21]c	34.9 ± 7.3 [23]c	114.6 ± 25.2
DAYS 6 - 19	MEAN±S.D.	0.0 ± 0.0 [20]c	0.1 ± 0.0 [23]c	1.0 ± 0.3	10.8 ± 2.8 [21]c	33.9 ± 6.6 [23]c	114.2 ± 24.4
DAYS 19 - 24	MEAN±S.D.	0.0 ± 0.0 [21]c	0.1 ± 0.0	0.9 ± 0.3	10.8 ± 2.6 [23]c	29.6 ± 6.5	99.0 ± 19.8 [21]c
DAYS 24 - 29	MEAN±S.D.	0.0 ± 0.0 [19]c	0.1 ± 0.0	0.8 ± 0.3 [22]c,d	9.2 ± 2.6	23.6 ± 6.8	80.1 ± 22.4 [23]c
DAYS 19 - 29	MEAN±S.D.	0.0 ± 0.0 [19]c	0.1 ± 0.0	0.8 ± 0.3 [22]c,d	10.0 ± 2.4	26.7 ± 6.4	90.4 ± 20.0 [23]c

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 6 through 28 of gestation.
b. Excludes values for doe 7776, which delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation).
c. Excludes values that were not recorded, as well as those associated with spillage.
d. Excludes values for does that aborted.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 2 (PAGE 1): CLINICAL OBSERVATIONS - SUMMARY

DOSAGE GROUP	1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a	0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
MAXIMUM POSSIBLE INCIDENCE	750/ 25	750/ 25	748/ 25	750/ 25	750/ 25	748/ 25
MORTALITY	0	0	0	0	0	0
ABORTED AND SACRIFICED	0	0	2b,c	0	0	0
DELIVERED AND SACRIFICED	0	0	0	0	0	1d
LOCALIZED ALOPECIA: TOTAL	15/ 2	5/ 3	4/ 3	6/ 2	9/ 4	2/ 2
LIMBS	14/ 1	2/ 2	1/ 1	6/ 2	7/ 2	1/ 1
BACK	0/ 0	0/ 0	0/ 0	0/ 0	1/ 1	1/ 1
UNDERSIDE	1/ 1	3/ 1	3/ 2	0/ 0	1/ 1	0/ 0
UNGROOMED COAT	0/ 0	0/ 0	2/ 2	14/ 1	5/ 1	3/ 1
SCANT FECES	2/ 1	3/ 2	3/ 2	0/ 0	1/ 1	0/ 0
RED PERIVAGINAL SUBSTANCE	0/ 0	0/ 0	2/ 2b,c	0/ 0	0/ 0	0/ 0
SOFT OR LIQUID FECES	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0
RED PERINASAL SUBSTANCE	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0	0/ 0
RED PERIORAL SUBSTANCE	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0	0/ 0

STATISTICAL ANALYSES OF CLINICAL OBSERVATION DATA WERE RESTRICTED TO THE NUMBER OF RABBITS WITH OBSERVATIONS.
MAXIMUM POSSIBLE INCIDENCE = (DAYS x RABBITS)/NUMBER OF RABBITS EXAMINED PER GROUP ON DAYS 6 THROUGH 29 OF PRESUMED GESTATION.
N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RABBITS WITH OBSERVATION.

a. Dosage occurred on days 6 through 28 of presumed gestation.
b. Doe 7721 aborted on day 28 of gestation.
c. Doe 7724 aborted on day 28 of gestation.
d. Doe 7776 delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation).

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TABLE 3 (PAGE 1): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - SUMMARY

DOSAGE GROUP TARGET DOSAGE (MG/KG/DAY)a		1 0 (CARRIER)	2 0.1	3 1.0	4 10.0	5 30.0	6 100.0
RABBITS TESTED	N	25	25	25	25	25	25
PREGNANT	N	22	24	25	24	24	24
INCLUDED IN ANALYSES	N	22	24	25	24	24	23b
MATERNAL BODY WEIGHT (KG)							
DAY 0	MEAN±S.D.	3.48 ± 0.31	3.54 ± 0.33	3.50 ± 0.34	3.49 ± 0.34	3.52 ± 0.34	3.52 ± 0.33
DAY 6	MEAN±S.D.	3.54 ± 0.34	3.59 ± 0.31	3.58 ± 0.35	3.57 ± 0.36	3.60 ± 0.31	3.61 ± 0.31
DAY 7	MEAN±S.D.	3.57 ± 0.36	3.64 ± 0.34	3.61 ± 0.34	3.59 ± 0.35	3.63 ± 0.32	3.62 ± 0.29
DAY 8	MEAN±S.D.	3.57 ± 0.37	3.63 ± 0.32	3.62 ± 0.32	3.59 ± 0.34	3.61 ± 0.29	3.63 ± 0.28
DAY 9	MEAN±S.D.	3.59 ± 0.36	3.65 ± 0.31	3.63 ± 0.33	3.61 ± 0.33	3.64 ± 0.30	3.66 ± 0.29
DAY 10	MEAN±S.D.	3.62 ± 0.38	3.67 ± 0.30	3.64 ± 0.31	3.63 ± 0.32	3.66 ± 0.29	3.68 ± 0.29
DAY 11	MEAN±S.D.	3.64 ± 0.33	3.68 ± 0.30	3.66 ± 0.32	3.64 ± 0.33	3.68 ± 0.29	3.70 ± 0.28
DAY 12	MEAN±S.D.	3.67 ± 0.32	3.71 ± 0.31	3.70 ± 0.32	3.68 ± 0.33	3.72 ± 0.31	3.74 ± 0.28
DAY 13	MEAN±S.D.	3.69 ± 0.31	3.75 ± 0.32	3.72 ± 0.30	3.72 ± 0.34	3.76 ± 0.29	3.79 ± 0.26 [22]c
DAY 14	MEAN±S.D.	3.74 ± 0.32	3.78 ± 0.32	3.76 ± 0.31	3.74 ± 0.33	3.78 ± 0.30	3.80 ± 0.28
DAY 15	MEAN±S.D.	3.76 ± 0.32	3.82 ± 0.33	3.79 ± 0.31	3.79 ± 0.34	3.81 ± 0.30	3.83 ± 0.29
DAY 16	MEAN±S.D.	3.80 ± 0.31	3.85 ± 0.32	3.81 ± 0.31	3.80 ± 0.33	3.83 ± 0.31	3.86 ± 0.29
DAY 17	MEAN±S.D.	3.79 ± 0.33	3.85 ± 0.34	3.81 ± 0.31	3.82 ± 0.33	3.83 ± 0.30	3.86 ± 0.28
DAY 18	MEAN±S.D.	3.80 ± 0.33	3.86 ± 0.34	3.84 ± 0.31	3.81 ± 0.34	3.84 ± 0.29	3.87 ± 0.28
DAY 19	MEAN±S.D.	3.82 ± 0.32	3.87 ± 0.33	3.85 ± 0.31	3.83 ± 0.34	3.86 ± 0.29	3.89 ± 0.27

DAY = DAY OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 6 through 28 of gestation.
b. Excludes values for doe 7776, which delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation).
c. Excludes a value that appeared incorrectly recorded.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 3 (PAGE 2): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - SUMMARY

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
RABBITS TESTED	N	25	25	25	25	25	25
PREGNANT	N	22	24	25	24	24	24
INCLUDED IN ANALYSES	N	22	24	25	24	24	23b
MATERNAL BODY WEIGHT (KG)							
DAY 20	MEAN±S.D.	3.84 ± 0.32	3.89 ± 0.33	3.86 ± 0.30	3.86 ± 0.35	3.89 ± 0.29	3.92 ± 0.28
DAY 21	MEAN±S.D.	3.86 ± 0.32	3.91 ± 0.35	3.88 ± 0.29	3.87 ± 0.36	3.90 ± 0.28	3.93 ± 0.28
DAY 22	MEAN±S.D.	3.88 ± 0.33	3.93 ± 0.33	3.90 ± 0.28	3.90 ± 0.35	3.95 ± 0.28	3.96 ± 0.28
DAY 23	MEAN±S.D.	3.90 ± 0.33	3.95 ± 0.33	3.92 ± 0.28	3.94 ± 0.36	3.97 ± 0.27	3.99 ± 0.28
DAY 24	MEAN±S.D.	3.92 ± 0.33	3.98 ± 0.33	3.94 ± 0.29	3.96 ± 0.37	4.00 ± 0.29	4.02 ± 0.27
DAY 25	MEAN±S.D.	3.94 ± 0.34	4.00 ± 0.32	3.96 ± 0.28	3.99 ± 0.36	4.02 ± 0.30	4.06 ± 0.28
DAY 26	MEAN±S.D.	3.94 ± 0.30	4.01 ± 0.34	3.95 ± 0.29	4.01 ± 0.36	4.02 ± 0.29	4.07 ± 0.26
DAY 27	MEAN±S.D.	3.96 ± 0.33	4.01 ± 0.31	3.95 ± 0.29	4.01 ± 0.36	4.03 ± 0.28	4.07 ± 0.26
DAY 28	MEAN±S.D.	3.98 ± 0.34	4.04 ± 0.32	3.93 ± 0.35	4.03 ± 0.38	4.06 ± 0.27	4.08 ± 0.24
DAY 29	MEAN±S.D.	4.01 ± 0.36	4.06 ± 0.32	4.00 ± 0.28 [23]c	4.06 ± 0.37	4.07 ± 0.28	4.09 ± 0.25
GRAVID UTERINE WEIGHTS (G)	MEAN±S.D.	523.7 ± 123.2	501.9 ± 94.0	544.8 ± 100.0 [23]c	522.6 ± 127.0	524.1 ± 97.6	562.0 ± 93.6
DAY 29C d	MEAN±S.D.	3.49 ± 0.33	3.56 ± 0.29	3.45 ± 0.30 [23]c	3.54 ± 0.34	3.55 ± 0.27	3.53 ± 0.25

DAY = DAY OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 6 through 28 of gestation.
b. Excludes values for doe 7776, which delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation).
c. Excludes values for does that aborted.
d. 29C = Corrected maternal body weight (day 29 of gestation body weight minus the gravid uterine weight).

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TABLE 4 (PAGE 1): MATERNAL BODY WEIGHT CHANGES - SUMMARY

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
RABBITS TESTED	N	25	25	25	25	25	25
PREGNANT	N	22	24	25	24	24	24
INCLUDED IN ANALYSES	N	22	24	25	24	24	23b
MATERNAL BODY WEIGHT CHANGE (KG)							
DAYS 0 - 6	MEAN±S.D.	+0.07 ± 0.12	+0.05 ± 0.10	+0.08 ± 0.12	+0.08 ± 0.10	+0.08 ± 0.12	+0.10 ± 0.21
DAYS 6 - 9	MEAN±S.D.	+0.04 ± 0.10	+0.06 ± 0.09	+0.05 ± 0.07	+0.04 ± 0.06	+0.04 ± 0.08	+0.04 ± 0.14
DAYS 9 - 12	MEAN±S.D.	+0.08 ± 0.11	+0.06 ± 0.06	+0.06 ± 0.07	+0.07 ± 0.07	+0.08 ± 0.09	+0.08 ± 0.04
DAYS 12 - 15	MEAN±S.D.	+0.09 ± 0.05	+0.11 ± 0.05	+0.09 ± 0.05	+0.10 ± 0.05	+0.09 ± 0.08	+0.10 ± 0.04
DAYS 15 - 19	MEAN±S.D.	+0.06 ± 0.06	+0.05 ± 0.05	+0.06 ± 0.04	+0.05 ± 0.07	+0.04 ± 0.05	+0.06 ± 0.06
DAYS 19 - 24	MEAN±S.D.	+0.10 ± 0.08	+0.12 ± 0.06	+0.09 ± 0.09	+0.13 ± 0.07	+0.14 ± 0.06	+0.13 ± 0.06
DAYS 24 - 29	MEAN±S.D.	+0.09 ± 0.13	+0.08 ± 0.10	+0.05 ± 0.13 [23]c	+0.10 ± 0.10	+0.08 ± 0.10	+0.06 ± 0.09
DAYS 6 - 19	MEAN±S.D.	+0.28 ± 0.10	+0.27 ± 0.10	+0.27 ± 0.09	+0.26 ± 0.07	+0.25 ± 0.11	+0.27 ± 0.14
DAYS 19 - 29	MEAN±S.D.	+0.19 ± 0.15	+0.20 ± 0.13	+0.14 ± 0.20 [23]c	+0.23 ± 0.11	+0.22 ± 0.11	+0.20 ± 0.11
DAYS 6 - 29	MEAN±S.D.	+0.46 ± 0.19	+0.47 ± 0.15	+0.41 ± 0.23 [23]c	+0.49 ± 0.13	+0.47 ± 0.17	+0.47 ± 0.22
DAYS 0 - 29	MEAN±S.D.	+0.53 ± 0.20	+0.52 ± 0.16	+0.48 ± 0.28 [23]c	+0.57 ± 0.17	+0.56 ± 0.20	+0.57 ± 0.20
DAYS 6 - 29C d	MEAN±S.D.	-0.06 ± 0.19	-0.03 ± 0.16	-0.13 ± 0.24 [23]c	-0.03 ± 0.17	-0.05 ± 0.20	-0.09 ± 0.20
DAYS 0 - 29C d	MEAN±S.D.	+0.01 ± 0.20	+0.02 ± 0.18	-0.06 ± 0.28 [23]c	+0.05 ± 0.21	+0.03 ± 0.22	+0.01 ± 0.20

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 6 through 28 of gestation.
b. Excludes values for doe 7776, which delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation).
c. Excludes values for does that aborted.
d. 29C = Corrected maternal body weight (day 29 of gestation body weight minus the gravid uterine weight).

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TABLE 5 (PAGE 1): MATERNAL ABSOLUTE WATER CONSUMPTION VALUES (G/DAY) - SUMMARY

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
RABBITS TESTED	N	25	25	25	25	25	25
PREGNANT	N	22	24	25	24	24	24
INCLUDED IN ANALYSES	N	22	24	25	24	24	23b
MATERNAL WATER CONSUMPTION (G/DAY)							
DAYS 6 - 9	MEAN±S.D.	320.4 ± 97.5	306.1 ± 78.0	308.2 ± 80.9 [24]c	312.5 ± 57.2 [23]c	343.6 ± 76.0 [21]c	357.4 ± 85.7 [23]c
DAYS 9 - 12	MEAN±S.D.	346.6 ± 81.9	316.4 ± 80.9 [23]c	300.5 ± 92.4	345.1 ± 95.4	344.7 ± 75.8	355.1 ± 78.6 [23]c
DAYS 12 - 15	MEAN±S.D.	387.4 ± 81.0 [21]c	371.8 ± 87.7	318.4 ± 81.3*	343.9 ± 81.1 [23]c	376.4 ± 72.5	374.5 ± 83.5 [22]c
DAYS 15 - 19	MEAN±S.D.	398.0 ± 83.4 [20]c	378.4 ± 84.7 [23]c	352.8 ± 97.6	367.0 ± 87.0 [21]c	380.8 ± 70.5 [23]c	376.5 ± 77.9 [23]c
DAYS 19 - 24	MEAN±S.D.	403.0 ± 72.9 [21]c	375.0 ± 89.5	338.5 ± 96.7	383.9 ± 88.0 [23]c	397.5 ± 79.4	376.5 ± 75.2 [21]c
DAYS 24 - 29	MEAN±S.D.	322.6 ± 82.5 [19]c	314.5 ± 76.9	284.1 ±108.4 [22]c,d	343.0 ± 98.7	328.5 ± 96.0	310.0 ± 79.6 [23]c
DAYS 6 - 19	MEAN±S.D.	360.4 ± 66.2 [20]c	347.4 ± 75.2 [23]c	324.1 ± 82.0	338.1 ± 74.9 [21]c	359.8 ± 62.1 [23]c	363.9 ± 70.2 [23]c
DAYS 19 - 29	MEAN±S.D.	361.1 ± 69.0 [19]c	344.5 ± 75.5	309.4 ± 97.4 [22]c,d	366.0 ± 88.4	364.3 ± 84.1	345.4 ± 71.0 [23]c
DAYS 6 - 29	MEAN±S.D.	355.6 ± 60.1 [19]c	345.0 ± 69.6	314.0 ± 85.0 [22]c,d	358.1 ± 78.6	363.2 ± 66.9	355.9 ± 66.7 [23]c

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 6 through 28 of gestation.
b. Excludes values for doe 7776, which delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation).
c. Excludes values that were not recorded, as well as those associated with spillage.
d. Excludes values for does that aborted.
* Significantly different from the control group value ($p \leq 0.05$).

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TABLE 6 (PAGE 1): MATERNAL RELATIVE WATER CONSUMPTION VALUES (G/KG/DAY) - SUMMARY

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
RABBITS TESTED	N	25	25	25	25	25	25
PREGNANT	N	22	24	25	24	24	24
INCLUDED IN ANALYSES	N	22	24	25	24	24	23b
MATERNAL WATER CONSUMPTION (G/KG/DAY)							
DAYS 6 - 9	MEAN±S.D.	89.7 ± 30.0	84.8 ± 22.6	86.8 ± 25.5 [24]c	87.4 ± 17.7 [23]c	96.9 ± 23.0 [23]c	99.1 ± 25.9
DAYS 9 - 12	MEAN±S.D.	96.6 ± 25.8	85.7 ± 19.7 [23]c	83.4 ± 28.6	95.7 ± 28.4	94.1 ± 21.5	96.7 ± 22.8
DAYS 12 - 15	MEAN±S.D.	105.1 ± 25.0 [21]c	99.2 ± 23.3	86.0 ± 24.5	92.4 ± 23.0 [23]c	100.7 ± 22.4	99.7 ± 24.4 [22]c
DAYS 15 - 19	MEAN±S.D.	106.0 ± 25.1 [20]c	98.4 ± 22.8 [23]c	93.0 ± 26.4	97.3 ± 25.6 [21]c	99.8 ± 20.8 [23]c	98.0 ± 21.5
DAYS 19 - 24	MEAN±S.D.	105.5 ± 22.8 [21]c	95.9 ± 23.1	87.7 ± 26.9	99.4 ± 24.4 [23]c	101.8 ± 22.3	94.9 ± 19.0 [21]c
DAYS 24 - 29	MEAN±S.D.	82.7 ± 22.4 [19]c	78.5 ± 19.2	71.4 ± 26.8 [22]c,d	85.4 ± 23.6	81.5 ± 23.5	76.8 ± 21.5
DAYS 6 - 19	MEAN±S.D.	98.7 ± 21.3 [20]c	92.9 ± 20.4 [23]c	88.2 ± 24.5	92.6 ± 24.1 [21]c	96.9 ± 18.9 [23]c	97.6 ± 20.9
DAYS 19 - 29	MEAN±S.D.	93.8 ± 20.6 [19]c	87.2 ± 19.3	79.0 ± 25.7 [22]c,d	92.9 ± 22.3	91.9 ± 21.9	86.7 ± 19.2
DAYS 6 - 29	MEAN±S.D.	95.6 ± 19.9 [19]c	90.2 ± 18.2	83.1 ± 24.2 [22]c,d	94.6 ± 22.2	95.1 ± 19.0	92.6 ± 19.2

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 6 through 28 of gestation.
b. Excludes values for doe 7776, which delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation).
c. Excludes values that were not recorded, as well as those associated with spillage.
d. Excludes values for does that aborted.

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TABLE 7 (PAGE 1): MATERNAL ABSOLUTE FEED CONSUMPTION VALUES (G/DAY) - SUMMARY

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
RABBITS TESTED	N	25	25	25	25	25	25
PREGNANT	N	22	24	25	24	24	24
INCLUDED IN ANALYSES	N	22	24	25	24	24	23b
MATERNAL FEED CONSUMPTION (G/DAY)							
DAYS 6 - 9	MEAN±S.D.	166.8 ± 37.0	172.2 ± 20.5 [23]c	169.6 ± 22.6	175.7 ± 17.4	180.2 ± 5.9	178.4 ± 9.6
DAYS 9 - 12	MEAN±S.D.	169.6 ± 23.2 [20]c	168.5 ± 25.0	161.7 ± 29.2	172.1 ± 21.6 [23]c	176.4 ± 15.7	176.4 ± 13.7
DAYS 12 - 15	MEAN±S.D.	166.6 ± 24.4	169.3 ± 21.9	155.3 ± 31.9	167.2 ± 22.9	173.5 ± 24.7	165.3 ± 26.3
DAYS 15 - 19	MEAN±S.D.	178.6 ± 8.6 [20]c	172.2 ± 15.5	170.3 ± 22.8	175.7 ± 14.1 [23]c	173.3 ± 27.4	169.4 ± 20.6
DAYS 19 - 24	MEAN±S.D.	167.4 ± 24.4	162.2 ± 25.2 [23]c	156.9 ± 31.6 [24]c	172.4 ± 18.7	174.4 ± 12.1	172.3 ± 16.6 [22]c
DAYS 24 - 29	MEAN±S.D.	132.1 ± 46.9	136.5 ± 39.5	120.6 ± 41.0 [23]d	146.2 ± 33.9	137.1 ± 39.6	132.5 ± 33.3
DAYS 6 - 19	MEAN±S.D.	170.3 ± 16.5 [20]c	170.8 ± 16.0	164.7 ± 21.0	172.6 ± 16.0 [23]c	175.7 ± 17.3	172.2 ± 12.9
DAYS 19 - 29	MEAN±S.D.	149.5 ± 32.5	149.7 ± 28.7	137.6 ± 33.2 [23]d	159.2 ± 22.6	155.8 ± 23.3	152.2 ± 21.5
DAYS 6 - 29	MEAN±S.D.	161.4 ± 20.2	161.6 ± 19.7	152.9 ± 22.7 [23]d	167.0 ± 16.4	167.0 ± 15.8	163.6 ± 14.8

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 6 through 28 of gestation.
b. Excludes values for doe 7776, which delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation).
c. Excludes values that were associated with spillage, soiled or wet feed.
d. Excludes values for does that aborted.

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

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
RABBITS TESTED	N	25	25	25	25	25	25
PREGNANT	N	22	24	25	24	24	24
INCLUDED IN ANALYSES	N	22	24	25	24	24	23b
MATERNAL FEED CONSUMPTION (G/KG/DAY)							
DAYS 6 - 9	MEAN±S.D.	46.7 ± 11.4	47.8 ± 7.0 [23]c	47.4 ± 8.1	49.4 ± 7.3	50.1 ± 4.6	49.4 ± 4.7
DAYS 9 - 12	MEAN±S.D.	46.5 ± 7.1 [20]c	46.0 ± 7.1	44.7 ± 9.8	47.2 ± 6.7 [23]c	48.2 ± 5.0	48.0 ± 5.2
DAYS 12 - 15	MEAN±S.D.	45.2 ± 7.8	45.2 ± 6.5	42.0 ± 9.9	45.1 ± 7.4	46.4 ± 7.7	43.9 ± 7.7
DAYS 15 - 19	MEAN±S.D.	47.3 ± 4.6 [20]c	45.0 ± 5.6	44.9 ± 7.2	46.2 ± 5.1 [23]c	45.4 ± 7.8	44.0 ± 6.0
DAYS 19 - 24	MEAN±S.D.	43.5 ± 7.1	41.6 ± 6.9 [23]c	40.5 ± 9.1 [24]c	44.4 ± 5.0	44.6 ± 4.6	44.0 ± 4.6 [22]c
DAYS 24 - 29	MEAN±S.D.	33.4 ± 11.7	34.1 ± 9.9	30.3 ± 10.1 [23]d	36.3 ± 7.7	34.0 ± 9.8	32.8 ± 9.0
DAYS 6 - 19	MEAN±S.D.	46.4 ± 5.7 [20]c	45.9 ± 5.4	44.7 ± 7.6	46.7 ± 5.8 [23]c	47.3 ± 5.8	46.1 ± 4.9
DAYS 19 - 29	MEAN±S.D.	38.4 ± 8.5	37.8 ± 7.4	35.1 ± 8.8 [23]d	40.3 ± 5.1	39.3 ± 6.3	38.2 ± 6.2
DAYS 6 - 29	MEAN±S.D.	42.9 ± 6.1	42.3 ± 5.8	40.4 ± 7.2 [23]d	44.0 ± 4.8	43.7 ± 5.1	42.6 ± 5.1

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 6 through 28 of gestation.
b. Excludes values for doe 7776, which delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation).
c. Excludes values that were associated with spillage, soiled or wet feed.
d. Excludes values for does that aborted.

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TABLE 9 (PAGE 1): NECROPSY OBSERVATIONS - SUMMARY

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
RABBITS EXAMINED b	N	25	25	25	25	25	25
MORTALITY	N	0	0	0	0	0	0
ABORTED	N	0	0	2c,d	0	0	0
DELIVERED	N	0	0	0	0	0	1e
APPEARED NORMAL	N	25	25	24c	25	25	25e
LIVER:							
ALL LOBES, MOTTLED	N	0	0	1d	0	0	0

a. Dosage occurred on days 6 through 28 of presumed gestation.
b. Refer to the individual clinical observations table (Table 20) for external observations confirmed at necropsy.
c. Doe 7721 aborted on day 28 of gestation.
d. Doe 7724 aborted on day 28 of gestation.
e. Doe 7776 delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation).

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TABLE 10 (PAGE 1): UTERINE CONTENTS AND LITTER DATA FOR THE INDIVIDUAL RABBITS THAT ABORTED OR DELIVERED

DOSAGE GROUP TARGET DOSAGE (MG/KG/DAY)b	RABBIT NUMBER	DAY OF DEATH	CORPORA LUTEA R	CORPORA LUTEA L	CORPORA LUTEA T	IMPLANTATIONS R	IMPLANTATIONS L	IMPLANTATIONS T	FETUSES/PUPS R	FETUSES/PUPS L	FETUSES/PUPS A/D	FETUSES/PUPS T	RESORPTIONS a R	RESORPTIONS a L	RESORPTIONS a A/D	RESORPTIONS a T
1 0 (CARRIER)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2 0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3 1.0	7721	ABORTED ON DAY 28 OF GESTATION	7	5	12	7	5	12	0	0	2c	2	0	0	10LR	10LR
	7724	ABORTED ON DAY 28 OF GESTATION	4	4	8	4	4	8	0	0	0	0	2LR	4(3LR)	2LR	8(7LR)
4 10.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5 30.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6 100.0	7776	DELIVERED ON DAY 27 OF GESTATION	5	4	9	5	4	9	0	0	0	9d	0	0	0	0

R = RIGHT L = LEFT T = TOTAL A = ABORTED D = DELIVERED

a. Early resorptions, unless noted otherwise.
b. Dosage occurred on days 6 through 28 of gestation.
c. Two dead pups, appeared normal for developmental ages.
d. Pups appeared to be day 31 of developmental age.

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TABLE 11 (PAGE 1): TERMINAL BODY WEIGHTS AND THYROID WEIGHTS AND RATIOS (%) OF THYROID WEIGHT TO TERMINAL BODY WEIGHT - SUMMARY

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
RABBITS TESTED	N	25	25	25	25	25	25
PREGNANT	N	22	24	25	24	24	24
INCLUDED IN ANALYSES	N	22	23b	23c	23b	24	23c
TERMINAL BODY WEIGHT	MEAN±S.D.	4010.7 ± 363.4	4075.6 ± 316.4	3998.0 ± 283.7	4074.2 ± 378.2	4074.9 ± 277.9	4088.3 ± 249.2
THYROID	MEAN±S.D.	0.463 ± 0.091	0.444 ± 0.101	0.435 ± 0.114	0.430 ± 0.088	0.390 ± 0.081	0.398 ± 0.082
THYROID (% TBW)	MEAN±S.D.	0.010 ± 0.002	0.010 ± 0.002	0.011 ± 0.003	0.010 ± 0.000	0.010 ± 0.000	0.010 ± 0.002

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

a. Dosage occurred on days 6 through 28 of gestation.

b. Excludes values for rats that had organs damaged (weight affected) or the thyroid weight was not recorded.

c. Excludes values for does that aborted or delivered.

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TABLE 12 (PAGE 1): THYROID HORMONE ANALYSES - SUMMARY

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
RABBITS TESTED	N	25	25	25	25	25	25
PREGNANT	N	22	24	25	24	24	24
INCLUDED IN ANALYSES	N	22	24	23b	24	24	23c
TOTAL T3 (ng/dL)	MEAN±S.D.	138.93 ± 43.40	134.31 ± 34.01	110.21 ± 37.4	127.61 ± 32.6	123.89 ± 42.81	126.28 ± 50.87
TOTAL T4 (µg/dL)	MEAN±S.D.	1.92 ± 0.86	1.99 ± 0.83	1.47 ± 0.75	1.52 ± 0.50	1.44 ± 0.66*	1.18 ± 0.58**
TSH (ng/mL)	MEAN±S.D.	2.11 ± 0.32	2.04 ± 0.34	1.97 ± 0.53	2.00 ± 0.26	1.94 ± 0.21	2.09 ± 0.39

a. Dosage occurred on days 6 through 28 of gestation.
b. Excludes values for does that aborted.
c. Excludes values for doe 7776, which delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation).
* Significantly different from the control group value ($p \leq 0.05$).
** Significantly different from the control group value ($p \leq 0.01$).

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TABLE 13 (PAGE 1): CAESAREAN-SECTIONING OBSERVATIONS - SUMMARY

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
RABBITS TESTED	N	25	25	25	25	25	25
PREGNANT	N(%)	22(88.0)	24(96.0)	25(100.0)	24(96.0)	24(96.0)	24(96.0)
ABORTED AND SACRIFICED	N(%)	0(0.0)	0(0.0)	2(8.0)	0(0.0)	0(0.0)	0(0.0)
DELIVERED AND SACRIFICED	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(4.2)
RABBITS PREGNANT AND CAESAREAN-SECTIONED ON DAY 29 OF GESTATION	N	22	24	23	24	24	23
CORPORA LUTEA	MEAN±S.D.	9.0 ± 2.3	9.5 ± 1.8	9.3 ± 2.1	9.2 ± 2.0	9.8 ± 2.0	10.2 ± 1.8
IMPLANTATIONS	MEAN±S.D.	8.4 ± 2.4	8.3 ± 2.1	8.7 ± 2.1	8.6 ± 2.3	8.2 ± 2.1	9.3 ± 2.1
LITTER SIZES	MEAN±S.D.	8.2 ± 2.5	7.7 ± 1.9	8.5 ± 1.7	8.1 ± 2.2	7.9 ± 2.0	9.0 ± 2.0
LIVE FETUSES	N	180	184	196	195	189	206
	MEAN±S.D.	8.2 ± 2.5	7.7 ± 1.9	8.5 ± 1.7	8.1 ± 2.2	7.9 ± 2.0	9.0 ± 2.0
DEAD FETUSES	N	0	1	0	0	0	0
	MEAN±S.D.	0.0 ± 0.0	0.0 ± 0.2	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0
RESORPTIONS	MEAN±S.D.	0.2 ± 0.6	0.6 ± 1.0	0.2 ± 0.6	0.5 ± 0.8	0.3 ± 0.6	0.3 ± 0.7
EARLY RESORPTIONS	N	1	5	0	10	3	4
	MEAN±S.D.	0.0 ± 0.2	0.2 ± 0.4	0.0 ± 0.0	0.4 ± 0.7	0.1 ± 0.3	0.2 ± 0.5
LATE RESORPTIONS	N	4	9	4	2	4	4
	MEAN±S.D.	0.2 ± 0.5	0.4 ± 0.8	0.2 ± 0.6	0.1 ± 0.3	0.2 ± 0.4	0.2 ± 0.5
DOES WITH ANY RESORPTIONS	N(%)	3(13.6)	8(33.3)	2(8.7)	8(33.3)	5(20.8)	5(21.7)
DOES WITH ALL CONCEPTUSES DEAD OR RESORBED	N	0	0	0	0	0	0
DOES WITH VIABLE FETUSES	N(%)	22(100.0)	24(100.0)	23(100.0)	24(100.0)	24(100.0)	23(100.0)
PLACENTAE APPEARED NORMAL	N(%)	22(100.0)	24(100.0)	23(100.0)	24(100.0)	24(100.0)	23(100.0)

a. Dosage occurred on days 6 through 28 of gestation.

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TABLE 14 (PAGE 1): LITTER OBSERVATIONS (CAESAREAN-DELIVERED FETUSES) - SUMMARY

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
LITTERS WITH ONE OR MORE LIVE FETUSES	N	22	24	23	24	24	23
IMPLANTATIONS	MEAN±S.D.	8.4 ± 2.4	8.3 ± 2.1	8.7 ± 2.1	8.6 ± 2.3	8.2 ± 2.1	9.3 ± 2.1
LIVE FETUSES	N	180	184	196	195	189	206
	MEAN±S.D.	8.2 ± 2.5	7.7 ± 1.9	8.5 ± 1.7	8.1 ± 2.2	7.9 ± 2.0	9.0 ± 2.0
LIVE MALE FETUSES	N	91	97	98	112	95	104
% LIVE MALE FETUSES/LITTER	MEAN±S.D.	50.5 ± 19.4	51.2 ± 16.8	48.8 ± 19.1	58.1 ± 20.3	49.4 ± 14.8	50.5 ± 16.5
LIVE FETAL BODY WEIGHTS (GRAMS)/LITTER	MEAN±S.D.	45.50 ± 5.71	44.82 ± 5.29	44.31 ± 4.53	45.27 ± 4.38	46.09 ± 5.12	43.74 ± 4.64
MALE FETUSES	MEAN±S.D.	45.70 ± 5.81 [21]b	44.85 ± 5.18 [23]c	44.97 ± 5.52 [22]d	46.04 ± 4.56	46.54 ± 5.48	44.08 ± 5.59
FEMALE FETUSES	MEAN±S.D.	44.90 ± 5.88	44.43 ± 5.22	43.74 ± 4.11	43.96 ± 4.61 [23]e	45.83 ± 5.57	43.80 ± 4.46
% DEAD OR RESORBED CONCEPTUSES/LITTER	MEAN±S.D.	3.2 ± 9.4	6.8 ± 10.0	1.3 ± 4.7	6.7 ± 12.1	3.2 ± 7.2	3.3 ± 6.6

[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 6 through 28 of gestation.
b. Litter 7663 had no male fetuses.
c. Litter 7695 had no male fetuses.
d. Litter 7716 had no male fetuses.
e. Litter 7736 had no female fetuses.

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TABLE 15 (PAGE 1): FETAL ALTERATIONS - SUMMARY

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
LITTERS EVALUATED	N	22	24	23	24	24	23
FETUSES EVALUATED	N	180	185	196	195	189	206
LIVE	N	180	184	196	195	189	206
DEAD	N	0	1b	0	0	0	0
LITTERS WITH FETUSES WITH ANY ALTERATION OBSERVED	N(%)	15(68.2)	13(54.2)	11(47.8)	13(54.2)	13(54.2)	16(69.5)
FETUSES WITH ANY ALTERATION OBSERVED	N(%)	35(19.4)	24(13.0)	19(9.7)	25(12.8)	22(11.6)	29(14.1)
% FETUSES WITH ANY ALTERATION/LITTER	MEAN±S.D.	19.8 ± 21.5	13.5 ± 15.3	9.3 ± 11.9	16.0 ± 22.7	11.1 ± 13.4	14.0 ± 11.9

a. Dosage occurred on days 6 through 28 of gestation.
b. Dead fetus was excluded from group averages and statistical analyses; adverse observations for this conceptus are cited on Table 28.

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TABLE 16 (PAGE 1): FETAL GROSS EXTERNAL ALTERATIONS - SUMMARY
(See footnotes on the last page of this table.)

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
LITTERS EVALUATED	N	22	24	23	24	24	23
FETUSES EVALUATED	N	180	185	196	195	189	206
LIVE	N	180	184	196	195	189	206
DEAD	N	0	1b	0	0	0	0
BODY: UMBILICAL HERNIA							
LITTER INCIDENCE	N(%)	1(4.5)	0(0.0)	1(4.3)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(0.6)	0(0.0)	1(0.5)	0(0.0)	0(0.0)	0(0.0)
TONGUE: PROTRUDES							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(4.3)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(0.5)c
HEAD: SNOUT SHORT							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(4.3)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(0.5)c
HEAD: NARES ABSENT							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(4.3)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(0.5)c
HEAD: FLESHY PROTRUSION							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(4.3)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(0.5)c
HEAD: SKIN CLOSURE DEFECT							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(4.3)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(0.5)c
PAPILLA: ABSENT							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(4.3)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(0.5)c
EYES: BULGE DEPRESSED							
LITTER INCIDENCE	N(%)	1(4.5)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(4.3)
FETAL INCIDENCE	N(%)	1(0.6)d	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(0.5)c

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TABLE 16 (PAGE 2): FETAL GROSS EXTERNAL ALTERATIONS - SUMMARY

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
LITTERS EVALUATED	N	22	24	23	24	24	23
FETUSES EVALUATED	N	180	185	196	195	189	206
LIVE	N	180	184	196	195	189	206
DEAD	N	0	1b	0	0	0	0
FORE AND/OR HINDPAWS: FLEXED							
LITTER INCIDENCE	N(%)	1(4.5)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(0.6)d	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
HINDPAW: DIGITS, SHORT							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	1(4.3)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	1(0.5)	0(0.0)	0(0.0)	0(0.0)
BODY: ABDOMINAL DISTENSION							
LITTER INCIDENCE	N(%)	1(4.5)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(0.6)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)

a. Dosage occurred on days 6 through 28 of gestation.
b. Dead fetus was excluded from group averages and statistical analyses; adverse observations for this conceptus are cited on Table 28.
c. Fetus 7778-4 had other gross external alterations.
d. Fetus 7656-11 had other gross external alterations.

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TABLE 17 (PAGE 1): FETAL SOFT TISSUE ALTERATIONS - SUMMARY
(See footnotes on the last page of this table.)

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
LITTERS EVALUATED	N	22	24	23	24	24	23
FETUSES EVALUATED	N	180	185	196	195	189	206
LIVE	N	180	184	196	195	189	206
DEAD	N	0	1b	0	0	0	0
HEART: VENTRICULAR SEPTUM ABSENT							
LITTER INCIDENCE	N(%)	0(0.0)	1(4.2)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(0.5)d	0(0.0)	0(0.0)	0(0.0)	0(0.0)
HEART: LARGE							
LITTER INCIDENCE	N(%)	1(4.5)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(0.6)c	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
VESSELS: COMMON TRUNCUS							
LITTER INCIDENCE	N(%)	0(0.0)	1(4.2)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(0.5)d	0(0.0)	0(0.0)	0(0.0)	0(0.0)
LUNGS: INTERMEDIATE LOBE ABSENT							
LITTER INCIDENCE	N(%)	1(4.5)	1(4.2)	3(13.0)	0(0.0)	2(8.3)	1(4.3)
FETAL INCIDENCE	N(%)	1(0.6)	1(0.5)	3(1.5)	0(0.0)	2(1.0)	1(0.5)
LIVER: LARGE							
LITTER INCIDENCE	N(%)	1(4.5)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(0.6)c	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
INTESTINES: PROTRUDING							
LITTER INCIDENCE	N(%)	1(4.5)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(0.6)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
GALLBLADDER: ABSENT							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	2(8.7)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	2(1.0)

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TABLE 17 (PAGE 2): FETAL SOFT TISSUE ALTERATIONS - SUMMARY
(See footnotes on the last page of this table.)

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
LITTERS EVALUATED	N	22	24	23	24	24	23
HEADS EVALUATED f	N	86	84	92	91	88	100
EYES: FOLDED RETINA							
LITTER INCIDENCE	N(%)	6(27.3)	1(4.2)	4(17.4)	4(16.7)	3(12.5)	3(13.0)
FETAL INCIDENCE	N(%)	11(12.8)	1(1.2)**	4(4.3)**	5(5.5)**	5(5.7)**	4(4.0)**
EYES: CLOSE SET							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(4.3)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(1.0)e
EYES: DISORGANIZED							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(4.3)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(1.0)e
NASAL PASSAGES: ABSENT							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(4.3)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(1.0)e
BRAIN: LATERAL VENTRICLES, MODERATE DILATION							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(4.3)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(1.0)
BRAIN: SMALL							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(4.3)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(1.0)e

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 17 (PAGE 3): FETAL SOFT TISSUE ALTERATIONS - SUMMARY

FOOTNOTES:

a. Dosage occurred on days 6 through 28 of gestation.
b. Dead fetus was excluded from group averages and statistical analyses; adverse observations for this conceptus are cited on Table 28.
c. Fetus 7672-1 had other soft tissue alterations.
d. Fetus 7682-8 had other soft tissue alterations.
e. Fetus 7778-4 had other soft tissue alterations.
f. Approximately one-half of the fetuses in each litter had a single cross-section made between the parietal and frontal bones.
** Significantly different from the control group value ($p \leq 0.01$).

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 18 (PAGE 1): FETAL SKELETAL ALTERATIONS - SUMMARY
(See footnotes on the last page of this table.)

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
LITTERS EVALUATED	N	22	24	23	24	24	23
HEADS EVALUATED n	N	94	100	104	104	101	106
SKULL - IRREGULAR OSSIFICATION:c (SUMMARIZATION OF ALL IRREGULAR OSSIFICATION OF THE SKULL d; INDIVIDUAL SUBCATEGORIES CITED BELOW)							
LITTER INCIDENCE	N(%)	5(22.7)	4(16.7)	2(8.7)	3(12.5)	1(4.2)	2(8.7)
FETAL INCIDENCE	N(%)	6(6.4)	4(4.0)	2(1.9)	4(3.8)	1(1.0)	2(1.9)
SKULL: NASAL(S), IRREGULAR OSSIFICATION (SUMMARIZATION OF INTERNASAL AND MIDLINE SUTURE DISPLACED)							
LITTER INCIDENCE	N(%)	2(9.1)	3(12.5)	0(0.0)	3(12.5)	1(4.2)	1(4.3)
FETAL INCIDENCE	N(%)	3(3.2)	3(3.0)	0(0.0)	4(3.8)	1(1.0)	1(0.9)
SKULL: NASALS, CONTAINED AN INTERNASAL							
LITTER INCIDENCE	N(%)	1(4.5)	1(4.2)	0(0.0)	1(4.2)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	2(2.1)	1(1.0)	0(0.0)	1(1.0)	0(0.0)	0(0.0)
SKULL: NASALS, MIDLINE SUTURE DISPLACED							
LITTER INCIDENCE	N(%)	1(4.5)	2(8.3)	0(0.0)	3(12.5)	1(4.2)	1(4.3)
FETAL INCIDENCE	N(%)	1(1.1)	2(2.0)	0(0.0)	3(2.9)	1(1.0)	1(0.9)
SKULL: FRONTAL(S), IRREGULAR OSSIFICATION (SUMMARIZATION OF INTERFRONTAL; IRREGULAR SUTURE; INCOMPLETELY OSSIFIED AND FUSED)							
LITTER INCIDENCE	N(%)	3(13.6)	1(4.2)	2(8.7)	0(0.0)	0(0.0)	1(4.3)
FETAL INCIDENCE	N(%)	3(3.2)	1(1.0)	2(1.9)	0(0.0)	0(0.0)	1(0.9)
SKULL: FRONTALS, CONTAINED AN INTERFRONTAL							
LITTER INCIDENCE	N(%)	2(9.1)	0(0.0)	1(4.3)	0(0.0)	0(0.0)	1(4.3)
FETAL INCIDENCE	N(%)	2(2.1)	0(0.0)	1(1.0)	0(0.0)	0(0.0)	1(0.9)
SKULL: FRONTALS, IRREGULAR SUTURE							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	1(4.3)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	1(1.0)	0(0.0)	0(0.0)	0(0.0)

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 18 (PAGE 2): FETAL SKELETAL ALTERATIONS - SUMMARY
(See footnotes on the last page of this table.)

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
LITTERS EVALUATED	N	22	24	23	24	24	23
HEADS EVALUATED n	N	94	100	104	104	101	106
SKULL: FRONTALS, INCOMPLETELY OSSIFIED							
LITTER INCIDENCE	N(%)	1(4.5)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(1.1)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
SKULL: FRONTALS, FUSED							
LITTER INCIDENCE	N(%)	0(0.0)	1(4.2)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(1.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
SKULL: PARIETALS, IRREGULAR SUTURE							
LITTER INCIDENCE	N(%)	0(0.0)	1(4.2)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(1.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
SKULL: PARIETALS, INCOMPLETELY OSSIFIED							
LITTER INCIDENCE	N(%)	1(4.5)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(1.1)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
SKULL - OTHER ALTERATIONS:c							
SKULL: POSTERIOR FONTANELLE, LARGE							
LITTER INCIDENCE	N(%)	0(0.0)	1(4.2)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(1.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
SKULL: EYE, SOCKET SMALL							
LITTER INCIDENCE	N(%)	1(4.5)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(1.1)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
HYOID: ALA, ANGULATED							
LITTER INCIDENCE	N(%)	4(18.2)	2(8.3)	1(4.3)	3(12.5)	3(12.5)	2(8.7)
FETAL INCIDENCE	N(%)	4(4.2)	2(2.0)	1(1.0)	3(2.9)	3(3.0)	2(1.9)m

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TABLE 18 (PAGE 3): FETAL SKELETAL ALTERATIONS - SUMMARY
(See footnotes on the last page of this table.)

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
LITTERS EVALUATED	N	22	24	23	24	24	23
FETUSES EVALUATED	N	180	185	196	195	189	206
LIVE	N	180	184	196	195	189	206
DEAD	N	0	1b	0	0	0	0
CERVICAL VERTEBRAE: CENTRUM, UNILATERAL OSSIFICATION							
LITTER INCIDENCE	N(%)	1(4.5)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(0.6)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
CERVICAL VERTEBRAE: CERVICAL RIB PRESENT AT 7TH CERVICAL VERTEBRA							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0((0.0)	1(4.3)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(0.5)
CERVICAL VERTEBRAE: ARCH, SMALL							
LITTER INCIDENCE	N(%)	0(0.0)	1(4.2)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(0.5)f	0(0.0)	0(0.0)	0(0.0)	0(0.0)
THORACIC VERTEBRAE: ARCHES, FUSED							
LITTER INCIDENCE	N(%)	1(4.5)	1(4.2)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(0.6)	2(1.1)f,g	0(0.0)	0(0.0)	0(0.0)	0(0.0)
THORACIC VERTEBRAE: HEMIVERTEBRA							
LITTER INCIDENCE	N(%)	0(0.0)	1(4.2)	0(0.0)	1(4.2)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	2(1.1)e,f	0(0.0)	1(0.5)j	0(0.0)	0(0.0)
THORACIC VERTEBRAE: ARCH, SMALL							
LITTER INCIDENCE	N(%)	0(0.0)	1(4.2)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(0.5)f	0(0.0)	0(0.0)	0(0.0)	0(0.0)
THORACIC VERTEBRAE: CENTRA, FUSED							
LITTER INCIDENCE	N(%)	0(0.0)	1(4.2)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(0.5)f	0(0.0)	0(0.0)	0(0.0)	0(0.0)
THORACIC VERTEBRAE: CENTRUM, UNILATERAL OSSIFICATION							
LITTER INCIDENCE	N(%)	0(0.0)	1(4.2)	0(0.0)	0(0.0)	0(0.0)	1(4.3)
FETAL INCIDENCE	N(%)	0(0.0)	1(0.5)f	0(0.0)	0(0.0)	0(0.0)	1(0.5)l

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TABLE 18 (PAGE 4): FETAL SKELETAL ALTERATIONS - SUMMARY
(See footnotes on the last page of this table.)

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
LITTERS EVALUATED	N	22	24	23	24	24	23
FETUSES EVALUATED	N	180	185	196	195	189	206
LIVE	N	180	184	196	195	189	206
DEAD	N	0	1b	0	0	0	0
CAUDAL VERTEBRAE: MISALIGNED							
LITTER INCIDENCE	N(%)	1(4.5)	0(0.0)	1(4.3)	0(0.0)	1(4.2)	1(4.3)
FETAL INCIDENCE	N(%)	1(0.6)	0(0.0)	1(0.5)	0(0.0)	1(0.5)	1(0.5)
CAUDAL VERTEBRAE: FUSED							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(4.3)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(0.5)
RIBS: THICKENED							
LITTER INCIDENCE	N(%)	1(4.5)	0(0.0)	1(4.3)	1(4.2)	1(4.2)	1(4.3)
FETAL INCIDENCE	N(%)	1(0.6)	0(0.0)	1(0.5)	1(0.5)	1(0.5)	1(0.5)
RIBS: SPLIT							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	1(4.2)	0(0.0)	1(4.3)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	1(0.5)j	0(0.0)	1(0.5)
RIBS: FUSED							
LITTER INCIDENCE	N(%)	0(0.0)	1(4.2)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	3(1.6)e,f,g**	0(0.0)	0(0.0)	0(0.0)	0(0.0)

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TABLE 18 (PAGE 5): FETAL SKELETAL ALTERATIONS - SUMMARY
(See footnotes on the last page of this table.)

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
LITTERS EVALUATED	N	22	24	23	24	24	23
FETUSES EVALUATED	N	180	185	196	195	189	206
LIVE	N	180	184	196	195	189	206
DEAD	N	0	1b	0	0	0	0
RIBS: NOT OSSIFIED							
LITTER INCIDENCE	N(%)	0(0.0)	1(4.2)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(0.5)f	0(0.0)	0(0.0)	0(0.0)	0(0.0)
RIBS: 12 PRESENT							
LITTER INCIDENCE	N(%)	0(0.0)	1(4.2)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(0.5)f	0(0.0)	0(0.0)	0(0.0)	0(0.0)
RIBS: SMALL							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(4.3)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(0.5)l
STERNAL CENTRA: 1ST, INCOMPLETELY OSSIFIED							
LITTER INCIDENCE	N(%)	0(0.0)	2(8.3)	0(0.0)	1(4.2)	3(12.5)	1(4.3)
FETAL INCIDENCE	N(%)	0(0.0)	2(1.1)g*	0(0.0)	1(0.5)	5(2.6)**	1(0.5)
STERNAL CENTRA: ASYMMETRIC							
LITTER INCIDENCE	N(%)	0(0.0)	2(8.3)	0(0.0)	0(0.0)	1(4.2)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	2(1.1)h	0(0.0)	0(0.0)	1(0.5)k	0(0.0)
STERNAL CENTRA: FUSED							
LITTER INCIDENCE	N(%)	2(9.1)	6(25.0)	2(8.7)	4(16.7)	3(12.5)	7(30.4)
FETAL INCIDENCE	N(%)	8(4.4)	10(5.4)h	2(1.0)i	10(5.1)	5(2.6)k	10(4.8)m
SCAPULAE: MISALIGNED							
LITTER INCIDENCE	N(%)	1(4.5)	0(0.0)	4(17.4)	0(0.0)	1(4.2)	2(8.7)
FETAL INCIDENCE	N(%)	1(0.6)	0(0.0)	5(2.6)i**	0(0.0)	1(0.5)	2(1.0)
HINDPAW: PHALANGES, ABSENT							
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	1(4.3)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	1(0.5)	0(0.0)	0(0.0)	0(0.0)

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TABLE 18 (PAGE 6): FETAL SKELETAL ALTERATIONS - SUMMARY

FOOTNOTES:

a. Dosage occurred on days 6 through 28 of gestation.
b. Dead fetus was excluded from group averages and statistical analyses. Observations for this conceptus are cited on Table 28.
c. Fetuses with alterations of the skull and/or hyoid are not separately identified in this summary table, except when alterations of other ossification sites were also present.
d. Includes all alterations noted for the skull except hyoid, ala(e), angulated, and eye socket, small. These categories are excluded because these alterations do not result from irregular ossification.
e. Fetus 7682-3 had other skeletal alterations.
f. Fetus 7682-8 had other skeletal alterations.
g. Fetus 7682-10 had other skeletal alterations.
h. Fetus 7697-3 had other skeletal alterations.
i. Fetus 7717-9 had other skeletal alterations.
j. Fetus 7735-1 had other skeletal alterations.
k. Fetus 7773-10 had other skeletal alterations.
l. Fetus 7778-3 had other skeletal alterations.
m. Fetus 7784-3 had other skeletal alterations.
n. Approximately one-half of the fetuses in each litter had a single cross-section made between the parietal and frontal bones.
** Significantly different from the control group value ($p \leq 0.01$).

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TABLE 19 (PAGE 1): FETAL OSSIFICATION SITES - CAESAREAN-DELIVERED LIVE FETUSES (DAY 29 OF GESTATION) - SUMMARY

DOSAGE GROUP		1	2	3	4	5	6
TARGET DOSAGE (MG/KG/DAY)a		0 (CARRIER)	0.1	1.0	10.0	30.0	100.0
LITTERS EXAMINED	N	22	24	23	24	24	23
FETUSES EXAMINED	N	180	184	196	195	189	206
OSSIFICATION SITES PER FETUS PER LITTER							
HYOID	MEAN±S.D.	1.00 ± 0.00	1.00 ± 0.00	0.99 ± 0.04	1.00 ± 0.00	1.00 ± 0.00	1.00 ± 0.00
VERTEBRAE							
CERVICAL	MEAN±S.D.	7.00 ± 0.00	7.00 ± 0.00	7.00 ± 0.00	7.00 ± 0.00	7.00 ± 0.00	7.00 ± 0.00
THORACIC	MEAN±S.D.	12.61 ± 0.23	12.71 ± 0.27	12.59 ± 0.32	12.68 ± 0.28	12.58 ± 0.30	12.73 ± 0.18
LUMBAR	MEAN±S.D.	6.38 ± 0.23	6.29 ± 0.27	6.40 ± 0.32	6.31 ± 0.28	6.41 ± 0.31	6.26 ± 0.18
SACRAL	MEAN±S.D.	3.00 ± 0.00	3.00 ± 0.00	3.00 ± 0.00	3.00 ± 0.00	3.00 ± 0.00	3.00 ± 0.00
CAUDAL	MEAN±S.D.	16.92 ± 0.32	17.01 ± 0.37	16.75 ± 0.63	17.04 ± 0.37	16.94 ± 0.33	17.02 ± 0.29
RIBS (PAIRS)	MEAN±S.D.	12.56 ± 0.22	12.61 ± 0.27	12.52 ± 0.31	12.61 ± 0.28	12.53 ± 0.30	12.63 ± 0.21
STERNUM							
MANUBRIUM	MEAN±S.D.	1.00 ± 0.00	1.00 ± 0.00	1.00 ± 0.00	1.00 ± 0.00	1.00 ± 0.00	1.00 ± 0.00
STERNAL CENTERS	MEAN±S.D.	3.96 ± 0.08	3.97 ± 0.09	3.95 ± 0.07	3.95 ± 0.11	3.97 ± 0.06	4.00 ± 0.04
XIPHOID	MEAN±S.D.	0.99 ± 0.05	0.97 ± 0.07	0.97 ± 0.08	1.00 ± 0.02	0.98 ± 0.06	0.97 ± 0.08
FORELIMB b							
CARPALS	MEAN±S.D.	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00
METACARPALS	MEAN±S.D.	4.98 ± 0.06	5.00 ± 0.02	4.98 ± 0.06	5.00 ± 0.00	4.98 ± 0.07	4.99 ± 0.03
DIGITS	MEAN±S.D.	5.00 ± 0.00	5.00 ± 0.00	5.00 ± 0.00	5.00 ± 0.00	5.00 ± 0.00	5.00 ± 0.00
PHALANGES	MEAN±S.D.	13.85 ± 0.25	13.95 ± 0.11	13.93 ± 0.13	13.98 ± 0.06	13.93 ± 0.15	13.92 ± 0.19
HINDLIMB b							
TARSALS	MEAN±S.D.	2.00 ± 0.00	2.00 ± 0.00	2.00 ± 0.00	2.00 ± 0.00	2.00 ± 0.00	2.00 ± 0.00
METATARSALS	MEAN±S.D.	4.00 ± 0.00	4.00 ± 0.00	4.00 ± 0.00	4.00 ± 0.00	4.00 ± 0.00	4.00 ± 0.00
DIGITS	MEAN±S.D.	4.00 ± 0.00	4.00 ± 0.00	4.00 ± 0.00	4.00 ± 0.00	4.00 ± 0.00	4.00 ± 0.00
PHALANGES	MEAN±S.D.	11.99 ± 0.05	12.00 ± 0.00	11.99 ± 0.04	12.00 ± 0.00	12.00 ± 0.00	12.00 ± 0.02

a. Dosage occurred on days 6 through 28 of gestation.
b. Calculated as average per limb.

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TABLE 20 (PAGE 1): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP 1		0 (CARRIER) MG/KG/DAY
RABBIT #		DESCRIPTION
7651		NO ADVERSE FINDINGS
7652		NO ADVERSE FINDINGS
7653		NO ADVERSE FINDINGS
7654		NO ADVERSE FINDINGS
7655		NO ADVERSE FINDINGS
7656		NO ADVERSE FINDINGS
7657		NO ADVERSE FINDINGS
7658		NO ADVERSE FINDINGS
7659		NO ADVERSE FINDINGS
7660		NO ADVERSE FINDINGS
7661		NO ADVERSE FINDINGS
7662		NO ADVERSE FINDINGS
7663	DG(16- 29)	LOCALIZED ALOPECIA: LIMBS a
7664		NO ADVERSE FINDINGS
7665		NO ADVERSE FINDINGS
7666		NO ADVERSE FINDINGS
7667		NO ADVERSE FINDINGS
7668		NO ADVERSE FINDINGS
7669	DG(29)	LOCALIZED ALOPECIA: UNDERSIDE a
7670		NO ADVERSE FINDINGS
7671		NO ADVERSE FINDINGS
7672		NO ADVERSE FINDINGS
7673	DG(9- 10)	SCANT FECES
7674		NO ADVERSE FINDINGS
7675		NO ADVERSE FINDINGS

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

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TABLE 20 (PAGE 2): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP 2		0.1 MG/KG/DAY
RABBIT #		DESCRIPTION
7676	DG(28)	SCANT FECES
7677	DG(28- 29)	SCANT FECES
7678		NO ADVERSE FINDINGS
7679	DG(27- 29)	LOCALIZED ALOPECIA: UNDERSIDE a
7680		NO ADVERSE FINDINGS
7681		NO ADVERSE FINDINGS
7682		NO ADVERSE FINDINGS
7683	DG(29)	LOCALIZED ALOPECIA: LIMBS a
7684	DG(29)	LOCALIZED ALOPECIA: LIMBS a
7685		NO ADVERSE FINDINGS
7686		NO ADVERSE FINDINGS
7687		NO ADVERSE FINDINGS
7688		NO ADVERSE FINDINGS
7689		NO ADVERSE FINDINGS
7690		NO ADVERSE FINDINGS
7691		NO ADVERSE FINDINGS
7692		NO ADVERSE FINDINGS
7693		NO ADVERSE FINDINGS
7694		NO ADVERSE FINDINGS
7695	DG(19)	RED PERINASAL SUBSTANCE
	DG(19)	RED PERIORAL SUBSTANCE
7696		NO ADVERSE FINDINGS
7697		NO ADVERSE FINDINGS
7698		NO ADVERSE FINDINGS
7699		NO ADVERSE FINDINGS
7700		NO ADVERSE FINDINGS

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

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TABLE 20 (PAGE 3): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP 3 1.0 MG/KG/DAY

RABBIT #		DESCRIPTION
7701		NO ADVERSE FINDINGS
7702	DG(29)	UNGROOMED COAT a
	DG(29)	SOFT OR LIQUID FECES
7703	DG(29)	UNGROOMED COAT a
7704		NO ADVERSE FINDINGS
7705	DG(29)	LOCALIZED ALOPECIA: LIMBS a
7706		NO ADVERSE FINDINGS
7707	DG(12)	SCANT FECES
7708		NO ADVERSE FINDINGS
7709		NO ADVERSE FINDINGS
7710		NO ADVERSE FINDINGS
7711		NO ADVERSE FINDINGS
7712		NO ADVERSE FINDINGS
7713	DG(28- 29)	LOCALIZED ALOPECIA: UNDERSIDE a
7714		NO ADVERSE FINDINGS
7715		NO ADVERSE FINDINGS
7716		NO ADVERSE FINDINGS
7717		NO ADVERSE FINDINGS
7718		NO ADVERSE FINDINGS
7719		NO ADVERSE FINDINGS
7720		NO ADVERSE FINDINGS
7721	DG(28)	RED PERIVAGINAL SUBSTANCE a
	DG(28)	ABORTED AND SACRIFICED
7722		NO ADVERSE FINDINGS
7723	DG(9- 10)	SCANT FECES
7724	DG(28)	RED PERIVAGINAL SUBSTANCE a
	DG(28)	ABORTED AND SACRIFICED
7725	DG(29)	LOCALIZED ALOPECIA: UNDERSIDE a

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

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TABLE 20 (PAGE 4): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP 4 10.0 MG/KG/DAY

RABBIT #		DESCRIPTION
7726		NO ADVERSE FINDINGS
7727		NO ADVERSE FINDINGS
7728		NO ADVERSE FINDINGS
7729	DG(25- 29)	LOCALIZED ALOPECIA: LIMBS a
7730		NO ADVERSE FINDINGS
7731		NO ADVERSE FINDINGS
7732	DG(11- 24)	UNGROOMED COAT
7733	DG(29)	LOCALIZED ALOPECIA: LIMBS a
7734		NO ADVERSE FINDINGS
7735		NO ADVERSE FINDINGS
7736		NO ADVERSE FINDINGS
7737		NO ADVERSE FINDINGS
7738		NO ADVERSE FINDINGS
7739		NO ADVERSE FINDINGS
7740		NO ADVERSE FINDINGS
7741		NO ADVERSE FINDINGS
7742		NO ADVERSE FINDINGS
7743		NO ADVERSE FINDINGS
7744		NO ADVERSE FINDINGS
7745		NO ADVERSE FINDINGS
7746		NO ADVERSE FINDINGS
7747		NO ADVERSE FINDINGS
7748		NO ADVERSE FINDINGS
7749		NO ADVERSE FINDINGS
7750		NO ADVERSE FINDINGS

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

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TABLE 20 (PAGE 5): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP 5		30.0 MG/KG/DAY
RABBIT #		DESCRIPTION
7751		NO ADVERSE FINDINGS
7752		NO ADVERSE FINDINGS
7753	DG(18)	SCANT FECES
	DG(29)	LOCALIZED ALOPECIA: UNDERSIDE a
7754		NO ADVERSE FINDINGS
7755		NO ADVERSE FINDINGS
7756		NO ADVERSE FINDINGS
7757		NO ADVERSE FINDINGS
7758		NO ADVERSE FINDINGS
7759		NO ADVERSE FINDINGS
7760		NO ADVERSE FINDINGS
7761		NO ADVERSE FINDINGS
7762		NO ADVERSE FINDINGS
7763		NO ADVERSE FINDINGS
7764		NO ADVERSE FINDINGS
7765		NO ADVERSE FINDINGS
7766		NO ADVERSE FINDINGS
7767		NO ADVERSE FINDINGS
7768	DG(29)	LOCALIZED ALOPECIA: BACK a
7769	DG(24- 29)	LOCALIZED ALOPECIA: LIMBS a
7770		NO ADVERSE FINDINGS
7771		NO ADVERSE FINDINGS
7772		NO ADVERSE FINDINGS
7773	DG(29)	LOCALIZED ALOPECIA: LIMBS a
7774		NO ADVERSE FINDINGS
7775	DG(25- 29)	UNGROOMED COAT a

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

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TABLE 20 (PAGE 6): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP 6		100.0 MG/KG/DAY
RABBIT #		DESCRIPTION
7776	DG(27)	DELIVERED AND SACRIFICED
7777		NO ADVERSE FINDINGS
7778		NO ADVERSE FINDINGS
7779	DG(27- 29)	UNGROOMED COAT a
	DG(29)	LOCALIZED ALOPECIA: LIMBS a
7780		NO ADVERSE FINDINGS
7781		NO ADVERSE FINDINGS
7782		NO ADVERSE FINDINGS
7783		NO ADVERSE FINDINGS
7784		NO ADVERSE FINDINGS
7785		NO ADVERSE FINDINGS
7786		NO ADVERSE FINDINGS
7787		NO ADVERSE FINDINGS
7788		NO ADVERSE FINDINGS
7789		NO ADVERSE FINDINGS
7790		NO ADVERSE FINDINGS
7791		NO ADVERSE FINDINGS
7792		NO ADVERSE FINDINGS
7793		NO ADVERSE FINDINGS
7794		NO ADVERSE FINDINGS
7795		NO ADVERSE FINDINGS
7796		NO ADVERSE FINDINGS
7797		NO ADVERSE FINDINGS
7798	DG(29)	LOCALIZED ALOPECIA: BACK a
7799		NO ADVERSE FINDINGS
7800		NO ADVERSE FINDINGS

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

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TABLE 21 (PAGE 1): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	6	7	8	9	10	11	12	13	14	15	16	17
RABBIT #	DOSAGE GROUP 1						0 (CARRIER) MG/KG/DAY						
7651 P	3.77	3.78	3.78	3.82	3.79	3.86	3.85	3.86	3.77	3.89	3.90	4.00	3.93
7652 P	4.02	4.03	4.15	4.14	4.15	4.19	4.14	4.22	4.25	4.28	4.29	4.31	4.33
7653 NP	4.13	4.15	4.11	4.22	4.19	4.21	4.18	4.22	4.24	4.32	4.28	4.22	4.21
7654 P	3.62	3.70	3.81	3.76	3.78	3.80	3.81	3.87	3.88	3.91	3.94	4.00	4.02
7655 P	3.64	3.81	3.82	3.86	3.87	3.84	3.81	3.83	3.87	3.94	3.93	3.96	3.99
7656 P	3.35	3.76	3.54	3.52	3.57	3.60	3.65	3.75	3.77	3.79	3.79	3.81	3.82
7657 P	3.22	3.45	3.38	3.41	3.40	3.46	3.38	3.44	3.51	3.46	3.49	3.53	3.54
7658 P	3.53	3.62	3.63	3.62	3.61	3.63	3.70	3.71	3.74	3.76	3.81	3.81	3.76
7659 P	3.46	3.45	3.51	3.54	3.58	3.61	3.62	3.70	3.67	3.80	3.86	3.89	3.83
7660 NP	3.26	3.36	3.35	3.40	3.44	3.51	3.53	3.55	3.57	3.60	3.63	3.66	3.66
7661 P	4.05	4.08	4.14	4.11	4.06	4.10	4.15	4.13	4.08	4.10	4.15	4.19	4.27
7662 P	3.12	3.06	3.11	3.12	3.17	3.15	3.25	3.24	3.28	3.33	3.39	3.44	3.37
7663 P	3.57	3.72	3.76	3.78	3.80	3.90	3.90	3.91	3.97	4.05	4.09	4.07	4.05
7664 P	3.33	3.30	3.31	3.34	3.34	3.32	3.36	3.41	3.41	3.50	3.50	3.53	3.49
7665 P	3.02	3.15	3.10	3.10	3.14	3.15	3.11	3.17	3.25	3.26	3.25	3.27	3.30
7666 P	3.18	3.27	3.33	3.32	3.34	3.42	3.42	3.44	3.47	3.46	3.48	3.52	3.49
7667 P	3.52	3.56	3.60	3.60	3.65	3.67	3.66	3.72	3.74	3.78	3.80	3.83	3.84
7668 P	3.05	3.05	3.19	3.16	3.21	3.25	3.24	3.26	3.29	3.33	3.34	3.38	3.38
7669 P	3.60	3.74	3.80	3.84	3.86	3.93	3.95	3.94	3.95	4.02	4.07	4.05	4.14
7670 P	3.69	3.77	3.85	3.82	3.82	3.85	3.83	3.85	3.99	4.00	3.97	4.01	4.05
7671 NP	3.21	3.35	3.38	3.38	3.42	3.43	3.42	3.53	3.50	3.63	3.67	3.70	3.66
7672 P	3.36	3.35	3.41	3.40	3.50	3.48	3.42	3.44	3.46	3.48	3.57	3.58	3.57
7673 P	3.05	2.83	2.74	2.66	2.60	2.55	3.02	3.10	3.14	3.27	3.28	3.30	3.26
7674 P	3.39	3.54	3.56	3.59	3.68	3.68	3.61	3.60	3.60	3.61	3.62	3.75	3.72
7675 P	3.98	3.98	4.04	4.06	4.09	4.15	4.10	4.15	4.19	4.27	4.28	4.26	4.24

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G), ROUNDED TO THREE SIGNIFICANT DIGITS AND REPORTED IN KILOGRAMS (KG).
ALL CALCULATIONS EXCEPT BODY WEIGHT AVERAGES ARE PERFORMED WITH THE UNROUNDED GRAM (G) VALUE.
BODY WEIGHT AVERAGES ARE CALCULATED WITH THE ROUNDED KILOGRAM (KG) VALUE.

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TABLE 21 (PAGE 2): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 18	19	20	21	22	23	24	25	26	27	28	29
RABBIT #	DOSAGE GROUP 1						0 (CARRIER) MG/KG/DAY					
7651 P	3.94	3.93	3.95	3.97	4.00	4.02	4.03	4.05	4.06	4.08	4.11	4.17
7652 P	4.29	4.28	4.31	4.32	4.36	4.40	4.28	4.24	4.18	4.20	4.21	4.28
7653 NP	4.19	4.21	4.25	4.26	4.13	4.18	4.22	4.28	4.32	4.32	4.36	4.37
7654 P	4.06	4.07	4.07	4.07	4.11	4.17	4.21	4.25	4.27	4.25	4.24	4.31
7655 P	4.00	4.01	4.05	4.07	4.14	4.13	4.09	4.06	4.02	3.96	3.86	4.05
7656 P	3.83	3.86	3.86	3.87	3.95	3.98	4.01	3.98	3.97	4.02	3.96	4.03
7657 P	3.58	3.59	3.71	3.68	3.68	3.72	3.70	3.68	3.81	3.78	3.77	3.69
7658 P	3.85	3.88	3.89	3.93	3.91	3.94	3.91	3.92	3.97	4.02	4.11	4.14
7659 P	3.85	3.87	3.84	3.91	3.96	3.92	4.02	4.08	3.91	3.91	4.16	4.15
7660 NP	3.70	3.74	3.75	3.76	3.80	3.80	3.80	3.81	3.81	3.90	3.88	3.95
7661 P	4.29	4.28	4.30	4.33	4.36	4.30	4.28	4.34	4.31	4.37	4.41	4.34
7662 P	3.39	3.51	3.48	3.50	3.54	3.56	3.61	3.68	3.72	3.75	3.82	3.79
7663 P	4.07	4.08	4.06	4.10	4.11	4.13	4.20	4.26	4.19	4.35	4.42	4.44
7664 P	3.52	3.56	3.56	3.60	3.61	3.64	3.67	3.71	3.77	3.83	3.79	3.89
7665 P	3.27	3.30	3.34	3.34	3.36	3.42	3.44	3.46	3.51	3.58	3.59	3.60
7666 P	3.51	3.51	3.50	3.51	3.42	3.36	3.34	3.28	3.39	3.44	3.55	3.54
7667 P	3.83	3.84	3.81	3.83	3.69	3.82	3.96	3.96	4.06	3.99	4.01	4.09
7668 P	3.27	3.32	3.37	3.39	3.46	3.43	3.44	3.50	3.56	3.45	3.53	3.56
7669 P	4.11	4.11	4.14	4.15	4.16	4.17	4.22	4.24	4.25	4.30	4.34	4.41
7670 P	4.02	4.08	4.11	4.13	4.14	4.25	4.32	4.33	4.35	4.45	4.50	4.57
7671 NP	3.68	3.71	3.69	3.77	3.79	3.85	3.84	3.94	3.86	3.92	3.88	3.92
7672 P	3.58	3.62	3.63	3.68	3.73	3.72	3.72	3.75	3.66	3.60	3.53	3.46
7673 P	3.28	3.28	3.28	3.32	3.36	3.36	3.43	3.41	3.43	3.38	3.34	3.32
7674 P	3.75	3.83	3.84	3.85	3.85	3.91	3.95	3.97	3.89	3.86	3.88	3.92
7675 P	4.27	4.31	4.30	4.34	4.38	4.41	4.45	4.47	4.42	4.46	4.47	4.49

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION.
ALL WEIGHTS WERE RECORDED IN GRAMS (G), ROUNDED TO THREE SIGNIFICANT DIGITS AND REPORTED IN KILOGRAMS (KG).
ALL CALCULATIONS EXCEPT BODY WEIGHT AVERAGES ARE PERFORMED WITH THE UNROUNDED GRAM (G) VALUE.
BODY WEIGHT AVERAGES ARE CALCULATED WITH THE ROUNDED KILOGRAM (KG) VALUE.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 21 (PAGE 3): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - INDIVIDUAL DATA

	GRAVID UTERINE WEIGHT (G)
RABBIT #	DOSAGE GROUP 1 0 (CARRIER) MG/KG/DAY
7651	253.7
7652	561.0
7653	NOT PREGNANT
7654	527.7
7655	587.4
7656	509.1
7657	347.7
7658	402.1
7659	431.3
7660	NOT PREGNANT
7661	527.2
7662	637.0
7663	540.1
7664	538.1
7665	521.5
7666	426.8
7667	536.5
7668	460.7
7669	642.7
7670	764.9
7671	NOT PREGNANT
7672	526.8
7673	471.3
7674	495.8
7675	811.6

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 21 (PAGE 4): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	6	7	8	9	10	11	12	13	14	15	16	17
RABBIT #	DOSAGE GROUP 2						0.1 MG/KG/DAY						
7676 P	3.71	3.74	3.84	3.89	3.87	3.85	3.83	3.90	3.97	4.04	4.11	4.09	4.06
7677 P	3.97	3.87	3.92	3.95	3.94	4.02	4.02	4.02	4.05	4.08	4.12	4.17	4.21
7678 P	3.73	3.76	3.80	3.74	3.77	3.81	3.82	3.90	3.95	3.97	4.00	4.03	4.03
7679 P	4.05	4.07	4.16	4.08	4.07	4.08	4.14	4.15	4.18	4.25	4.32	4.40	4.45
7680 P	3.84	3.85	4.03	3.94	3.94	3.91	3.92	3.99	4.16	4.12	4.23	4.24	4.31
7681 P	3.05	3.10	3.06	3.05	3.06	3.08	3.12	3.05	3.22	3.23	3.21	3.52	3.29
7682 P	3.62	3.62	3.79	3.69	3.71	3.73	3.76	3.82	3.86	3.90	3.90	3.96	4.02
7683 P	4.23	4.20	4.37	4.33	4.38	4.24	4.28	4.32	4.43	4.44	4.45	4.54	4.52
7684 P	3.45	3.54	3.55	3.56	3.62	3.62	3.65	3.68	3.55	3.70	3.75	3.77	3.78
7685 P	3.52	3.76	3.66	3.78	3.74	3.74	3.72	3.81	3.86	3.91	3.94	3.92	4.00
7686 P	3.12	3.32	3.30	3.34	3.38	3.38	3.35	3.35	3.40	3.36	3.46	3.47	3.50
7687 P	3.56	3.90	3.64	3.65	3.69	3.81	3.76	3.94	3.84	3.93	3.98	3.99	3.94
7688 P	3.28	3.34	3.38	3.41	3.53	3.52	3.54	3.56	3.52	3.59	3.61	3.64	3.69
7689 P	3.39	3.39	3.39	3.39	3.37	3.36	3.46	3.47	3.48	3.53	3.57	3.58	3.58
7690 P	3.18	3.26	3.26	3.21	3.29	3.31	3.33	3.36	3.44	3.48	3.48	3.45	3.51
7691 P	4.01	3.99	4.17	4.09	4.07	4.09	4.13	4.12	4.20	4.23	4.30	4.26	4.27
7692 P	3.49	3.53	3.57	3.59	3.58	3.62	3.62	3.63	3.71	3.72	3.75	3.79	3.78
7693 P	3.67	3.67	3.71	3.67	3.70	3.74	3.75	3.83	3.86	3.89	3.91	3.96	3.89
7694 P	3.11	3.19	3.32	3.35	3.29	3.32	3.33	3.38	3.42	3.42	3.43	3.54	3.51
7695 P	3.34	3.29	3.33	3.36	3.37	3.42	3.40	3.40	3.43	3.45	3.48	3.51	3.50
7696 P	3.26	3.23	3.30	3.29	3.29	3.34	3.31	3.40	3.41	3.41	3.45	3.46	3.50
7697 P	3.82	3.96	3.94	3.91	3.92	3.97	3.91	3.91	3.96	3.97	3.99	3.95	3.91
7698 P	3.19	3.29	3.39	3.44	3.52	3.58	3.54	3.54	3.54	3.56	3.62	3.63	3.64
7699 P	3.43	3.38	3.45	3.45	3.47	3.49	3.51	3.51	3.52	3.54	3.56	3.58	3.61
7700 NP	2.93	3.14	3.22	3.29	3.29	3.33	3.37	3.32	3.18	3.32	3.37	3.38	3.35

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G), ROUNDED TO THREE SIGNIFICANT DIGITS AND REPORTED IN KILOGRAMS (KG).
ALL CALCULATIONS EXCEPT BODY WEIGHT AVERAGES ARE PERFORMED WITH THE UNROUNDED GRAM (G) VALUE.
BODY WEIGHT AVERAGES ARE CALCULATED WITH THE ROUNDED KILOGRAM (KG) VALUE.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 21 (PAGE 5): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 18	19	20	21	22	23	24	25	26	27	28	29
RABBIT #	DOSAGE GROUP 2						0.1 MG/KG/DAY					
7676 P	4.05	4.05	4.05	4.08	4.08	4.09	4.10	4.02	3.91	3.91	3.84	3.96
7677 P	4.21	4.21	4.20	4.21	4.26	4.27	4.28	4.25	4.24	4.23	4.17	4.09
7678 P	4.05	4.04	4.08	4.11	4.14	4.20	4.22	4.11	4.17	4.15	4.14	4.20
7679 P	4.42	4.39	4.38	4.39	4.38	4.37	4.38	4.39	4.40	4.36	4.41	4.44
7680 P	4.33	4.28	4.31	4.38	4.33	4.37	4.41	4.46	4.51	4.50	4.45	4.54
7681 P	3.27	3.27	3.22	3.23	3.25	3.24	3.30	3.35	3.38	3.40	3.40	3.40
7682 P	4.02	3.97	4.02	4.06	4.09	4.12	4.14	4.16	4.22	4.22	4.25	4.30
7683 P	4.58	4.59	4.61	4.69	4.65	4.70	4.69	4.70	4.77	4.67	4.77	4.79
7684 P	3.79	3.83	3.85	3.82	3.90	3.91	3.96	3.95	4.02	4.00	4.11	4.12
7685 P	3.88	3.93	3.97	3.98	4.06	4.00	4.10	4.08	4.12	4.17	4.16	4.14
7686 P	3.51	3.46	3.59	3.47	3.66	3.64	3.65	3.67	3.62	3.62	3.75	3.78
7687 P	4.04	4.03	4.06	4.10	4.12	4.14	4.07	4.18	4.24	4.20	4.26	4.18
7688 P	3.68	3.70	3.71	3.72	3.75	3.75	3.78	3.82	3.83	3.90	3.90	3.92
7689 P	3.62	3.61	3.62	3.65	3.64	3.70	3.74	3.78	3.74	3.76	3.80	3.79
7690 P	3.51	3.52	3.54	3.54	3.56	3.64	3.66	3.72	3.72	3.84	3.88	3.91
7691 P	4.26	4.26	4.31	4.32	4.33	4.37	4.46	4.48	4.49	4.45	4.52	4.50
7692 P	3.83	3.82	3.86	3.88	3.94	3.95	3.97	4.04	4.11	4.11	4.12	4.17
7693 P	3.91	3.94	3.99	3.99	4.05	4.07	4.15	4.16	4.13	4.18	4.19	4.24
7694 P	3.51	3.54	3.55	3.53	3.58	3.63	3.70	3.69	3.70	3.71	3.70	3.84
7695 P	3.54	3.58	3.57	3.57	3.59	3.59	3.64	3.64	3.74	3.70	3.73	3.79
7696 P	3.53	3.58	3.61	3.64	3.64	3.66	3.67	3.70	3.73	3.72	3.73	3.75
7697 P	3.91	3.92	3.97	3.98	3.88	3.99	4.04	4.08	4.07	4.09	4.12	4.16
7698 P	3.62	3.67	3.74	3.75	3.75	3.78	3.81	3.79	3.72	3.75	3.73	3.76
7699 P	3.65	3.66	3.64	3.67	3.69	3.68	3.71	3.73	3.69	3.71	3.74	3.76
7700 NP	3.34	3.40	3.43	3.39	3.43	3.45	3.48	3.55	3.53	3.54	3.53	3.55

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G), ROUNDED TO THREE SIGNIFICANT DIGITS AND REPORTED IN KILOGRAMS (KG).
ALL CALCULATIONS EXCEPT BODY WEIGHT AVERAGES ARE PERFORMED WITH THE UNROUNDED GRAM (G) VALUE.
BODY WEIGHT AVERAGES ARE CALCULATED WITH THE ROUNDED KILOGRAM (KG) VALUE.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 21 (PAGE 6): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - INDIVIDUAL DATA

	GRAVID UTERINE WEIGHT (G)	
RABBIT #	DOSAGE GROUP 2	0.1 MG/KG/DAY
7676	400.0	
7677	617.1	
7678	633.0	
7679	543.1	
7680	653.5	
7681	478.6	
7682	546.6	
7683	508.0	
7684	596.5	
7685	404.7	
7686	515.8	
7687	514.4	
7688	360.2	
7689	497.5	
7690	564.5	
7691	532.4	
7692	516.1	
7693	569.5	
7694	441.0	
7695	258.5	
7696	596.2	
7697	422.2	
7698	420.1	
7699	456.9	
7700	NOT PREGNANT	

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 21 (PAGE 7): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	6	7	8	9	10	11	12	13	14	15	16	17
RABBIT #	DOSAGE GROUP 3						1.0 MG/KG/DAY						
7701 P	3.76	3.76	3.84	3.85	3.88	3.86	3.84	3.82	3.89	3.89	3.95	3.96	3.98
7702 P	3.86	3.99	4.02	3.99	3.99	3.91	3.95	3.94	3.93	3.97	4.00	4.12	4.06
7703 P	3.74	3.75	3.74	3.73	3.74	3.74	3.76	3.78	3.79	3.83	3.86	3.86	3.84
7704 P	3.46	3.58	3.60	3.63	3.64	3.67	3.71	3.75	3.82	3.81	3.85	3.88	3.88
7705 P	3.50	3.61	3.59	3.57	3.57	3.66	3.66	3.66	3.76	3.77	3.81	3.80	3.82
7706 P	3.60	3.74	3.66	3.70	3.70	3.71	3.73	3.77	3.82	3.78	3.80	3.83	3.86
7707 P	4.04	4.18	4.18	4.17	4.18	4.20	4.18	4.20	4.20	4.25	4.24	4.23	4.14
7708 P	4.24	4.43	4.36	4.36	4.38	4.36	4.44	4.45	4.46	4.53	4.56	4.59	4.61
7709 P	3.24	3.34	3.37	3.35	3.40	3.42	3.44	3.56	3.54	3.54	3.56	3.62	3.63
7710 P	3.72	3.79	3.81	3.83	3.87	3.89	3.94	4.09	3.98	4.03	4.13	4.10	4.08
7711 P	3.36	3.26	3.13	3.26	3.30	3.35	3.38	3.43	3.41	3.41	3.47	3.47	3.50
7712 P	3.14	3.13	3.15	3.20	3.19	3.19	3.24	3.30	3.28	3.31	3.35	3.39	3.37
7713 P	3.15	3.24	3.32	3.37	3.37	3.39	3.41	3.45	3.45	3.51	3.55	3.53	3.49
7714 P	3.57	3.65	3.61	3.63	3.65	3.67	3.68	3.73	3.83	3.86	3.86	3.91	3.95
7715 P	3.01	3.05	3.10	3.16	3.15	3.20	3.23	3.26	3.27	3.32	3.34	3.37	3.36
7716 P	3.44	3.58	3.61	3.64	3.68	3.68	3.72	3.70	3.78	3.80	3.80	3.80	3.84
7717 P	2.93	2.93	3.04	3.05	3.05	3.12	3.12	3.13	3.22	3.22	3.25	3.28	3.23
7718 P	3.09	3.22	3.29	3.36	3.29	3.36	3.37	3.39	3.45	3.47	3.52	3.52	3.52
7719 P	3.35	3.49	3.57	3.52	3.61	3.62	3.62	3.65	3.68	3.74	3.71	3.72	3.74
7720 P	3.82	3.77	3.90	3.88	3.92	3.93	3.98	4.00	3.98	4.08	4.07	4.14	4.14
7721 P	3.22	3.24	3.33	3.36	3.42	3.38	3.41	3.40	3.36	3.47	3.52	3.54	3.55
7722 P	3.58	3.71	3.77	3.73	3.75	3.64	3.51	3.89	3.82	3.86	3.88	3.96	4.03
7723 P	3.16	3.44	3.45	3.48	3.37	3.39	3.40	3.37	3.51	3.59	3.57	3.54	3.67
7724 P	3.44	3.82	3.86	3.86	3.81	3.86	3.74	3.75	3.80	3.85	3.90	3.92	3.90
7725 P	4.04	3.82	3.86	3.86	3.89	3.88	3.98	3.99	4.04	4.07	4.12	4.10	4.17

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G), ROUNDED TO THREE SIGNIFICANT DIGITS AND REPORTED IN KILOGRAMS (KG).
ALL CALCULATIONS EXCEPT BODY WEIGHT AVERAGES ARE PERFORMED WITH THE UNROUNDED GRAM (G) VALUE.
BODY WEIGHT AVERAGES ARE CALCULATED WITH THE ROUNDED KILOGRAM (KG) VALUE.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 21 (PAGE 8): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 18	19	20	21	22	23	24	25	26	27	28	29
RABBIT #	DOSAGE GROUP 3						1.0 MG/KG/DAY					
7701 P	4.01	3.98	3.96	3.96	3.99	4.00	4.00	4.02	3.95	3.94	3.92	3.91
7702 P	4.07	4.08	4.09	4.07	4.09	4.06	4.08	4.14	4.13	4.10	4.12	3.93
7703 P	3.88	3.86	3.82	3.78	3.78	3.79	3.82	3.82	3.82	3.85	3.83	3.82
7704 P	3.95	3.93	3.96	3.97	4.00	4.00	4.05	4.05	4.03	3.98	4.08	4.12
7705 P	3.88	3.87	3.88	3.92	3.92	3.92	3.94	3.96	3.95	3.97	4.01	4.07
7706 P	3.90	3.90	4.00	3.94	4.00	3.99	3.96	4.01	3.98	4.03	4.10	4.03
7707 P	4.23	4.22	4.24	4.24	4.25	4.24	4.28	4.29	4.29	4.33	4.40	4.37
7708 P	4.60	4.65	4.63	4.63	4.64	4.64	4.69	4.67	4.69	4.68	4.74	4.75
7709 P	3.60	3.65	3.64	3.69	3.71	3.71	3.75	3.75	3.81	3.82	3.88	3.88
7710 P	4.15	4.17	4.17	4.22	4.25	4.29	4.30	4.30	4.36	4.37	4.39	4.46
7711 P	3.53	3.55	3.58	3.61	3.60	3.69	3.56	3.61	3.64	3.68	3.69	3.67
7712 P	3.41	3.45	3.44	3.47	3.48	3.52	3.58	3.64	3.70	3.72	3.79	3.78
7713 P	3.54	3.54	3.59	3.66	3.71	3.71	3.78	3.79	3.75	3.84	3.88	3.91
7714 P	3.95	3.98	3.98	4.02	4.04	4.05	4.10	4.16	4.16	4.08	4.06	4.09
7715 P	3.39	3.39	3.40	3.43	3.47	3.51	3.54	3.52	3.49	3.46	3.47	3.50
7716 P	3.82	3.85	3.90	3.91	3.89	3.94	4.04	4.01	4.03	4.06	4.08	4.16
7717 P	3.28	3.28	3.33	3.35	3.41	3.43	3.52	3.55	3.61	3.61	3.67	3.71
7718 P	3.52	3.58	3.58	3.64	3.72	3.72	3.71	3.73	3.75	3.74	3.69	3.74
7719 P	3.76	3.78	3.76	3.83	3.78	3.81	3.77	3.86	3.88	3.91	3.91	3.95
7720 P	4.14	4.12	4.14	4.15	4.16	4.23	4.29	4.32	4.32	4.31	4.29	4.24
7721 P	3.54	3.59	3.62	3.66	3.66	3.67	3.59	3.54	3.40	3.34	2.90	a
7722 P	3.99	3.99	3.98	3.98	4.03	4.09	4.11	4.18	4.20	4.24	4.09	4.19
7723 P	3.76	3.72	3.78	3.75	3.79	3.86	3.90	3.94	3.90	3.90	3.95	3.99
7724 P	3.91	4.01	3.94	3.95	3.98	4.07	4.11	4.14	4.10	3.84	3.63	b
7725 P	4.18	4.21	4.23	4.23	4.20	4.10	4.08	4.04	3.92	3.89	3.79	3.70

P = PREGNANT , NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G), ROUNDED TO THREE SIGNIFICANT DIGITS AND REPORTED IN KILOGRAMS (KG).
ALL CALCULATIONS EXCEPT BODY WEIGHT AVERAGES ARE PERFORMED WITH THE UNROUNDED GRAM (G) VALUE.
BODY WEIGHT AVERAGES ARE CALCULATED WITH THE ROUNDED KILOGRAM (KG) VALUE.
a. Doe 7721 aborted on day 28 of gestation.
b. Doe 7724 aborted on day 28 of gestation.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 21 (PAGE 9): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - INDIVIDUAL DATA

	GRAVID UTERINE WEIGHT (G)
RABBIT #	DOSAGE GROUP 3 1.0 MG/KG/DAY
7701	445.7
7702	462.1
7703	591.6
7704	478.1
7705	575.1
7706	607.9
7707	580.0
7708	517.1
7709	449.5
7710	603.1
7711	532.6
7712	621.9
7713	661.9
7714	663.9
7715	423.0
7716	297.0
7717	576.5
7718	528.0
7719	786.3
7720	527.5
7721	ABORTED ON DAY 28 OF GESTATION
7722	492.1
7723	601.6
7724	ABORTED ON DAY 28 OF GESTATION
7725	508.8

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 21 (PAGE 10): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	6	7	8	9	10	11	12	13	14	15	16	17
RABBIT #	DOSAGE GROUP 4						10.0 MG/KG/DAY						
7726 P	4.05	4.05	4.14	4.09	4.08	4.12	4.14	4.18	4.18	4.21	4.22	4.23	4.28
7727 P	3.72	3.76	3.80	3.81	3.84	3.84	3.84	3.86	3.91	3.91	3.98	3.96	4.00
7728 P	3.99	3.97	3.94	3.91	3.97	3.92	3.88	3.92	3.90	3.98	4.03	4.02	4.00
7729 P	4.14	4.26	4.38	4.29	4.26	4.28	4.32	4.34	4.39	4.40	4.49	4.47	4.50
7730 P	3.83	3.83	3.92	3.83	3.81	3.81	3.78	3.82	3.87	3.90	3.94	3.97	3.98
7731 P	3.26	3.43	3.31	3.34	3.37	3.40	3.43	3.48	3.53	3.56	3.62	3.63	3.65
7732 P	3.44	3.78	3.70	3.68	3.71	3.69	3.74	3.80	3.92	3.93	3.96	3.98	4.00
7733 P	3.61	3.70	3.61	3.71	3.74	3.68	3.71	3.76	3.84	3.84	3.87	3.97	3.99
7734 P	3.34	3.46	3.48	3.48	3.52	3.54	3.56	3.62	3.62	3.66	3.73	3.72	3.72
7735 P	3.47	3.46	3.50	3.51	3.51	3.54	3.59	3.62	3.68	3.67	3.69	3.68	3.70
7736 P	3.53	3.66	3.71	3.66	3.74	3.63	3.68	3.75	3.79	3.78	3.76	3.80	3.88
7737 P	3.14	3.14	3.20	3.19	3.20	3.24	3.26	3.31	3.34	3.38	3.40	3.41	3.43
7738 P	3.16	3.17	3.19	3.22	3.26	3.27	3.28	3.36	3.36	3.40	3.45	3.46	3.46
7739 NP	3.55	3.45	3.54	3.62	3.62	3.63	3.67	3.77	3.70	3.70	3.71	3.72	3.76
7740 P	2.93	2.94	3.04	3.06	3.05	3.09	3.06	3.07	3.04	3.08	3.11	3.16	3.09
7741 P	3.61	3.72	3.75	3.71	3.74	3.74	3.82	3.81	3.82	3.92	3.96	3.97	3.98
7742 P	3.54	3.55	3.66	3.66	3.67	3.68	3.70	3.75	3.86	3.86	3.91	3.85	3.79
7743 P	3.44	3.36	3.42	3.34	3.38	3.42	3.43	3.54	3.57	3.56	3.59	3.57	3.67
7744 P	2.99	2.97	3.02	3.04	3.07	3.09	3.12	3.07	3.15	3.20	3.24	3.27	3.35
7745 P	3.20	3.16	3.21	3.22	3.23	3.28	3.32	3.33	3.37	3.41	3.42	3.44	3.50
7746 P	3.24	3.43	3.42	3.44	3.59	3.60	3.56	3.68	3.69	3.76	3.80	3.81	3.82
7747 P	3.73	3.87	3.84	3.87	3.75	3.83	3.97	3.98	4.02	3.75	3.98	4.08	4.08
7748 P	3.37	3.59	3.61	3.63	3.66	3.72	3.71	3.79	3.83	3.85	3.85	3.85	3.86
7749 P	3.06	3.31	3.28	3.33	3.40	3.43	3.30	3.34	3.35	3.44	3.51	3.50	3.49
7750 P	4.02	4.13	4.03	4.17	4.18	4.21	4.20	4.27	4.29	4.37	4.38	4.39	4.39

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G), ROUNDED TO THREE SIGNIFICANT DIGITS AND REPORTED IN KILOGRAMS (KG).
ALL CALCULATIONS EXCEPT BODY WEIGHT AVERAGES ARE PERFORMED WITH THE UNROUNDED GRAM (G) VALUE.
BODY WEIGHT AVERAGES ARE CALCULATED WITH THE ROUNDED KILOGRAM (KG) VALUE.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 21 (PAGE 11): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - INDIVIDUAL DATA

RABBIT #	PREGNANCY STATUS	DAY 18	19	20	21	22	23	24	25	26	27	28	29
		DOSAGE GROUP 4						10.0 MG/KG/DAY					
7726	P	4.34	4.33	4.38	4.41	4.45	4.51	4.53	4.52	4.55	4.46	4.47	4.44
7727	P	4.00	4.02	4.03	4.01	4.08	4.09	4.13	4.19	4.22	4.22	4.16	4.08
7728	P	3.98	3.96	4.00	4.02	3.91	4.05	4.08	4.12	4.15	4.19	4.24	4.27
7729	P	4.42	4.47	4.53	4.57	4.57	4.65	4.68	4.68	4.70	4.74	4.79	4.76
7730	P	4.00	3.99	4.05	4.06	4.08	4.13	4.17	4.20	4.22	4.26	4.30	4.32
7731	P	3.64	3.68	3.72	3.72	3.78	3.81	3.75	3.85	3.89	3.93	3.92	4.07
7732	P	3.99	4.03	4.07	4.02	4.08	4.09	4.11	4.15	4.17	4.16	4.25	4.27
7733	P	3.95	3.97	4.00	3.97	4.07	4.10	4.11	4.12	4.14	4.14	4.25	4.26
7734	P	3.72	3.72	3.71	3.73	3.74	3.71	3.70	3.66	3.72	3.76	3.76	3.81
7735	P	3.70	3.69	3.72	3.75	3.80	3.79	3.85	3.94	3.91	3.92	3.87	3.87
7736	P	3.93	3.98	4.01	4.00	3.88	4.02	3.95	4.00	3.97	4.06	4.01	4.12
7737	P	3.42	3.44	3.45	3.48	3.52	3.61	3.64	3.63	3.57	3.61	3.64	3.67
7738	P	3.52	3.52	3.51	3.51	3.55	3.61	3.62	3.67	3.72	3.77	3.76	3.81
7739	NP	3.77	3.79	3.77	3.79	3.80	3.79	3.70	3.75	3.79	3.84	3.87	3.90
7740	P	3.15	3.18	3.19	3.18	3.19	3.20	3.22	3.28	3.30	3.34	3.35	3.34
7741	P	4.01	4.00	4.10	4.10	4.17	4.09	4.22	4.20	4.24	4.23	4.25	4.29
7742	P	3.88	3.88	3.92	3.90	3.97	3.99	4.15	4.17	4.22	4.23	4.28	4.32
7743	P	3.68	3.67	3.68	3.71	3.74	3.74	3.82	3.84	3.94	3.90	3.95	4.01
7744	P	3.23	3.26	3.30	3.32	3.35	3.36	3.37	3.39	3.39	3.35	3.34	3.33
7745	P	3.35	3.38	3.43	3.38	3.45	3.49	3.58	3.57	3.62	3.56	3.58	3.64
7746	P	3.82	3.80	3.81	3.89	3.92	3.95	3.97	4.06	4.06	4.06	4.12	4.15
7747	P	4.09	4.16	4.18	4.23	4.27	4.32	4.29	4.26	4.27	4.25	4.26	4.34
7748	P	3.84	3.88	3.87	3.90	3.91	3.96	4.01	4.00	3.99	3.97	3.94	3.92
7749	P	3.50	3.56	3.57	3.59	3.62	3.67	3.60	3.66	3.60	3.58	3.57	3.68
7750	P	4.39	4.41	4.45	4.48	4.50	4.55	4.56	4.63	4.62	4.66	4.69	4.74

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
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BODY WEIGHT AVERAGES ARE CALCULATED WITH THE ROUNDED KILOGRAM (KG) VALUE.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 21 (PAGE 12): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - INDIVIDUAL DATA

	GRAVID UTERINE WEIGHT (G)
RABBIT #	DOSAGE GROUP 4 10.0 MG/KG/DAY
7726	637.6
7727	456.9
7728	659.4
7729	605.9
7730	710.5
7731	527.4
7732	603.8
7733	611.7
7734	543.7
7735	497.3
7736	103.3
7737	507.3
7738	441.7
7739	NOT PREGNANT
7740	452.2
7741	507.3
7742	634.1
7743	518.3
7744	451.3
7745	536.8
7746	439.8
7747	645.8
7748	351.2
7749	455.1
7750	645.4

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 21 (PAGE 13): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	6	7	8	9	10	11	12	13	14	15	16	17
RABBIT #	DOSAGE GROUP 5						30.0 MG/KG/DAY						
7751 P	3.84	3.84	4.05	3.86	3.87	3.92	4.06	4.05	4.25	4.23	4.19	4.26	4.19
7752 P	3.63	3.75	3.84	3.76	3.80	3.83	3.82	3.86	3.91	4.00	4.04	4.06	4.02
7753 P	3.70	3.76	3.82	3.82	3.82	3.81	3.81	3.85	3.86	3.87	3.79	3.74	3.70
7754 P	3.47	3.50	3.66	3.62	3.61	3.59	3.58	3.64	3.65	3.69	3.73	3.76	3.75
7755 P	4.03	3.91	4.08	3.93	3.95	4.00	4.07	4.14	4.13	4.14	4.17	4.20	4.19
7756 P	3.80	3.82	3.87	3.89	3.88	3.89	3.88	3.93	3.95	3.96	3.98	4.06	4.06
7757 P	3.34	3.59	3.42	3.36	3.41	3.42	3.50	3.53	3.59	3.53	3.56	3.62	3.64
7758 P	3.48	3.63	3.51	3.52	3.57	3.59	3.62	3.79	3.73	3.74	3.91	3.80	3.81
7759 P	3.35	3.63	3.52	3.47	3.51	3.59	3.59	3.70	3.70	3.73	3.69	3.64	3.80
7760 P	3.23	3.42	3.36	3.39	3.40	3.42	3.43	3.48	3.50	3.50	3.52	3.58	3.62
7761 P	4.11	4.28	4.14	4.11	4.16	4.24	4.14	4.12	4.20	4.23	4.32	4.34	4.34
7762 P	3.26	3.38	3.48	3.51	3.48	3.54	3.57	3.62	3.67	3.69	3.69	3.73	3.70
7763 P	3.06	3.07	3.08	3.10	3.10	3.13	3.25	3.19	3.23	3.28	3.32	3.31	3.31
7764 P	3.57	3.56	3.62	3.61	3.68	3.72	3.75	3.84	3.84	3.86	3.93	3.94	3.91
7765 P	3.00	3.08	3.13	3.16	3.20	3.24	3.26	3.33	3.34	3.38	3.44	3.45	3.45
7766 P	3.32	3.29	3.30	3.31	3.39	3.44	3.41	3.46	3.53	3.50	3.56	3.57	3.60
7767 P	3.35	3.42	3.47	3.48	3.50	3.54	3.51	3.55	3.63	3.63	3.63	3.64	3.62
7768 P	3.19	3.16	3.26	3.25	3.26	3.31	3.17	3.05	3.34	3.33	3.38	3.41	3.38
7769 P	4.18	4.04	4.08	4.06	4.16	4.12	4.10	4.19	4.20	4.25	4.30	4.32	4.37
7770 P	3.97	4.11	4.12	4.12	4.15	4.14	4.14	4.16	4.18	4.24	4.27	4.32	4.24
7771 NP	3.08	3.32	3.37	3.40	3.43	3.39	3.39	3.45	3.49	3.56	3.55	3.60	3.60
7772 P	3.51	3.57	3.61	3.67	3.63	3.70	3.64	3.72	3.76	3.78	3.83	3.88	3.84
7773 P	3.39	3.66	3.73	3.68	3.72	3.71	3.78	3.86	3.85	3.88	3.92	3.96	4.03
7774 P	3.68	3.68	3.68	3.68	3.72	3.67	3.71	3.78	3.79	3.81	3.84	3.85	3.79
7775 P	3.02	3.32	3.26	3.29	3.37	3.36	3.42	3.43	3.43	3.45	3.50	3.51	3.55

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PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 21 (PAGE 14): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 18	19	20	21	22	23	24	25	26	27	28	29
RABBIT #	DOSAGE GROUP 5						30.0 MG/KG/DAY					
7751 P	4.18	4.23	4.29	4.28	4.33	4.34	4.40	4.40	4.44	4.44	4.48	4.51
7752 P	4.04	4.00	4.09	4.07	4.10	4.18	4.18	4.10	4.12	4.15	4.11	4.05
7753 P	3.80	3.80	3.83	3.88	3.96	3.95	3.98	3.93	3.76	3.94	3.94	3.87
7754 P	3.75	3.78	3.78	3.84	3.86	3.94	3.93	3.89	3.87	3.84	3.84	3.87
7755 P	4.24	4.17	4.25	4.31	4.28	4.32	4.35	4.38	4.43	4.32	4.30	4.35
7756 P	4.12	4.12	4.13	4.14	4.15	4.12	4.06	4.00	3.96	3.95	4.01	4.04
7757 P	3.62	3.70	3.73	3.71	3.79	3.83	3.84	3.80	3.89	3.94	4.02	4.02
7758 P	3.81	3.83	3.95	3.93	4.04	4.00	4.02	4.02	4.03	4.01	4.10	4.13
7759 P	3.74	3.71	3.79	3.76	3.82	3.85	3.81	3.90	3.95	3.93	4.00	3.91
7760 P	3.61	3.63	3.67	3.70	3.73	3.78	3.81	3.87	3.93	3.91	3.97	3.99
7761 P	4.34	4.35	4.31	4.32	4.36	4.34	4.46	4.65	4.42	4.51	4.52	4.50
7762 P	3.60	3.72	3.60	3.69	3.87	3.90	3.89	3.91	3.99	4.00	4.01	4.09
7763 P	3.36	3.37	3.37	3.43	3.44	3.48	3.52	3.55	3.55	3.54	3.56	3.57
7764 P	4.00	3.96	3.99	4.05	4.06	4.13	4.17	4.23	4.23	4.18	4.11	4.04
7765 P	3.47	3.50	3.54	3.53	3.58	3.63	3.63	3.68	3.74	3.80	3.78	3.80
7766 P	3.60	3.64	3.62	3.64	3.67	3.70	3.70	3.77	3.81	3.77	3.87	3.94
7767 P	3.69	3.66	3.75	3.72	3.76	3.81	3.85	3.91	3.94	3.92	3.92	3.97
7768 P	3.44	3.42	3.47	3.49	3.54	3.56	3.59	3.53	3.53	3.61	3.65	3.66
7769 P	4.34	4.40	4.44	4.40	4.48	4.41	4.52	4.52	4.60	4.59	4.63	4.66
7770 P	4.27	4.26	4.26	4.29	4.31	4.33	4.39	4.39	4.41	4.42	4.44	4.52
7771 NP	3.63	3.64	3.59	3.58	3.63	3.67	3.75	3.77	3.78	3.76	3.77	3.87
7772 P	3.84	3.89	3.91	3.95	3.97	4.00	3.98	4.02	4.01	3.98	3.99	4.12
7773 P	4.00	4.04	4.11	4.10	4.15	4.23	4.27	4.30	4.23	4.26	4.29	4.33
7774 P	3.81	3.81	3.82	3.82	3.86	3.84	3.90	3.97	3.97	4.00	4.01	4.03
7775 P	3.58	3.56	3.63	3.66	3.66	3.69	3.69	3.73	3.71	3.74	3.77	3.82

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G), ROUNDED TO THREE SIGNIFICANT DIGITS AND REPORTED IN KILOGRAMS (KG).
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PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 21 (PAGE 15): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - INDIVIDUAL DATA

	GRAVID UTERINE WEIGHT (G)
RABBIT #	DOSAGE GROUP 5 30.0 MG/KG/DAY
7751	660.4
7752	444.1
7753	475.1
7754	533.6
7755	707.6
7756	421.4
7757	489.4
7758	629.1
7759	633.1
7760	446.7
7761	662.5
7762	537.6
7763	498.3
7764	567.8
7765	481.1
7766	370.3
7767	432.7
7768	591.4
7769	466.3
7770	410.4
7771	NOT PREGNANT
7772	432.4
7773	669.3
7774	582.5
7775	434.6

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 21 (PAGE 16): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	6	7	8	9	10	11	12	13	14	15	16	17
RABBIT #	DOSAGE GROUP 6						100.0 MG/KG/DAY						
7776 P a	3.75	3.67	3.66	3.66	3.75	3.80	3.80	3.80	3.80	3.79	3.80	3.81	3.83
7777 P	3.61	3.64	3.65	3.62	3.61	3.63	3.64	3.65	3.70	3.73	3.70	3.72	3.74
7778 P	3.79	3.70	3.79	3.79	3.87	3.92	3.92	3.92	3.98	4.00	4.03	4.07	4.11
7779 P	3.72	3.68	3.75	3.76	3.76	3.75	3.75	3.79	3.85	3.89	3.93	3.93	3.97
7780 P	4.03	4.13	4.16	4.15	4.20	4.19	4.20	4.24	4.28	4.27	4.29	4.32	4.32
7781 P	3.48	3.64	3.54	3.51	3.54	3.58	3.59	3.64	3.75	3.71	3.72	3.73	3.75
7782 P	3.54	3.74	3.66	3.71	3.68	3.73	3.75	3.80	3.91	3.88	3.94	3.96	3.96
7783 P	3.96	3.86	3.88	3.86	3.84	3.89	3.91	3.90	3.74	3.76	4.00	4.09	4.12
7784 P	4.12	4.12	4.06	4.04	4.18	4.19	4.20	4.20	4.23	4.24	4.36	4.41	4.43
7785 P	3.15	3.42	3.26	3.20	3.24	3.30	3.33	3.36	3.41	3.44	3.47	3.52	3.57
7786 P	3.18	3.74	3.63	3.67	3.68	3.76	3.75	3.80	3.84	4.16	3.95	3.90	3.85
7787 P	3.55	3.66	3.58	3.59	3.60	3.62	3.66	3.72	3.78	3.84	3.86	3.87	3.89
7788 P	3.27	3.35	3.42	3.43	3.44	3.48	3.53	3.57	3.65	3.64	3.64	3.65	3.69
7789 P	3.40	3.31	3.33	3.36	3.40	3.45	3.47	3.54	3.56	3.60	3.64	3.66	3.67
7790 P	3.03	3.10	3.10	3.13	3.14	3.18	3.21	3.29	3.70b	3.33	3.35	3.38	3.38
7791 P	3.70	3.73	3.82	3.77	3.84	3.84	3.86	3.94	3.96	3.99	3.98	4.03	4.06
7792 P	3.37	2.95	3.33	3.42	3.47	3.54	3.57	3.61	3.69	3.65	3.70	3.70	3.67
7793 P	3.53	3.52	3.56	3.56	3.56	3.60	3.61	3.61	3.67	3.70	3.73	3.78	3.73
7794 P	3.23	3.28	3.28	3.28	3.26	3.23	3.24	3.30	3.34	3.38	3.38	3.40	3.45
7795 NP	3.15	3.33	3.31	3.37	3.46	3.47	3.48	3.54	3.49	3.39	3.37	3.43	3.46
7796 P	3.40	3.85	3.76	3.76	3.74	3.78	3.78	3.84	3.84	3.86	3.82	3.81	3.82
7797 P	4.13	4.14	4.22	4.18	4.18	4.20	4.19	4.30	4.30	4.33	4.44	4.43	4.40
7798 P	3.18	3.58	3.56	3.58	3.63	3.63	3.66	3.68	3.72	3.77	3.81	3.87	3.78
7799 P	3.56	3.68	3.72	3.79	3.89	3.88	3.83	3.87	3.89	3.89	3.96	3.95	3.82
7800 P	2.99	3.31	3.28	3.33	3.34	3.36	3.40	3.39	3.38	3.42	3.46	3.51	3.49

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G), ROUNDED TO THREE SIGNIFICANT DIGITS AND REPORTED IN KILOGRAMS (KG).
ALL CALCULATIONS EXCEPT BODY WEIGHT AVERAGES ARE PERFORMED WITH THE UNROUNDED GRAM (G) VALUE.
BODY WEIGHT AVERAGES ARE CALCULATED WITH THE ROUNDED KILOGRAM (KG) VALUE.

a. Doe 7776 delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation). Values excluded from group averages and statistical analyses.
b. Value appeared incorrectly recorded and was excluded from group averages and statistical analyses.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 21 (PAGE 17): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 18	19	20	21	22	23	24	25	26	27	28	29
RABBIT #	DOSAGE GROUP 6						100.0 MG/KG/DAY					
7776 P a	3.82	3.83	3.84	3.86	3.84	3.87	3.85	3.94	3.98	3.34	a	
7777 P	3.79	3.82	3.86	3.86	3.89	3.92	3.91	3.92	3.92	3.91	3.83	3.81
7778 P	4.13	4.11	4.17	4.19	4.16	4.22	4.24	4.19	4.16	4.19	4.25	4.35
7779 P	3.99	3.96	4.02	4.06	4.16	4.12	4.18	4.40	4.26	4.18	4.14	4.12
7780 P	4.33	4.33	4.33	4.36	4.40	4.39	4.35	4.32	4.34	4.36	4.36	4.39
7781 P	3.78	3.80	3.87	3.82	3.91	3.90	3.91	3.98	3.99	3.99	3.99	3.91
7782 P	4.01	4.01	4.07	4.07	4.09	4.18	4.21	4.24	4.20	4.22	4.30	4.28
7783 P	4.16	4.13	4.21	4.20	4.27	4.26	4.32	4.36	4.34	4.30	4.36	4.34
7784 P	4.38	4.35	4.39	4.42	4.35	4.40	4.40	4.49	4.50	4.40	4.35	4.31
7785 P	3.48	3.57	3.61	3.55	3.57	3.63	3.65	3.74	3.70	3.70	3.76	3.76
7786 P	3.83	3.85	3.87	3.94	4.01	4.03	4.08	4.07	4.08	4.05	4.13	4.18
7787 P	3.88	3.90	3.90	3.93	3.98	4.00	4.04	4.06	4.08	4.06	4.05	4.12
7788 P	3.68	3.70	3.74	3.79	3.80	3.85	3.83	3.83	3.82	3.89	3.92	3.94
7789 P	3.68	3.73	3.73	3.78	3.82	3.86	3.88	3.89	3.95	3.98	4.01	4.10
7790 P	3.48	3.48	3.46	3.51	3.53	3.56	3.61	3.67	3.75	3.76	3.80	3.80
7791 P	4.11	4.07	4.11	4.11	4.17	4.20	4.29	4.31	4.39	4.41	4.45	4.46
7792 P	3.69	3.71	3.76	3.75	3.76	3.78	3.86	3.89	3.92	3.92	3.95	3.98
7793 P	3.71	3.73	3.77	3.77	3.81	3.84	3.93	3.95	4.00	4.04	4.06	4.08
7794 P	3.42	3.44	3.48	3.48	3.54	3.56	3.54	3.58	3.62	3.62	3.64	3.60
7795 NP	3.49	3.50	3.53	3.54	3.57	3.62	3.65	3.68	3.73	3.68	3.60	3.60
7796 P	3.86	3.91	3.94	3.90	3.96	3.98	4.06	4.12	4.13	4.12	4.10	4.08
7797 P	4.36	4.42	4.43	4.46	4.48	4.57	4.56	4.63	4.63	4.64	4.50	4.50
7798 P	3.83	3.83	3.78	3.78	3.78	3.90	3.90	3.95	3.95	3.94	3.93	3.88
7799 P	3.94	4.05	4.06	4.04	4.02	4.12	4.15	4.15	4.15	4.19	4.21	4.28
7800 P	3.51	3.55	3.55	3.56	3.54	3.60	3.62	3.72	3.71	3.67	3.68	3.76

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAY = DAY OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G), ROUNDED TO THREE SIGNIFICANT DIGITS AND REPORTED IN KILOGRAMS (KG).
ALL CALCULATIONS EXCEPT BODY WEIGHT AVERAGES ARE PERFORMED WITH THE UNROUNDED GRAM (G) VALUE.
BODY WEIGHT AVERAGES ARE CALCULATED WITH THE ROUNDED KILOGRAM (KG) VALUE.

a. Doe 7776 delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation). Values excluded from group averages and statistical analyses.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 21 (PAGE 18): MATERNAL BODY WEIGHTS AND GRAVID UTERINE WEIGHTS - INDIVIDUAL DATA

	GRAVID UTERINE WEIGHT (G)
RABBIT #	DOSAGE GROUP 6 100.0 MG/KG/DAY
7776	a
7777	523.3
7778	583.8
7779	675.4
7780	605.2
7781	484.0
7782	626.7
7783	565.7
7784	431.9
7785	515.4
7786	736.6
7787	658.3
7788	724.6
7789	625.1
7790	600.7
7791	528.6
7792	572.8
7793	599.1
7794	514.3
7795	NOT PREGNANT
7796	489.5
7797	488.9
7798	459.6
7799	575.1
7800	340.5

a. Doe 7776 delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation). Values excluded from group averages and statistical analyses.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 22 (PAGE 1): MATERNAL WATER CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 1 - 2	2 - 3	3 - 4	4 - 5	5 - 6	6 - 7	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14
RABBIT #	DOSAGE GROUP 1						0 (CARRIER) MG/KG/DAY						
7651 P	a	a	a	235.	251.	377.	283.	304.	327.	293.	296.	326.	420.
7652 P	a	a	a	101.	235.	359.	261.	324.	316.	238.	325.	327.	343.
7653 NP	a	a	a	327.	385.	357.	343.	379.	338.	330.	322.	349.	372.
7654 P	a	a	a	328.	309.	393.	359.	385.	412.	464.	469.	b	572.
7655 P	a	a	225.	291.	323.	272.	196.	258.	212.	316.	396.	b	414.
7656 P	a	a	320.	381.	415.	365.	369.	330.	375.	424.	418.	401.	461.
7657 P	a	a	271.	347.	377.	279.	346.	465.	398.	456.	457.	433.	504.
7658 P	a	a	329.	334.	358.	387.	336.	327.	389.	380.	383.	573.	420.
7659 P	a	405.	b	670.	398.	b	484.	555.	547.	504.	565.	523.	585.
7660 NP	a	211.	240.	369.	254.	332.	352.	367.	404.	383.	392.	349.	335.
7661 P	a	160.	253.	339.	301.	326.	247.	240.	306.	311.	344.	337.	315.
7662 P	a	323.	337.	487.	276.	369.	325.	360.	403.	332.	464.	430.	480.
7663 P	a	297.	334.	371.	262.	318.	320.	342.	297.	233.	320.	321.	357.
7664 P	a	260.	367.	433.	275.	315.	292.	332.	302.	294.	345.	338.	383.
7665 P	a	397.	b	b	487.	386.	534.	514.	451.	445.	592.	448.	470.
7666 P	a	b	292.	327.	322.	290.	164.	284.	304.	296.	236.	338.	247.
7667 P	a	260.	b	464.	235.	336.	171.	303.	361.	299.	263.	436.	326.
7668 P	a	315.	285.	308.	298.	287.	269.	316.	287.	283.	308.	302.	230.
7669 P	a	323.	b	591.	440.	417.	344.	428.	486.	390.	308.	376.	333.
7670 P	a	b	272.	505.	444.	244.	285.	268.	376.	448.	317.	421.	320.
7671 NP	445.	b	b	617.	236.	297.	351.	376.	349.	313.	443.	395.	416.
7672 P	279.	336.	354.	445.	380.	284.	416.	328.	272.	143.	299.	335.	372.
7673 P	5.	4.	b	72.	b	3.	7.	3.	199.	316.	311.	348.	370.
7674 P	370.	277.	220.	315.	310.	248.	381.	350.	238.	193.	350.	b	139.
7675 P	147.	b	229.	233.	207.	253.	360.	353.	258.	209.	327.	301.	256.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Value was not recorded.
b. Spilled water precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 22 (PAGE 2): MATERNAL WATER CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27
RABBIT #	DOSAGE GROUP 1						0 (CARRIER) MG/KG/DAY						
7651 P	308.	320.	288.	326.	306.	368.	377.	357.	345.	393.	387.	453.	347.
7652 P	259.	315.	295.	348.	358.	377.	353.	309.	318.	98.	134.	212.	245.
7653 NP	305.	357.	368.	368.	392.	365.	266.	111.	202.	272.	296.	350.	348.
7654 P	506.	533.	518.	590.	577.	556.	a	587.	599.	a	a	a	a
7655 P	451.	486.	485.	474.	480.	447.	473.	380.	352.	327.	513.	a	a
7656 P	451.	416.	402.	500.	438.	a	a	475.	a	535.	447.	a	a
7657 P	494.	499.	492.	504.	569.	510.	549.	477.	445.	249.	274.	400.	524.
7658 P	426.	477.	431.	584.	555.	449.	322.	450.	481.	569.	a	388.	570.
7659 P	436.	342.	397.	599.	a	a	a	a	a	466.	487.	a	a
7660 NP	351.	329.	327.	378.	354.	330.	314.	305.	326.	287.	346.	323.	376.
7661 P	304.	338.	354.	352.	381.	386.	353.	353.	258.	237.	151.	195.	265.
7662 P	437.	347.	429.	456.	419.	364.	459.	438.	473.	427.	387.	484.	412.
7663 P	339.	237.	302.	367.	307.	336.	347.	343.	344.	349.	288.	a	411.
7664 P	340.	301.	320.	358.	402.	398.	337.	407.	362.	366.	361.	395.	456.
7665 P	567.	549.	a	a	367.	353.	a	596.	535.	551.	509.	518.	a
7666 P	307.	328.	373.	311.	459.	349.	352.	293.	132.	110.	79.	199.	408.
7667 P	311.	259.	374.	405.	280.	385.	420.	a	a	550.	434.	503.	381.
7668 P	209.	181.	278.	247.	316.	292.	336.	359.	344.	324.	301.	361.	235.
7669 P	409.	399.	399.	440.	408.	439.	431.	401.	467.	378.	323.	368.	339.
7670 P	354.	383.	492.	416.	460.	384.	412.	449.	466.	417.	372.	a	455.
7671 NP	376.	427.	394.	386.	363.	332.	416.	359.	360.	415.	460.	273.	355.
7672 P	398.	403.	360.	482.	382.	499.	594.	411.	470.	303.	337.	224.	120.
7673 P	330.	373.	422.	490.	499.	471.	516.	379.	418.	365.	294.	298.	232.
7674 P	a	403.	415.	546.	a	479.	486.	476.	531.	433.	409.	368.	a
7675 P	306.	206.	297.	337.	311.	252.	365.	325.	276.	362.	244.	186.	189.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled water precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 22 (PAGE 3): MATERNAL WATER CONSUMPTION VALUES - INDIVIDUAL DATA

RABBIT #	PREGNANCY STATUS	DOSAGE GROUP 1 DAYS 27 - 28	28 - 29	0 (CARRIER) MG/KG/DAY
7651	P	432.	340.	
7652	P	290.	289.	
7653	NP	363.	292.	
7654	P	a	a	
7655	P	a	a	
7656	P	347.	304.	
7657	P	576.	89.	
7658	P	a	288.	
7659	P	a	a	
7660	NP	295.	268.	
7661	P	246.	118.	
7662	P	337.	222.	
7663	P	296.	191.	
7664	P	345.	313.	
7665	P	431.	312.	
7666	P	435.	314.	
7667	P	362.	331.	
7668	P	335.	203.	
7669	P	339.	290.	
7670	P	410.	332.	
7671	NP	364.	332.	
7672	P	90.	61.	
7673	P	237.	163.	
7674	P	373.	302.	
7675	P	207.	173.	

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled water precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 22 (PAGE 4): MATERNAL WATER CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS DAYS	1 - 2	2 - 3	3 - 4	4 - 5	5 - 6	6 - 7	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14
RABBIT # DOSAGE GROUP 2							0.1 MG/KG/DAY						
7676 P	a	a	a	282.	300.	381.	258.	249.	242.	342.	360.	338.	352.
7677 P	a	a	a	134.	b	207.	191.	214.	239.	133.	165.	227.	b
7678 P	a	a	a	335.	327.	333.	254.	354.	380.	409.	436.	458.	497.
7679 P	a	a	a	353.	291.	298.	252.	288.	283.	307.	337.	324.	355.
7680 P	a	a	a	356.	362.	341.	241.	315.	328.	334.	434.	413.	498.
7681 P	a	a	a	213.	181.	191.	135.	170.	154.	210.	143.	322.	202.
7682 P	a	a	a	276.	311.	351.	31.	164.	268.	292.	308.	326.	399.
7683 P	a	a	a	328.	378.	402.	292.	376.	488.	470.	597.	513.	661.
7684 P	a	a	222.	211.	225.	264.	232.	298.	301.	271.	239.	6.	396.
7685 P	a	a	311.	374.	471.	439.	451.	464.	372.	499.	448.	b	492.
7686 P	a	a	214.	221.	290.	280.	283.	259.	186.	234.	250.	b	b
7687 P	a	a	319.	366.	432.	434.	464.	453.	423.	440.	386.	b	419.
7688 P	a	223.	226.	327.	190.	384.	266.	262.	235.	250.	337.	276.	326.
7689 P	a	399.	b	b	287.	497.	480.	521.	522.	471.	b	457.	440.
7690 P	a	249.	262.	356.	b	344.	296.	297.	369.	313.	435.	403.	465.
7691 P	a	296.	391.	435.	473.	305.	255.	304.	350.	336.	275.	367.	328.
7692 P	a	193.	260.	348.	362.	276.	205.	244.	292.	331.	257.	379.	277.
7693 P	a	286.	201.	313.	272.	269.	289.	348.	357.	258.	314.	390.	331.
7694 P	a	231.	233.	298.	255.	332.	205.	437.	337.	375.	272.	401.	369.
7695 P	a	353.	237.	385.	284.	284.	234.	342.	405.	357.	282.	415.	295.
7696 P	a	271.	318.	357.	212.	311.	218.	316.	291.	329.	278.	311.	243.
7697 P	a	b	b	246.	271.	297.	311.	258.	252.	223.	264.	264.	288.
7698 P	a	291.	409.	304.	352.	341.	387.	334.	264.	336.	369.	476.	477.
7699 P	156.	242.	230.	301.	236.	336.	297.	346.	306.	242.	235.	247.	257.
7700 NP	352.	b	b	522.	431.	b	286.	532.	442.	373.	399.	b	519.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Value was not recorded.
b. Spilled water precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 22 (PAGE 5): MATERNAL WATER CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27
RABBIT #	DOSAGE GROUP 2						0.1 MG/KG/DAY						
7676 P	320.	329.	395.	339.	409.	290.	326.	350.	340.	342.	166.	214.	48.
7677 P	250.	246.	266.	273.	275.	166.	251.	220.	215.	237.	208.	197.	146.
7678 P	486.	509.	492.	451.	508.	502.	528.	a	532.	479.	248.	406.	320.
7679 P	334.	315.	260.	213.	199.	226.	258.	228.	311.	282.	266.	427.	165.
7680 P	444.	361.	441.	263.	254.	314.	415.	402.	433.	387.	388.	486.	394.
7681 P	304.	242.	219.	238.	208.	147.	129.	164.	175.	301.	293.	295.	195.
7682 P	290.	345.	293.	326.	372.	405.	331.	383.	311.	337.	313.	406.	323.
7683 P	437.	425.	574.	530.	501.	435.	579.	a	527.	510.	432.	513.	332.
7684 P	344.	361.	360.	344.	294.	295.	165.	259.	252.	228.	266.	221.	290.
7685 P	545.	a	588.	a	581.	404.	a	a	577.	457.	491.	a	a
7686 P	432.	338.	a	a	a	541.	a	445.	410.	401.	327.	148.	510.
7687 P	426.	405.	438.	432.	450.	449.	452.	422.	453.	296.	303.	383.	463.
7688 P	340.	317.	325.	376.	311.	384.	329.	404.	450.	401.	350.	280.	383.
7689 P	504.	394.	477.	447.	331.	371.	391.	438.	387.	354.	306.	309.	285.
7690 P	470.	515.	424.	484.	492.	405.	421.	487.	384.	350.	364.	a	505.
7691 P	311.	325.	366.	356.	381.	366.	356.	359.	389.	332.	372.	364.	299.
7692 P	313.	296.	362.	333.	359.	316.	285.	337.	324.	252.	315.	298.	251.
7693 P	318.	329.	349.	327.	411.	345.	315.	336.	342.	295.	290.	250.	239.
7694 P	369.	364.	424.	426.	598.	464.	483.	435.	388.	433.	511.	424.	464.
7695 P	406.	384.	406.	378.	397.	376.	350.	361.	387.	390.	347.	408.	250.
7696 P	327.	308.	407.	354.	409.	360.	398.	356.	378.	261.	269.	391.	335.
7697 P	245.	356.	291.	368.	535.	555.	460.	345.	497.	571.	451.	352.	335.
7698 P	477.	444.	342.	309.	418.	413.	428.	478.	506.	462.	265.	179.	263.
7699 P	350.	293.	307.	359.	353.	351.	383.	412.	349.	355.	347.	234.	310.
7700 NP	351.	347.	399.	426.	439.	394.	358.	262.	281.	343.	389.	286.	285.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled water precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 22 (PAGE 6): MATERNAL WATER CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 27 - 28	28 - 29
RABBIT #	DOSAGE GROUP 2	0.1 MG/KG/DAY
7676 P	170.	227.
7677 P	68.	12.
7678 P	346.	412.
7679 P	387.	286.
7680 P	350.	346.
7681 P	333.	181.
7682 P	366.	406.
7683 P	391.	368.
7684 P	356.	208.
7685 P	a	266.
7686 P	a	371.
7687 P	482.	282.
7688 P	376.	266.
7689 P	235.	157.
7690 P	410.	319.
7691 P	308.	243.
7692 P	250.	229.
7693 P	246.	218.
7694 P	456.	454.
7695 P	337.	295.
7696 P	238.	215.
7697 P	306.	381.
7698 P	356.	288.
7699 P	257.	230.
7700 NP	313.	200.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled water precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 22 (PAGE 7): MATERNAL WATER CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS DAYS	1 - 2	2 - 3	3 - 4	4 - 5	5 - 6	6 - 7	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14
RABBIT #	DOSAGE GROUP 3						1.0 MG/KG/DAY						
7701 P	a	a	a	238.	251.	371.	228.	335.	206.	200.	226.	296.	303.
7702 P	a	a	a	222.	195.	270.	175.	230.	97.	262.	157.	138.	152.
7703 P	a	a	a	170.	156.	189.	177.	169.	102.	188.	182.	b	203.
7704 P	a	a	239.	244.	303.	286.	256.	299.	270.	298.	303.	369.	316.
7705 P	a	a	274.	327.	403.	321.	384.	397.	372.	324.	319.	357.	380.
7706 P	a	a	331.	347.	396.	424.	408.	419.	463.	484.	465.	b	328.
7707 P	a	a	193.	212.	235.	218.	195.	224.	217.	129.	213.	199.	210.
7708 P	a	a	303.	233.	245.	132.	228.	244.	238.	280.	261.	275.	302.
7709 P	a	335.	273.	399.	305.	423.	392.	405.	383.	481.	400.	266.	392.
7710 P	a	408.	351.	b	269.	488.	361.	475.	442.	412.	360.	221.	349.
7711 P	a	208.	203.	130.	24.	150.	242.	227.	270.	216.	296.	179.	304.
7712 P	a	348.	351.	b	358.	469.	409.	448.	574.	344.	506.	489.	465.
7713 P	a	270.	280.	386.	243.	316.	329.	314.	330.	314.	299.	222.	253.
7714 P	a	233.	308.	b	294.	396.	359.	368.	372.	338.	433.	364.	391.
7715 P	a	248.	225.	334.	196.	306.	289.	239.	285.	256.	279.	279.	298.
7716 P	a	278.	254.	245.	238.	212.	202.	278.	331.	313.	208.	306.	266.
7717 P	a	230.	291.	311.	341.	b	383.	337.	427.	352.	384.	349.	317.
7718 P	a	305.	306.	325.	289.	264.	249.	143.	277.	303.	291.	272.	291.
7719 P	162.	254.	278.	422.	326.	313.	397.	439.	256.	255.	371.	302.	371.
7720 P	510.	b	586.	b	598.	577.	b	b	510.	395.	248.	273.	457.
7721 P	387.	b	396.	310.	341.	230.	382.	348.	410.	297.	403.	387.	453.
7722 P	401.	313.	302.	272.	274.	243.	341.	370.	48.	7.	575.	396.	494.
7723 P	236.	255.	224.	268.	207.	289.	265.	158.	199.	188.	169.	321.	394.
7724 P	441.	356.	256.	283.	336.	248.	296.	449.	254.	190.	188.	224.	259.
7725 P	275.	287.	328.	319.	290.	271.	329.	409.	332.	240.	271.	334.	298.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Value was not recorded.
b. Spilled water precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 22 (PAGE 8): MATERNAL WATER CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27
RABBIT #	DOSAGE GROUP 3						1.0 MG/KG/DAY						
7701 P	345.	352.	301.	244.	217.	276.	301.	355.	342.	239.	324.	274.	261.
7702 P	133.	268.	143.	201.	268.	242.	198.	185.	121.	166.	228.	170.	183.
7703 P	168.	159.	113.	184.	136.	120.	103.	160.	162.	115.	161.	160.	176.
7704 P	310.	369.	302.	363.	406.	402.	385.	330.	373.	304.	277.	190.	186.
7705 P	468.	399.	368.	462.	365.	388.	390.	387.	403.	488.	445.	452.	406.
7706 P	432.	382.	383.	495.	541.	426.	368.	381.	448.	403.	287.	a	504.
7707 P	231.	260.	4.	419.	264.	186.	252.	225.	302.	274.	267.	9.	404.
7708 P	293.	274.	317.	278.	326.	335.	298.	182.	175.	297.	361.	327.	364.
7709 P	443.	461.	395.	541.	470.	495.	463.	561.	489.	403.	506.	a	531.
7710 P	429.	563.	586.	580.	507.	492.	458.	344.	472.	479.	450.	585.	a
7711 P	312.	309.	281.	303.	341.	319.	245.	241.	160.	116.	154.	253.	277.
7712 P	531.	387.	454.	550.	484.	553.	537.	a	487.	468.	462.	a	566.
7713 P	256.	260.	328.	391.	356.	412.	359.	342.	380.	331.	298.	299.	376.
7714 P	357.	306.	331.	357.	375.	384.	403.	390.	466.	397.	280.	289.	121.
7715 P	297.	304.	338.	288.	277.	273.	292.	349.	340.	309.	267.	216.	222.
7716 P	286.	235.	306.	360.	391.	360.	328.	346.	399.	328.	355.	285.	304.
7717 P	294.	280.	414.	374.	378.	384.	355.	372.	369.	350.	349.	379.	304.
7718 P	262.	234.	234.	232.	229.	340.	254.	277.	249.	189.	199.	180.	111.
7719 P	278.	426.	389.	362.	273.	261.	320.	328.	280.	306.	368.	277.	269.
7720 P	509.	520.	521.	a	535.	481.	483.	451.	340.	341.	403.	378.	269.
7721 P	382.	386.	396.	403.	433.	426.	445.	540.	431.	136.	62.	62.	221.
7722 P	431.	411.	501.	480.	439.	459.	501.	568.	448.	336.	374.	314.	301.
7723 P	308.	318.	369.	378.	277.	335.	343.	330.	360.	353.	335.	292.	261.
7724 P	262.	320.	310.	355.	336.	293.	262.	309.	276.	308.	322.	165.	6.
7725 P	232.	301.	309.	336.	314.	305.	319.	256.	170.	109.	111.	58.	76.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled water precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 22 (PAGE 9): MATERNAL WATER CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 27 - 28	28 - 29
RABBIT #	DOSAGE GROUP 3	1.0 MG/KG/DAY
7701 P	323.	224.
7702 P	139.	37.
7703 P	158.	118.
7704 P	495.	251.
7705 P	516.	276.
7706 P	a	a
7707 P	501.	252.
7708 P	475.	266.
7709 P	392.	300.
7710 P	a	468.
7711 P	212.	114.
7712 P	483.	328.
7713 P	362.	237.
7714 P	161.	149.
7715 P	283.	142.
7716 P	320.	260.
7717 P	336.	216.
7718 P	105.	128.
7719 P	271.	196.
7720 P	304.	171.
7721 P	59.	ABORTED ON DAY 28 OF GESTATION
7722 P	217.	228.
7723 P	304.	241.
7724 P	2.	ABORTED ON DAY 28 OF GESTATION
7725 P	37.	29.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled water precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 22 (PAGE 10): MATERNAL WATER CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 1 - 2	2 - 3	3 - 4	4 - 5	5 - 6	6 - 7	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14
RABBIT #	DOSAGE GROUP 4						10.0 MG/KG/DAY						
7726 P	a	a	a	249.	246.	362.	287.	315.	284.	281.	282.	245.	295.
7727 P	a	a	a	278.	255.	b	350.	378.	280.	318.	317.	332.	500.
7728 P	a	a	a	268.	186.	210.	b	228.	207.	278.	273.	210.	251.
7729 P	a	a	a	240.	176.	286.	232.	154.	176.	226.	206.	220.	285.
7730 P	a	a	a	360.	413.	b	285.	341.	b	b	562.	446.	571.
7731 P	a	a	315.	272.	b	280.	357.	287.	421.	406.	387.	433.	407.
7732 P	a	a	338.	228.	365.	311.	353.	321.	301.	351.	309.	431.	329.
7733 P	a	a	286.	289.	361.	325.	329.	271.	288.	333.	321.	291.	310.
7734 P	a	a	116.	228.	285.	228.	230.	276.	283.	227.	281.	264.	254.
7735 P	a	317.	373.	b	274.	475.	411.	506.	381.	475.	570.	474.	533.
7736 P	a	210.	236.	408.	167.	483.	398.	326.	423.	393.	458.	303.	374.
7737 P	a	182.	211.	293.	203.	339.	287.	331.	357.	323.	394.	312.	428.
7738 P	a	342.	438.	b	334.	b	569.	b	b	576.	564.	572.	b
7739 NP	a	324.	247.	398.	246.	387.	302.	391.	365.	347.	288.	217.	281.
7740 P	a	245.	183.	170.	165.	317.	272.	219.	251.	217.	240.	61.	240.
7741 P	a	388.	267.	422.	366.	251.	219.	381.	463.	457.	323.	415.	332.
7742 P	a	263.	275.	390.	258.	318.	228.	368.	414.	427.	287.	403.	386.
7743 P	a	305.	276.	337.	261.	325.	231.	328.	391.	425.	333.	408.	385.
7744 P	a	105.	218.	283.	255.	222.	266.	324.	285.	278.	248.	348.	329.
7745 P	a	318.	308.	367.	212.	248.	217.	281.	337.	354.	294.	360.	333.
7746 P	349.	430.	445.	378.	312.	329.	467.	354.	304.	273.	434.	405.	367.
7747 P	362.	298.	331.	314.	277.	379.	423.	146.	125.	439.	246.	336.	161.
7748 P	237.	324.	336.	272.	271.	320.	289.	384.	296.	216.	315.	255.	252.
7749 P	289.	285.	334.	312.	230.	290.	435.	363.	335.	220.	262.	332.	364.
7750 P	313.	345.	457.	492.	413.	12.	473.	437.	449.	370.	335.	339.	379.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Value was not recorded.
b. Spilled water precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 22 (PAGE 11): MATERNAL WATER CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27
RABBIT #	DOSAGE GROUP 4						10.0 MG/KG/DAY						
7726 P	299.	325.	337.	348.	365.	316.	335.	327.	340.	275.	210.	229.	124.
7727 P	309.	412.	414.	388.	465.	348.	365.	408.	327.	434.	427.	481.	307.
7728 P	183.	178.	219.	225.	278.	271.	265.	29.	472.	357.	414.	367.	344.
7729 P	236.	244.	218.	294.	283.	242.	266.	256.	229.	249.	312.	324.	296.
7730 P	492.	527.	a	a	a	a	585.	596.	457.	497.	500.	623.	551.
7731 P	465.	498.	402.	462.	489.	422.	499.	465.	493.	287.	493.	a	414.
7732 P	372.	357.	330.	400.	354.	386.	336.	421.	325.	445.	437.	407.	384.
7733 P	303.	410.	359.	405.	447.	455.	448.	421.	392.	548.	428.	443.	486.
7734 P	369.	303.	322.	292.	298.	286.	297.	212.	280.	207.	305.	344.	340.
7735 P	475.	473.	433.	427.	a	a	a	540.	404.	503.	403.	356.	392.
7736 P	502.	506.	499.	a	a	a	587.	a	a	a	490.	599.	558.
7737 P	362.	398.	340.	477.	508.	413.	439.	383.	359.	296.	306.	214.	264.
7738 P	a	581.	a	553.	597.	a	613.	532.	599.	534.	451.	a	596.
7739 NP	307.	279.	305.	256.	298.	352.	365.	349.	220.	169.	218.	195.	197.
7740 P	267.	253.	282.	296.	287.	276.	275.	242.	216.	214.	213.	228.	235.
7741 P	381.	a	415.	399.	369.	386.	446.	503.	455.	414.	387.	367.	245.
7742 P	350.	375.	467.	473.	567.	486.	490.	411.	482.	441.	349.	373.	403.
7743 P	412.	325.	501.	411.	405.	385.	411.	451.	468.	452.	437.	481.	344.
7744 P	325.	260.	262.	244.	394.	329.	360.	324.	340.	251.	252.	189.	172.
7745 P	335.	292.	267.	138.	246.	316.	264.	368.	400.	374.	330.	296.	215.
7746 P	267.	307.	355.	389.	336.	356.	350.	339.	325.	277.	371.	273.	303.
7747 P	508.	507.	420.	372.	334.	410.	447.	450.	369.	338.	362.	316.	481.
7748 P	115.	225.	297.	346.	310.	330.	311.	322.	297.	374.	318.	302.	237.
7749 P	351.	407.	399.	423.	424.	438.	533.	522.	427.	286.	369.	205.	207.
7750 P	364.	393.	362.	351.	398.	332.	351.	393.	386.	404.	380.	323.	344.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled water precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 22 (PAGE 12): MATERNAL WATER CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 27 - 28	28 - 29
RABBIT #	DOSAGE GROUP 4	10.0 MG/KG/DAY
7726 P	209.	130.
7727 P	196.	285.
7728 P	356.	308.
7729 P	331.	237.
7730 P	a	450.
7731 P	590.	329.
7732 P	538.	241.
7733 P	515.	305.
7734 P	376.	332.
7735 P	311.	165.
7736 P	511.	505.
7737 P	241.	203.
7738 P	440.	380.
7739 NP	267.	163.
7740 P	182.	134.
7741 P	326.	266.
7742 P	395.	303.
7743 P	413.	397.
7744 P	166.	136.
7745 P	231.	225.
7746 P	351.	199.
7747 P	449.	373.
7748 P	275.	169.
7749 P	404.	253.
7750 P	352.	293.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled water precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 22 (PAGE 13): MATERNAL WATER CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 1 - 2	2 - 3	3 - 4	4 - 5	5 - 6	6 - 7	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14
RABBIT #	DOSAGE GROUP 5						30.0 MG/KG/DAY						
7751 P	a	a	a	389.	449.	250.	b	567.	380.	403.	531.	433.	430.
7752 P	a	a	a	283.	267.	385.	252.	339.	329.	344.	318.	348.	425.
7753 P	a	a	a	301.	287.	386.	240.	247.	283.	345.	353.	268.	379.
7754 P	a	a	a	281.	240.	403.	195.	290.	242.	311.	325.	294.	395.
7755 P	a	a	a	271.	464.	b	385.	485.	441.	483.	389.	336.	375.
7756 P	a	a	a	182.	180.	254.	b	b	b	b	321.	245.	b
7757 P	a	a	303.	402.	b	403.	522.	406.	506.	401.	354.	396.	417.
7758 P	a	a	364.	303.	596.	327.	529.	423.	431.	428.	427.	460.	441.
7759 P	a	a	336.	390.	517.	373.	516.	367.	500.	520.	396.	b	503.
7760 P	a	a	283.	270.	356.	286.	338.	310.	262.	317.	278.	259.	308.
7761 P	a	a	188.	273.	362.	273.	331.	269.	309.	258.	284.	523.	424.
7762 P	a	161.	203.	290.	169.	419.	228.	236.	269.	261.	316.	269.	258.
7763 P	a	227.	312.	450.	226.	508.	393.	375.	470.	319.	339.	355.	b
7764 P	a	420.	374.	435.	246.	421.	345.	b	358.	364.	344.	328.	408.
7765 P	a	199.	297.	461.	281.	406.	358.	b	384.	381.	446.	482.	453.
7766 P	a	332.	168.	357.	350.	328.	184.	291.	318.	415.	264.	b	404.
7767 P	a	159.	171.	280.	229.	b	301.	281.	341.	330.	229.	333.	279.
7768 P	a	259.	286.	348.	302.	197.	200.	274.	324.	36.	18.	b	506.
7769 P	a	b	329.	363.	373.	439.	318.	315.	389.	460.	372.	417.	453.
7770 P	a	256.	164.	251.	279.	249.	277.	267.	296.	277.	293.	383.	413.
7771 NP	266.	296.	378.	247.	218.	254.	273.	277.	300.	296.	248.	230.	260.
7772 P	317.	238.	354.	274.	295.	257.	316.	488.	401.	217.	408.	387.	433.
7773 P	391.	332.	508.	374.	361.	390.	404.	535.	456.	279.	447.	385.	408.
7774 P	170.	198.	206.	282.	225.	226.	205.	227.	218.	252.	321.	238.	278.
7775 P	337.	335.	446.	393.	365.	386.	386.	519.	267.	376.	451.	538.	520.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Value was not recorded.
b. Spilled water precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 22 (PAGE 14): MATERNAL WATER CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27
RABBIT #	DOSAGE GROUP 5						30.0 MG/KG/DAY						
7751 P	426.	442.	508.	448.	525.	a	a	426.	420.	472.	447.	487.	472.
7752 P	338.	367.	340.	356.	439.	419.	392.	400.	298.	282.	288.	335.	404.
7753 P	87.	149.	70.	306.	369.	411.	315.	446.	435.	470.	378.	356.	250.
7754 P	310.	351.	285.	293.	334.	316.	319.	346.	a	308.	242.	216.	157.
7755 P	374.	428.	472.	427.	501.	444.	407.	406.	297.	353.	432.	361.	89.
7756 P	236.	276.	255.	258.	287.	319.	256.	307.	65.	65.	55.	47.	75.
7757 P	524.	437.	432.	485.	433.	383.	469.	428.	461.	482.	507.	505.	a
7758 P	467.	422.	359.	437.	440.	439.	378.	420.	451.	439.	380.	a	395.
7759 P	337.	597.	544.	a	a	561.	a	577.	599.	572.	a	576.	a
7760 P	324.	324.	326.	361.	369.	380.	337.	347.	353.	329.	348.	333.	360.
7761 P	312.	292.	287.	516.	407.	353.	458.	356.	257.	314.	375.	388.	a
7762 P	286.	274.	251.	196.	338.	264.	362.	398.	305.	258.	278.	355.	364.
7763 P	417.	415.	515.	423.	371.	470.	428.	338.	455.	376.	343.	248.	158.
7764 P	406.	361.	483.	297.	412.	388.	374.	372.	370.	374.	312.	272.	175.
7765 P	419.	497.	453.	a	447.	511.	523.	464.	567.	576.	546.	a	539.
7766 P	359.	427.	486.	473.	535.	411.	481.	521.	415.	390.	365.	420.	350.
7767 P	317.	269.	434.	363.	425.	393.	370.	507.	495.	475.	540.	a	351.
7768 P	405.	411.	392.	311.	416.	341.	398.	351.	405.	326.	210.	261.	240.
7769 P	413.	392.	487.	377.	348.	366.	502.	509.	525.	491.	383.	448.	353.
7770 P	380.	316.	298.	331.	499.	479.	495.	487.	a	522.	525.	495.	400.
7771 NP	213.	246.	242.	238.	176.	100.	145.	217.	258.	242.	257.	224.	222.
7772 P	384.	434.	413.	442.	324.	353.	326.	391.	338.	376.	401.	266.	332.
7773 P	392.	449.	450.	453.	312.	307.	352.	398.	389.	387.	400.	295.	304.
7774 P	278.	358.	252.	285.	247.	317.	258.	369.	262.	335.	301.	311.	288.
7775 P	438.	438.	414.	481.	279.	327.	358.	352.	445.	425.	430.	311.	265.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled water precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 22 (PAGE 15): MATERNAL WATER CONSUMPTION VALUES - INDIVIDUAL DATA

RABBIT #	PREGNANCY STATUS	DOSAGE GROUP 5 DAYS 27 - 28	28 - 29	30.0 MG/KG/DAY
7751	P	a	480.	
7752	P	304.	205.	
7753	P	367.	254.	
7754	P	263.	216.	
7755	P	354.	201.	
7756	P	135.	132.	
7757	P	596.	249.	
7758	P	483.	389.	
7759	P	a	202.	
7760	P	408.	277.	
7761	P	a	321.	
7762	P	279.	264.	
7763	P	193.	130.	
7764	P	39.	0.	
7765	P	472.	337.	
7766	P	506.	354.	
7767	P	236.	198.	
7768	P	303.	222.	
7769	P	376.	371.	
7770	P	401.	304.	
7771	NP	223.	210.	
7772	P	380.	345.	
7773	P	321.	269.	
7774	P	298.	217.	
7775	P	318.	321.	

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled water precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 22 (PAGE 16): MATERNAL WATER CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS	1 - 2	2 - 3	3 - 4	4 - 5	5 - 6	6 - 7	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14
RABBIT #		DOSAGE GROUP 6						100.0 MG/KG/DAY						
7776	P a	b	b	b	220.	197.	276.	199.	230.	205.	214.	211.	220.	230.
7777	P	b	b	b	226.	281.	253.	169.	226.	234.	272.	276.	242.	215.
7778	P	b	b	b	291.	299.	380.	324.	305.	259.	247.	299.	326.	393.
7779	P	b	b	b	226.	c	303.	236.	232.	206.	236.	259.	330.	427.
7780	P	b	b	170.	236.	219.	224.	222.	242.	244.	216.	241.	244.	171.
7781	P	b	b	353.	395.	471.	347.	449.	372.	420.	397.	382.	434.	297.
7782	P	b	b	303.	259.	c	318.	422.	281.	360.	364.	401.	428.	286.
7783	P	b	b	246.	245.	315.	286.	332.	333.	361.	384.	353.	8.	240.
7784	P	b	b	277.	325.	c	360.	438.	354.	469.	359.	364.	415.	352.
7785	P	b	b	250.	298.	c	370.	501.	394.	472.	441.	448.	581.	502.
7786	P	b	b	362.	408.	c	455.	460.	461.	421.	533.	392.	354.	367.
7787	P	b	b	395.	c	544.	496.	467.	458.	452.	444.	476.	544.	514.
7788	P	b	255.	344.	501.	279.	398.	353.	359.	375.	349.	365.	398.	327.
7789	P	b	483.	279.	706.	487.	c	532.	567.	488.	463.	404.	412.	465.
7790	P	b	235.	c	446.	260.	460.	330.	364.	364.	324.	375.	370.	517.
7791	P	b	347.	295.	313.	262.	c	c	433.	562.	422.	376.	393.	360.
7792	P	b	15.	7.	4.	283.	275.	230.	262.	333.	299.	207.	282.	365.
7793	P	b	319.	301.	348.	290.	329.	263.	353.	413.	411.	343.	370.	362.
7794	P	b	134.	227.	255.	264.	224.	220.	223.	240.	279.	246.	296.	343.
7795	NP	453.	c	c	547.	310.	381.	426.	431.	358.	270.	364.	217.	173.
7796	P	377.	318.	395.	481.	236.	365.	331.	435.	310.	206.	298.	402.	455.
7797	P	108.	352.	565.	461.	282.	361.	329.	380.	378.	439.	410.	413.	424.
7798	P	402.	391.	c	397.	316.	350.	412.	429.	495.	355.	429.	415.	459.
7799	P	204.	259.	345.	365.	214.	493.	419.	370.	298.	341.	381.	508.	415.
7800	P	343.	253.	351.	307.	211.	261.	328.	336.	260.	267.	312.	323.	338.

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

a. Doe 7776 delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation). Values excluded from group averages and statistical analyses.
b. Value was not recorded.
c. Spilled water precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 22 (PAGE 17): MATERNAL WATER CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27
RABBIT #	DOSAGE GROUP 6						100.0 MG/KG/DAY						
7776 P a	227.	309.	308.	273.	289.	224.	273.	326.	258.	223.	352.	276.	70.
7777 P	231.	261.	275.	297.	308.	264.	249.	253.	248.	259.	286.	218.	188.
7778 P	396.	426.	426.	407.	512.	456.	356.	459.	355.	271.	156.	165.	251.
7779 P	382.	405.	372.	355.	396.	447.	380.	451.	297.	353.	351.	287.	215.
7780 P	196.	206.	184.	243.	256.	222.	246.	258.	240.	221.	188.	180.	214.
7781 P	338.	405.	375.	444.	408.	430.	415.	333.	429.	412.	379.	311.	368.
7782 P	354.	409.	336.	443.	467.	372.	371.	324.	300.	313.	290.	223.	302.
7783 P	b	b	441.	520.	469.	484.	516.	469.	443.	485.	412.	321.	409.
7784 P	368.	409.	308.	440.	428.	345.	406.	323.	448.	441.	485.	361.	330.
7785 P	474.	540.	424.	505.	516.	483.	474.	438.	487.	b	b	592.	b
7786 P	369.	349.	371.	448.	387.	408.	426.	449.	504.	380.	410.	482.	425.
7787 P	545.	496.	495.	424.	461.	450.	411.	477.	458.	442.	438.	387.	383.
7788 P	261.	241.	319.	273.	325.	326.	378.	319.	397.	317.	294.	266.	306.
7789 P	499.	540.	506.	591.	448.	514.	315.	375.	365.	b	357.	388.	451.
7790 P	489.	402.	503.	401.	416.	420.	381.	447.	445.	487.	412.	478.	468.
7791 P	395.	329.	344.	295.	292.	306.	306.	337.	353.	343.	344.	345.	284.
7792 P	224.	311.	379.	342.	382.	273.	348.	343.	349.	299.	294.	275.	298.
7793 P	297.	250.	280.	344.	354.	390.	314.	362.	372.	345.	317.	309.	280.
7794 P	296.	222.	353.	316.	364.	292.	321.	345.	354.	352.	297.	322.	302.
7795 NP	205.	357.	349.	369.	325.	337.	316.	377.	346.	393.	372.	320.	319.
7796 P	320.	182.	354.	385.	409.	491.	536.	563.	444.	396.	470.	368.	434.
7797 P	415.	381.	407.	427.	388.	411.	423.	490.	394.	399.	403.	256.	265.
7798 P	329.	390.	216.	320.	409.	422.	538.	466.	396.	348.	339.	239.	280.
7799 P	502.	b	b	403.	417.	370.	459.	503.	502.	459.	469.	362.	410.
7800 P	202.	298.	239.	298.	249.	271.	242.	185.	222.	237.	318.	319.	268.

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

a. Doe 7776 delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation). Values excluded from group averages and statistical analyses.

b. Spilled water precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 22 (PAGE 18): MATERNAL WATER CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 27 - 28.	28 - 29
RABBIT #	DOSAGE GROUP 6	100.0 MG/KG/DAY
7776 P a		
7777 P	193.	91.
7778 P	373.	326.
7779 P	267.	223.
7780 P	124.	103.
7781 P	285.	126.
7782 P	356.	154.
7783 P	490.	209.
7784 P	123.	161.
7785 P	b	410.
7786 P	593.	268.
7787 P	470.	306.
7788 P	317.	161.
7789 P	362.	318.
7790 P	422.	144.
7791 P	334.	240.
7792 P	281.	191.
7793 P	257.	196.
7794 P	303.	181.
7795 NP	319.	226.
7796 P	321.	245.
7797 P	196.	128.
7798 P	244.	148.
7799 P	409.	307.
7800 P	295.	208.

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

a. Doe 7776 delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation). Values excluded from group averages and statistical analyses.

b. Spilled water precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 23 (PAGE 1): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

RABBIT #	PREGNANCY STATUS	DAYS 6 - 7	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19
DOSAGE GROUP 1								0 (CARRIER) MG/KG/DAY						
7651	P	151.	153.	180.	180.	180.	151.	76.	157.	182.	142.	152.	184.	180.
7652	P	182.	154.	182.	181.	150.	156.	181.	128.	129.	152.	181.	183.	185.
7653	NP	180.	183.	181.	184.	180.	180.	185.	181.	157.	182.	181.	182.	180.
7654	P	183.	184.	180.	185.	180.	180.	181.	181.	183.	182.	182.	182.	181.
7655	P	148.	158.	124.	116.	151.	180.	183.	182.	180.	181.	183.	180.	185.
7656	P	182.	180.	180.	185.	184.	180.	185.	180.	182.	180.	184.	185.	180.
7657	P	184.	185.	181.	185.	a	185.	185.	184.	185.	182.	180.	182.	181.
7658	P	182.	180.	180.	180.	180.	180.	185.	181.	182.	185.	a	180.	185.
7659	P	180.	184.	185.	183.	185.	181.	181.	184.	180.	182.	182.	184.	184.
7660	NP	185.	180.	185.	185.	185.	181.	180.	185.	185.	183.	183.	183.	181.
7661	P	155.	130.	127.	150.	183.	141.	101.	109.	109.	150.	181.	173.	182.
7662	P	180.	180.	182.	180.	182.	180.	185.	180.	181.	182.	185.	182.	185.
7663	P	180.	180.	180.	185.	185.	184.	180.	185.	180.	185.	182.	185.	183.
7664	P	182.	183.	185.	185.	181.	182.	180.	182.	181.	185.	181.	184.	185.
7665	P	160.	182.	181.	182.	185.	a	184.	184.	180.	181.	185.	183.	184.
7666	P	180.	185.	180.	184.	184.	184.	138.	133.	146.	165.	182.	166.	185.
7667	P	185.	185.	181.	183.	180.	181.	185.	181.	184.	180.	185.	183.	a
7668	P	180.	181.	184.	185.	181.	178.	113.	128.	114.	103.	185.	142.	165.
7669	P	180.	180.	183.	183.	180.	185.	a	180.	180.	180.	180.	180.	185.
7670	P	154.	140.	136.	181.	185.	184.	183.	180.	183.	185.	181.	180.	184.
7671	NP	180.	182.	181.	182.	184.	184.	181.	184.	180.	185.	180.	182.	181.
7672	P	180.	181.	180.	167.	125.	a	a	a	185.	183.	183.	185.	a
7673	P	13.	23.	6.	8.	140.	135.	132.	180.	181.	183.	180.	182.	181.
7674	P	180.	180.	184.	176.	114.	104.	141.	122.	141.	185.	182.	184.	180.
7675	P	180.	183.	180.	158.	155.	150.	157.	164.	180.	184.	180.	183.	183.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled feed precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 23 (PAGE 2): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

RABBIT #	PREGNANCY STATUS	DOSAGE GROUP 1						0 (CARRIER) MG/KG/DAY			
	DAYS	19 - 20	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28	28 - 29
7651	P	181.	184.	180.	180.	180.	183.	180.	183.	168.	180.
7652	P	185.	182.	182.	180.	27.	17.	22.	93.	93.	114.
7653	NP	185.	180.	43.	140.	157.	181.	181.	183.	185.	185.
7654	P	183.	184.	180.	183.	183.	185.	169.	150.	124.	159.
7655	P	180.	183.	148.	121.	63.	88.	31.	77.	40.	121.
7656	P	182.	182.	180.	181.	181.	124.	115.	123.	63.	104.
7657	P	180.	180.	180.	185.	100.	81.	182.	a	185.	98.
7658	P	183.	b	183.	183.	181.	183.	184.	180.	182.	180.
7659	P	181.	185.	185.	184.	180.	185.	185.	180.	183.	183.
7660	NP	181.	185.	184.	185.	183.	183.	181.	182.	185.	184.
7661	P	185.	185.	181.	107.	116.	47.	69.	111.	110.	64.
7662	P	182.	185.	182.	183.	181.	183.	174.	150.	120.	107.
7663	P	182.	185.	182.	185.	182.	181.	140.	184.	178.	145.
7664	P	183.	180.	180.	182.	180.	184.	169.	182.	185.	183.
7665	P	150.	183.	183.	182.	184.	183.	180.	182.	180.	137.
7666	P	143.	131.	75.	23.	0.	3.	60.	170.	153.	114.
7667	P	b	b	182.	180.	182.	182.	183.	181.	182.	180.
7668	P	161.	180.	181.	166.	140.	151.	154.	149.	119.	104.
7669	P	184.	184.	185.	184.	149.	155.	181.	185.	158.	159.
7670	P	185.	181.	182.	160.	183.	180.	180.	183.	180.	180.
7671	NP	183.	180.	182.	184.	181.	181.	181.	183.	180.	180.
7672	P	b	180.	180.	126.	127.	92.	68.	5.	2.	0.
7673	P	180.	185.	184.	139.	136.	121.	110.	59.	60.	56.
7674	P	185.	180.	182.	184.	180.	137.	127.	78.	104.	98.
7675	P	165.	185.	177.	138.	150.	105.	90.	70.	86.	95.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Soiled feed precluded the calculation of this value.
b. Spilled feed precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 23 (PAGE 3): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 6 - 7	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19
RABBIT #	DOSAGE GROUP 2						0.1 MG/KG/DAY						
7676 P	183.	184.	185.	180.	182.	181.	180.	182.	181.	149.	165.	137.	180.
7677 P	126.	112.	152.	143.	106.	113.	143.	129.	134.	146.	185.	161.	173.
7678 P	111.	101.	166.	184.	185.	185.	185.	181.	181.	182.	181.	184.	183.
7679 P	181.	183.	180.	183.	182.	180.	180.	174.	160.	155.	149.	129.	122.
7680 P	180.	160.	180.	185.	180.	185.	183.	182.	185.	183.	184.	131.	97.
7681 P	120.	100.	126.	121.	144.	62.	180.	127.	142.	126.	154.	131.	130.
7682 P	182.	a	a	181.	180.	182.	180.	183.	182.	185.	185.	184.	181.
7683 P	181.	182.	185.	185.	185.	180.	185.	185.	180.	185.	181.	181.	185.
7684 P	184.	181.	183.	180.	180.	138.	29.	141.	183.	181.	182.	181.	183.
7685 P	182.	185.	180.	184.	183.	183.	181.	184.	182.	184.	181.	182.	183.
7686 P	183.	183.	165.	147.	148.	182.	171.	144.	182.	180.	185.	180.	164.
7687 P	184.	183.	183.	180.	185.	182.	185.	181.	181.	182.	184.	185.	180.
7688 P	182.	180.	185.	171.	183.	182.	181.	184.	180.	184.	183.	182.	181.
7689 P	180.	182.	182.	180.	180.	180.	184.	180.	183.	180.	180.	183.	182.
7690 P	183.	180.	185.	180.	185.	182.	180.	183.	185.	182.	185.	183.	180.
7691 P	180.	180.	180.	183.	183.	181.	184.	185.	183.	185.	183.	185.	181.
7692 P	180.	181.	180.	185.	185.	185.	185.	184.	183.	182.	184.	180.	182.
7693 P	183.	184.	182.	180.	181.	181.	185.	180.	180.	180.	183.	181.	185.
7694 P	181.	185.	185.	180.	185.	183.	182.	185.	182.	180.	185.	180.	181.
7695 P	180.	185.	181.	184.	185.	185.	183.	185.	185.	181.	180.	180.	184.
7696 P	169.	163.	181.	158.	155.	169.	134.	135.	160.	158.	185.	165.	185.
7697 P	181.	147.	125.	118.	100.	93.	115.	139.	138.	184.	157.	154.	130.
7698 P	181.	184.	185.	173.	160.	182.	185.	182.	180.	185.	162.	100.	154.
7699 P	180.	185.	182.	163.	146.	100.	81.	119.	181.	180.	163.	183.	181.
7700 NP	184.	183.	180.	184.	185.	181.	182.	181.	185.	183.	180.	181.	185.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled feed precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 23 (PAGE 4): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 19 - 20	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28	28 - 29
RABBIT #	DOSAGE GROUP 2						0.1 MG/KG/DAY			
7676 P	135.	148.	111.	169.	135.	35.	15.	0.	8.	121.
7677 P	85.	127.	124.	116.	124.	113.	101.	75.	16.	6.
7678 P	183.	182.	182.	184.	142.	32.	98.	94.	102.	123.
7679 P	129.	134.	114.	129.	123.	100.	115.	59.	129.	158.
7680 P	173.	182.	184.	185.	180.	182.	181.	181.	114.	116.
7681 P	89.	73.	76.	99.	153.	157.	a	152.	122.	91.
7682 P	185.	183.	184.	181.	180.	180.	184.	181.	159.	181.
7683 P	183.	182.	184.	180.	181.	181.	183.	185.	119.	185.
7684 P	183.	106.	156.	162.	146.	141.	118.	121.	184.	139.
7685 P	185.	184.	181.	180.	180.	180.	180.	183.	180.	159.
7686 P	183.	75.	182.	143.	132.	104.	51.	133.	165.	135.
7687 P	184.	a	182.	183.	a	140.	184.	a	181.	182.
7688 P	180.	181.	182.	183.	182.	182.	136.	181.	183.	148.
7689 P	181.	182.	182.	184.	171.	168.	112.	109.	105.	79.
7690 P	180.	180.	183.	182.	185.	184.	182.	182.	184.	166.
7691 P	185.	180.	184.	184.	184.	180.	182.	180.	132.	131.
7692 P	184.	180.	185.	185.	150.	154.	180.	156.	136.	126.
7693 P	180.	180.	181.	180.	155.	180.	151.	125.	136.	132.
7694 P	181.	181.	185.	181.	157.	181.	184.	181.	140.	181.
7695 P	181.	181.	182.	180.	182.	180.	180.	182.	181.	180.
7696 P	180.	182.	159.	142.	98.	104.	118.	137.	106.	113.
7697 P	163.	160.	58.	101.	185.	181.	185.	148.	125.	120.
7698 P	180.	181.	181.	183.	155.	111.	35.	97.	116.	90.
7699 P	180.	185.	168.	138.	119.	111.	103.	12.	118.	99.
7700 NP	182.	155.	137.	136.	165.	180.	157.	29.	152.	94.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled feed precluded the calculation of this value.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 23 (PAGE 5): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS DAYS	6 - 7	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19
RABBIT #	DOSAGE GROUP 3						1.0 MG/KG/DAY						
7701 P	183.	182.	180.	143.	130.	134.	154.	114.	153.	180.	168.	130.	121.
7702 P	180.	133.	154.	112.	133.	109.	57.	73.	58.	130.	130.	152.	181.
7703 P	140.	124.	138.	141.	152.	129.	137.	118.	91.	76.	87.	99.	90.
7704 P	183.	184.	185.	183.	182.	183.	183.	183.	181.	185.	184.	185.	183.
7705 P	181.	183.	180.	183.	183.	180.	182.	185.	183.	180.	185.	180.	185.
7706 P	183.	183.	180.	184.	182.	185.	154.	143.	181.	180.	182.	183.	185.
7707 P	138.	137.	135.	131.	53.	69.	98.	119.	134.	159.	101.	183.	107.
7708 P	116.	158.	184.	181.	185.	184.	182.	185.	184.	181.	185.	185.	182.
7709 P	183.	180.	181.	185.	182.	182.	182.	183.	185.	185.	185.	182.	183.
7710 P	182.	180.	180.	180.	181.	128.	53.	93.	146.	184.	183.	184.	182.
7711 P	25.	123.	185.	183.	183.	166.	140.	156.	184.	185.	183.	181.	183.
7712 P	183.	180.	183.	185.	184.	178.	184.	181.	180.	184.	182.	183.	183.
7713 P	183.	184.	183.	185.	180.	145.	103.	106.	138.	184.	184.	183.	181.
7714 P	184.	185.	185.	181.	182.	180.	185.	180.	180.	184.	181.	184.	183.
7715 P	181.	180.	185.	185.	177.	166.	184.	155.	169.	183.	180.	169.	160.
7716 P	181.	183.	184.	182.	181.	185.	182.	161.	185.	180.	184.	180.	182.
7717 P	182.	185.	185.	180.	185.	180.	183.	182.	184.	182.	182.	184.	183.
7718 P	180.	185.	91.	172.	184.	182.	181.	180.	184.	166.	185.	158.	136.
7719 P	183.	180.	185.	161.	184.	127.	152.	165.	149.	185.	180.	180.	162.
7720 P	180.	180.	182.	180.	183.	89.	122.	183.	184.	183.	180.	182.	184.
7721 P	180.	181.	185.	184.	184.	183.	146.	160.	137.	143.	144.	168.	181.
7722 P	185.	180.	183.	184.	53.	183.	182.	184.	180.	184.	183.	183.	185.
7723 P	183.	116.	51.	102.	108.	61.	93.	180.	181.	122.	113.	185.	136.
7724 P	181.	185.	185.	182.	183.	88.	111.	145.	180.	182.	180.	182.	182.
7725 P	180.	180.	181.	180.	182.	185.	180.	166.	149.	180.	184.	180.	183.

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

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TABLE 23 (PAGE 6): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 19 - 20	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28	28 - 29
RABBIT #	DOSAGE GROUP 3						1.0 MG/KG/DAY			
7701 P	114.	140.	166.	150.	125.	181.	55.	92.	65.	59.
7702 P	172.	151.	103.	76.	81.	180.	97.	92.	76.	21.
7703 P	73.	50.	40.	61.	74.	91.	69.	85.	58.	56.
7704 P	183.	185.	184.	181.	139.	118.	72.	51.	183.	133.
7705 P	182.	185.	184.	182.	184.	182.	154.	120.	181.	129.
7706 P	167.	153.	99.	129.	180.	83.	72.	86.	164.	101.
7707 P	93.	98.	131.	148.	181.	121.	82.	112.	183.	139.
7708 P	181.	182.	109.	121.	185.	174.	180.	136.	183.	182.
7709 P	181.	185.	185.	180.	182.	182.	183.	180.	174.	124.
7710 P	185.	181.	126.	180.	140.	153.	144.	148.	157.	150.
7711 P	183.	156.	120.	79.	28.	51.	95.	121.	111.	76.
7712 P	182.	181.	a	181.	182.	184.	180.	130.	168.	122.
7713 P	181.	185.	185.	180.	165.	150.	108.	181.	149.	124.
7714 P	182.	180.	180.	181.	184.	180.	109.	44.	43.	77.
7715 P	154.	180.	180.	180.	149.	112.	50.	72.	98.	79.
7716 P	185.	180.	184.	182.	185.	184.	181.	181.	185.	181.
7717 P	184.	184.	183.	180.	150.	160.	154.	182.	138.	103.
7718 P	137.	181.	181.	a	98.	109.	90.	109.	55.	74.
7719 P	124.	141.	132.	93.	a	158.	138.	103.	119.	91.
7720 P	181.	180.	180.	182.	169.	182.	184.	125.	119.	64.
7721 P	182.	180.	167.	132.	32.	8.	5.	24.	6.	b
7722 P	181.	183.	182.	181.	180.	184.	180.	182.	64.	94.
7723 P	183.	183.	182.	183.	185.	182.	133.	109.	146.	133.
7724 P	181.	184.	180.	183.	185.	159.	150.	13.	2.	c
7725 P	184.	181.	158.	57.	14.	10.	18.	3.	0.	1.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled feed precluded the calculation of this value.
b. Doe 7721 aborted on day 28 of gestation.
c. Doe 7724 aborted on day 28 of gestation.

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TABLE 23 (PAGE 7): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 6 - 7	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19
RABBIT #	DOSAGE GROUP 4						10.0 MG/KG/DAY						
7726 P	180.	182.	180.	185.	184.	182.	161.	185.	183.	183.	185.	185.	181.
7727 P	182.	183.	181.	185.	183.	181.	181.	183.	184.	184.	185.	184.	180.
7728 P	99.	66.	132.	112.	130.	127.	146.	111.	76.	81.	120.	128.	149.
7729 P	183.	180.	164.	157.	180.	152.	154.	127.	139.	161.	166.	184.	185.
7730 P	185.	181.	180.	185.	183.	180.	181.	183.	185.	180.	181.	181.	185.
7731 P	181.	182.	180.	183.	185.	181.	185.	182.	180.	183.	184.	185.	181.
7732 P	181.	184.	182.	181.	180.	182.	183.	180.	185.	182.	a	181.	183.
7733 P	180.	181.	180.	183.	180.	183.	141.	142.	125.	162.	183.	180.	184.
7734 P	160.	165.	180.	184.	154.	185.	117.	161.	183.	180.	184.	185.	153.
7735 P	183.	185.	184.	182.	184.	183.	181.	182.	185.	184.	183.	185.	180.
7736 P	180.	185.	181.	183.	184.	184.	184.	182.	180.	180.	181.	181.	185.
7737 P	185.	183.	181.	183.	182.	185.	184.	182.	180.	185.	185.	182.	183.
7738 P	185.	182.	185.	185.	185.	182.	184.	180.	183.	182.	185.	182.	184.
7739 NP	180.	180.	185.	185.	180.	159.	183.	183.	180.	181.	180.	161.	180.
7740 P	180.	181.	147.	137.	143.	114.	94.	110.	138.	153.	180.	183.	164.
7741 P	182.	180.	185.	181.	184.	184.	182.	180.	182.	180.	184.	180.	180.
7742 P	180.	180.	180.	182.	181.	181.	184.	180.	185.	184.	184.	181.	180.
7743 P	180.	185.	184.	180.	182.	180.	184.	180.	156.	120.	184.	185.	182.
7744 P	180.	166.	184.	154.	184.	b	184.	172.	183.	143.	155.	137.	180.
7745 P	180.	185.	182.	181.	185.	181.	184.	181.	181.	185.	185.	a	a
7746 P	185.	185.	182.	185.	180.	180.	181.	182.	180.	182.	180.	182.	181.
7747 P	182.	183.	125.	106.	183.	159.	184.	107.	180.	184.	182.	182.	182.
7748 P	180.	182.	180.	184.	185.	184.	185.	152.	81.	150.	184.	180.	182.
7749 P	180.	185.	185.	184.	86.	64.	141.	158.	185.	185.	180.	161.	183.
7750 P	141.	182.	180.	185.	181.	185.	185.	184.	180.	180.	181.	182.	180.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled feed precluded the calculation of this value.
b. Wet feed precluded the calculation of this value.

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TABLE 23 (PAGE 8): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 19 - 20	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28	28 - 29
RABBIT #	DOSAGE GROUP 4						10.0 MG/KG/DAY			
7726 P	184.	185.	185.	182.	182.	150.	120.	184.	92.	75.
7727 P	174.	170.	182.	182.	180.	185.	180.	158.	31.	46.
7728 P	151.	85.	103.	146.	151.	156.	148.	158.	132.	149.
7729 P	182.	180.	184.	180.	180.	180.	184.	182.	164.	137.
7730 P	185.	183.	183.	180.	180.	162.	165.	182.	185.	169.
7731 P	181.	184.	180.	184.	93.	161.	184.	170.	184.	169.
7732 P	184.	185.	182.	180.	180.	180.	181.	108.	140.	185.
7733 P	183.	180.	184.	180.	180.	153.	158.	145.	183.	171.
7734 P	136.	143.	136.	110.	83.	56.	107.	115.	132.	137.
7735 P	180.	180.	185.	180.	185.	180.	121.	117.	78.	60.
7736 P	180.	181.	180.	181.	185.	182.	180.	182.	180.	185.
7737 P	180.	183.	185.	185.	147.	156.	79.	90.	119.	116.
7738 P	180.	185.	185.	180.	181.	184.	183.	185.	182.	180.
7739 NP	180.	184.	185.	182.	135.	183.	152.	152.	168.	138.
7740 P	151.	147.	128.	121.	110.	126.	106.	107.	104.	91.
7741 P	183.	182.	180.	181.	183.	184.	181.	185.	181.	181.
7742 P	185.	181.	180.	185.	183.	181.	185.	185.	151.	155.
7743 P	182.	184.	183.	185.	182.	180.	180.	184.	185.	182.
7744 P	185.	181.	182.	148.	110.	107.	82.	76.	44.	58.
7745 P	180.	a	182.	a	181.	181.	184.	181.	149.	143.
7746 P	183.	183.	185.	180.	181.	184.	180.	180.	185.	155.
7747 P	181.	185.	183.	182.	168.	114.	101.	133.	144.	136.
7748 P	180.	180.	182.	181.	185.	145.	145.	128.	138.	111.
7749 P	182.	180.	182.	181.	108.	99.	90.	66.	85.	92.
7750 P	185.	180.	180.	185.	185.	183.	183.	180.	185.	149.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled feed precluded the calculation of this value.

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TABLE 23 (PAGE 9): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS DAYS	6 - 7	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19
RABBIT #	DOSAGE GROUP 5						30.0 MG/KG/DAY						
7751 P	180.	182.	184.	185.	185.	182.	181.	181.	180.	183.	184.	183.	185.
7752 P	185.	180.	185.	185.	181.	184.	181.	181.	184.	184.	182.	180.	180.
7753 P	180.	161.	139.	144.	145.	122.	88.	105.	4.	13.	10.	64.	119.
7754 P	183.	181.	182.	181.	181.	183.	181.	183.	181.	182.	180.	181.	180.
7755 P	183.	181.	181.	185.	183.	183.	180.	185.	183.	185.	180.	183.	183.
7756 P	182.	180.	182.	183.	182.	180.	170.	154.	185.	180.	181.	184.	184.
7757 P	181.	182.	180.	184.	185.	185.	184.	180.	180.	185.	182.	185.	182.
7758 P	181.	185.	180.	185.	182.	183.	182.	185.	180.	181.	185.	185.	180.
7759 P	182.	183.	180.	183.	180.	182.	184.	184.	180.	183.	182.	183.	183.
7760 P	181.	185.	180.	185.	185.	180.	147.	182.	181.	180.	183.	180.	185.
7761 P	181.	180.	183.	185.	185.	181.	a	184.	154.	163.	167.	185.	182.
7762 P	183.	180.	180.	183.	184.	182.	184.	183.	182.	183.	180.	183.	182.
7763 P	183.	180.	183.	181.	184.	127.	155.	180.	182.	181.	181.	180.	185.
7764 P	185.	183.	181.	185.	185.	177.	181.	180.	181.	182.	185.	182.	181.
7765 P	181.	181.	184.	185.	183.	182.	183.	185.	180.	183.	180.	183.	181.
7766 P	180.	184.	185.	183.	182.	182.	184.	185.	184.	151.	185.	69.	184.
7767 P	180.	185.	183.	184.	180.	183.	185.	175.	183.	166.	180.	184.	182.
7768 P	185.	154.	185.	184.	126.	62.	183.	183.	181.	183.	184.	182.	181.
7769 P	180.	185.	182.	181.	183.	184.	185.	183.	182.	184.	184.	180.	180.
7770 P	182.	184.	183.	180.	180.	182.	185.	185.	180.	180.	185.	180.	184.
7771 NP	182.	185.	180.	184.	185.	181.	180.	185.	183.	183.	183.	180.	124.
7772 P	180.	184.	182.	184.	180.	184.	180.	182.	180.	184.	183.	180.	183.
7773 P	184.	184.	185.	184.	183.	185.	181.	184.	180.	184.	180.	182.	180.
7774 P	183.	161.	147.	144.	173.	151.	136.	128.	158.	185.	158.	180.	155.
7775 P	182.	183.	185.	167.	184.	184.	180.	182.	180.	183.	181.	182.	90.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled feed precluded the calculation of this value.

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TABLE 23 (PAGE 10): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 19 - 20	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28	28 - 29
RABBIT #	DOSAGE GROUP 5						30.0 MG/KG/DAY			
7751 P	181.	185.	185.	180.	180.	181.	180.	58.	181.	180.
7752 P	185.	183.	184.	181.	180.	133.	114.	131.	118.	65.
7753 P	163.	161.	185.	162.	180.	129.	110.	89.	115.	81.
7754 P	183.	184.	185.	185.	157.	126.	87.	55.	92.	102.
7755 P	180.	183.	185.	111.	180.	180.	148.	17.	74.	67.
7756 P	182.	170.	137.	184.	65.	9.	12.	33.	70.	102.
7757 P	182.	184.	185.	181.	181.	182.	184.	181.	184.	157.
7758 P	180.	183.	182.	180.	181.	183.	85.	106.	146.	148.
7759 P	183.	182.	181.	181.	180.	180.	184.	148.	135.	85.
7760 P	180.	184.	181.	181.	180.	184.	185.	167.	182.	165.
7761 P	181.	183.	181.	112.	45.	5.	133.	164.	183.	131.
7762 P	184.	a	180.	183.	182.	185.	182.	182.	180.	180.
7763 P	183.	182.	153.	164.	164.	151.	86.	48.	71.	54.
7764 P	180.	184.	185.	184.	183.	182.	117.	99.	10.	3.
7765 P	182.	184.	182.	183.	180.	183.	181.	181.	180.	118.
7766 P	180.	180.	183.	185.	108.	182.	182.	184.	153.	180.
7767 P	185.	184.	185.	184.	180.	156.	180.	162.	149.	102.
7768 P	185.	182.	180.	164.	131.	69.	89.	105.	114.	119.
7769 P	184.	181.	185.	184.	183.	181.	181.	184.	181.	183.
7770 P	181.	184.	180.	185.	182.	182.	183.	181.	180.	183.
7771 NP	83.	99.	169.	157.	182.	182.	180.	180.	184.	180.
7772 P	180.	180.	182.	182.	180.	182.	182.	180.	180.	180.
7773 P	183.	180.	185.	163.	180.	180.	181.	142.	145.	130.
7774 P	163.	155.	162.	119.	163.	144.	185.	114.	140.	110.
7775 P	159.	181.	185.	180.	180.	180.	142.	128.	151.	131.

P = PREGNANT . NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Spilled feed precluded the calculation of this value.

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TABLE 23 (PAGE 11): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS	6 - 7	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19
RABBIT #	DOSAGE GROUP 6							100.0 MG/KG/DAY						
7776	P a	146.	105.	108.	93.	118.	143.	143.	130.	125.	121.	119.	103.	95.
7777	P	173.	128.	128.	140.	157.	139.	121.	104.	121.	141.	156.	185.	162.
7778	P	182.	182.	185.	180.	180.	183.	185.	185.	185.	181.	185.	181.	182.
7779	P	178.	b	147.	99.	143.	150.	182.	182.	182.	180.	180.	184.	181.
7780	P	181.	184.	180.	180.	180.	170.	124.	119.	159.	151.	181.	185.	184.
7781	P	181.	182.	182.	182.	184.	181.	183.	182.	182.	185.	180.	184.	181.
7782	P	185.	184.	180.	180.	180.	185.	184.	180.	183.	180.	184.	183.	180.
7783	P	182.	185.	180.	185.	182.	185.	98.	21.	183.	182.	182.	183.	183.
7784	P	182.	184.	181.	183.	183.	180.	181.	185.	183.	180.	182.	180.	185.
7785	P	181.	180.	180.	182.	185.	185.	183.	185.	181.	180.	184.	185.	185.
7786	P	181.	185.	182.	182.	180.	185.	137.	137.	130.	129.	131.	151.	135.
7787	P	180.	180.	180.	185.	180.	182.	185.	183.	185.	181.	181.	182.	161.
7788	P	184.	180.	182.	184.	185.	157.	152.	124.	125.	136.	180.	142.	165.
7789	P	180.	181.	182.	185.	184.	181.	184.	181.	184.	184.	183.	181.	185.
7790	P	182.	182.	185.	185.	185.	181.	169.	185.	183.	182.	180.	180.	183.
7791	P	181.	182.	181.	185.	185.	181.	183.	184.	180.	182.	185.	182.	182.
7792	P	184.	181.	185.	180.	183.	182.	180.	181.	183.	185.	181.	184.	182.
7793	P	185.	180.	180.	183.	184.	181.	183.	181.	181.	185.	180.	180.	182.
7794	P	185.	180.	124.	117.	185.	184.	128.	163.	152.	128.	180.	146.	161.
7795	NP	184.	184.	183.	184.	181.	184.	87.	66.	80.	174.	167.	185.	184.
7796	P	184.	181.	184.	182.	169.	138.	139.	148.	116.	26.	88.	134.	183.
7797	P	185.	183.	180.	185.	185.	184.	183.	181.	185.	182.	181.	185.	182.
7798	P	180.	183.	185.	184.	180.	180.	180.	182.	171.	168.	105.	159.	182.
7799	P	180.	181.	162.	185.	182.	182.	185.	180.	185.	180.	79.	107.	162.
7800	P	180.	183.	185.	180.	181.	184.	180.	180.	147.	185.	157.	180.	183.

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

a. Doe 7776 delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation). Values excluded from group averages and statistical analyses.

b. Spilled feed precluded the calculation of this value.

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TABLE 23 (PAGE 12): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 19 - 20	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28	28 - 29
RABBIT # DOSAGE GROUP 6							100.0 MG/KG/DAY			
7776 P a	75.	181.	78.	87.	75.	121.	139.	59.		
7777 P	136.	119.	101.	111.	110.	124.	86.	42.	26.	2.
7778 P	180.	182.	182.	184.	182.	51.	23.	121.	155.	157.
7779 P	182.	182.	180.	183.	185.	159.	124.	65.	86.	96.
7780 P	180.	185.	180.	180.	116.	60.	80.	72.	89.	63.
7781 P	183.	182.	184.	180.	181.	181.	184.	144.	113.	25.
7782 P	185.	182.	180.	180.	181.	180.	139.	128.	180.	137.
7783 P	181.	180.	182.	181.	181.	181.	181.	93.	105.	89.
7784 P	184.	185.	b	180.	183.	182.	183.	109.	72.	82.
7785 P	183.	b	b	181.	185.	181.	180.	155.	181.	143.
7786 P	113.	151.	150.	185.	181.	145.	152.	115.	183.	155.
7787 P	173.	159.	182.	158.	180.	139.	149.	96.	110.	99.
7788 P	184.	183.	160.	180.	89.	102.	55.	103.	102.	62.
7789 P	185.	184.	181.	183.	181.	182.	176.	181.	180.	156.
7790 P	185.	183.	185.	185.	182.	184.	170.	155.	184.	135.
7791 P	183.	b	180.	185.	180.	184.	184.	181.	180.	148.
7792 P	183.	180.	184.	184.	161.	165.	137.	130.	102.	114.
7793 P	181.	185.	182.	185.	182.	180.	185.	180.	138.	119.
7794 P	159.	157.	169.	162.	137.	128.	124.	128.	124.	125.
7795 NP	181.	180.	182.	184.	180.	183.	180.	156.	156.	113.
7796 P	181.	181.	180.	185.	184.	182.	180.	184.	109.	87.
7797 P	181.	184.	182.	181.	b	182.	155.	180.	82.	53.
7798 P	180.	181.	181.	185.	146.	130.	128.	111.	132.	72.
7799 P	168.	183.	181.	155.	182.	154.	145.	134.	152.	129.
7800 P	182.	160.	121.	123.	156.	182.	185.	183.	182.	185.

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

a. Doe 7776 delivered on day 27 of gestation; the mating date was incorrectly identified (presumed day 31 of gestation). Values excluded from group averages and statistical analyses.

b. Spilled feed precluded the calculation of this value.

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TABLE 24 (PAGE 1): NECROPSY OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RABBIT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
1					
0 (CARRIER)	7651	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7652	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7653	DG 29	NP	23	ALL TISSUES APPEARED NORMAL.
	7654	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7655	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7656	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7657	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7658	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7659	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7660	DG 29	NP	23	ALL TISSUES APPEARED NORMAL.
	7661	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7662	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7663	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7664	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7665	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7666	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7667	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7668	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7669	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7670	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7671	DG 29	NP	23	ALL TISSUES APPEARED NORMAL.
	7672	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7673	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7674	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7675	DG 29	P	23	ALL TISSUES APPEARED NORMAL.

DG = DAY OF PRESUMED GESTATION

a. Refer to the individual clinical observations table (Table 20) for external observations confirmed at necropsy.

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TABLE 24 (PAGE 2): NECROPSY OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RABBIT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
2					
0.1	7676	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7677	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7678	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7679	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7680	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7681	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7682	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7683	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7684	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7685	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7686	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7687	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7688	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7689	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7690	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7691	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7692	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7693	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7694	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7695	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7696	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7697	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7698	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7699	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7700	DG 29	NP	23	ALL TISSUES APPEARED NORMAL.

DG = DAY OF PRESUMED GESTATION

a. Refer to the individual clinical observations table (Table 20) for external observations confirmed at necropsy.

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TABLE 24 (PAGE 3): NECROPSY OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RABBIT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
3					
1.0	7701	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7702	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7703	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7704	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7705	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7706	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7707	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7708	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7709	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7710	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7711	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7712	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7713	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7714	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7715	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7716	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7717	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7718	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7719	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7720	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7721	DG 28	P	22	ABORTED ON DAY 28 OF GESTATION. ALL TISSUES APPEARED NORMAL.
	7722	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7723	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7724	DG 28	P	22	ABORTED ON DAY 28 OF GESTATION. LIVER: ALL LOBES, MOTTLED. ALL OTHER TISSUES APPEARED NORMAL.
	7725	DG 29	P	23	ALL TISSUES APPEARED NORMAL.

DG = DAY OF PRESUMED GESTATION

a. Refer to the individual clinical observations table (Table 20) for external observations confirmed at necropsy.

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TABLE 24 (PAGE 4): NECROPSY OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RABBIT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
4					
10.0	7726	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7727	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7728	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7729	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7730	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7731	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7732	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7733	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7734	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7735	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7736	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7737	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7738	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7739	DG 29	NP	23	ALL TISSUES APPEARED NORMAL.
	7740	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7741	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7742	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7743	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7744	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7745	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7746	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7747	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7748	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7749	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7750	DG 29	P	23	ALL TISSUES APPEARED NORMAL.

DG = DAY OF PRESUMED GESTATION
a. Refer to the individual clinical observations table (Table 20) for external observations confirmed at necropsy.

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TABLE 24 (PAGE 5): NECROPSY OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RABBIT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
5					
30.0	7751	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7752	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7753	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7754	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7755	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7756	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7757	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7758	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7759	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7760	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7761	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7762	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7763	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7764	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7765	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7766	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7767	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7768	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7769	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7770	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7771	DG 29	NP	23	ALL TISSUES APPEARED NORMAL.
	7772	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7773	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7774	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7775	DG 29	P	23	ALL TISSUES APPEARED NORMAL.

DG = DAY OF PRESUMED GESTATION

a. Refer to the individual clinical observations table (Table 20) for external observations confirmed at necropsy.

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TABLE 24 (PAGE 6): NECROPSY OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RABBIT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
6					
100.0	7776	DG 27	P	21	DELIVERED ON DAY 27 OF GESTATION. b ALL TISSUES APPEARED NORMAL.
	7777	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7778	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7779	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7780	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7781	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7782	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7783	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7784	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7785	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7786	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7787	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7788	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7789	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7790	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7791	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7792	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7793	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7794	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7795	DG 29	NP	23	ALL TISSUES APPEARED NORMAL.
	7796	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7797	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7798	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7799	DG 29	P	23	ALL TISSUES APPEARED NORMAL.
	7800	DG 29	P	23	ALL TISSUES APPEARED NORMAL.

DG = DAY OF PRESUMED GESTATION
a. Refer to the individual clinical observations table (Table 20) for external observations confirmed at necropsy.
b. Doe 7776 delivered on day 27 of gestation; the pups appeared to be day 31 of developmental age.

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TABLE 25 (PAGE 1): TERMINAL BODY WEIGHTS AND THYROID WEIGHTS AND RATIOS (%) OF THYROID WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA

RABBIT NUMBER	TERMINAL BODY WEIGHT	THYROID ABS. WT.	THYROID REL. % TBW
DOSAGE GROUP 1			0 (CARRIER) MG/KG/DAY
7651	4174.	0.541	0.01
7652	4278.	0.342	0.01
7653 NP	4373.	0.338	0.01
7654	4312.	0.619	0.01
7655	4048.	0.516	0.01
7656	4026.	0.405	0.01
7657	3692.	0.449	0.01
7658	4139.	0.402	0.01
7659	4147.	0.538	0.01
7660 NP	3954.	0.383	0.01
7661	4339.	0.508	0.01
7662	3788.	0.405	0.01
7663	4445.	0.605	0.01
7664	3886.	0.349	0.01
7665	3604.	0.455	0.01
7666	3537.	0.391	0.01
7667	4089.	0.319	0.01
7668	3562.	0.452	0.01
7669	4410.	0.386	0.01
7670	4568.	0.375	0.01
7671 NP	3919.	0.497	0.01
7672	3464.	0.473	0.01
7673	3318.	0.543	0.02
7674	3920.	0.484	0.01
7675	4490.	0.626	0.01

NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) x 100.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 25 (PAGE 2): TERMINAL BODY WEIGHTS AND THYROID WEIGHTS AND RATIOS (%) OF THYROID WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA

RABBIT NUMBER	TERMINAL BODY WEIGHT	THYROID ABS. WT.	THYROID REL. % TBW
DOSAGE GROUP 2			0.1 MG/KG/DAY
7676	3958.	0.481	0.01
7677	4088.	0.503	0.01
7678	4197.	0.689	0.02
7679	4438.	0.390	0.01
7680	4535.	0.404	0.01
7681	3400.	0.386	0.01
7682	4299.	0.632	0.01
7683	4790.	0.503	0.01
7684	4123.	0.598	0.01
7685	4142.	0.520	0.01
7686	3783.	0.349	0.01
7687	4175.	0.484	0.01
7688	3921.	0.454	0.01
7689	3786.	0.184a	0.00
7690	3906.	0.401	0.01
7691	4505.	0.406	0.01
7692	4172.	0.511	0.01
7693	4236.	0.340	0.01
7694	3842.	0.390	0.01
7695	3794.	0.403	0.01
7696	3753.	0.261	0.01
7697	4158.	0.356	0.01
7698	3762.	0.360	0.01
7699	3763.	0.402	0.01
7700 NP	3550.	0.406	0.01

NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) x 100.
a. Damaged during processing (weight affected); values excluded from group averages and statistical analyses.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 25 (PAGE 3): TERMINAL BODY WEIGHTS AND THYROID WEIGHTS AND RATIOS (%) OF THYROID WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA

RABBIT NUMBER	TERMINAL BODY WEIGHT	THYROID ABS. WT.	THYROID REL. % TBW
DOSAGE GROUP 3			1.0 MG/KG/DAY
7701	3907.	0.372	0.01
7702	3929.	0.758	0.02
7703	3817.	0.441	0.01
7704	4121.	0.415	0.01
7705	4067.	0.460	0.01
7706	4027.	0.505	0.01
7707	4368.	0.459	0.01
7708	4752.	0.508	0.01
7709	3878.	0.307	0.01
7710	4458.	0.468	0.01
7711	3666.	0.338	0.01
7712	3783.	0.506	0.01
7713	3911.	0.376	0.01
7714	4089.	0.434	0.01
7715	3505.	0.389	0.01
7716	4160.	0.522	0.01
7717	3713.	0.335	0.01
7718	3743.	0.254	0.01
7719	3947.	0.245	0.01
7720	4236.	0.421	0.01
7721a	2895.	0.605	0.02
7722	4190.	0.634	0.02
7723	3987.	0.406	0.01
7724b	3634.	0.396	0.01
7725	3700.	0.458	0.01

NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) x 100.
a. Doe 7721 aborted on day 28 of gestation; values excluded from group averages and statistical analyses.
b. Doe 7724 aborted on day 28 of gestation; values excluded from group averages and statistical analyses.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 25 (PAGE 4): TERMINAL BODY WEIGHTS AND THYROID WEIGHTS AND RATIOS (%) OF THYROID WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA

RABBIT NUMBER	TERMINAL BODY WEIGHT	THYROID ABS. WT.	THYROID REL. % TBW
DOSAGE GROUP 4			10.0 MG/KG/DAY
7726	4440.	0.436	0.01
7727	4084.	0.436	0.01
7728	4269.	0.507	0.01
7729	4763.	0.522	0.01
7730	4319.	0.586	0.01
7731	4068.	0.419	0.01
7732	4268.	0.440	0.01
7733	4256.	0.502	0.01
7734	3810.	0.423	0.01
7735	3866.	0.300	0.01
7736	4125.	0.414	0.01
7737	3670.	0.333	0.01
7738	3807.	a	
7739 NP	3901.	0.571	0.01
7740	3345.	0.344	0.01
7741	4294.	0.338	0.01
7742	4318.	0.445	0.01
7743	4012.	0.328	0.01
7744	3330.	0.364	0.01
7745	3636.	0.335	0.01
7746	4151.	0.502	0.01
7747	4338.	0.583	0.01
7748	3915.	0.524	0.01
7749	3685.	0.296	0.01
7750	4745.	0.510	0.01

NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) x 100.
a. Value was not recorded.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 25 (PAGE 5): TERMINAL BODY WEIGHTS AND THYROID WEIGHTS AND RATIOS (%) OF THYROID WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA

RABBIT NUMBER	TERMINAL BODY WEIGHT	THYROID ABS. WT.	THYROID REL. % TBW
DOSAGE GROUP 5			30.0 MG/KG/DAY
7751	4511.	0.307	0.01
7752	4053.	0.555	0.01
7753	3868.	0.311	0.01
7754	3872.	0.353	0.01
7755	4348.	0.416	0.01
7756	4042.	0.409	0.01
7757	4023.	0.444	0.01
7758	4132.	0.484	0.01
7759	3909.	0.426	0.01
7760	3990.	0.337	0.01
7761	4496.	0.402	0.01
7762	4093.	0.289	0.01
7763	3571.	0.395	0.01
7764	4042.	0.425	0.01
7765	3800.	0.385	0.01
7766	3939.	0.310	0.01
7767	3971.	0.348	0.01
7768	3660.	0.238	0.01
7769	4658.	0.414	0.01
7770	4522.	0.573	0.01
7771 NP	3871.	0.382	0.01
7772	4118.	0.417	0.01
7773	4333.	0.438	0.01
7774	4026.	0.401	0.01
7775	3821.	0.276	0.01

NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) x 100.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 25 (PAGE 6): TERMINAL BODY WEIGHTS AND THYROID WEIGHTS AND RATIOS (%) OF THYROID WEIGHT TO TERMINAL BODY WEIGHT - INDIVIDUAL DATA

RABBIT NUMBER	TERMINAL BODY WEIGHT	THYROID ABS. WT.	THYROID REL. % TBW
DOSAGE GROUP 6			100.0 MG/KG/DAY
7776a	3338.	0.449	0.01
7777	3810.	0.350	0.01
7778	4353.	0.411	0.01
7779	4125.	0.454	0.01
7780	4388.	0.505	0.01
7781	3914.	0.598	0.02
7782	4280.	0.337	0.01
7783	4342.	0.393	0.01
7784	4306.	0.424	0.01
7785	3763.	0.296	0.01
7786	4175.	0.416	0.01
7787	4115.	0.336	0.01
7788	3943.	0.414	0.01
7789	4098.	0.454	0.01
7790	3800.	0.267	0.01
7791	4456.	0.348	0.01
7792	3982.	0.431	0.01
7793	4085.	0.413	0.01
7794	3605.	0.360	0.01
7795 NP	3600.	0.385	0.01
7796	4077.	0.297	0.01
7797	4496.	0.517	0.01
7798	3882.	0.492	0.01
7799	4275.	0.282	0.01
7800	3762.	0.359	0.01

NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
ALL WEIGHTS WERE RECORDED IN GRAMS (G). ABS. WT. = ORGAN WEIGHT. REL. % TBW = (ORGAN WEIGHT/TERMINAL BODY WEIGHT) x 100.
a. Doe 7776 delivered on day 27 of gestation; values excluded from group averages and statistical analyses.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 26 (PAGE 1): THYROID HORMONE ANALYSES - INDIVIDUAL DATA

DOSAGE GROUP 1	0 (CARRIER) MG/KG/DAY		
RABBIT #	TOTAL T3 (ng/dL)	TOTAL T4 (µg/dL)	TSH (ng/mL)
7651	118.56	2.16	2.77
7652	90.04	1.41	1.87
7653 NP	162.82	1.98	1.77
7654	179.26	2.80	1.90
7655	102.63	1.20	1.97
7656	93.53	1.53	2.38
7657	102.26	1.16	1.75
7658	100.28	1.09	2.11
7659	98.27	1.29	1.86
7660 NP	159.94	0.57	1.73
7661	146.27	2.10	2.21
7662	213.18	2.99	2.55
7663	169.24	1.36	2.31
7664	164.10	2.59	2.20
7665	168.41	3.18	2.06
7666	167.78	0.71	2.18
7667	180.64	3.51	2.39
7668	165.72	2.70	2.03
7669	151.43	2.15	2.19
7670	139.91	2.26	1.74
7671 NP	224.04	2.07	2.42
7672	67.03	0.51	1.47
7673	209.30	2.84	2.69
7674	161.62	1.73	2.09
7675	66.92	0.95	1.76

NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 26 (PAGE 2): THYROID HORMONE ANALYSES - INDIVIDUAL DATA

DOSAGE GROUP 2	0.1 MG/KG/DAY		
RABBIT #	TOTAL T3 (ng/dL)	TOTAL T4 (µg/dL)	TSH (ng/mL)
7676	125.12	1.93	1.52
7677	84.52	1.59	1.64
7678	146.34	2.00	2.25
7679	77.74	1.61	2.57
7680	81.65	1.29	2.28
7681	132.04	1.80	1.76
7682	126.67	2.97	1.85
7683	101.12	2.04	1.58
7684	132.28	4.07	2.02
7685	134.39	2.41	2.03
7686	108.50	1.92	1.90
7687	112.87	2.04	2.06
7688	113.81	1.43	1.76
7689	151.32	1.92	2.01
7690	164.27	2.11	2.42
7691	119.67	1.88	2.13
7692	136.06	1.97	3.06
7693	154.84	1.07	1.92
7694	135.92	2.08	2.34
7695	206.18	1.60	1.97
7696	159.22	2.77	2.06
7697	127.35	1.21	1.97
7698	196.72	2.35	1.89
7699	194.76	3.67	1.87
7700 NP	179.83	2.29	1.69

NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 26 (PAGE 3): THYROID HORMONE ANALYSES - INDIVIDUAL DATA

DOSAGE GROUP 3	1.0 MG/KG/DAY		
RABBIT #	TOTAL T3 (ng/dL)	TOTAL T4 (µg/dL)	TSH (ng/mL)
7701	72.61	0.95	1.81
7702	99.31	0.81	1.90
7703	104.72	1.04	1.88
7704	119.09	0.78	1.82
7705	69.45	0.57	2.19
7706	70.74	0.94	1.78
7707	80.83	2.16	1.85
7708	65.66	0.98	2.38
7709	179.52	1.11	2.59
7710	81.95	2.30	2.44
7711	79.66	1.32	1.94
7712	209.82	3.19	2.36
7713	110.12	2.39	2.09
7714	131.88	2.78	2.00
7715	153.06	1.80	1.89
7716	131.20	0.49	1.98
7717	123.82	2.21	2.18
7718	114.24	1.92	2.34
7719	79.64	0.96	1.69
7720	149.96	1.76	1.79
7721	ABORTED ON DAY 28 OF GESTATION		
7722	104.53	1.07	2.91
7723	80.41	1.62	1.82
7724	ABORTED ON DAY 28 OF GESTATION		
7725	122.56	0.73	1.58

NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 26 (PAGE 4): THYROID HORMONE ANALYSES - INDIVIDUAL DATA

DOSAGE GROUP 4		10.0 MG/KG/DAY	
RABBIT #	TOTAL T3 (ng/dL)	TOTAL T4 (µg/dL)	TSH (ng/mL)
7726	117.54	1.21	2.30
7727	99.79	1.14	1.94
7728	119.98	1.51	2.43
7729	92.91	1.44	1.70
7730	76.46	2.19	1.87
7731	112.63	1.51	2.08
7732	70.04	1.29	1.82
7733	106.42	1.49	1.75
7734	122.99	1.84	2.52
7735	112.65	0.82	1.71
7736	142.11	0.66	1.84
7737	160.59	2.18	1.92
7738	200.93	1.83	2.44
7739 NP	180.61	1.92	1.93
7740	146.20	1.58	2.20
7741	148.19	1.41	2.25
7742	154.52	1.97	2.07
7743	148.57	1.26	1.96
7744	116.80	1.41	2.18
7745	180.07	2.97	1.68
7746	123.60	1.40	1.58
7747	124.28	1.52	1.79
7748	179.04	1.68	1.92
7749	97.66	1.48	2.08
7750	108.74	0.64	2.03

NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 26 (PAGE 5): THYROID HORMONE ANALYSES - INDIVIDUAL DATA

DOSAGE GROUP 5		30.0 MG/KG/DAY	
RABBIT #	TOTAL T3 (ng/dL)	TOTAL T4 (µg/dL)	TSH (ng/mL)
7751	88.03	2.94	1.97
7752	133.18	1.17	2.07
7753	96.60	0.92	2.28
7754	71.75	0.67	1.82
7755	109.81	1.27	1.48
7756	91.79	1.52	1.91
7757	106.10	1.25	2.35
7758	85.39	1.29	1.72
7759	101.88	0.79	2.22
7760	152.59	2.59	1.85
7761	145.38	2.21	1.77
7762	101.51	1.32	2.09
7763	109.51	0.80	2.01
7764	72.17	0.44	1.73
7765	134.48	1.57	1.81
7766	207.03	1.27	2.09
7767	196.22	2.35	2.01
7768	205.05	2.33	2.05
7769	135.85	1.10	2.03
7770	211.19	2.23	1.73
7771 NP	143.17	1.01	1.38
7772	130.45	1.11	2.06
7773	88.68	1.26	1.89
7774	103.41	1.30	1.63
7775	95.21	0.74	1.94

NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 26 (PAGE 6): THYROID HORMONE ANALYSES - INDIVIDUAL DATA

DOSAGE GROUP 6		100.0 MG/KG/DAY	
RABBIT #	TOTAL T3 (ng/dL)	TOTAL T4 (µg/dL)	TSH (ng/mL)
7776	DELIVERED ON DAY 27 OF GESTATION; THE MATING DATE WAS INCORRECTLY IDENTIFIED		
7777	76.12	0.25	1.70
7778	78.30	0.70	2.18
7779	123.56	0.88	1.86
7780	165.22	1.97	2.25
7781	100.98	1.48	1.66
7782	151.90	1.88	2.06
7783	77.51	1.63	1.87
7784	132.58	1.34	2.07
7785	82.93	0.27	3.21
7786	75.24	1.47	2.14
7787	146.54	1.42	2.03
7788	64.88	0.66	1.84
7789	179.77	1.58	2.17
7790	111.29	1.15	2.11
7791	132.61	0.56	3.11
7792	186.46	1.77	2.37
7793	190.48	1.62	1.74
7794	282.17	2.06	2.33
7795 NP	153.89	0.86	2.07
7796	117.10	0.60	1.77
7797	79.97	0.18	2.07
7798	99.82	0.77	2.01
7799	117.44	1.61	1.66
7800	131.58	1.35	1.93

NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 27 (PAGE 1): CAESAREAN-SECTIONING OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP 1 — 0 (CARRIER) MG/KG/DAY

			VIABLE FETUSES			DEAD FETUSES			EARLY RESORPTIONS			LATE RESORPTIONS			IMPLANTATION SITES			CORPORA LUTEA		
	SEX		RIGHT	LEFT		RIGHT	LEFT		RIGHT	LEFT		RIGHT	LEFT		RIGHT	LEFT		RIGHT	LEFT	
RABBIT #	M	F	HORN	HORN	TOTAL	HORN	HORN	TOTAL	HORN	HORN	TOTAL	HORN	HORN	TOTAL	HORN	HORN	TOTAL	OVARY	OVARY	TOTAL
7651	1	2	3	0	3	0	0	0	0	1	1	0	1	1	3	2	5	3	4	7
7652	2	6	4	4	8	0	0	0	0	0	0	0	0	0	4	4	8	4	5	9
7653	NOT PREGNANT																			
7654	5	2	2	5	7	0	0	0	0	0	0	0	0	0	2	5	7	4	5	9
7655	4	7	3	8	11	0	0	0	0	0	0	0	0	0	3	8	11	4	8	12
7656	5	5	3	7	10	0	0	0	0	0	0	2	0	2	5	7	12	5	8	13
7657	1	4	3	2	5	0	0	0	0	0	0	0	0	0	3	2	5	4	3	7
7658	5	1	3	3	6	0	0	0	0	0	0	0	0	0	3	3	6	3	3	6
7659	4	2	3	3	6	0	0	0	0	0	0	0	0	0	3	3	6	3	4	7
7660	NOT PREGNANT																			
7661	4	4	3	5	8	0	0	0	0	0	0	0	0	0	3	5	8	3	5	8
7662	6	4	5	5	10	0	0	0	0	0	0	0	0	0	5	5	10	5	5	10
7663	0	7	4	3	7	0	0	0	0	0	0	0	0	0	4	3	7	4	3	7
7664	4	4	4	4	8	0	0	0	0	0	0	0	0	0	4	4	8	4	4	8
7665	4	2	3	3	6	0	0	0	0	0	0	0	1	1	3	4	7	3	4	7
7666	6	2	2	6	8	0	0	0	0	0	0	0	0	0	2	6	8	2	6	8
7667	4	4	4	4	8	0	0	0	0	0	0	0	0	0	4	4	8	4	4	8
7668	5	3	4	4	8	0	0	0	0	0	0	0	0	0	4	4	8	4	4	8
7669	4	6	5	5	10	0	0	0	0	0	0	0	0	0	5	5	10	6	5	11
7670	5	6	6	5	11	0	0	0	0	0	0	0	0	0	6	5	11	6	5	11
7671	NOT PREGNANT																			
7672	6	4	6	4	10	0	0	0	0	0	0	0	0	0	6	4	10	6	5	11
7673	5	3	5	3	8	0	0	0	0	0	0	0	0	0	5	3	8	6	4	10
7674	4	3	2	5	7	0	0	0	0	0	0	0	0	0	2	5	7	2	5	7
7675	7	8	7	8	15	0	0	0	0	0	0	0	0	0	7	8	15	7	8	15

M = MALE F = FEMALE
PLACENTAE APPEARED NORMAL UNLESS NOTED OTHERWISE.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 27 (PAGE 2): CAESAREAN-SECTIONING OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP 2 — 0.1 MG/KG/DAY

	SEX		VIABLE FETUSES			DEAD FETUSES			EARLY RESORPTIONS			LATE RESORPTIONS			IMPLANTATION SITES			CORPORA LUTEA		
RABBIT #	M	F	RIGHT HORN	LEFT HORN	TOTAL	RIGHT HORN	LEFT HORN	TOTAL	RIGHT HORN	LEFT HORN	TOTAL	RIGHT HORN	LEFT HORN	TOTAL	RIGHT HORN	LEFT HORN	TOTAL	RIGHT OVARY	LEFT OVARY	TOTAL
7676	4	3	3	4	7	0	0	0	0	0	0	0	0	0	3	4	7	3	4	7
7677	4	6	4	6	10	0	1	1	0	0	0	0	0	0	4	7	11	5	7	12
7678	4	7	5	6	11	0	0	0	0	0	0	0	0	0	5	6	11	5	6	11
7679	2	5	4	3	7	0	0	0	0	1	1	2	1	3	6	5	11	6	5	11
7680	3	6	4	5	9	0	0	0	0	0	0	0	2	2	4	7	11	4	7	11
7681	5	3	5	3	8	0	0	0	0	0	0	0	0	0	5	3	8	8	3	11
7682	5	4	5	4	9	0	0	0	1	0	1	0	1	1	6	5	11	6	5	11
7683	4	3	3	4	7	0	0	0	0	0	0	0	0	0	3	4	7	3	9	12
7684	6	3	4	5	9	0	0	0	0	0	0	0	0	0	4	5	9	5	5	10
7685	3	2	3	2	5	0	0	0	0	1	1	0	0	0	3	3	6	3	3	6
7686	7	3	4	6	10	0	0	0	1	0	1	0	1	1	5	7	12	5	7	12
7687	4	4	7	1	8	0	0	0	0	0	0	0	0	0	7	1	8	7	2	9
7688	2	3	2	3	5	0	0	0	0	0	0	0	1	1	2	4	6	5	6	11
7689	6	2	5	3	8	0	0	0	0	0	0	0	0	0	5	3	8	5	3	8
7690	4	5	5	4	9	0	0	0	0	0	0	0	0	0	5	4	9	6	4	10
7691	6	3	4	5	9	0	0	0	0	0	0	0	0	0	4	5	9	4	6	10
7692	5	3	5	3	8	0	0	0	0	0	0	0	0	0	5	3	8	5	4	9
7693	4	4	4	4	8	0	0	0	0	0	0	0	0	0	4	4	8	4	5	9
7694	2	3	1	4	5	0	0	0	0	0	0	1	0	1	2	4	6	2	5	7
7695	0	3	3	0	3	0	0	0	0	0	0	0	0	0	3	0	3	3	4	7
7696	6	3	4	5	9	0	0	0	0	0	0	0	0	0	4	5	9	5	5	10
7697	4	2	3	3	6	0	0	0	1	0	1	0	0	0	4	3	7	4	4	8
7698	3	4	5	2	7	0	0	0	0	0	0	0	0	0	5	2	7	7	3	10
7699	4	3	4	3	7	0	0	0	0	0	0	0	0	0	4	3	7	4	3	7
7700	NOT PREGNANT																			

M = MALE F = FEMALE
PLACENTAE APPEARED NORMAL UNLESS NOTED OTHERWISE.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 27 (PAGE 3): CAESAREAN-SECTIONING OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP 3 — 1.0 MG/KG/DAY

			VIABLE FETUSES			DEAD FETUSES			EARLY RESORPTIONS			LATE RESORPTIONS			IMPLANTATION SITES			CORPORA LUTEA		
	SEX		RIGHT HORN	LEFT HORN	TOTAL	RIGHT HORN	LEFT HORN	TOTAL	RIGHT HORN	LEFT HORN	TOTAL	RIGHT HORN	LEFT HORN	TOTAL	RIGHT HORN	LEFT HORN	TOTAL	RIGHT OVARY	LEFT OVARY	TOTAL
RABBIT #	M	F																		
7701	6	2	5	3	8	0	0	0	0	0	0	0	0	0	5	3	8	7	5	12
7702	5	2	3	4	7	0	0	0	0	0	0	0	0	0	3	4	7	4	4	8
7703	6	5	7	4	11	0	0	0	0	0	0	0	0	0	7	4	11	8	4	12
7704	3	5	4	4	8	0	0	0	0	0	0	0	0	0	4	4	8	5	5	10
7705	6	3	4	5	9	0	0	0	0	0	0	0	0	0	4	5	9	4	5	9
7706	4	7	3	8	11	0	0	0	0	0	0	0	1	1	3	9	12	3	9	12
7707	4	4	4	4	8	0	0	0	0	0	0	0	0	0	4	4	8	4	4	8
7708	2	5	5	2	7	0	0	0	0	0	0	0	0	0	5	2	7	5	3	8
7709	3	3	2	4	6	0	0	0	0	0	0	0	0	0	2	4	6	3	5	8
7710	7	2	5	4	9	0	0	0	0	0	0	0	0	0	5	4	9	5	5	10
7711	4	5	5	4	9	0	0	0	0	0	0	0	0	0	5	4	9	5	4	9
7712	8	2	4	6	10	0	0	0	0	0	0	0	0	0	4	6	10	5	6	11
7713	5	4	4	5	9	0	0	0	0	0	0	0	0	0	4	5	9	4	5	9
7714	5	5	3	7	10	0	0	0	0	0	0	0	0	0	3	7	10	3	7	10
7715	2	5	2	5	7	0	0	0	0	0	0	0	0	0	2	5	7	2	5	7
7716	0	4	2	2	4	0	0	0	0	0	0	0	0	0	2	2	4	2	3	5
7717	6	4	7	3	10	0	0	0	0	0	0	0	0	0	7	3	10	7	3	10
7718	4	6	8	2	10	0	0	0	0	0	0	0	0	0	8	2	10	8	2	10
7719	3	8	7	4	11	0	0	0	0	0	0	2	1	3	9	5	14	9	6	15
7720	4	4	5	3	8	0	0	0	0	0	0	0	0	0	5	3	8	5	3	8
7721	ABORTED ON DAY 28 OF GESTATION																			
7722	3	4	4	3	7	0	0	0	0	0	0	0	0	0	4	3	7	4	3	7
7723	3	6	6	3	9	0	0	0	0	0	0	0	0	0	6	3	9	6	3	9
7724	ABORTED ON DAY 28 OF GESTATION																			
7725	5	3	3	5	8	0	0	0	0	0	0	0	0	0	3	5	8	3	5	8

M = MALE F = FEMALE
PLACENTAE APPEARED NORMAL UNLESS NOTED OTHERWISE.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 27 (PAGE 4): CAESAREAN-SECTIONING OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP 4 — 10.0 MG/KG/DAY

	SEX		VIABLE FETUSES			DEAD FETUSES			EARLY RESORPTIONS			LATE RESORPTIONS			IMPLANTATION SITES			CORPORA LUTEA		
			RIGHT	LEFT		RIGHT	LEFT		RIGHT	LEFT		RIGHT	LEFT		RIGHT	LEFT		RIGHT	LEFT	
RABBIT #	M	F	HORN	HORN	TOTAL	HORN	HORN	TOTAL	HORN	HORN	TOTAL	HORN	HORN	TOTAL	HORN	HORN	TOTAL	OVARY	OVARY	TOTAL
7726	4	6	6	4	10	0	0	0	0	1	1	0	0	0	6	5	11	6	5	11
7727	3	3	4	2	6	0	0	0	1	0	1	0	0	0	5	2	7	5	5	10
7728	6	3	4	5	9	0	0	0	0	2	2	0	0	0	4	7	11	4	8	12
7729	5	3	4	4	8	0	0	0	0	1	1	0	0	0	4	5	9	5	5	10
7730	10	2	4	8	12	0	0	0	0	0	0	0	0	0	4	8	12	4	8	12
7731	7	2	4	5	9	0	0	0	0	0	0	0	0	0	4	5	9	4	5	9
7732	6	4	2	8	10	0	0	0	0	0	0	0	0	0	2	8	10	2	8	10
7733	4	5	7	2	9	0	0	0	0	2	2	1	0	1	8	4	12	8	4	12
7734	7	1	3	5	8	0	0	0	0	0	0	0	0	0	3	5	8	3	5	8
7735	4	4	5	3	8	0	0	0	0	0	0	0	0	0	5	3	8	5	3	8
7736	1	0	1	0	1	0	0	0	1	0	1	0	0	0	2	0	2	2	2	4
7737	6	1	6	1	7	0	0	0	0	0	0	0	0	0	6	1	7	6	3	9
7738	2	5	5	2	7	0	0	0	0	0	0	0	0	0	5	2	7	5	3	8
7739	NOT PREGNANT																			
7740	3	5	4	4	8	0	0	0	0	0	0	0	0	0	4	4	8	4	4	8
7741	5	4	3	6	9	0	0	0	0	0	0	0	0	0	3	6	9	3	6	9
7742	5	5	7	3	10	0	0	0	0	0	0	0	0	0	7	3	10	7	3	10
7743	4	3	4	3	7	0	0	0	0	0	0	0	0	0	4	3	7	5	4	9
7744	5	2	4	3	7	0	0	0	0	0	0	0	0	0	4	3	7	4	3	7
7745	7	3	5	5	10	0	0	0	0	0	0	0	0	0	5	5	10	5	5	10
7746	3	5	6	2	8	0	0	0	0	0	0	0	0	0	6	2	8	6	2	8
7747	6	5	5	6	11	0	0	0	0	0	0	0	0	0	5	6	11	5	6	11
7748	1	4	4	1	5	0	0	0	0	0	0	0	0	0	4	1	5	4	1	5
7749	5	2	4	3	7	0	0	0	0	2	2	0	0	0	4	5	9	4	7	11
7750	3	6	6	3	9	0	0	0	0	0	0	0	1	1	6	4	10	6	5	11

M = MALE F = FEMALE

PLACENTAE APPEARED NORMAL UNLESS NOTED OTHERWISE.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 27 (PAGE 5): CAESAREAN-SECTIONING OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP 5 30.0 MG/KG/DAY

	SEX		VIABLE FETUSES			DEAD FETUSES			EARLY RESORPTIONS			LATE RESORPTIONS			IMPLANTATION SITES			CORPORA LUTEA		
RABBIT #	M	F	RIGHT HORN	LEFT HORN	TOTAL	RIGHT HORN	LEFT HORN	TOTAL	RIGHT HORN	LEFT HORN	TOTAL	RIGHT HORN	LEFT HORN	TOTAL	RIGHT HORN	LEFT HORN	TOTAL	RIGHT OVARY	LEFT OVARY	TOTAL
7751	7	4	5	6	11	0	0	0	0	0	0	0	0	0	5	6	11	5	6	11
7752	2	3	2	3	5	0	0	0	1	0	1	0	1	1	3	4	7	3	5	8
7753	2	5	2	5	7	0	0	0	0	0	0	0	0	0	2	5	7	4	6	10
7754	6	3	4	5	9	0	0	0	0	0	0	0	0	0	4	5	9	5	5	10
7755	5	6	6	5	11	0	0	0	0	0	0	0	0	0	6	5	11	6	5	11
7756	3	3	5	1	6	0	0	0	0	0	0	0	0	0	5	1	6	9	5	14
7757	4	3	3	4	7	0	0	0	0	0	0	0	0	0	3	4	7	5	7	12
7758	6	4	4	6	10	0	0	0	0	0	0	0	0	0	4	6	10	4	6	10
7759	6	4	4	6	10	0	0	0	0	0	0	1	0	1	5	6	11	5	8	13
7760	4	2	2	4	6	0	0	0	0	0	0	0	0	0	2	4	6	3	5	8
7761	5	5	6	4	10	0	0	0	0	0	0	0	0	0	6	4	10	6	4	10
7762	5	3	5	3	8	0	0	0	0	0	0	0	0	0	5	3	8	5	3	8
7763	3	5	5	3	8	0	0	0	0	0	0	0	0	0	5	3	8	5	3	8
7764	3	6	8	1	9	0	0	0	1	0	1	0	1	1	9	2	11	9	2	11
7765	3	3	5	1	6	0	0	0	0	0	0	0	0	0	5	1	6	5	2	7
7766	2	4	6	0	6	0	0	0	0	0	0	0	0	0	6	0	6	7	1	8
7767	3	2	3	2	5	0	0	0	0	0	0	0	0	0	3	2	5	3	3	6
7768	7	2	6	3	9	0	0	0	0	0	0	1	0	1	7	3	10	7	3	10
7769	3	3	4	2	6	0	0	0	0	0	0	0	0	0	4	2	6	4	6	10
7770	1	4	3	2	5	0	0	0	0	0	0	0	0	0	3	2	5	5	2	7
7771	NOT PREGNANT																			
7772	2	5	5	2	7	0	0	0	0	0	0	0	0	0	5	2	7	5	4	9
7773	4	7	8	3	11	0	0	0	0	0	0	0	0	0	8	3	11	8	5	13
7774	4	5	3	6	9	0	0	0	0	0	0	0	0	0	3	6	9	4	6	10
7775	5	3	5	3	8	0	0	0	1	0	1	0	0	0	6	3	9	8	3	11

M = MALE F = FEMALE

PLACENTAE APPEARED NORMAL UNLESS NOTED OTHERWISE.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 27 (PAGE 6): CAESAREAN-SECTIONING OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP 6 100.0 MG/KG/DAY

			VIABLE FETUSES			DEAD FETUSES			EARLY RESORPTIONS			LATE RESORPTIONS			IMPLANTATION SITES			CORPORA LUTEA		
	SEX		RIGHT	LEFT		RIGHT	LEFT		RIGHT	LEFT		RIGHT	LEFT		RIGHT	LEFT		RIGHT	LEFT	
RABBIT #	M	F	HORN	HORN	TOTAL	HORN	HORN	TOTAL	HORN	HORN	TOTAL	HORN	HORN	TOTAL	HORN	HORN	TOTAL	OVARY	OVARY	TOTAL
7776	DELIVERED ON DAY 27 OF GESTATION; THE MATING DATE WAS INCORRECTLY IDENTIFIED																			
7777	5	5	4	6	10	0	0	0	1	1	2	0	0	0	5	7	12	5	7	12
7778	7	5	5	7	12	0	0	0	0	0	0	0	0	0	5	7	12	5	8	13
7779	4	6	4	6	10	0	0	0	1	0	1	1	0	1	6	6	12	6	6	12
7780	2	6	3	5	8	0	0	0	0	0	0	1	1	2	4	6	10	4	6	10
7781	5	3	4	4	8	0	0	0	0	0	0	0	0	0	4	4	8	5	5	10
7782	4	6	4	6	10	0	0	0	0	0	0	1	0	1	5	6	11	6	6	12
7783	3	5	6	2	8	0	0	0	0	0	0	0	0	0	6	2	8	6	2	8
7784	5	1	2	4	6	0	0	0	0	0	0	0	0	0	2	4	6	4	5	9
7785	5	3	3	5	8	0	0	0	0	0	0	0	0	0	3	5	8	3	5	8
7786	7	6	7	6	13	0	0	0	0	0	0	0	0	0	7	6	13	7	6	13
7787	6	4	5	5	10	0	0	0	0	0	0	0	0	0	5	5	10	5	5	10
7788	4	8	6	6	12	0	0	0	0	0	0	0	0	0	6	6	12	6	6	12
7789	5	5	6	4	10	0	0	0	0	0	0	0	0	0	6	4	10	6	4	10
7790	4	6	7	3	10	0	0	0	0	0	0	0	0	0	7	3	10	8	4	12
7791	5	3	6	2	8	0	0	0	0	0	0	0	0	0	6	2	8	6	6	12
7792	6	3	5	4	9	0	0	0	0	0	0	0	0	0	5	4	9	5	4	9
7793	2	6	4	4	8	0	0	0	0	0	0	0	0	0	4	4	8	5	5	10
7794	6	2	6	2	8	0	0	0	0	0	0	0	0	0	6	2	8	6	2	8
7795	NOT PREGNANT																			
7796	4	3	5	2	7	0	0	0	0	1	1	0	0	0	5	3	8	5	4	9
7797	3	5	4	4	8	0	0	0	0	0	0	0	0	0	4	4	8	5	6	11
7798	4	3	3	4	7	0	0	0	0	0	0	0	0	0	3	4	7	3	4	7
7799	7	4	5	6	11	0	0	0	0	0	0	0	0	0	5	6	11	5	6	11
7800	1	4	1	4	5	0	0	0	0	0	0	0	0	0	1	4	5	1	6	7

M = MALE F = FEMALE

PLACENTAE APPEARED NORMAL UNLESS NOTED OTHERWISE.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 28 (PAGE 1): LITTER OBSERVATIONS (CAESAREAN-DELIVERED FETUSES) - INDIVIDUAL DATA

DOSAGE GROUP 1 — 0 (CARRIER) MG/KG/DAY

	NUMBER OF LIVE FETUSES			AVERAGE FETAL BODY WEIGHT (G)			---- CONCEPTUSES ------ DEAD OR RESORBED		
RABBIT #	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL a	N	N	%
7651	1	2	3	47.92	42.98	44.62	5	2	40.0
7652	2	6	8	51.18	44.84	46.43	8	0	0.0
7653	NOT PREGNANT								
7654	5	2	7	52.64	48.16	51.36	7	0	0.0
7655	4	7	11	37.80	38.52	38.25	11	0	0.0
7656	5	5	10	30.96	35.38	33.17	12	2	16.7
7657	1	4	5	48.32	46.38	46.77	5	0	0.0
7658	5	1	6	46.75	42.61	46.06	6	0	0.0
7659	4	2	6	48.32	48.70	48.45	6	0	0.0
7660	NOT PREGNANT								
7661	4	4	8	44.33	47.24	45.79	8	0	0.0
7662	6	4	10	46.14	45.08	45.71	10	0	0.0
7663	0	7	7	----	54.50	54.50	7	0	0.0
7664	4	4	8	45.95	42.73	44.34	8	0	0.0
7665	4	2	6	58.01	59.88	58.64	7	1	14.3
7666	6	2	8	38.95	38.97	38.95	8	0	0.0
7667	4	4	8	49.18	47.79	48.48	8	0	0.0
7668	5	3	8	43.45	40.87	42.49	8	0	0.0
7669	4	6	10	44.44	46.28	45.54	10	0	0.0
7670	5	6	11	49.59	49.65	49.62	11	0	0.0
7671	NOT PREGNANT								
7672	6	4	10	38.88	36.60	37.97	10	0	0.0
7673	5	3	8	44.60	42.45	43.80	8	0	0.0
7674	4	3	7	49.02	50.08	49.47	7	0	0.0
7675	7	8	15	43.36	38.12	40.57	15	0	0.0

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

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 28 (PAGE 2): LITTER OBSERVATIONS (CAESAREAN-DELIVERED FETUSES) - INDIVIDUAL DATA

DOSAGE GROUP 2 — 0.1 MG/KG/DAY

	NUMBER OF LIVE FETUSES			AVERAGE FETAL BODY WEIGHT (G)			---- CONCEPTUSES ------ DEAD OR RESORBED		
RABBIT #	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL a	N	N	%
7676	4	3	7	39.96	38.18	39.20	7	0	0.0
7677	4	6	10	40.02	36.26	37.76	11	1	9.1
7678	4	7	11	38.42	40.14	39.52	11	0	0.0
7679	2	5	7	44.77	41.49	42.43	11	4	36.4
7680	3	6	9	45.48	46.78	46.35	11	2	18.2
7681	5	3	8	42.75	40.18	41.79	8	0	0.0
7682	5	4	9	36.73	38.63	37.58	11	2	18.2
7683	4	3	7	50.00	44.77	47.76	7	0	0.0
7684	6	3	9	46.52	47.22	46.75	9	0	0.0
7685	3	2	5	55.81	52.55	54.51	6	1	16.7
7686	7	3	10	33.87	36.17	34.56	12	2	16.7
7687	4	4	8	44.35	42.09	43.22	8	0	0.0
7688	2	3	5	49.54	46.44	47.68	6	1	16.7
7689	6	2	8	43.22	44.19	43.47	8	0	0.0
7690	4	5	9	45.36	44.71	45.00	9	0	0.0
7691	6	3	9	41.65	40.23	41.18	9	0	0.0
7692	5	3	8	45.25	46.56	45.74	8	0	0.0
7693	4	4	8	48.04	48.52	48.28	8	0	0.0
7694	2	3	5	54.84	54.76	54.79	6	1	16.7
7695	0	3	3	----	54.90	54.90	3	0	0.0
7696	6	3	9	45.64	42.94	44.74	9	0	0.0
7697	4	2	6	44.76	46.85	45.46	7	1	14.3
7698	3	4	7	46.23	43.11	44.44	7	0	0.0
7699	4	3	7	48.36	48.77	48.54	7	0	0.0
7700	NOT PREGNANT								

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

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 28 (PAGE 3): LITTER OBSERVATIONS (CAESAREAN-DELIVERED FETUSES) - INDIVIDUAL DATA

DOSAGE GROUP 3 — 1.0 MG/KG/DAY

	NUMBER OF LIVE FETUSES			AVERAGE FETAL BODY WEIGHT (G)			---- CONCEPTUSES ------ DEAD OR RESORBED		
RABBIT #	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL a	N	N	%
7701	6	2	8	37.49	38.37	37.71	8	0	0.0
7702	5	2	7	45.76	42.07	44.70	7	0	0.0
7703	6	5	11	39.65	40.01	39.82	11	0	0.0
7704	3	5	8	40.09	39.20	39.53	8	0	0.0
7705	6	3	9	45.26	44.36	44.96	9	0	0.0
7706	4	7	11	32.88	39.49	37.09	12	1	8.3
7707	4	4	8	50.79	48.36	49.57	8	0	0.0
7708	2	5	7	51.46	48.84	49.59	7	0	0.0
7709	3	3	6	52.36	51.39	51.88	6	0	0.0
7710	7	2	9	48.80	42.95	47.50	9	0	0.0
7711	4	5	9	43.39	39.78	41.38	9	0	0.0
7712	8	2	10	41.42	47.18	42.57	10	0	0.0
7713	5	4	9	50.79	48.02	49.56	9	0	0.0
7714	5	5	10	44.58	43.23	43.91	10	0	0.0
7715	2	5	7	45.18	41.96	42.88	7	0	0.0
7716	0	4	4	----	48.68	48.68	4	0	0.0
7717	6	4	10	39.70	42.75	40.92	10	0	0.0
7718	4	6	10	37.27	35.97	36.49	10	0	0.0
7719	3	8	11	46.02	39.45	41.24	14	3	21.4
7720	4	4	8	47.75	46.46	47.10	8	0	0.0
7721	ABORTED ON DAY 28 OF GESTATION								
7722	3	4	7	51.90	47.30	49.28	7	0	0.0
7723	3	6	9	51.73	46.30	48.11	9	0	0.0
7724	ABORTED ON DAY 28 OF GESTATION								
7725	5	3	8	45.07	43.89	44.63	8	0	0.0

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

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 28 (PAGE 4): LITTER OBSERVATIONS (CAESAREAN-DELIVERED FETUSES) - INDIVIDUAL DATA

DOSAGE GROUP 4 10.0 MG/KG/DAY

	NUMBER OF LIVE FETUSES			AVERAGE FETAL BODY WEIGHT (G)			---- CONCEPTUSES ------ DEAD OR RESORBED		
RABBIT #	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL a	N	N	%
7726	4	6	10	44.09	42.14	42.92	11	1	9.1
7727	3	3	6	49.60	48.90	49.25	7	1	14.3
7728	6	3	9	50.71	45.90	49.11	11	2	18.2
7729	5	3	8	53.88	51.86	53.12	9	1	11.1
7730	10	2	12	40.99	37.37	40.38	12	0	0.0
7731	7	2	9	41.49	41.81	41.56	9	0	0.0
7732	6	4	10	45.78	37.36	42.41	10	0	0.0
7733	4	5	9	44.75	43.72	44.18	12	3	25.0
7734	7	1	8	47.80	48.76	47.92	8	0	0.0
7735	4	4	8	43.72	42.40	43.06	8	0	0.0
7736	1	0	1	53.02	----	53.02	2	1	50.0
7737	6	1	7	52.30	51.74	52.22	7	0	0.0
7738	2	5	7	40.64	41.53	41.27	7	0	0.0
7739	NOT PREGNANT								
7740	3	5	8	39.08	41.54	40.62	8	0	0.0
7741	5	4	9	40.80	38.81	39.92	9	0	0.0
7742	5	5	10	46.87	42.68	44.77	10	0	0.0
7743	4	3	7	51.51	50.17	50.94	7	0	0.0
7744	5	2	7	46.92	45.74	46.58	7	0	0.0
7745	7	3	10	42.06	36.56	40.41	10	0	0.0
7746	3	5	8	40.69	38.85	39.54	8	0	0.0
7747	6	5	11	44.74	42.65	43.79	11	0	0.0
7748	1	4	5	51.47	48.49	49.09	5	0	0.0
7749	5	2	7	42.61	47.08	43.89	9	2	22.2
7750	3	6	9	49.43	45.13	46.56	10	1	10.0

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

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 28 (PAGE 5): LITTER OBSERVATIONS (CAESAREAN-DELIVERED FETUSES) - INDIVIDUAL DATA

DOSAGE GROUP 5 — 30.0 MG/KG/DAY

	NUMBER OF LIVE FETUSES			AVERAGE FETAL BODY WEIGHT (G)			---- CONCEPTUSES ------ DEAD OR RESORBED		
RABBIT #	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL a	N	N	%
7751	7	4	11	44.64	40.01	42.96	11	0	0.0
7752	2	3	5	51.78	51.12	51.38	7	2	28.6
7753	2	5	7	45.68	46.84	46.51	7	0	0.0
7754	6	3	9	41.26	41.51	41.34	9	0	0.0
7755	5	6	11	43.46	42.40	42.88	11	0	0.0
7756	3	3	6	48.17	49.44	48.80	6	0	0.0
7757	4	3	7	48.77	45.43	47.34	7	0	0.0
7758	6	4	10	43.48	45.07	44.12	10	0	0.0
7759	6	4	10	42.00	38.06	40.42	11	1	9.1
7760	4	2	6	51.07	47.26	49.80	6	0	0.0
7761	5	5	10	46.72	45.21	45.96	10	0	0.0
7762	5	3	8	48.38	46.56	47.70	8	0	0.0
7763	3	5	8	43.01	42.29	42.56	8	0	0.0
7764	3	6	9	41.62	41.95	41.84	11	2	18.2
7765	3	3	6	49.65	55.24	52.44	6	0	0.0
7766	2	4	6	46.54	39.48	41.83	6	0	0.0
7767	3	2	5	57.56	60.48	58.73	5	0	0.0
7768	7	2	9	41.92	43.64	42.30	10	1	10.0
7769	3	3	6	50.46	51.56	51.01	6	0	0.0
7770	1	4	5	61.57	53.88	55.42	5	0	0.0
7771	NOT PREGNANT								
7772	2	5	7	44.11	43.76	43.86	7	0	0.0
7773	4	7	11	42.41	44.11	43.49	11	0	0.0
7774	4	5	9	46.39	46.63	46.52	9	0	0.0
7775	5	3	8	36.26	38.02	36.92	9	1	11.1

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

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 28 (PAGE 6): LITTER OBSERVATIONS (CAESAREAN-DELIVERED FETUSES) - INDIVIDUAL DATA

DOSAGE GROUP 6 100.0 MG/KG/DAY

	NUMBER OF LIVE FETUSES			AVERAGE FETAL BODY WEIGHT (G)			---- CONCEPTUSES ------ DEAD OR RESORBED		
RABBIT #	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL a	N	N	%
7776	DELIVERED ON DAY 27 OF GESTATION; THE MATING DATE WAS INCORRECTLY IDENTIFIED								
7777	5	5	10	34.63	38.07	36.35	12	2	16.7
7778	7	5	12	33.34	33.59	33.44	12	0	0.0
7779	4	6	10	47.11	37.61	41.41	12	2	16.7
7780	2	6	8	36.76	40.46	39.54	10	2	20.0
7781	5	3	8	40.92	43.64	41.94	8	0	0.0
7782	4	6	10	41.67	41.36	41.48	11	1	9.1
7783	3	5	8	52.87	47.81	49.71	8	0	0.0
7784	5	1	6	47.87	48.32	47.94	6	0	0.0
7785	5	3	8	43.34	45.54	44.16	8	0	0.0
7786	7	6	13	40.19	39.39	39.82	13	0	0.0
7787	6	4	10	46.14	46.80	46.40	10	0	0.0
7788	4	8	12	45.40	43.49	44.13	12	0	0.0
7789	5	5	10	47.00	44.62	45.81	10	0	0.0
7790	4	6	10	41.18	42.33	41.87	10	0	0.0
7791	5	3	8	47.95	44.55	46.68	8	0	0.0
7792	6	3	9	43.38	42.87	43.21	9	0	0.0
7793	2	6	8	53.78	52.57	52.92	8	0	0.0
7794	6	2	8	42.54	46.66	43.57	8	0	0.0
7795	NOT PREGNANT								
7796	4	3	7	47.66	51.47	49.30	8	1	12.5
7797	3	5	8	42.33	41.75	41.97	8	0	0.0
7798	4	3	7	49.38	45.61	47.76	7	0	0.0
7799	7	4	11	36.48	41.17	38.19	11	0	0.0
7800	1	4	5	51.82	47.72	48.54	5	0	0.0

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

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 29 (PAGE 1): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

DOSAGE GROUP 1 — 0 (CARRIER) MG/KG/DAY

RABBIT #	CLs	FETUS # 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
7651	3/ 4	MA	FA	FA /	E	L														
		47.92	39.44	46.51		4.54														
7652	4/ 5	MA	FA	FA	MA /	FA	FA	FA	FA											
		47.44	49.34	48.20	54.91	43.75	42.46	39.95	45.37											
7653		NOT PREGNANT																		
7654	4/ 5	MA	MA /	MA	FA	FA	MA	MA												
		53.78	54.32	50.62	48.52	47.81	52.72	51.77												
7655	4/ 8	FA	MA	MA /	FA	FA	FA	MA	MA	FA	FA	FA								
		43.60	35.06	41.72	41.68	37.29	39.15	39.38	35.03	35.63	38.37	33.89								
7656	5/ 8	L	L	MA	FA	MA /	MA	FA	FA	FA	MA	MA	FA							
		0.74	1.52	35.65	35.52	21.13	27.25	31.40	35.62	36.45	41.03	29.75	37.92							
7657	4/ 3	FA	FA	FA /	FA	MA														
		45.52	49.54	49.33	41.12	48.32														
7658	3/ 3	MA	MA	MA /	MA	FA	MA													
		46.95	48.94	46.09	46.30	42.61	45.46													
7659	3/ 4	FA	MA	MA /	MA	MA	FA													
		51.00	49.24	48.68	50.91	44.46	46.40													
7660		NOT PREGNANT																		
7661	3/ 5	MA	MA	FA /	FA	MA	MA	FA	FA											
		46.04	49.12	49.10	49.19	43.22	38.95	44.00	46.68											
7662	5/ 5	FA	MA	FA	MA	MA /	MA	FA	MA	FA	MA									
		50.23	45.00	41.68	44.03	49.16	43.05	43.53	50.29	44.87	45.30									
7663	4/ 3	FA	FA	FA	FA /	FA	FA	FA												
		58.00	50.80	54.36	60.96	55.84	45.78	55.76												

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

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 29 (PAGE 2): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

DOSAGE GROUP 1 — 0 (CARRIER) MG/KG/DAY

RABBIT #	CLs	FETUS # 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
7664	4/ 4	FA	FA	FA	MA /	FA	MA	MA	MA											
		41.66	42.68	42.59	46.08	43.98	49.31	48.20	40.20											
7665	3/ 4	MA	MA	FA /	MA	MA	L	FA												
		58.28	61.32	61.50	60.64	51.81	51.81	58.26												
7666	2/ 6	MA	MA /	MA	MA	FA	FA	MA	MA											
		40.92	44.08	41.50	39.86	39.53	38.41	33.44	33.88											
7667	4/ 4	FA	MA	FA	FA /	MA	FA	MA	MA											
		53.21	51.99	47.83	45.40	52.29	44.73	47.84	44.58											
7668	4/ 4	MA	FA	FA	MA /	MA	MA	FA	MA											
		49.15	45.34	35.53	37.11	42.66	45.28	41.75	43.07											
7669	6/ 5	FA	MA	MA	FA	FA /	FA	MA	MA	FA	FA									
		52.73	39.99	43.54	42.30	48.55	53.05	47.48	46.74	39.43	41.60									
7670	6/ 5	FA	MA	FA	MA	MA	FA /	MA	FA	MA	FA	FA								
		55.47	52.68	54.49	47.91	45.91	43.32	54.76	51.52	46.70	45.50	47.60								
7671		NOT PREGNANT																		
7672	6/ 5	MA	MA	FA	FA	FA	MA /	FA	MA	MA	MA									
		43.06	44.25	38.02	37.81	30.31	32.39	40.27	38.15	38.70	36.75									
7673	6/ 4	FA	MA	MA	MA	FA /	MA	MA	FA											
		47.95	43.37	45.22	40.06	41.07	50.35	44.00	38.34											
7674	2/ 5	MA	FA /	MA	MA	MA	FA	FA												
		47.41	51.82	51.37	48.27	49.02	46.07	52.36												
7675	7/ 8	MA	MA	MA	MA	MA	FA	FA /	MA	MA	FA	FA	FA	FA	FA	FA				
		46.94	47.85	43.16	38.37	38.32	34.43	48.35	45.90	42.99	46.63	46.79	34.90	25.93	29.00	38.96				

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

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 29 (PAGE 3): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

DOSAGE GROUP 2 0.1 MG/KG/DAY

RABBIT #	CLs	FETUS # 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
7676	3/ 4	FA	MA	MA /	MA	FA	FA	MA												
		41.37	41.41	40.83	42.98	40.47	32.70	34.63												
7677	5/ 7	FA	FA	MA	MA /	FA	FA	FA	MA	FA	MD	MA								
		43.46	35.74	39.62	42.20	40.61	35.16	32.29	37.25	30.27	31.25	40.99								
7678	5/ 6	MA	FA	FA	FA	FA /	FA	MA	FA	MA	FA	MA								
		39.81	43.00	42.13	36.32	40.99	46.76	39.11	36.06	33.43	35.75	41.35								
7679	6/ 5	MA	L	FA	MA	FL	FA /	E	ML	FA	FA	FA								
		46.47	0.31	45.33	43.08	9.21	37.94		28.01	40.03	40.24	43.92								
7680	4/ 7	FA	FA	FA	FA /	MA	FA	MA	MA	FL	ML	FA								
		47.57	49.70	47.64	45.50	48.33	49.23	45.15	42.96	19.32	16.09	41.06								
7681	8/ 3	FA	MA	FA	FA	MA /	MA	MA	MA											
		38.37	42.61	42.38	39.80	43.98	38.27	41.72	47.17											
7682	6/ 5	FA	E	MA	FA	FA	MA /	MA	MA	FA	MA	ML								
		44.31		41.72	40.16	30.74	32.77	40.70	31.61	39.32	36.85	22.85								
7683	3/ 9	MA	FA	FA /	MA	FA	MA	MA												
		52.21	42.57	44.81	50.86	46.93	47.87	49.06												
7684	5/ 5	MA	MA	FA	MA /	MA	FA	MA	FA	MA										
		50.02	51.90	50.79	39.86	49.37	48.11	47.37	42.76	40.61										
7685	3/ 3	MA	MA	FA /	E	MA	FA													
		57.77	53.70	46.96		55.96	58.14													
7686	5/ 7	FA	E	FA	MA	MA /	FA	MA	MA	MA	MA	FL	MA							
		41.16		27.09	35.63	37.68	40.26	29.88	33.87	27.54	31.17	31.17	41.30							
7687	7/ 2	FA	MA	FA	FA	FA	MA	MA /	MA											
		44.56	45.10	41.65	40.18	41.98	45.63	41.81	44.86											
7688	5/ 6	MA	MA /	FA	L	FA	FA													
		51.12	47.96	45.72		47.33	46.27													

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

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 29 (PAGE 4): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

DOSAGE GROUP 2 — 0.1 MG/KG/DAY

RABBIT #	CLs	FETUS # 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
7689	5/ 3	MA	FA	FA	MA	MA /	MA	MA	MA											
		43.28	46.04	42.34	40.26	34.67	48.39	48.34	44.41											
7690	6/ 4	FA	MA	FA	FA	MA /	FA	MA	MA	FA										
		49.15	43.79	42.55	43.88	43.13	42.77	50.51	44.01	45.19										
7691	4/ 6	FA	MA	MA	MA /	MA	MA	FA	MA	FA										
		43.10	44.79	42.07	43.65	37.11	41.03	37.45	41.26	40.15										
7692	5/ 4	MA	MA	MA	FA	MA /	FA	MA	FA											
		45.26	44.78	45.80	44.83	41.87	46.35	48.54	48.51											
7693	4/ 5	MA	FA	FA	MA /	FA	MA	MA	FA											
		57.89	43.78	47.25	44.40	52.10	45.36	44.52	50.95											
7694	2/ 5	FA	ML /	FA	FA	MA	MA													
		51.87	29.72	55.55	56.87	55.40	54.27													
7695	3/ 4	FA	FA	FA /																
		58.75	56.38	49.57																
7696	5/ 5	MA	MA	MA	FA /	MA	MA	FA	FA	MA										
		47.58	47.66	44.82	45.58	50.43	41.99	40.54	42.70	41.39										
7697	4/ 4	MA	MA	MA	E /	FA	FA	MA												
		49.25	49.77	42.37		49.52	44.18	37.65												
7698	7/ 3	MA	MA	MA	FA	FA /	FA	FA												
		50.81	43.37	44.50	39.15	46.37	45.31	41.61												
7699	4/ 3	FA	FA	FA	MA /	MA	MA	MA												
		52.79	47.37	46.14	46.81	52.78	47.64	46.22												
7700		NOT PREGNANT																		

M = MALE F = FEMALE A = ALIVE D = DEAD E = EARLY RESORPTION L = LATE RESORPTION "/" DENOTES POSITION OF CERVIX
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PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 29 (PAGE 5): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

DOSAGE GROUP 3 1.0 MG/KG/DAY

RABBIT #	CLs	FETUS # 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
7701	7/ 5	MA	MA	FA	MA	FA /	MA	MA	MA											
		39.11	36.25	37.62	32.62	39.12	37.38	40.89	38.70											
7702	4/ 4	MA	MA	MA /	FA	MA	MA	FA												
		44.00	47.42	46.37	41.44	45.97	45.02	42.70												
7703	8/ 4	MA	MA	FA	MA	MA	FA	MA /	FA	FA	FA	MA								
		51.49	40.03	39.29	37.60	27.92	27.12	38.30	46.71	45.10	41.85	42.58								
7704	5/ 5	MA	FA	FA	MA /	FA	FA	FA	MA											
		39.80	39.78	43.38	39.22	35.45	43.67	33.73	41.24											
7705	4/ 5	FA	MA	FA	MA /	MA	MA	MA	FA	MA										
		48.57	45.12	43.31	42.67	48.71	47.56	41.14	41.19	46.34										
7706	3/ 9	FA	FA	FA /	FA	MA	FA	FA	MA	FL	FA	MA	MA							
		48.05	45.72	39.03	43.48	38.89	39.43	38.63	37.98	14.09	22.10	23.28	31.36							
7707	4/ 4	MA	MA	FA	FA /	FA	MA	FA	MA											
		52.25	50.23	47.84	46.16	49.55	50.92	49.87	49.75											
7708	5/ 3	FA	FA	FA	FA	FA /	MA	MA												
		50.09	50.82	47.58	46.60	49.10	50.95	51.97												
7709	3/ 5	FA	FA /	MA	MA	FA	MA													
		55.38	51.22	51.40	55.15	47.57	50.54													
7710	5/ 5	MA	MA	MA	FA	FA /	MA	MA	MA	MA										
		53.32	52.40	49.37	46.28	39.63	53.00	45.82	38.61	49.07										
7711	5/ 4	MA	FA	MA	FA	FA /	MA	FA	FA	MA										
		43.51	41.96	41.95	37.85	42.97	41.17	38.22	37.88	46.92										
7712	5/ 6	FA	MA	FA	MA /	MA	MA	MA	MA	MA	MA									
		48.80	45.84	45.57	34.37	50.04	44.76	42.09	38.21	36.42	39.64									
7713	4/ 5	FA	MA	MA	FA /	MA	FA	FA	MA	MA										
		47.22	53.51	52.43	52.17	48.72	49.18	43.52	46.24	53.06										

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PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 29 (PAGE 6): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

DOSAGE GROUP 3 1.0 MG/KG/DAY

RABBIT #	CLs	FETUS # 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
7714	3/ 7	FA	FA	MA /	MA	FA	MA	MA	FA	MA	FA									
		47.86	49.75	47.05	50.11	41.36	45.31	45.02	40.18	35.41	37.01									
7715	2/ 5	MA	MA /	FA	FA	FA	FA	FA												
		43.82	46.53	43.21	42.30	39.90	40.38	44.01												
7716	2/ 3	FA	FA /	FA	FA															
		52.88	51.41	48.24	42.17															
7717	7/ 3	FA	FA	MA	MA	MA	MA	FA /	FA	MA	MA									
		48.19	44.61	39.07	35.73	37.44	32.67	33.57	44.63	48.38	44.90									
7718	8/ 2	FA	MA	FA	FA	FA	MA	MA	FA /	MA	FA									
		46.38	41.18	41.33	35.97	29.92	27.32	35.60	19.68	44.98	42.53									
7719	9/ 6	FA	MA	FA	FA	FA	FA	FL	FL	FA /	MA	MA	FA	FL	FA					
		47.90	42.60	32.72	29.85	38.46	34.16	35.02	16.07	36.89	48.01	47.44	49.73	49.73	45.93					
7720	5/ 3	FA	MA	MA	MA	FA /	FA	MA	FA											
		49.95	46.85	46.42	48.00	36.09	48.49	49.73	51.30											
7721		ABORTED ON DAY 28 OF GESTATION																		
7722	4/ 3	FA	MA	MA	FA /	FA	FA	MA												
		30.52	50.80	55.83	53.14	55.96	49.60	49.08												
7723	6/ 3	FA	MA	MA	FA	FA	FA /	FA	MA	FA										
		55.31	52.92	49.52	46.08	36.26	42.50	54.28	52.74	43.35										
7724		ABORTED ON DAY 28 OF GESTATION																		
7725	3/ 5	FA	MA	MA /	MA	MA	MA	FA	FA											
		47.97	42.77	48.79	38.83	50.47	44.49	42.28	41.41											

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PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 29 (PAGE 7): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

DOSAGE GROUP 4 10.0 MG/KG/DAY

FETUS #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
RABBIT # CLs																			
7726 6/ 5	FA	MA	FA	FA	FA	MA /	MA	FA	FA	MA	E								
	42.84	53.23	44.68	42.58	41.85	37.03	42.49	42.57	38.31	43.62									
7727 5/ 5	FA	MA	E	FA	MA /	FA	MA												
	54.99	49.62		43.72	49.58	47.98	49.61												
7728 4/ 8	MA	MA	MA	MA /	FA	E	E	FA	MA	FA	MA								
	60.87	55.82	52.08	50.26	49.06			47.79	43.12	40.84	42.12								
7729 5/ 5	MA	FA	MA	MA /	FA	MA	FA	MA	E										
	52.06	52.45	57.98	50.63	53.89	56.87	49.23	51.85											
7730 4/ 8	MA	MA	FA	FA /	MA	MA	MA	MA	MA	MA	MA	MA							
	47.47	46.27	37.60	37.14	44.58	31.47	39.46	37.30	47.62	41.52	30.30	43.88							
7731 4/ 5	MA	MA	MA	MA /	FA	MA	FA	MA	MA										
	43.18	41.33	42.89	43.71	43.28	42.67	40.34	35.03	41.60										
7732 2/ 8	FA	MA /	MA	MA	FA	MA	FA	MA	FA	MA									
	42.22	51.06	52.91	46.13	28.97	33.74	39.12	45.00	39.11	45.81									
7733 8/ 4	MA	MA	FA	FA	MA	FL	MA	FA /	FA	FA	E	E							
	52.76	50.51	41.06	36.59	40.61	18.50	35.12	41.86	49.57	49.54									
7734 3/ 5	MA	MA	MA /	FA	MA	MA	MA	MA											
	49.49	50.43	50.03	48.76	44.38	42.69	50.00	47.62											
7735 5/ 3	FA	MA	FA	MA	FA /	MA	MA	FA											
	46.41	38.47	38.40	42.70	40.38	49.92	43.81	44.40											
7736 2/ 2	MA	E /																	
	53.02																		
7737 6/ 3	MA	FA	MA	MA	MA	MA /	MA												
	51.06	51.74	54.28	53.88	52.49	51.10	51.00												
7738 5/ 3	FA	FA	MA	FA	MA /	FA	FA												
	37.35	36.88	38.07	45.60	43.20	45.06	42.74												

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PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 29 (PAGE 8): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

DOSAGE GROUP 4 10.0 MG/KG/DAY

RABBIT #	CLs	FETUS # 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
7739		NOT PREGNANT																		
7740	4/ 4	FA	FA	MA	FA /	MA	FA	MA	FA											
		43.44	39.05	41.60	46.17	33.05	38.76	42.60	40.29											
7741	3/ 6	MA	FA	MA /	FA	MA	MA	FA	FA	MA										
		43.16	38.01	40.53	32.91	42.73	38.58	41.20	43.12	39.00										
7742	7/ 3	FA	MA	FA	FA	FA	MA	FA /	MA	MA	MA									
		51.99	50.46	47.03	37.13	34.25	36.76	42.98	53.13	47.61	46.40									
7743	5/ 4	MA	FA	FA	MA /	MA	FA	MA												
		49.85	48.78	52.36	52.24	54.51	49.38	49.45												
7744	4/ 3	MA	MA	MA	FA /	FA	MA	MA												
		49.01	45.85	43.38	44.39	47.08	46.63	49.73												
7745	5/ 5	FA	MA	MA	MA	MA /	MA	MA	FA	FA	MA									
		44.46	46.14	41.96	36.84	35.46	48.76	44.02	30.51	34.70	41.25									
7746	6/ 2	MA	FA	FA	FA	MA	FA /	MA	FA											
		45.40	41.45	37.74	39.72	38.02	32.93	38.66	42.42											
7747	5/ 6	MA	MA	FA	FA	FA /	MA	MA	FA	FA	MA	MA								
		47.71	49.12	46.47	49.50	43.77	48.75	45.82	37.85	35.65	39.22	37.82								
7748	4/ 1	FA	FA	FA	MA /	FA														
		51.42	46.66	49.37	51.47	46.52														
7749	4/ 7	FA	FA	MA	MA /	E	E	MA	MA	MA										
		50.12	44.03	46.96	38.71			38.85	41.18	47.36										
7750	6/ 5	MA	FA	MA	FA	FA	FA /	FA	FL	MA	FA									
		56.30	39.40	46.59	44.15	46.31	40.86	54.76	40.96	45.39	45.28									

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PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 29 (PAGE 9): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

DOSAGE GROUP 5 30.0 MG/KG/DAY

RABBIT #	CLs	FETUS # 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
7751	5/ 6	MA	FA	MA	FA	MA /	MA	FA	MA	FA	MA	MA								
		40.17	29.79	42.78	45.45	44.40	55.20	44.72	47.68	40.09	39.42	42.81								
7752	3/ 5	E	MA	MA /	FA	FL	FA	FA												
			50.06	53.51	53.80	27.03	47.46	52.10												
7753	4/ 6	FA	FA /	FA	MA	FA	MA	FA												
		52.93	45.17	47.06	45.20	44.24	46.15	44.80												
7754	5/ 5	MA	FA	FA	MA /	MA	MA	MA	FA	MA										
		46.46	44.93	41.68	46.16	35.55	36.20	43.13	37.91	40.05										
7755	6/ 5	FA	MA	MA	MA	MA	FA /	FA	MA	FA	FA	FA								
		48.19	47.11	42.23	43.20	41.06	42.80	46.13	43.69	35.79	36.78	44.71								
7756	9/ 5	MA	FA	FA	MA	MA /	FA													
		52.28	50.94	45.74	42.97	49.25	51.64													
7757	5/ 7	MA	MA	FA /	FA	MA	FA	MA												
		50.89	49.44	44.89	43.46	44.97	47.94	49.79												
7758	4/ 6	MA	FA	FA	FA /	MA	MA	MA	MA	FA	MA									
		53.27	45.69	47.16	47.75	48.88	49.41	36.16	29.98	39.68	43.21									
7759	5/ 8	MA	FA	MA	FL	FA /	MA	MA	FA	MA	MA	FA								
		47.91	44.43	43.77	43.77	40.17	48.26	44.02	38.20	30.18	37.83	29.44								
7760	3/ 5	MA	FA /	FA	MA	MA	MA													
		53.37	43.83	50.68	52.52	54.37	44.02													
7761	6/ 4	MA	FA	FA	MA	FA	FA /	FA	MA	MA	MA									
		48.75	45.58	43.92	39.78	41.76	48.07	46.71	50.47	47.34	47.26									
7762	5/ 3	MA	FA	MA	FA	MA /	FA	MA	MA											
		50.23	49.23	48.53	41.43	48.05	49.02	43.46	51.61											
7763	5/ 3	MA	FA	FA	FA	FA /	FA	MA	MA											
		44.90	41.28	42.27	42.68	40.86	44.36	42.21	41.92											

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PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 29 (PAGE 10): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

DOSAGE GROUP 5 30.0 MG/KG/DAY

RABBIT #	CLs	FETUS # 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
7764	9/ 2	FA	E	MA	FA	FA	FA	MA	FA	MA /	L	FA								
		44.96		41.70	39.57	44.26	42.07	41.89	38.00	41.27	0.39	42.84								
7765	5/ 2	FA	MA	MA	FA	MA /	FA													
		59.69	57.52	53.56	45.83	37.87	60.20													
7766	7/ 1	MA	FA	FA	FA	FA	MA /													
		46.74	31.43	49.60	40.20	36.68	46.34													
7767	3/ 3	MA	MA	FA /	FA	MA														
		55.23	62.29	60.43	60.53	55.17														
7768	7/ 3	MA	MA	MA	MA	ML	MA	MA /	FA	MA	FA									
		39.18	37.41	40.49	48.11	48.11	37.02	45.69	42.03	45.54	45.24									
7769	4/ 6	MA	FA	MA	FA /	MA	FA													
		52.04	53.93	50.57	51.31	48.78	49.45													
7770	5/ 2	FA	FA	FA /	FA	MA														
		55.63	52.22	51.69	55.97	61.57														
7771		NOT PREGNANT																		
7772	5/ 4	FA	FA	FA	MA	FA /	FA	MA												
		46.65	41.08	41.25	39.76	39.47	50.37	48.47												
7773	8/ 5	FA	FA	MA	MA	FA	FA	FA	FA /	FA	MA	MA								
		47.41	51.60	40.86	49.56	38.93	42.92	40.00	40.69	47.25	38.17	41.04								
7774	4/ 6	MA	MA	FA /	FA	FA	FA	FA	MA	MA										
		49.37	42.83	47.05	54.29	46.73	41.02	44.07	42.52	50.84										
7775	8/ 3	E	FA	MA	FA	MA	FA /	MA	MA	MA										
			48.25	34.17	24.17	39.61	41.65	35.73	30.56	41.23										

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PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 29 (PAGE 11): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

DOSAGE GROUP 6 100.0 MG/KG/DAY

RABBIT #	CLs	FETUS # 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
7776		DELIVERED ON DAY 27 OF GESTATION; THE MATING DATE WAS INCORRECTLY IDENTIFIED																		
7777	5/ 7	FA	E	FA	MA	MA /	FA	FA	MA	MA	E	MA	FA							
		38.26		33.73	34.48	40.43	41.54	39.05	34.39	31.93		31.92	37.79							
7778	5/ 8	MA	FA	MA	MA	FA /	FA	MA	MA	MA	FA	MA	FA							
		40.61	37.68	32.92	36.10	36.33	38.82	34.57	32.22	30.11	28.14	26.85	26.97							
7779	6/ 6	MA	L	E	MA	MA	MA /	FA	FA	FA	FA	FA	FA							
		58.52	16.64		50.95	37.45	41.53	53.57	42.89	40.42	29.63	19.16	39.98							
7780	4/ 6	MA	FA	FL	FA /	FA	FA	FL	FA	MA	FA									
		40.29	32.66	42.17	49.23	44.39	41.50	45.34	34.11	33.22	40.89									
7781	5/ 5	FA	FA	MA	MA /	FA	MA	MA	MA											
		49.46	37.31	29.61	38.42	44.15	43.46	46.58	46.52											
7782	6/ 6	FA	FL	FA	FA	FA /	MA	MA	FA	MA	FA	MA								
		39.63	16.60	44.38	44.92	40.15	43.91	35.44	38.65	43.69	40.43	43.64								
7783	6/ 2	MA	MA	FA	FA	MA	FA /	FA	FA											
		58.03	56.12	46.67	44.12	44.47	45.75	52.84	49.67											
7784	4/ 5	MA	MA /	MA	MA	MA	FA													
		48.75	46.03	47.80	49.21	47.54	48.32													
7785	3/ 5	MA	FA	MA /	FA	FA	MA	MA	MA											
		51.97	44.02	45.65	47.93	44.67	37.77	41.26	40.04											
7786	7/ 6	MA	MA	MA	FA	MA	MA	FA /	FA	MA	MA	FA	FA	FA						
		49.72	46.02	43.28	31.73	23.24	27.12	46.04	41.51	47.62	44.36	38.87	40.04	38.15						
7787	5/ 5	MA	MA	FA	MA	MA /	MA	FA	FA	MA	FA									
		47.97	47.59	46.52	43.65	40.41	48.69	51.57	44.87	48.50	44.24									
7788	6/ 6	FA	FA	FA	MA	FA	FA /	MA	FA	FA	FA	MA	MA							
		48.78	41.10	46.25	45.09	42.12	42.54	52.27	47.31	40.00	39.84	42.48	41.75							

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PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 29 (PAGE 12): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

DOSAGE GROUP 6 100.0 MG/KG/DAY

RABBIT #	CLs	FETUS # 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
7789	6/ 4	MA	FA	FA	FA	MA	FA /	MA	FA	MA	MA									
		52.63	49.45	41.27	42.10	41.93	45.17	50.53	45.10	43.46	46.43									
7790	8/ 4	FA	FA	FA	MA	FA	MA	FA /	FA	MA	MA									
		41.31	47.27	42.27	43.60	37.22	37.71	40.68	45.23	40.36	43.03									
7791	6/ 6	FA	MA	MA	FA	FA	MA /	MA	MA											
		52.84	50.75	47.86	40.41	40.41	48.82	47.80	44.52											
7792	5/ 4	MA	FA	FA	MA	MA /	MA	MA	FA	MA										
		44.76	41.78	46.89	38.82	43.09	49.65	39.80	39.94	44.19										
7793	5/ 5	FA	FA	FA	FA /	MA	MA	FA	FA											
		52.11	52.23	0.01a	49.21	53.76	53.81	54.29	55.01											
7794	6/ 2	MA	MA	FA	MA	MA	FA /	MA	MA											
		36.15	46.63	43.84	45.81	35.25	49.49	47.22	44.17											
7795		NOT PREGNANT																		
7796	5/ 4	FA	FA	MA	MA	MA /	FA	E	MA											
		49.86	51.47	45.82	45.97	50.43	53.09		48.43											
7797	5/ 6	FA	FA	MA	FA /	FA	FA	MA	MA											
		43.43	43.45	41.71	42.20	40.11	39.58	40.55	44.72											
7798	3/ 4	MA	MA	FA /	FA	MA	FA	MA												
		49.72	51.80	54.49	43.40	48.31	38.94	47.69												
7799	5/ 6	FA	MA	FA	MA	MA /	MA	FA	MA	MA	MA	FA								
		42.43	40.25	42.22	38.78	35.40	42.73	41.30	37.33	31.57	29.33	38.73								
7800	1/ 6	FA /	FA	FA	MA	FA														
		39.77	47.24	49.91	51.82	53.96														

M = MALE F = FEMALE A = ALIVE D = DEAD E = EARLY RESORPTION L = LATE RESORPTION "/" DENOTES POSITION OF CERVIX
CLs = CORPORA LUTEA/OVARY FETAL BODY WEIGHTS WERE RECORDED IN GRAMS (G).
a. Value appeared incorrectly recorded and was excluded from group averages and statistical analyses.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 1): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 1 — 0 (CARRIER) MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7651	1(33.3)	1/ 3	FETUS 2 BODY: UMBILICAL HERNIA, intestine protruding from umbilical opening FETUS 5 LATE RESORPTION, autolysis precluded further evaluation	1/ 3	FETUS 2 INTESTINES: PROTRUDING	0/ 3	
7652	1(12.5)	0/ 8		0/ 8		1/ 8	FETUS 5 SKULL: NASALS, MIDLINE SUTURE DISPLACED, right
7653	NOT PREGNANT						
7654	0(0.0)	0/ 7		0/ 7		0/ 7	
7655	0(0.0)	0/11		0/11		0/11	

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

ARGUS 1416-002

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 2): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 1 — 0 (CARRIER) MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7656	3(30.0)	1/10	FETUS 1 LATE RESORPTION, autolysis precluded further evaluation FETUS 2 LATE RESORPTION, autolysis precluded further evaluation FETUS 11 EYES: BULGE DEPRESSED, bilateral a FORE AND/OR HINDPAWS: FLEXED, right forepaw, downward	2/10	FETUS 4 EYES: FOLDED RETINA, left FETUS 12 EYES: FOLDED RETINA, right	1/10	FETUS 11 SKULL: FRONTALS, INCOMPLETELY OSSIFIED; PARIETALS, INCOMPLETELY OSSIFIED HYOID: ALA, ANGULATED, bilateral SKULL: EYE, SOCKET SMALL, bilateral
7657	1(20.0)	0/ 5		0/ 5		1/ 5	FETUS 1 CAUDAL VERTEBRAE: MISALIGNED, 16th
7658	2(33.3)	0/ 6		0/ 6		2/ 6	FETUS 3 HYOID: ALA, ANGULATED, left FETUS 4 THORACIC VERTEBRAE: ARCHES, FUSED, right 11th and 12th

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED
a. First observed at skeletal examination.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 3): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 1 — 0 (CARRIER) MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7659	3(50.0)	0/ 6		2/ 6	FETUS 2 EYES: FOLDED RETINA, left FETUS 6 EYES: FOLDED RETINA, left	1/ 6	FETUS 3 HYOID: ALA, ANGULATED, bilateral
7660	NOT PREGNANT						
7661	0(0.0)	0/ 8		0/ 8		0/ 8	
7662	1(10.0)	0/10		0/10		1/10	FETUS 4 RIBS: THICKENED, right 7th and 8th, distally; left 7th, medially; 8th, distally
7663	0(0.0)	0/ 7		0/ 7		0/ 7	
7664	1(12.5)	0/ 8		1/ 8	FETUS 4 EYES: FOLDED RETINA, right	0/ 8	
7665	0(0.0)	0/ 6	FETUS 6 LATE RESORPTION, autolysis precluded further evaluation	0/ 6		0/ 6	

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 4): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 1 — 0 (CARRIER) MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7666	2(25.0)	0/ 8		0/ 8		2/ 8	FETUS 1 SKULL: NASALS, CONTAINED AN INTERNASAL, 1.0 mm x 3.5 mm FETUS 7 SKULL: NASALS, CONTAINED AN INTERNASAL, 1.0 mm x 2.0 mm
7667	0(0.0)	0/ 8		0/ 8		0/ 8	
7668	2(25.0)	0/ 8		1/ 8	FETUS 8 EYES: FOLDED RETINA, right	1/ 8	FETUS 5 HYOID: ALA, ANGULATED, left
7669	6(60.0)	0/10		4/10	FETUS 2 EYES: FOLDED RETINA, bilateral FETUS 4 EYES: FOLDED RETINA, right FETUS 6 EYES: FOLDED RETINA, left FETUS 10 EYES: FOLDED RETINA, right	2/10	FETUS 5 SKULL: FRONTALS, CONTAINED AN INTERFRONTAL, 0.5 mm x 1.5 mm FETUS 7 SCAPULAE: MISALIGNED, right

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 5): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 1 0 (CARRIER) MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7670	2(18.2)	0/11		1/11	FETUS 6 EYES: FOLDED RETINA, bilateral	1/11	FETUS 7 SKULL: FRONTALS, CONTAINED AN INTERFRONTAL, 0.5 mm x 1.0 mm
7671	NOT PREGNANT						
7672	8(80.0)	1/10	FETUS 1 BODY: ABDOMINAL DISTENSION	1/10	FETUS 1 HEART: LARGE LIVER: LARGE, all lobes thick, surface rough in appearance	7/10	FETUS 2 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 3 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 4 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 5 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 7 STERNAL CENTRA: FUSED, 2nd - 4th FETUS 9 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 10 STERNAL CENTRA: FUSED, 3rd and 4th

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 6): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 1 — 0 (CARRIER) MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7673	1(12.5)	0/ 8		1/ 8	FETUS 5 LUNGS: INTERMEDIATE LOBE ABSENT	1/ 8	FETUS 5 CERVICAL VERTEBRAE: CENTRUM, UNILATERAL OSSIFICATION, 6th, right
7674	1(14.3)	0/ 7		0/ 7		1/ 7	FETUS 7 STERNAL CENTRA: FUSED, 3rd and 4th
7675	0(0.0)	0/15		0/15		0/15	

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 7): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 2 — 0.1 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7676	0(0.0)	0/ 7		0/ 7		0/ 7	
7677	3(30.0)	0/10	FETUS 10 DEAD FETUS, appeared normal for developmental age	0/10		3/10	FETUS 1 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 6 STERNAL CENTRA: FUSED, 1st - 4th FETUS 7 SKULL: FRONTALS, FUSED, partially, 3.5 mm
7678	0(0.0)	0/11		0/11		0/11	
7679	1(14.3)	0/ 7	FETUS 2 LATE RESORPTION, autolysis precluded further evaluation FETUS 5 LATE RESORPTION, autolysis precluded further evaluation FETUS 8 LATE RESORPTION, autolysis precluded further evaluation	0/ 7		1/ 7	FETUS 6 STERNAL CENTRA: 1ST, INCOMPLETELY OSSIFIED

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 8): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 2 0.1 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7680	2(22.2)	0/ 9	FETUS 9 LATE RESORPTION, autolysis precluded further evaluation FETUS 10 LATE RESORPTION, autolysis precluded further evaluation	0/ 9		2/ 9	FETUS 4 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 5 SKULL: NASALS, MIDLINE SUTURE DISPLACED; left
7681	0(0.0)	0/ 8		0/ 8		0/ 8	
7682	3(33.3)	0/ 9	FETUS 11 LATE RESORPTION, autolysis precluded further evaluation	1/ 9	FETUS 8 VESSELS: COMMON TRUNCUS HEART: VENTRICULAR SEPTUM ABSENT	3/ 9	FETUS 3 THORACIC VERTEBRAE: HEMIVERTEBRA, right 9th, arch and centrum with attached rib RIBS: FUSED, left 3rd and 4th, proximal - medial

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 9): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 2 0.1 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7682 (Cont.)							FETUS 8 CERVICAL VERTEBRAE: ARCH, SMALL, right 6th THORACIC VERTEBRAE: ARCHES, FUSED, right 6th and 7th; HEMIVERTEBRA, right 1st, arch and centrum with attached rib; ARCH, SMALL, right 8th; CENTRA, FUSED, 1st and 2nd; CENTRUM, UNILATERAL OSSIFICATION, 6th and 8th left RIBS: FUSED, right 1st and 2nd, bases, right 8th and 9th, base - medial; NOT OSSIFIED, right 7th; 12 PRESENT, right 12, left 11, thoracic and ribs a

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED
a. Excluded from fetal ossification site averages.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 10): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 2 0.1 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7682 (Cont.)							FETUS 10 THORACIC VERTEBRAE: ARCHES, FUSED, left 9th and 10th RIBS: FUSED, right 9th and 10th, bases, left 9th and 10th, base - proximal STERNAL CENTRA: 1ST, INCOMPLETELY OSSIFIED
7683	2(28.6)	0/ 7		0/ 7		2/ 7	FETUS 3 SKULL: POSTERIOR FONTANELLE, LARGE, moderate FETUS 5 SKULL: PARIETALS, IRREGULAR SUTURE; NASALS, MIDLINE SUTURE DISPLACED, left
7684	5(55.6)	0/ 9		0/ 9		5/ 9	FETUS 1 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 2 STERNAL CENTRA: FUSED, 3rd and 4th

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 11): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 2 0.1 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7684 (Cont.)							FETUS 4 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 5 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 9 SKULL: NASALS, CONTAINED AN INTERNASAL, 1.0 mm x 1.5 mm
7685	1(20.0)	0/ 5		0/ 5		1/ 5	FETUS 3 HYOID: ALA, ANGULATED, bilateral
7686	0(0.0)	0/10	FETUS 11 LATE RESORPTION, autolysis precluded further evaluation	0/10		0/10	
7687	0(0.0)	0/ 8		0/ 8		0/ 8	

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 12): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 2 0.1 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7688	1(20.0)	0/ 5	FETUS 4 LATE RESORPTION, autolysis precluded further evaluation	1/ 5	FETUS 6 LUNGS: INTERMEDIATE LOBE ABSENT	0/ 5	
7689	1(12.5)	0/ 8		0/ 8		1/ 8	FETUS 1 STERNAL CENTRA: FUSED, 3rd and 4th
7690	0(0.0)	0/ 9		0/ 9		0/ 9	
7691	0(0.0)	0/ 9		0/ 9		0/ 9	
7692	1(12.5)	0/ 8		0/ 8		1/ 8	FETUS 3 HYOID: ALA, ANGULATED, left
7693	2(25.0)	0/ 8		0/ 8		2/ 8	FETUS 2 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 7 STERNAL CENTRA: ASYMMETRIC, 1st
7694	0(0.0)	0/ 5	FETUS 2 LATE RESORPTION, autolysis precluded further evaluation	0/ 5		0/ 5	

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 13): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 2 0.1 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7695	1(33.3)	0/ 3		1/ 3	FETUS 2 EYES: FOLDED RETINA, left	0/ 3	
7696	0(0.0)	0/ 9		0/ 9		0/ 9	
7697	1(16.7)	0/ 6		0/ 6		1/ 6	FETUS 3 STERNAL CENTRA: FUSED, 2nd and 3rd; ASYMMETRIC, 2nd - 4th
7698	0(0.0)	0/ 7		0/ 7		0/ 7	
7699	0(0.0)	0/ 7		0/ 7		0/ 7	
7700	NOT PREGNANT						

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 14): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 3 1.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7701	0(0.0)	0/ 8		0/ 8		0/ 8	
7702	0(0.0)	0/ 7		0/ 7		0/ 7	
7703	1(9.1)	0/11		0/11		1/11	FETUS 1 STERNAL CENTRA: FUSED, 3rd and 4th
7704	0(0.0)	0/ 8		0/ 8		0/ 8	
7705	2(22.2)	0/ 9		0/ 9		2/ 9	FETUS 7 SCAPULAE: MISALIGNED, right FETUS 8 CAUDAL VERTEBRAE: MISALIGNED, 15th
7706	0(0.0)	0/11	FETUS 9 LATE RESORPTION, autolysis precluded further evaluation	0/11		0/11	
7707	0(0.0)	0/ 8		0/ 8		0/ 8	
7708	0(0.0)	0/ 7		0/ 7		0/ 7	
7709	0(0.0)	0/ 6		0/ 6		0/ 6	

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 15): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 3 1.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7710	1(11.1)	0/ 9		0/ 9		1/ 9	FETUS 3 SKULL: FRONTALS, IRREGULAR SUTURE
7711	0(0.0)	0/ 9		0/ 9		0/ 9	
7712	3(30.0)	1/10	FETUS 4 BODY: UMBILICAL HERNIA, liver protruding from umbilical opening	1/10	FETUS 6 EYES: FOLDED RETINA, bilateral	1/10	FETUS 5 SCAPULAE: MISALIGNED, right
7713	2(22.2)	0/ 9		1/ 9	FETUS 2 EYES: FOLDED RETINA, left	2/ 9	FETUS 2 SCAPULAE: MISALIGNED, right FETUS 9 SCAPULAE: MISALIGNED, right
7714	0(0.0)	0/10		0/10		0/10	
7715	0(0.0)	0/ 7		0/ 7		0/ 7	
7716	1(25.0)	0/ 4		1/ 4	FETUS 2 EYES: FOLDED RETINA, left	0/ 4	

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 16): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 3 1.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7717	2(20.0)	0/10		1/10	FETUS 5 LUNGS: INTERMEDIATE LOBE ABSENT	1/10	FETUS 9 SCAPULAE: MISALIGNED, right STERNAL CENTRA: FUSED, 3rd and 4th
7718	4(40.0)	0/10		2/10	FETUS 9 LUNGS: INTERMEDIATE LOBE ABSENT FETUS 10 EYES: FOLDED RETINA, left	2/10	FETUS 1 RIBS: THICKENED, right 8th, medially FETUS 7 HYOID: ALA, ANGULATED, bilateral
7719	1(9.1)	0/11	FETUS 7 LATE RESORPTION, autolysis precluded further evaluation FETUS 8 LATE RESORPTION, autolysis precluded further evaluation FETUS 13 LATE RESORPTION, autolysis precluded further evaluation	1/11	FETUS 4 LUNGS: INTERMEDIATE LOBE ABSENT	0/11	

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 17): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 3 1.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7720	0(0.0)	0/ 8		0/ 8		0/ 8	
7721	ABORTED ON DAY 28 OF GESTATION a						
7722	1(14.3)	1/ 7	FETUS 1 HINDPAW: DIGITS, SHORT right, 1st and 4th left, 4th b	0/ 7		1/ 7	FETUS 1 HINDPAW: PHALANGES, ABSENT, right, 1st and 4th - distal and medial, left, 4th - distal and medial, right (1331); left (3331)c
7723	1(11.1)	0/ 9		0/ 9		1/ 9	FETUS 1 SKULL: FRONTALS, CONTAINED AN INTERFRONTAL, 0.4 mm x 2.0 mm
7724	ABORTED ON DAY 28 OF GESTATION d						
7725	0(0.0)	0/ 8		0/ 8		0/ 8	

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

a. Doe 7721 aborted two dead pups and 10 late resorptions on day 28 of gestation. Autolysis precluded further evaluation of the late resorptions. The two dead pups appeared normal at gross external, soft tissue and skeletal evaluations.

b. First observed at skeletal examination.

c. Excluded from fetal ossification site averages.

d. Doe 7724 aborted two late resorptions and had one early and five late resorptions in utero on day 28 of gestation. Autolysis precluded further evaluation.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 18): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 4 10.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7726	0(0.0)	0/10		0/10		0/10	
7727	1(16.7)	0/ 6		0/ 6		1/ 6	FETUS 4 SKULL: NASALS, MIDLINE SUTURE DISPLACED, right
7728	0(0.0)	0/ 9		0/ 9		0/ 9	
7729	0(0.0)	0/ 8		0/ 8		0/ 8	
7730	4(33.3)	0/12		0/12		4/12	FETUS 3 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 4 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 5 STERNAL CENTRA: FUSED, 2nd - 4th FETUS 12 STERNAL CENTRA: FUSED, 3rd and 4th
7731	1(11.1)	0/ 9		0/ 9		1/ 9	FETUS 5 STERNAL CENTRA: FUSED, 3rd and 4th

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 19): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 4 10.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7732	5(50.0)	0/10		1/10	FETUS 10 EYES: FOLDED RETINA, left	4/10	FETUS 1 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 2 STERNAL CENTRA: FUSED, 4th and 5th FETUS 3 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 5 STERNAL CENTRA: FUSED, 3rd and 4th
7733	0(0.0)	0/ 9	FETUS 6 LATE RESORPTION, autolysis precluded further evaluation	0/ 9		0/ 9	
7734	1(12.5)	0/ 8		0/ 8		1/ 8	FETUS 7 HYOID: ALA, ANGULATED, right

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 20): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 4 10.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7735	2(25.0)	0/ 8		0/ 8		2/ 8	FETUS 1 THORACIC VERTEBRAE: HEMIVERTEBRA, left 13th, arch and centrum with attached rib RIBS: SPLIT, right 13th FETUS 7 RIBS: THICKENED, left 7th, medially
7736	1(100.0)	0/ 1		0/ 1		1/ 1	FETUS 1 HYOID: ALA, ANGULATED, bilateral
7737	1(14.3)	0/ 7		1/ 7	FETUS 6 EYES: FOLDED RETINA, bilateral	0/ 7	
7738	2(28.6)	0/ 7		2/ 7	FETUS 4 EYES: FOLDED RETINA, bilateral FETUS 6 EYES: FOLDED RETINA, bilateral	0/ 7	
7739	NOT PREGNANT						
7740	0(0.0)	0/ 8		0/ 8		0/ 8	
7741	0(0.0)	0/ 9		0/ 9		0/ 9	

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 21): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 4 10.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7742	2(20.0)	0/10		0/10		2/10	FETUS 4 STERNAL CENTRA: 1ST, INCOMPLETELY OSSIFIED FETUS 5 STERNAL CENTRA: FUSED, 3rd and 4th
7743	2(28.6)	0/ 7		1/ 7	FETUS 2 EYES: FOLDED RETINA, left	1/ 7	FETUS 5 HYOID: ALA, ANGULATED, right
7744	0(0.0)	0/ 7		0/ 7		0/ 7	
7745	0(0.0)	0/10		0/10		0/10	
7746	2(25.0)	0/ 8		0/ 8		2/ 8	FETUS 3 SKULL: NASALS, CONTAINED AN INTERNASAL, 1.5 mm x 2.5 mm FETUS 7 SKULL: NASALS, MIDLINE SUTURE DISPLACED, left
7747	0(0.0)	0/11		0/11		0/11	
7748	1(20.0)	0/ 5		0/ 5		1/ 5	FETUS 1 SKULL: NASALS, MIDLINE SUTURE DISPLACED, right

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 22): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 4 10.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7749	0(0.0)	0/ 7		0/ 7		0/ 7	
7750	0(0.0)	0/ 9	FETUS 8 LATE RESORPTION, autolysis precluded further evaluation	0/ 9		0/ 9	

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 23): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 5 30.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7751	0(0.0)	0/11		0/11		0/11	
7752	0(0.0)	0/ 5	FETUS 5 LATE RESORPTION, autolysis precluded further evaluation	0/ 5		0/ 5	
7753	0(0.0)	0/ 7		0/ 7		0/ 7	
7754	0(0.0)	0/ 9		0/ 9		0/ 9	
7755	0(0.0)	0/11		0/11		0/11	
7756	0(0.0)	0/ 6		0/ 6		0/ 6	
7757	0(0.0)	0/ 7		0/ 7		0/ 7	
7758	5(50.0)	0/10		3/10	FETUS 4 EYES: FOLDED RETINA, bilateral FETUS 8 EYES: FOLDED RETINA, left FETUS 10 EYES: FOLDED RETINA, left	3/10	FETUS 3 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 6 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 10 STERNAL CENTRA: FUSED, 3rd and 4th

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 24): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 5 30.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7759	3(30.0)	0/10	FETUS 4 LATE RESORPTION, autolysis precluded further evaluation	1/10	FETUS 8 LUNGS: INTERMEDIATE LOBE ABSENT	3/10	FETUS 7 STERNAL CENTRA: 1ST, INCOMPLETELY OSSIFIED FETUS 8 STERNAL CENTRA: 1ST, INCOMPLETELY OSSIFIED FETUS 9 STERNAL CENTRA: 1ST, INCOMPLETELY OSSIFIED
7760	1(16.7)	0/ 6		0/ 6		1/ 6	FETUS 1 CAUDAL VERTEBRAE: MISALIGNED, 17th
7761	1(10.0)	0/10		0/10		1/10	FETUS 9 STERNAL CENTRA: FUSED, 3rd and 4th
7762	1(12.5)	0/ 8		1/ 8	FETUS 4 EYES: FOLDED RETINA, left	0/ 8	
7763	1(12.5)	0/ 8		0/ 8		1/ 8	FETUS 3 HYOID: ALA, ANGULATED, right

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 25): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 5 30.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7764	0(0.0)	0/ 9	FETUS 10 LATE RESORPTION, autolysis precluded further evaluation	0/ 9		0/ 9	
7765	2(33.3)	0/ 6		0/ 6		2/ 6	FETUS 1 HYOID: ALA, ANGULATED, bilateral FETUS 5 SCAPULAE: MISALIGNED, right
7766	0(0.0)	0/ 6		0/ 6		0/ 6	
7767	0(0.0)	0/ 5		0/ 5		0/ 5	
7768	1(11.1)	0/ 9	FETUS 5 LATE RESORPTION, autolysis precluded further evaluation	1/ 9	FETUS 7 EYES: FOLDED RETINA, left	0/ 9	
7769	1(16.7)	0/ 6		0/ 6		1/ 6	FETUS 5 STERNAL CENTRA: 1ST, INCOMPLETELY OSSIFIED

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 26): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 5 30.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7770	1(20.0)	0/ 5		1/ 5	FETUS 4 LUNGS: INTERMEDIATE LOBE ABSENT	0/ 5	
7771	NOT PREGNANT						
7772	0(0.0)	0/ 7		0/ 7		0/ 7	
7773	2(18.2)	0/11		0/11		2/11	FETUS 5 HYOID: ALA, ANGULATED, right FETUS 10 STERNAL CENTRA: FUSED, 1st - 4th; ASYMMETRIC, 1st - 4th
7774	1(11.1)	0/ 9		0/ 9		1/ 9	FETUS 3 SKULL: NASALS, MIDLINE SUTURE DISPLACED, left
7775	2(25.0)	0/ 8		0/ 8		2/ 8	FETUS 4 STERNAL CENTRA: 1ST, INCOMPLETELY OSSIFIED FETUS 5 RIBS: THICKENED, right 8th and 9th, medially

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 27): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 6 100.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7776	DELIVERED ON DAY 27 OF GESTATION; THE MATING DATE WAS INCORRECTLY IDENTIFIED a						
7777	2(20.0)	0/10		2/10	FETUS 5 BRAIN: LATERAL VENTRICLES, MODERATE DILATION FETUS 7 EYES: FOLDED RETINA, bilateral	1/10	FETUS 5 RIBS: SPLIT, right 11th, medial - distal

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

a. Doe 7776 delivered nine live pups on day 27 of gestation; the mating date was incorrectly identified. The pups appeared to be day 31 of developmental age. All pups appeared normal at gross external, soft tissue and skeletal evaluations.

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 28): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 6 100.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7778	2(16.7)	1/12	FETUS 4 TONGUE: PROTRUDES HEAD: SNOUT SHORT HEAD: NARES ABSENT, bilateral HEAD: FLESHY PROTRUSION, protruding from center of head 1.2 cm x 0.3 cm x 0.4 cm HEAD: SKIN CLOSURE DEFECT, skull appeared through opening 1.0 cm x 0.6 cm PAPILLA: ABSENT, all papillae EYE: BULGE DEPRESSED, bilateral	2/12	FETUS 3 LUNGS: INTERMEDIATE LOBE ABSENT FETUS 4 NASAL PASSAGES: ABSENT EYES: CLOSE SET; DISORGANIZED, BRAIN: SMALL, lateral and third ventricles not apparent	1/12	FETUS 3 THORACIC VERTEBRAE: CENTRUM, UNILATERAL OSSIFICATION, 6th right RIBS: SMALL, bilateral 1st
7779	1(10.0)	0/10	FETUS 2 LATE RESORPTION, autolysis precluded further evaluation	0/10		1/10	FETUS 6 CAUDAL VERTEBRAE: MISALIGNED, 17th

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 29): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 6 100.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7780	3(37.5)	0/ 8	FETUS 3 LATE RESORPTION, autolysis precluded further evaluation	0/ 8		3/ 8	FETUS 5 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 6 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 10 STERNAL CENTRA: 1ST, INCOMPLETELY OSSIFIED
			FETUS 7 LATE RESORPTION, autolysis precluded further evaluation				
7781	0(0.0)	0/ 8		0/ 8		0/ 8	
7782	1(10.0)	0/10	FETUS 2 LATE RESORPTION, autolysis precluded further evaluation	0/10		1/10	FETUS 4 RIBS: THICKENED, left 7th, medially
7783	1(12.5)	0/ 8		0/ 8		1/ 8	FETUS 4 STERNAL CENTRA: FUSED, 3rd and 4th

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 30): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 6 100.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7784	2(33.3)	0/ 6		0/ 6		2/ 6	FETUS 2 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 3 HYOID: ALA, ANGULATED, left STERNAL CENTRA: FUSED, 3rd and 4th
7785	1(12.5)	0/ 8		0/ 8		1/ 8	FETUS 6 STERNAL CENTRA: FUSED, 3rd and 4th
7786	2(15.4)	0/13		1/13	FETUS 8 GALLBLADDER: ABSENT	1/13	FETUS 5 STERNAL CENTRA: FUSED, 3rd and 4th
7787	0(0.0)	0/10		0/10		0/10	
7788	0(0.0)	0/12		0/12		0/12	
7789	1(10.0)	0/10		0/10		1/10	FETUS 2 STERNAL CENTRA: FUSED, 2nd - 4th

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 31): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP 6 100.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7790	3(30.0)	0/10		0/10		3/10	FETUS 3 SCAPULAE: MISALIGNED, right FETUS 6 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 8 STERNAL CENTRA: FUSED, 3rd and 4th
7791	2(25.0)	0/ 8		1/ 8	FETUS 5 GALLBLADDER: ABSENT	1/ 8	FETUS 1 SCAPULAE: MISALIGNED, right
7792	2(22.2)	0/ 9		2/ 9	FETUS 2 EYES: FOLDED RETINA, left FETUS 6 EYES: FOLDED RETINA, bilateral	0/ 9	
7793	2(25.0)	0/ 8		0/ 8		2/ 8	FETUS 7 SKULL: NASALS, MIDLINE SUTURE DISPLACED, right FETUS 8 CERVICAL VERTEBRAE: CERVICAL RIB PRESENT AT 7TH CERVICAL VERTEBRAE, right

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

PROTOCOL 1416-002: ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS

TABLE 30 (PAGE 32): FETAL ALTERATIONS INDIVIDUAL DATA

DOSAGE GROUP 6 100.0 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	GROSS EXTERNAL EXAMINATION DESCRIPTION	SOFT TISSUE EXAMINATION N/N	SOFT TISSUE EXAMINATION DESCRIPTION	SKELETAL EXAMINATION N/N	SKELETAL EXAMINATION DESCRIPTION
7794	2(25.0)	0/ 8		1/ 8	FETUS 4 EYES: FOLDED RETINA, bilateral	1/ 8	FETUS 3 SKULL: FRONTALS, CONTAINED AN INTERFRONTAL, 0.5 mm x 1.5 mm
7795	NOT PREGNANT						
7796	0(0.0)	0/ 7		0/ 7		0/ 7	
7797	0(0.0)	0/ 8		0/ 8		0/ 8	
7798	0(0.0)	0/ 7		0/ 7		0/ 7	
7799	2(18.2)	0/11		0/11		2/11	FETUS 7 CAUDAL VERTEBRAE: FUSED, 12th and 13th, 14th and 15th FETUS 9 HYOID: ALA, ANGULATED, left
7800	0(0.0)	0/ 5		0/ 5		0/ 5	

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED

APPENDIX C

PROTOCOL

Argus Research Laboratories, Inc.
905 Sheehy Drive, Building A
Horsham, Pennsylvania 19044
T. (215) 443-8710 F: (215) 443-8587

PROTOCOL 1416-002

STUDY TITLE: Oral (Drinking Water) Developmental Toxicity Study of Ammonium Perchlorate in Rabbits

PURPOSE: The purpose of this study is to evaluate the developmental toxicity (embryo-fetal toxicity and teratogenic potential) of Ammonium Perchlorate administered orally via drinking water to New Zealand White [Hra:(NZW)SPF] presumed pregnant female rabbits.

TESTING FACILITY:
Argus Research Laboratories, Inc.
905 Sheehy Drive, Building A
Horsham, Pennsylvania 19044-1297
Telephone: (215) 443-8710
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STUDY DIRECTOR:
Raymond G. York, Ph.D., DABT
Associate Director of Research

SPONSOR:
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STUDY MONITOR:
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SCIENTIFIC ADVISOR:
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Toxicology Excellence for Risk Assessment (TERA)
4303 Kirby Avenue
Cincinnati, Ohio 45223
Telephone: (513) 542-7475
Telefax: (513) 542-7487

REGULATORY CITATIONS:

U.S. Environmental Protection Agency (1996). Health Effects Test Guidelines; Prenatal Developmental Toxicity Study. Prevention, Pesticides and Toxic Substances (OPPTS) 870.3700, February 1996.

U.S. Environmental Protection Agency (1984). *Pesticide Assessment Guidelines.* Subdivision F - Hazard Evaluation: Human and Domestic Animals, November, 1984 (Revised Edition).

Organization for Economic Cooperation and Development (1981). *Guidelines for Testing of Chemicals.* Section 4, No. 414: Teratogenicity, pp. 1-6.

Japanese Ministry of Agriculture, Forestry and Fisheries (1985). *Guidance on Toxicology Study Data for Application of Agricultural Chemical Registration.* 59 NohSan No. 4200.

U.S. Environmental Protection Agency. Toxic Substances Control Act (TSCA); Good Laboratory Practice Standards; Final Rule. 40 CFR Part 792.

U.S. Environmental Protection Agency. Federal Insecticide, Fungicide and Rodenticide Act (FIFRA); Good Laboratory Practice Standards; Final Rule. 40 CFR Part 160.

Organization for Economic Cooperation and Development (1992). The OECD Principles of Good Laboratory Practice, Environment Monograph No. 45.

Japanese Ministry of Agriculture, Forestry and Fisheries (1984). *Good Laboratory Practice Standards.* 59 NohSan No. 3850.

REGULATORY COMPLIANCE

This study will be conducted in compliance with the Good Laboratory Practice (GLP) regulations cited above.

All changes or revisions of this protocol shall be documented, signed by the Study Director and the Sponsor, dated and maintained with the protocol.

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

The final report will include a statement signed by the Study Director that the report accurately reflects the raw data obtained during the performance of the study and that all applicable GLP regulations were followed in the conduct of the study. Should

significant deviations from GLP regulations occur, each will be described in detail, together with how the deviation might affect the quality or integrity of the study.

SCHEMATIC OF STUDY DESIGN AND STUDY SCHEDULE:

See ATTACHMENT 1 to the protocol.

TEST SUBSTANCE AND CARRIER:

Identification:

Test Substance:

Ammonium Perchlorate, Lot 03907LF (Aldrich Chemical Company, Inc., Milwaukee, Wisconsin).

Carrier:

Reverse osmosis membrane processed deionized water (R.O. deionized water). Results of R.O. deionized water analyses will be included in the raw data and the final report.

Neither the Sponsor nor the Study Director is aware of any potential contaminants likely to be present in the carrier that would interfere with the results of this study. Therefore, no analyses other than those mentioned in this protocol will be conducted.

Safety Precautions:

Gloves, mask, appropriate eye protection, full Tyvek® suit and half-face respirator are to be worn during formulation preparation. The Material Safety Data Sheet (MSDS) is attached to the protocol (ATTACHMENT 2).

Storage:

Bulk Test Substance:	Room temperature.
Carrier:	Room temperature.
Prepared Formulations:	Prepared stock formulations will be stored refrigerated. Dosage solutions will be allowed to be brought to room temperature prior to use.

The test substance will be provided by the Testing Facility.

FORMULATION:

Frequency of Preparation:

Formulations of the test substance will be prepared at least weekly at the Testing Facility. Detailed preparation procedures are attached to this protocol (ATTACHMENT 3).

Adjustment for Purity:

The test substance will be considered 100% active for the purpose of dosage calculations.

Testing Facility Reserve Samples:

The Testing Facility will reserve a sample (5 g) of each lot of bulk test substance and a sample (5 mL) of the carrier used during the course of the study. Samples will be stored under the previously cited conditions.

ANALYSES:

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

Bulk Test Substance Sampling:

A sample (1 g) of the test substance will be taken on the last day of treatment and stored at the Testing Facility under previously cited conditions.

Concentration Analyses:

Concentration of the test substance in prepared solutions will be verified during the course of this study. Duplicate samples (10 mL each) will be taken from each formulation (including stock solution) on the days of the first and the last preparations. One sample of each duplicate set will be shipped for analysis; the remaining samples will be retained at the Testing Facility as backup samples. Backup samples will be stored under the previously cited conditions and discarded at the Testing Facility following report finalization.

Stability of Prepared Solutions:

Documentation of the stability of the prepared solutions, at concentrations that bracket the range to be used in this study, is on file with the Sponsor. Stability has been established for up to 109 days.

Shipping Instructions:

Samples to be analyzed will be shipped (refrigerated on cold packs) to:

Gloria Gates, B.S.
Lancaster Laboratories
2425 New Holland Pike
Lancaster, Pennsylvania 17601
Telephone: (717) 656-2301

The recipient will be notified in advance of sample shipment.

DISPOSITION:

Unused prepared formulations will be discarded at the Testing Facility; unused bulk test substance will be discarded at the Testing Facility after completion of all studies evaluating this material.

TEST SYSTEM:

Species/Strain and Reason for Selection:

The New Zealand White [Hra:(NZW)SPF] rabbit was selected as the Test System because: 1) it is one non-rodent mammalian species accepted and widely used throughout the industry for nonclinical studies of developmental toxicity (embryo-fetal toxicity/teratogenicity); 2) this strain of rabbit has been demonstrated to be sensitive to developmental toxins; 3) historical data and experience exist at the Testing Facility[1-3]; and 4) the test substance is pharmacologically active in the species and strain.

Number and Sex:

Population evaluated: 150 timed pregnant female rabbits (25 per dosage group).

Body Weight and Age:

The female rabbits will be ordered to have individual body weights of 2.5 kg to 5.5 kg; the rabbits will be approximately five to seven months of age at the time of study assignment. Actual body weights recorded at receipt and at study assignment will be documented in the raw data, and the weight range will be included in the final report.

Source:

Covance Research Products, Inc.
Swampbridge Road, Box 7200
Denver, Pennsylvania 17517

The rabbits will be shipped in filtered cartons by truck from Covance Research Products, Inc., Denver, Pennsylvania, to the Testing Facility.

Identification:

Rabbits are permanently identified using Monel® self-piercing ear tags (Gey Band and Tag Co., Inc., No. MSPT 20103). Female rabbits are assigned temporary numbers at receipt and are given unique permanent identification numbers when assigned to the study on the basis of day 0 of presumed gestation body weights.

ANIMAL HUSBANDRY:

All cage sizes are in compliance with the *Guide for the Care and Use of Laboratory Animals*[4].

Housing:

The rabbits will be individually housed in units of six to eight stainless steel cages. No nesting materials will be supplied because the female rabbits will be sacrificed before parturition is expected.

Room Air, Temperature and Humidity:

The animal room is independently supplied with at least ten changes per hour of 100% fresh air that has been passed through 99.97% HEPA filters. Room temperature will be maintained at 61°F (16°C) to 72°F (22°C) and monitored constantly. Room humidity will also be monitored constantly and maintained at 30% to 70%.

Light:

An automatically controlled 12-hour light:12-hour dark fluorescent light cycle will be maintained. Each dark period will begin at 1900 hours EST.

Diet:

Approximately 150 g of Certified Rabbit Chow® #5322 (PMI Nutrition International) will be available to each rabbit each day until the first day of exposue, at which time approximately 180 g of the same certified feed will be offered to each rabbit each day.

The certified feed will be available from individual, stainless steel "J-type" feeders attached to each cage.

Water:

All water will be from a local source and passed through a reverse osmosis membrane before use. Water is analyzed monthly for possible bacterial contamination and twice annually for possible chemical contamination. Chlorine will not be added to the R.O. water as a bacteriostat during the acclimation and exposure period.

During the acclimation and pre-exposure periods, rabbits will be given R.O. deionized water only available *ad libitum* from individual amber bottles attached to the cages. During the exposure period, rabbits will be given either R.O. deionized water only (carrier control group) or test drinking water prepared using R.O. deionized water and the test substance. These will be available *ad libitum* from individual bottles attached to the cages.

Contaminants:

Neither the Sponsor nor the Study Director is aware of any potential contaminants likely to be present in the certified diet or in the drinking water at levels that would interfere with the results of this study. Therefore, no analyses other than those routinely performed by the feed supplier or those mentioned in this protocol will be conducted.

MATING AND RANDOMIZATION:

The female rabbits will be naturally bred at the Supplier, by breeder male rabbits of the same source and strain, before shipment to the Testing Facility. The day mating occurs will be designated day 0 of presumed gestation. The rabbits will be mated on five consecutive days and shipped in two shipments to the Testing Facility after the last mating day to arrive on day 1, 2 or 3 of presumed gestation. Before shipment of the rabbits, the Supplier will forward breeding records and day 0 of presumed gestation body weights. A computer-generated (weight-ordered) randomization procedure will be used to assign the rabbits to dosage groups based on this information.

ADMINISTRATION:

Route and Reason for Choice:

The oral (drinking water) route was selected for use because it is the most likely route of human exposure.

Method and Frequency:

A constant concentration (%) of the test substance equivalent to the target dosages specified in the table below will be offered to the rabbits in the drinking water on days 6 through 28 of presumed gestation. The actual dosages in mg/kg/day consumed will be calculated and presented for periods corresponding to body weight and water consumption observations. Concentrations may be adjusted, if necessary, based on these calculations, to more closely match the target dosage levels.

Rationale for Dosage Selection:

Dosages were selected on the basis of a dosage-range study (Argus Research Laboratories, Inc., Protocol 1416-002P). In that study, thyroid histopathology was evident at 20, 50 and 100 mg/kg/day; T_3, T_4 and TSH hormone levels were reduced at all dosages; and 3 malformed fetuses from 3 litters were observed at gross external examination.

Target Dosages and Concentrations:

Group	Target Dosage (mg/kg/day)	Concentration (µg/mL)[a]	Number of Female Rabbits	Argus Batch Number
1	0 (Carrier)	0	25	B-1416-002-A(Day.Month.Year)
2	0.1	1	25	B-1416-002-B(Day.Month.Year)
3	1.0	10	25	B-1416-002-C(Day.Month.Year)
4	10.0	100	25	B-1416-002-D(Day.Month.Year)
5	30.0	300	25	B-1416-002-E(Day.Month.Year)
6	100.0	1000	25	B-1416-002-F(Day.Month.Year)

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

a. Based on average water consumption of 400 mL/rabbits/day (100 mL/kg/day) for a 4 kg female rabbit. These concentrations will be adjusted, if necessary, based on actual body weight and water consumption levels recorded the previous week.

TESTS, ANALYSES AND MEASUREMENTS:

Viability:

All Periods: At least twice daily.

Clinical Observations and/or General Appearance:

Pre-exposure Period:	At least once.
Exposure Period:	Daily and on day of sacrifice.

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

Body Weights:

Pre-exposure Period:	Day 0 of presumed gestation and on the day of arrival at the Testing Facility (arrival body weight not tabulated).
Pre-exposure Period:	Daily.
Day of Sacrifice:	Terminal weight

Feed Consumption Values:

Pre-exposure Period:	Recorded daily after arrival at the Testing Facility (values not tabulated).
Exposure Period:	Recorded daily.
Day of Sacrifice:	Feed left recorded.

Feed consumption values during the dosing period will be tabulated for the same intervals as body weight evaluations.

Water Consumption Values (recorded and tabulated):

Pre-exposure Period:	Daily.
Exposure Period:	Daily.
Day of Sacrifice:	Water left recorded.

Caesarean-Sectioning Observations:

Rabbits will be Caesarean-sectioned on day 29 of presumed gestation. The gravid uterus will be excised and weighed. The fetuses will be removed from the uterus and placed in individual containers. The rabbits will be examined for number and distribution of:

Corpora Lutea.

Implantation Sites.

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

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

Fetal Observations:

Body Weights and Identification:

The body weight of each fetus will be recorded. Only body weights of live fetuses will be used to determine litter fetal body weight averages. Fetuses will be tagged with identification noting study number, litter number and uterine distribution.

Gross External Alterations:

All fetuses will be examined for gross external alterations. Late resorptions and dead fetuses also will be examined for gross external alterations to the extent possible but such observations will not be included in either data summarization or statistical analyses.

Soft Tissue Examination and Sex:

All fetuses will be examined internally to determine sex. Cavitated organs will be evaluated in all fetuses by dissection[5]. A single cross-section will be made between the parietal and frontal bones, and the brain will be examined *in situ* for approximately one-half of the fetuses in each litter. The remaining half of the fetuses in each litter will be decapitated and the heads retained in Bouin's solution. The decapitated heads will be examined using Wilson's sectioning technique[6].

Skeletal Examination:

All fetuses will be examined for skeletal alterations after double staining with alizarin red S and Alcian blue[7]. Skeletal preparations will be retained in glycerin with thymol added as a preservative.

Representative photographs of fetal gross, soft tissue and skeletal alterations will be taken.

METHOD OF SACRIFICE:

Rabbits will be sacrificed on day 29 of presumed gestation via an intravenous injection of sodium pentobarbitol. Live fetuses will be sacrificed via intraperitoneal injection using Beuthanasia®-D Special, manufactured by Schering-Plough Animal Health.

NECROPSY:

Gross lesions will be retained in neutral buffered 10% formalin for possible future evaluation. Unless specifically cited below, all other tissues will be discarded.

Blood Sample Collection:

On day 29 of presumed gestation rabbits will be anesthetized via an intravenous injection of sodium pentobarbitol followed by blood collection from the inferior vena cava and exsanguination. Samples will be retained for analysis of TSH, T_3 and T_4 levels.

Approximately 3 mL of blood will be collected in a serum separator tube to yield approximately 1500 µL of serum. The serum will be aliquoted into three vials (approximately 500 µL/vial), and frozen on dry ice. Serum will be maintained frozen at -70°C.

Rabbits will be sacrificed following blood sample collection. Throughout the sample collection and euthanasia procedures, every effort will be made to avoid inducing stress in the animals, since this could affect scheduled hormone evaluations (e.g., no excess noise or radio).

Shipment of Blood Samples:

After the last day of sample collection, the blood samples will be shipped (frozen, on dry ice) to:

Ani Lytics, Inc.
200 Girard Street, Suite 200
Gaithersburg, Maryland 20877
Attn: Dr. Saroj R. Das

Telephone: (301) 921-0168
Telefax: (301) 977-0433

Samples will be analyzed for TSH, T_3 and T_4 levels.

Scheduled Sacrifice:

Following blood sample collection on day 29 of presumed gestation, female rabbits will be Caesarean-sectioned, and a gross necropsy of the thoracic, abdominal and pelvic viscera will be performed. Gravid uterine weights will be recorded. Uteri of apparently nonpregnant rabbits will be stained with 10% ammonium sulfide to confirm the absence of implantation sites[5].

Thyroid/Parathyroid Collection:

The thyroids/parathyroids and section of the trachea of all rabbits will be excised and immersed in fixative immediately after collection. Following fixation, the thyroid/parathyroid tissue samples will be carefully trimmed and weighed. When possible, the same technician will perform all trimming of thyroid/parathyroid tissues at least 48 hours postfixation. Organ weights will be recorded.

Shipment of Tissue Samples:

Tissue samples will be shipped to the address cited below for histological analysis:

W. Ray Brown, D.V.M., Ph.D., ACVP
Veterinary Pathologist
Research Pathology Services, Inc.
438 E. Butler Avenue
New Britain, Pennsylvania 18901
Telephone: (215) 345-7070
Telefax: (215) 345-4326

The recipient will be notified in advance of sample shipment.

Rabbits Found Dead or Moribund:

Rabbits that die or are sacrificed because of moribund condition, abortion or premature delivery will be examined for the cause of death or moribund condition on the day the observation is made. Pregnancy status and uterine contents of female rabbits will be recorded. Gravid uterine weights will not be recorded for rabbits that do not survive to scheduled day of sacrifice. Aborted fetuses and/or delivered pups will be examined to the extent possible, using the same methods described for fetuses. Uteri of apparently nonpregnant rabbits will be stained with 10% ammonium sulfide to confirm the absence of implantation sites[5]. Thyroids/parathyroids will be excised and retained as described above. When possible, the same technician performing the trimming of thyroid/parathyroid tissues at scheduled sacrifice will also trim the tissues of rabbits found dead or sacrificed due to moribund condition, abortion or premature delivery. Organ weights will be recorded. Tissue samples will be shipped to Research Pathology Services, Inc., at the previously cited address for histological analysis.

PROPOSED STATISTICAL METHODS[9-15]:

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

Type of Test[a]

I. Parametric[b]

A. Bartlett's Test[d]

- Significant at $p \leq 0.05$ → Nonparametric
- Not Significant → Analysis of Variance
  - Significant at $p \leq 0.05$ → Dunnett's Test
  - Not Significant

II. Nonparametric[c]

A. Kruskal-Wallis Test ($\leq$75% ties)

- Significant at $p \leq 0.05$ → Dunn's Test
- Not Significant

B. Fisher's Exact Test (>75% ties)

III. Test for Proportion Data

Variance Test for Homogeneity of the Binomial Distribution

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

DATA ACQUISITION, VERIFICATION AND STORAGE:

Data will be hand- and/or computer-recorded. Records will be reviewed by the Study Director and/or appropriate management personnel within 21 days after generation. All original records will be stored in the archives of the Testing Facility. All original data will be bound and indexed. A copy of all raw data will be supplied to the Sponsor upon request. Preserved tissues will be stored at the Testing Facility at no charge for one year after mailing of the draft final report, after which time the Sponsor will be contacted to determine the disposition of these materials.

RECORDS TO BE MAINTAINED:

Protocol and Amendments.
Test Substance, Carrier and/or Reagent Receipt, Preparation and Use.
Animal Acquisition.
Randomization Schedules.
Veterinarian Examination.
Mating History.
Treatment (if prescribed by Staff Veterinarian).
General Comments.
Clinical Observations and/or General Appearance.
Blood Sample Collection, Processing and Shipment.
Body Weights.
Feed Consumption Values.
Water Consumption Values.
Caesarean-Sectioning and Fetal Observations.
Gross Necropsy Observations.
Organ Weights.
Tissue Collection, Processing and Shipment.
Photographs (if required).
Study Maintenance (room and environmental records).
Feed and Water Analyses.
Packing and/or Shipment Lists.

KEY PERSONNEL:

Executive Director of Research: Mildred S. Christian, Ph.D., ATS
Director of Research: Alan M. Hoberman, Ph.D., DABT
Associate Director of Research and Study Director: Raymond G. York, Ph.D., DABT
Director of Laboratory Operations: John F. Barnett, B.S.
Manager of Study Coordination: Valerie A. Sharper, M.S.

Manager of Animal Operations and Member, Institutional Animal Care and Use Committee: Dena C. Lebo, V.M.D.
Manager of Regulatory Compliance: Kathleen A. Moran, M.S.
Consultant, Veterinary Pathology: W. Ray Brown, D.V.M., Ph.D., ACVP

FINAL REPORT:

A comprehensive draft final report will be prepared on completion of the study and will be finalized following consultation with the Sponsor. The report will include the following:

Summary and Conclusion.
Experimental Design and Method.
Evaluation of Test Results.
Appendices: Figures, Summary and Individual Tables Summarizing the Above Data, Protocol and Associated Amendments and Deviations, Study Director's GLP Compliance Statement, Reports of Supporting Data (if appropriate) and Quality Assurance Unit Statement.

INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE STATEMENT:

The procedures described in this protocol have been reviewed by the Testing Facility's Institutional Animal Care and Use Committee. All procedures described in this protocol that involve study animals will be conducted in a manner to avoid or minimize discomfort, distress or pain to the animals.

The Sponsor's signature below documents the fact that this is not an unnecessarily duplicative study, and that no alternative (*in vitro*) procedures were available for meeting the stated purposes of the study.

REFERENCES:

1. Christian, M.S., Hoberman, A.M. and Smith, T.H.F. (1982). Dosage-range study of the teratogenic potential of suspensions of trinitrofluorenone (TNF) administered orally to New Zealand White rabbits. Toxicologist 2(1):40 (#143).

2. Christian, M.S. (1984). Reproductive toxicity and teratology evaluations of naltrexone (Proceedings of Naltrexone Symposium, New York Academy of Sciences, November 7, 1983), J. Clin. Psychiat. 45(9):7-10.

3. Feussner, E.L., Lightkep, G.E., Hennesy, R.A., Hoberman, A.M. and Christian, M.S. (1992). A decade of rabbit fertility data: Study of historical control animals. Teratology 46(4):349-365.

4. Institute of Laboratory Animal Resources (1996). *Guide for the Care and Use of Laboratory Animals*. National Academy Press, Washington, D.C.

5. Wilson, J.G. (1965). Methods for administering agents and detecting malformations in experimental animals. *Teratology: Principles and Techniques* (Wilson, J.G. and Warkany, J., eds.), University of Chicago Press, pp. 262-277.

6. Staples, R.E. (1974). Detection of visceral alterations in mammalian fetuses. Teratology 9(3):A37-38.

7. Modification of method of Staples, R.E. and Schnell, V.L. (1963). Refinement in rapid clearing technique in the KOH-alizarin red S method for fetal bone. Stain Technol. 39:61-63.

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

9. Snedecor, G.W. and Cochran, W.G. (1967). Variance test for homogeneity of the binomial distribution. *Statistical Methods*, 6th Edition, Iowa State University Press, Ames, pp. 240-241.

10. Sokal, R.R. and Rohlf, F.J. (1969). Bartlett's test of homogeneity of variances. *Biometry*, W.H. Freeman and Co., San Francisco, pp. 370-371.

11. Snedecor, G.W. and Cochran, W.G. (1967). Analysis of Variance. *Statistical Methods*, 6th Edition, Iowa State University Press, Ames, pp. 258-275.

12. Dunnett, C.W. (1955). A multiple comparison procedure for comparing several treatments with a control. J. Amer. Stat. Assoc. 50:1096-1129.

13. Sokal, R.R. and Rohlf, F.J. (1969). Kruskal-Wallis Test. *Biometry*, W.H. Freeman and Co., San Francisco, pp. 388-389.

14. Dunn, O.J. (1964). Multiple comparisons using rank sums. Technometrics 6(3):241-252.

15. Siegel, S. (1956). *Nonparametric Statistics for the Behavioral Sciences*, McGraw-Hill, New York, pp. 96-104.

PROTOCOL APPROVAL:

FOR THE TESTING FACILITY

George E. Dearlove, Ph.D., DABT
Associate Director of Research

16-APR-98
Date

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

16-APR-98
Date

Dena C. Lebo, V.M.D.
Member, Institutional Animal Care and
Use Committee

16 Apr 98
Date

FOR THE SPONSOR

Michael F. Girard
Perchlorate Study Group Representative
Study Monitor

17 APR 98
Date

Michael L. Dourson, Ph.D., DABT
Toxicology Excellence for Risk Assessment (TERA)
Sponsor's Representative

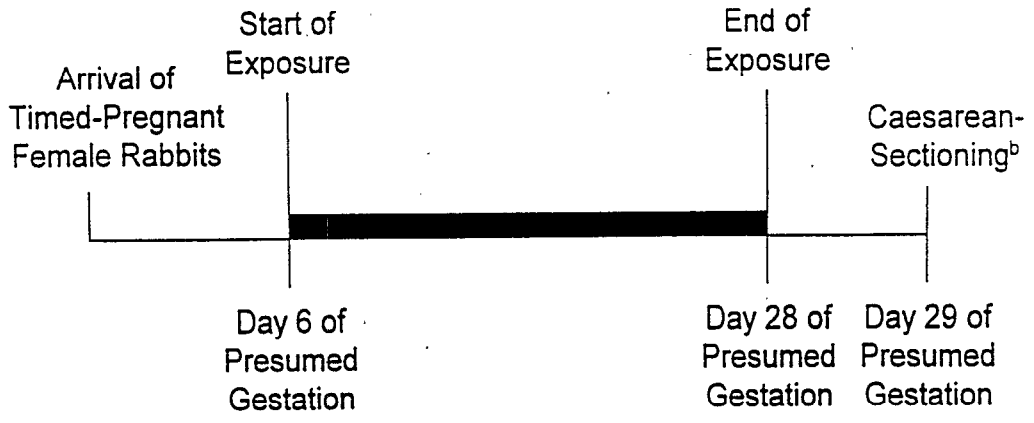
4.27 98
Date

ATTACHMENT 1

SCHEMATIC OF STUDY DESIGN AND STUDY SCHEDULE

Study Schematic

Developmental Toxicity Study[a]



= Exposure Period.

a. For additional details see "Tests, Analyses and Measurements" section of the protocol.
b. Fetal evaluations (external examinations, soft tissue and skeletal examinations).

SCHEDULE[a]

22 APR 98 and 24 APR 98	Animals Arrive - Acclimation Begins.
25 APR 98 - 21 MAY 98	Exposure Period (Days 6 through 28 of presumed gestation).
18 MAY 98 - 22 MAY 98	Caesarean-Sectioning Period (Day 29 of presumed gestation).
19 AUG 98	Draft Final Report.

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

ATTACHMENT 2

MATERIAL SAFETY DATA SHEET

PRODUCT #: 208507 NAME: AMMONIUM PERCHLORATE, 99.8%
MATERIAL SAFETY DATA SHEET, Valid 5/97 - 7/97
Printed Monday, July 14, 1997 9:22AM

Sigma Chemical Co.
P.O. Box 14508
St. Louis, MO 63178
Phone: 314-771-5765

Aldrich Chemical Co., Inc.
1001 West St. Paul
Milwaukee, WI 53233
Phone: 414-273-3850

Fluka Chemical Corp
1001 West St. Paul
Milwaukee, WI 53233
Phone: 414-273-3850

SECTION 1. - - - - - - - - - - CHEMICAL IDENTIFICATION- - - - - - - - - -
CATALOG #: 208507
NAME: AMMONIUM PERCHLORATE, 99.8%
SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - - -
CAS #: 7790-98-9
MF: H4CLNO4
EC NO: 232-235-1
SYNONYMS
AMMONIUM PERCHLORATE (DOT) * UN0402 (DOT) * UN1442 (DOT) *
SECTION 3. - - - - - - - - - - - HAZARDS IDENTIFICATION - - - - - - - - -
LABEL PRECAUTIONARY STATEMENTS
EXPLOSIVE
HARMFUL
HEATING MAY CAUSE AN EXPLOSION.
CONTACT WITH COMBUSTIBLE MATERIAL MAY CAUSE FIRE.
HARMFUL IF SWALLOWED.
IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
STRONG OXIDIZER.
KEEP AWAY FROM HEAT
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.
TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING.
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.
SECTION 4. - - - - - - - - - - FIRST-AID MEASURES- - - - - - - - - - -
IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES.
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN.
DISCARD CONTAMINATED CLOTHING AND SHOES.
SECTION 5. - - - - - - - - - - FIRE FIGHTING MEASURES - - - - - - - - - -
EXTINGUISHING MEDIA
WATER SPRAY.
SPECIAL FIREFIGHTING PROCEDURES
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.
USE WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS.
STRONG OXIDIZER.
UNUSUAL FIRE AND EXPLOSIONS HAZARDS
MAY EXPLODE WHEN HEATED.
CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE.
EMITS TOXIC FUMES UNDER FIRE CONDITIONS.
SECTION 6. - - - - - - - - ACCIDENTAL RELEASE MEASURES- - - - - - - -

EVACUATE AREA.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.
COVER WITH DRY LIME OR SODA ASH, PICK UP, KEEP IN A CLOSED CONTAINER AND HOLD FOR WASTE DISPOSAL.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. - - - - - - - - - - HANDLING AND STORAGE- - - - - - - - - - -

REFER TO SECTION 8.

ADDITIONAL INFORMATION

MIXTURES OF AMMONIUM PERCHLORATE WITH SULFUR, ORGANIC MATERIALS, FINELY DIVIDED METALS ARE EXPLOSIVE AND HAVE A SHOCK-SENSITIVITY EQUIVALENT TO PICRIC ACID. IT IS INCOMPATIBLE WITH ALUMINUM, COPPER, CARBON, POTASSIUM PERMANGANATE, POTASSIUM PERIODATE, POTASSIUM DICHROMATE, CADMIUM OXIDE, COPPER OXIDE, ZINC OXIDE, IRON OXIDE, DICHROMIUM TRIOXIDE, COPPER CHROMITE, METAL PERCHLORATES ALL OF WHICH CONSIDERABLY LOWER ITS EXPLOSION TEMPERATURE OF 440 C AND INCREASE ITS SENSITIVITY TO FRICTION. MIXTURES WITH PHOSPHOROUS ARE SHOCK-SENSITIVE. REACTS VIOLENTLY WITH CHLORINE OR CHLORINE DIOXIDE, EXPLOSIONS MAY RESULT.

SECTION 8. - - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - - -

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.
SAFETY SHOWER AND EYE BATH.
USE ONLY IN A CHEMICAL FUME HOOD.
DO NOT BREATHE DUST.
DO NOT GET IN EYES, ON SKIN, ON CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
WASH THOROUGHLY AFTER HANDLING.
HARMFUL SOLID.
IRRITANT.
KEEP TIGHTLY CLOSED.
KEEP AWAY FROM COMBUSTIBLE MATERIALS, HEAT, SPARKS, AND OPEN FLAME.
STORE IN A COOL DRY PLACE.

SECTION 9. - - - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - - - -

APPEARANCE AND ODOR

WHITE POWDER

PHYSICAL PROPERTIES

SPECIFIC GRAVITY: 1.950

SECTION 10. - - - - - - - - -STABILITY AND REACTIVITY - - - - - - - - -

INCOMPATIBILITIES

STRONG REDUCING AGENTS
STRONG ACIDS
HEAT-SENSITIVE.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

AMMONIA

SECTION 11. - - - - - - - - - TOXICOLOGICAL INFORMATION - - - - - - - -

ACUTE EFFECTS

HARMFUL IF SWALLOWED.
MAY BE HARMFUL IF INHALED.
MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.
CAUSES EYE AND SKIN IRRITATION.
MATERIAL IS IRRITATING TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.

RTECS #: SC7520000

PERCHLORIC ACID, AMMONIUM SALT

TOXICITY DATA

ORL-RAT LD50:4200 MG/KG	GISAAA 28(8),8,63
ORL-MUS LD50:1900 MG/KG	GISAAA 28(8),8,63
ORL-RBT LD50:1900 MG/KG	GISAAA 28(8),8,63
ORL-GPG LD50:3310 MG/KG	GISAAA 28(8),8,63

TARGET ORGAN DATA

BEHAVIORAL (CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD)
BEHAVIORAL (EXCITEMENT)
BEHAVIORAL (ATAXIA)
BEHAVIORAL (COMA)
LUNGS, THORAX OR RESPIRATION (DYSPNAE)
ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

SECTION 12. - - - - - - - - - - ECOLOGICAL INFORMATION - - - - - - - - - -

DATA NOT YET AVAILABLE.

SECTION 13. - - - - - - - - - - DISPOSAL CONSIDERATIONS - - - - - - - - -

FOR SMALL QUANTITIES: CAUTIOUSLY ADD TO A LARGE STIRRED EXCESS OF WATER. ADJUST THE PH TO NEUTRAL, SEPARATE ANY INSOLUBLE SOLIDS OR LIQUIDS AND PACKAGE THEM FOR HAZARDOUS-WASTE DISPOSAL. FLUSH THE AQUEOUS SOLUTION DOWN THE DRAIN WITH PLENTY OF WATER. THE HYDROLYSIS AND NEUTRALIZATION REACTIONS MAY GENERATE HEAT AND FUMES WHICH CAN BE CONTROLLED BY THE RATE OF ADDITION.

OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. - - - - - - - - - - TRANSPORT INFORMATION - - - - - - - - -

CONTACT ALDRICH CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

SECTION 15. - - - - - - - - - - REGULATORY INFORMATION - - - - - - - - - -

EUROPEAN INFORMATION

EC INDEX NO: 017-009-00-0
EXPLOSIVE
HARMFUL
R 9
EXPLOSIVE WHEN MIXED WITH COMBUSTIBLE MATERIAL.
R 44
RISK OF EXPLOSION IF HEATED UNDER CONFINEMENT.
S 25
AVOID CONTACT WITH EYES.
S 16
KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.
S 27
TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING.
S 24/25
AVOID CONTACT WITH SKIN AND EYES.

REVIEWS, STANDARDS, AND REGULATIONS

OEL-MAK
NOHS 1974: HZD 80353; NIS 2; TNF 101; NOS 3; TNE 1062
NOES 1983: HZD 80353; NIS 1; TNF 7; NOS 1; TNE 1445; TFE 230
EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

SECTION 16. - - - - - - - - - - OTHER INFORMATION- - - - - - - - - - -

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. SIGMA, ALDRICH, FLUKA SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE OR

PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE.
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ATTACHMENT 3

TEST SUBSTANCE PREPARATION PROCEDURE

ATTACHMENT 3

TEST SUBSTANCE PREPARATION PROCEDURE

Test Substance: Ammonium Perchlorate
Vehicle: R.O. Deionized Water

A. Purpose:

The purpose of this procedure is to provide a method for the preparation of dosage solutions of ammonium perchlorate for oral administration to rabbits on Argus Study 1416-002.

B. General Information:

1. All solution containers will be labeled and color-coded. Each label will specify the protocol number, test substance identification, Argus batch number, concentration, dosage level, preparation date, expiration date and storage conditions.

2. Solutions will be prepared:

   __ Daily _X_ Weekly __ For _ days of use
   _X_ At Least once Weekly __ By Sponsor

3. Solutions will be prepared from a stock solution (50 mg/mL, w:v) and diluted to each respective concentration. Stock solution will be prepared as needed. NOTE: Stock solution will be stored refrigerated and may appear cloudy.

4. Safety:

   _X_ Gloves, lab coat, goggles or safety glasses and faceshield
   __ Dust-Mist Respirator
   _X_ Half-Face Respirator or/Positive Pressure Hood
   __ Full-Face Respirator/Positive Pressure Hood
   _X_ Tyvek Apron and Sleeves or Tyvek suit
   _X_ Prepared in a Fume Hood
   _X_ Explosive (avoid contact with metals or reducing agents)

5. Dosage solutions adjusted for % Purity or Correction Factor:

   __Yes _X_ No (Calculations based on 100%)
   __% Activity ___% Purity __ Correction Factor

6. Sampling requirements: Cited in protocol.

TEST SUBSTANCE PREPARATION PROCEDURE

7. Storage: Cited in protocol.

C. Stock Solution Preparation

1. Prepare a stock solution of test substance by accurately weighing the required amount of test substance to an appropriately labeled container (see PREPARATION CALCULATIONS).

2. Add approximately 80% of vehicle to the container (see PREPARATION CALCULATIONS).

3. Q.S. to final volume with vehicle (see PREPARATION CALCULATIONS).

4. Add a stir bar to the container, place on a magnetic stir plate and agitate until test article has mixed.

D. Dosage Solution Preparation:

1. Measure the required amount of test substance stock solution that is needed for the appropriate dosage level into an appropriately sized, labeled container (see PREPARATION DILUTION CALCULATIONS).

2. Add approximately 80% of vehicle to the container (see PREPARATION DILUTION CALCULATIONS).

3. Q.S. to final volume with vehicle (see PREPARATION DILUTIONS CALCULATIONS).

4. Add a stir bar to the container, place on a magnetic stir plate and agitate until test substance has mixed.

5. Cover and mix by inversion.

6. Repeat steps (1) through (5) for each concentration.

ATTACHMENT 3

TEST SUBSTANCE PREPARATION PROCEDURE

Written by: _____

Approved by: _____ Date: 16-APR-98

Clarification: ___ No X Yes (See attached clarification form.)

Initials/Date: _____ 2. Jun. 98

ARGUS

TEST ARTICLE/SUBSTANCE PREPARATION
PROCEDURE CLARIFICATION

Protocol: 1416-002 **Version:** 1416-002 (10 APR 98)

Date of Clarification	Preparation Step #	Clarification
4-23-98 (E. Sy 6-2-98)	D5.	The cover and mix by inversion step should be deleted.
		Study Director — Date: 02-JUN-98
		Study Director — Date
		Study Director — Date
		Study Director — Date

Reviewed by: _____ **Date:** 03-JUN-98

08.15.97 TASPPM-01-02

APPENDIX D

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

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

1. The skeletal specimens were stained with only alizarin red S, not also with Alcian blue. This deviation did not adversely affect the outcome or interpretation of the study because although staining with Alcian blue makes it easier to see the cartilage, it is not necessary to stain the cartilage to evaluate it. Bones and cartilage are evaluated adequately using the single stain and double-staining is not a guideline requirement.

All deviations are available in the raw data.

01 Sep 98

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

APPENDIX E

CERTIFICATE OF ANALYSIS

CERTIFICATE OF ANALYSIS

ARGUS RESEARCH
FX 215-443-8587
ATTN: JULIAN GULBINSKI

PO NBR:

PRODUCT NUMBER: 20850-7

LOT NUMBER: 03907LF

PRODUCT NAME: AMMONIUM PERCHLORATE, 99.8%

FORMULA: NH4CLO4

FORMULA WEIGHT: 117.49

APPEARANCE	WHITE POWDER
X-RAY DIFFRACTION PATTERN	CONFORMS TO STANDARD PATTERN.
TITRATION	0.05 % H2O
TRACE ANALYSIS, ICP	CA 660 PPM F 260 PPM NA 50 PPM MG 6 PPM BA 4 PPM SR 0.4 PPM

ALDRICH CHEMICAL COMPANY
DAVID SWESSEL
DECEMBER 16, 1997

chemists helping chemists in research & industry
aldrich chemical co.
P.O. Box 355, Milwaukee, Wisconsin 53201 USA • (414) 273-3850 • FAX (414) 273-4979

ALDRICH warrants that its products conform to the information contained in this and other Aldrich publications. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

APPENDIX F

ENVIRONMENTAL AND HUSBANDRY REPORTS

ARGUS

Temperature and Relative Humidity Report
Location: Room 06

Protocol Number: 1416-002

Range of Dates: 22-Apr-1998 13:30 to 20-May-1998 15:17

	Temperature 61°F to 72°F		Relative Humidity 30% to 70%	
Target Range:				
Species: Rabbit				
Total Number of Days:	29		29	
Total Number of Hours:	673.75		673.75	
Total Number of Data Points:	669		669	
Mean (± SD):	68.1	(± 1.2)	54.0	(± 3.1)
Maximum:	72.6		65.9	
Median:	67.8		54.0	
Minimum:	66.2		43.9	
Number of Points in Range (%):	664	(99.3)	669	(100.0)
Number of Points High (%):	5	(0.7)	0	(0.0)
Number of Points Low (%):	0	(0.0)	0	(0.0)

Report Generated: 11-Jun-1998 at 13:23

COMMENTS: _____

REVIEWED BY: Ken Pandolfo **DATE:** 6/11/98

ARGUS

Temperature and Relative Humidity Report
Location: Room 07

Protocol Number: 1416-002

Range of Dates: 22-Apr-1998 13:30 to 20-May-1998 15:17

	Temperature		Relative Humidity	
Target Range: **Species:** Rabbit	61°F to 72°F		30% to 70%	
Total Number of Days:	29		29	
Total Number of Hours:	673.75		673.75	
Total Number of Data Points:	669		669	
Mean (± SD):	66.2	(± 1.0)	54.2	(± 3.1)
Maximum:	70.6		65.2	
Median:	66.1		53.9	
Minimum:	63.8		45.0	
Number of Points in Range (%):	669	(100.0)	669	(100.0)
Number of Points High (%):	0	(0.0)	0	(0.0)
Number of Points Low (%):	0	(0.0)	0	(0.0)

Report Generated: 11-Jun-1998 at 13:24

COMMENTS: _____

REVIEWED BY: Lisa Pandolfo **DATE:** 6/11/98

ARGUS

Temperature and Relative Humidity Report
Location: Room 08

Protocol Number: 1416-002

Range of Dates: 24-Apr-1998 12:45 to 22-May-1998 14:17

	Temperature 61°F to 72°F		Relative Humidity 30% to 70%	
Target Range:				
Species: Rabbit				
Total Number of Days:	29		29	
Total Number of Hours:	673.5		673.5	
Total Number of Data Points:	669		669	
Mean (± SD):	65.5	(± 1.2)	50.9	(± 4.5)
Maximum:	73.5		64.2	
Median:	65.3		50.8	
Minimum:	63.0		39.2	
Number of Points in Range (%):	664	(99.3)	669	(100.0)
Number of Points High (%):	5	(0.7)	0	(0.0)
Number of Points Low (%):	0	(0.0)	0	(0.0)

Report Generated: 11-Jun-1998 at 13:30

COMMENTS: _____

REVIEWED BY: Lu Pandolfo **DATE:** 6/11/98

ARGUS

Temperature and Relative Humidity Report
Location: Room 09

Protocol Number: 1416-002

Range of Dates: 24-Apr-1998 12:45 to 22-May-1998 14:17

	Temperature		Relative Humidity	
Target Range:	61°F to 72°F		30% to 70%	
Species: Rabbit				
Total Number of Days:	29		29	
Total Number of Hours:	673.5		673.5	
Total Number of Data Points:	669		669	
Mean (± SD):	66.7	(± 1.7)	50.8	(± 3.9)
Maximum:	77.4		64.0	
Median:	66.2		50.2	
Minimum:	65.0		40.6	
Number of Points in Range (%):	646	(96.6)	669	(100.0)
Number of Points High (%):	23	(3.4)	0	(0.0)
Number of Points Low (%):	0	(0.0)	0	(0.0)

Report Generated: 11-Jun-1998 at 13:31

COMMENTS: _____

REVIEWED BY: Luis Pandola **DATE:** 6/11/98

ARGUS

Temperature Deviations Report
Location: Room 06

Protocol Number: 1416-002

Range of Dates: 22-Apr-1998 13:30 to 20-May-1998 15:17

Temperature Target Range: 61°F to 72°F
Species: Rabbit

Date	Time	Temp.	Date	Time	Temp.
16-May-1998	15:00	72.5 H			
16-May-1998	16:00	72.5 H			
16-May-1998	17:00	72.6 H			
16-May-1998	18:00	72.3 H			

5 data points were recorded as high. This printout "Deviations by location" report only lists the temperature to one decimal place. Therefore due to the computer rounding of numbers only 4 data points are listed as out of range. 6/11/98 XX

H = Value out of range - High L = Value out of range - Low
Temp. = Temperature °F

Report Generated: 11-Jun-1998 at 13:26

✓ These deviations did not adversely affect the outcome or interpretation of the study.

_____ The following deviation(s) impacted on the outcome of the study as described:

Study Director: [signature] Date: 11-JUN-98

ARGUS

Temperature Deviations Report
Location: Room 08

Protocol Number: 1416-002

Range of Dates: 24-Apr-1998 12:45 to 22-May-1998 14:17

Temperature Target Range: 61°F to 72°F
Species: Rabbit

Date	Time	Temp.	Date	Time	Temp.
16-May-1998	10:00	72.1 H			
16-May-1998	11:00	72.7 H			
16-May-1998	12:00	73.3 H			
16-May-1998	13:00	73.5 H			
16-May-1998	14:00	73.4 H			

H = Value out of range - High L = Value out of range - Low
Temp. = Temperature °F

Report Generated: 11-Jun-1998 at 13:41

✓ These deviations did not adversely affect the outcome or interpretation of the study.

____ The following deviation(s) impacted on the outcome of the study as described:

Study Director: Reynold H Yen Date: 11-JUN-98

ARGUS

Temperature Deviations Report
Location: Room 09

Protocol Number: 1416-002

Range of Dates: 24-Apr-1998 12:45 to 22-May-1998 14:17

Temperature Target Range: 61°F to 72°F
Species: Rabbit

Date	Time	Temp.
15-May-1998	15:00	72.1 H
15-May-1998	16:00	72.2 H
15-May-1998	17:00	72.1 H
15-May-1998	18:00	72.1 H
15-May-1998	20:00	72.3 H
15-May-1998	21:00	73.2 H
15-May-1998	22:00	73.3 H
15-May-1998	23:00	73.6 H
16-May-1998	00:00	73.7 H
16-May-1998	01:00	73.7 H
16-May-1998	02:00	74.1 H
16-May-1998	03:00	74.5 H
16-May-1998	04:00	74.8 H
16-May-1998	05:00	75.0 H
16-May-1998	06:00	74.9 H
16-May-1998	07:00	75.3 H
16-May-1998	08:00	75.7 H
16-May-1998	09:00	75.9 H
16-May-1998	10:00	76.0 H
16-May-1998	11:00	76.5 H
16-May-1998	12:00	77.2 H
16-May-1998	13:00	77.4 H
16-May-1998	14:00	76.6 H

H = Value out of range - High L = Value out of range - Low
Temp. = Temperature °F

Report Generated: 11-Jun-1998 at 13:34

✓ These deviations did not adversely affect the outcome or interpretation of the study.

____ The following deviation(s) impacted on the outcome of the study as described:

Study Director: [signature] Date: 11-JUN-98

LabDiet

Certified Analysis Retrieval

.uct Code: 5322 Product Desc: CERTIFIED RABBIT DIET
Number: 587461 Lot Code: FEB 04 98 3A Entered: 02/06/1998

Assay	Analysis	Units
Protein (N x 6.25)	17.5	%
Fat (Ether Extract)	3.26	%
Fiber (Crude)	13.4	%
Arsenic	0.295	PPM
Cadmium	0.119	PPM
Calcium	0.866	%
Lead	0.294	PPM
Mercury	LESS THAN 0.05 PPM	
Phosphorus	0.599	%
Selenium	0.388	PPM

Organophosphates	PPM		PPM
DIAZINON	LESS THAN 0.02	DISULFOTON	LESS THAN 0.02
ETHION	LESS THAN 0.02	MALATHION	0.03
METHYL PARATHION	LESS THAN 0.02	PARATHION	LESS THAN 0.02
THIMET	LESS THAN 0.02	THIODAN	LESS THAN 0.02
TRITHION	LESS THAN 0.02		

Pesticides and PCB	PPM		PPM
DRIN	LESS THAN 0.02	ALPHA-BHC	LESS THAN 0.02
A-BHC	LESS THAN 0.02	CHLORDANE	LESS THAN 0.02
DDE	LESS THAN 0.02	DDT (TOTAL)	LESS THAN 0.02
DELTA-BHC	LESS THAN 0.02	DIELDRIN	LESS THAN 0.02
ENDRIN	LESS THAN 0.02	HCB	LESS THAN 0.02
HEPTACHLOR	LESS THAN 0.02	HEPTACHLOR EPOXIDE	LESS THAN 0.02
LINDANE	LESS THAN 0.02	METHOXYCHLOR	LESS THAN 0.02
MIREX	LESS THAN 0.02	PCB	LESS THAN 0.15

Aflatoxin	TOTAL:LESS THAN 5	PPB	

For additional information, please contact:
(1) For assay methodology - Michael J. Murphy 314-982-2383
(2) For nutritional interpretation - Dr. Dorrance Haught 314-768-4362
(3) All other questions - Richmond, IN Sales Office 765-962-9561

The term "Less Than" is used to signify the lower limit of quantitation of the procedure under the conditions employed. The use of the term "Less Than" does not imply that traces of analyte were present.

Ellis Anderson 3/24/98

REVIEWED BY: DATE

FILE COPY
5-26-98

LabDiet

Certified Analysis Retrieval

Product Code: 5322 Product Desc: CERTIFIED RABBIT DIET
Lab Number: 591011 Lot Code: FEB 26 98 2A Entered: 03/02/1998

Assay	Analysis	Units
Protein (N x 6.25)	17.5	%
Fat (Ether Extract)	3.12	%
Fiber (Crude)	14.3	%
Arsenic	0.366	PPM
Cadmium	0.0908999	PPM
Calcium	1.01	%
Lead	0.271	PPM
Mercury	LESS THAN 0.05 PPM	
Phosphorus	0.555	%
Selenium	0.317	PPM

Organophosphates	PPM		PPM
DIAZINON	LESS THAN 0.02	DISULFOTON	LESS THAN 0.02
ETHION	LESS THAN 0.02	MALATHION	0.05
METHYL PARATHION	LESS THAN 0.02	PARATHION	LESS THAN 0.02
THIMET	LESS THAN 0.02	THIODAN	LESS THAN 0.02
TRITHION	LESS THAN 0.02		

Pesticides and PCB	PPM		PPM
ALDRIN	LESS THAN 0.02	ALPHA-BHC	LESS THAN 0.02
BETA-BHC	LESS THAN 0.02	CHLORDANE	LESS THAN 0.02
DDE	LESS THAN 0.02	DDT (TOTAL)	LESS THAN 0.02
DELTA-BHC	LESS THAN 0.02	DIELDRIN	LESS THAN 0.02
ENDRIN	LESS THAN 0.02	HCB	LESS THAN 0.02
HEPTACHLOR	LESS THAN 0.02	HEPTACHLOR EPOXIDE	LESS THAN 0.02
LINDANE	LESS THAN 0.02	METHOXYCHLOR	LESS THAN 0.02
MIREX	LESS THAN 0.02	PCB	LESS THAN 0.15

Aflatoxin	TOTAL:LESS THAN 5	PPB	

For additional information, please contact:
(1) For assay methodology - Michael J. Murphy 314-982-2383
(2) For nutritional interpretation - Dr. Dorrance Haught 314-768-4362
(3) All other questions - Richmond, IN Sales Office 765-962-9561

The term "Less Than" is used to signify the lower limit of quantitation of the procedure under the conditions employed. The use of the term "Less Than" does not imply that traces of analyte were present.

Ellen Anderson 4/21/98

REVIEWED BY: DATE

EXACT COPY 5-26-98

LabDiet

Certified Analysis Retrieval

Product Code: 5322 Product Desc: CERTIFIED RABBIT DIET
Lab Number: 594873 Lot Code: MAR 18 98 3A Entered: 03/20/1998

Assay	Analysis	Units
Protein (N x 6.25)	17.4	%
Fat (Ether Extract)	3.34	%
Fiber (Crude)	14.1	%
Arsenic	0.211	PPM
Cadmium	.123	PPM
Calcium	1.03	%
Lead	.163	PPM
Mercury	LESS THAN 0.05 PPM	
Phosphorus	0.498	%
Selenium	0.301	PPM

Organophosphates	PPM		PPM
DIAZINON	LESS THAN 0.02	DISULFOTON	LESS THAN 0.02
ETHION	LESS THAN 0.02	MALATHION	0.06
METHYL PARATHION	LESS THAN 0.02	PARATHION	LESS THAN 0.02
THIMET	LESS THAN 0.02	THIODAN	LESS THAN 0.02
TRITHION	LESS THAN 0.02		

Pesticides and PCB	PPM		PPM
ALDRIN	LESS THAN 0.02	ALPHA-BHC	LESS THAN 0.02
BETA-BHC	LESS THAN 0.02	CHLORDANE	LESS THAN 0.02
DDE	LESS THAN 0.02	DDT (TOTAL)	LESS THAN 0.02
DELTA-BHC	LESS THAN 0.02	DIELDRIN	LESS THAN 0.02
ENDRIN	LESS THAN 0.02	HCB	LESS THAN 0.02
HEPTACHLOR	LESS THAN 0.02	HEPTACHLOR EPOXIDE	LESS THAN 0.02
LINDANE	LESS THAN 0.02	METHOXYCHLOR	LESS THAN 0.02
MIREX	LESS THAN 0.02	PCB	LESS THAN 0.15

Aflatoxin	TOTAL:LESS THAN 5	PPB	

For additional information, please contact:
(1) For assay methodology - Michael J. Murphy 314-982-2383
(2) For nutritional interpretation - Dr. Dorrance Haught 314-768-4362
(3) All other questions - Richmond, IN Sales Office 765-962-9561

The term "Less Than" is used to signify the lower limit of quantitation of the procedure under the conditions employed. The use of the term "Less Than" does not imply that traces of analyte were present.

Ellen Anderson 4/21/98
REVIEWED BY: DATE

EXACT COPY 5-26-98

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2865092
Collected: 1/27/98 at 10:00 by EA

Submitted: 1/28/98 Reported: 2/12/98
Discard: 3/15/98

Sampling Point #1 Fetal Evaluation Lab Grab Water Sample
Semi-Annual

Account No: 02423
Argus Research Laboratories In
935 Horsham Road
Horsham PA 19044-1230

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0178	Pesticides/PCB's in Water			See Page 2
1856	Herbicides in Water			See Page 3
0514	Anion Scan			See Page 4
0226	Ortho-Phosphate as P	< 0.020	0.020	mg/l

EXACT COPY
MF 7/29/98

Reviewed by: John Barnett 2/16/98

1 COPY TO Argus Research Labs., Inc. ATTN: Alan M. Hoberman, Ph D

Questions? Contact your Client Services Representative at (717) 656-2300
06:28:25 D 0001 2 600394
0.00 00062800 ASR000

Respectfully Submitted
Jenifer E. Hess, B.S.
Group Leader Pesticides/PCBs

MEMBER ACIL
Lancaster Laboratories
2425 New Holland Pike
PO Box 12425
Lancaster PA 17605-2425
717-656-2300 Fax 717-656-2681

See reverse side for explanation of symbols and abbreviations

2216 Rev 8/13/97

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2865092
Collected: 1/27/98 at 10:00 by EA

Submitted: 1/28/98 Reported: 2/12/98
Discard: 3/15/98

Sampling Point #1 Fetal Evaluation Lab Grab Water Sample
Semi-Annual

Account No: 02423
Argus Research Laboratories In
935 Horsham Road
Horsham PA 19044-1230

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Pesticides/PCB's in Water				
1902	Alpha BHC	< 0.0096	0.0096	ug/l
1903	Beta BHC	< 0.0096	0.0096	ug/l
0453	Gamma BHC - Lindane	< 0.0096	0.0096	ug/l
1904	Delta BHC	< 0.0096	0.0096	ug/l
0454	Heptachlor	< 0.0096	0.0096	ug/l
0455	Aldrin	< 0.0096	0.0096	ug/l
1905	Heptachlor Epoxide	< 0.0096	0.0096	ug/l
1906	DDE	< 0.0096	0.0096	ug/l
1907	DDD	< 0.0096	0.0096	ug/l
0478	DDT	< 0.0096	0.0096	ug/l
0469	Dieldrin	< 0.0096	0.0096	ug/l
0477	Endrin	< 0.0096	0.0096	ug/l
1908	Chlordane	< 0.29	0.29	ug/l
1909	Toxaphene	< 3.8	3.8	ug/l
1910	Endosulfan I	< 0.0096	0.0096	ug/l
1911	Endosulfan II	< 0.0096	0.0096	ug/l
1912	Endosulfan Sulfate	< 0.029	0.029	ug/l
0638	Endrin Aldehyde	< 0.096	0.096	ug/l
1913	PCB-1016	< 1.0	1.0	ug/l
1914	PCB-1221	< 1.0	1.0	ug/l
1915	PCB-1232	< 1.0	1.0	ug/l
1916	PCB-1242	< 1.0	1.0	ug/l
1917	PCB-1248	< 1.0	1.0	ug/l
1918	PCB-1254	< 1.0	1.0	ug/l
1919	PCB-1260	< 1.0	1.0	ug/l

3/4/98

EXACT COPY
mf 7/29/98

Questions? Contact your Client Services Representative
at (717) 656-2300

Respectfully Submitted
Jenifer E. Hess, B.S.
Group Leader Pesticides/PCBs

MEMBER ACIL
Lancaster Laboratories
2425 New Holland Pike
PO Box 12425
Lancaster PA 17605-2425
717-656-2300 Fax 717-656-2681

See reverse side for explanation of symbols and abbreviations

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2865092
Collected: 1/27/98 at 10:00 by EA

Submitted: 1/28/98 Reported: 2/12/98
Discard: 3/15/98

Sampling Point #1 Fetal Evaluation Lab Grab Water Sample
Semi-Annual

Account No: 02423
Argus Research Laboratories In
935 Horsham Road
Horsham PA 19044-1230

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Herbicides in Water				
1857	2,4-D	< 0.48	0.48	ug/l
1858	2,4,5-TP	< 0.048	0.048	ug/l
5286	2,4,5-T	< 0.048	0.048	ug/l
5287	Dalapon	< 1.2	1.2	ug/l
5288	Dinoseb	< 0.24	0.24	ug/l
5289	Dicamba	< 0.048	0.048	ug/l
5290	MCPP	< 48.	48.	ug/l
5291	MCPA	< 48.	48.	ug/l
5292	2,4-DP (Dichlorprop)	< 0.48	0.48	ug/l
5293	2,4-DB	< 0.48	0.48	ug/l
8103	Pentachlorophenol	< 0.05	0.05	ug/l

3/4/98

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MP 7/24/98

Questions? Contact your Client Services Representative
at (717) 656-2300

Respectfully Submitted
Jenifer E. Hess, B.S.
Group Leader Pesticides/PCBs

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Lancaster Laboratories
2425 New Holland Pike
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See reverse side for explanation of symbols and abbreviations

2216 Rev. 3 4/97

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. WW 2865092
Collected: 1/27/98 at 10:00 by EA

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Sampling Point #1 Fetal Evaluation Lab Grab Water Sample
Semi-Annual

Account No: 02423
Argus Research Laboratories In
935 Horsham Road
Horsham PA 19044-1230

P.O.
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Anion Scan				
0602	Bromide	< 2.5	2.5	mg/l
0603	Chloride	1.2	1.0	mg/l
0604	Fluoride	< 0.50	0.50	mg/l
0605	Nitrate Nitrogen	< 0.50	0.50	mg/l
0606	Nitrite Nitrogen	< 0.50	0.50	mg/l
0608	Sulfate	< 2.5	2.5	mg/l

3/4/98

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Questions? Contact your Client Services Representative
at (717) 656-2300

Respectfully Submitted
Erik Frederiksen, BA
Group Leader, Water Quality

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Lancaster Laboratories
2425 New Holland Pike
PO Box 12425
Lancaster PA 17605-2425
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See reverse side for explanation of symbols and abbreviations

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	BMQL	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	MPN	Most Probable Number
IU	International Units	CP Units	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	NTU	nephelometric turbidity units
C	degrees Celsius	F	degrees Fahrenheit
Cal	(diet) calories	lb.	pound(s)
meq	milliequivalents	kg	kilogram(s)
g	gram(s)	mg	milligram(s)
ug	microgram(s)	l	liter(s)
ml	milliliter(s)	ul	microliter(s)
m3	cubic meter(s)	fib > 5 um/ml	fibers greater than 5 microns in length per m

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l) because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TIC's only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITATION OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. We disclaim any other warranties, express or implied, including a Warranty of Fitness for Particular Purpose and Warranty of Merchantability. We accept no responsibility for the purpose for which the client uses the test results. No purchase order or other order for work shall be accepted by the company with any conditions that vary from our Standard Terms and Conditions. If Lancaster Laboratories performs work requested by the client, conditions at variance to our Standard Terms and Conditions are not part of the contract.

ANALYTICAL LABORATORIES, INC.
P.O. Box 319
Chalfont, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: Argus Research, Inc.
905 Sheehy Drive
Horsham, PA 19044
FAX: 215-443-8587

Attn: Lab 215-443-8710

Sample source: 905 Rm. 14

Sample Number : 3584-98B
Date Sampled : 04/27/98
Time Sampled : 1340
Date Received : 04/27/98
Sampled By : GWK
Settlement date:

ANALYTICAL RESULTS

Water Safety Classification: No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.

Parameter	MCL	Result
Total Coliform Bacteria, counts/100 ml	< 1	< 1
Fecal coliform bacteria, counts/100 ml		< 1
Total Chlorine, mg/l as Cl		1.2

D. LeGro
5/1/98

Results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked with asterisks (**).

Symbol key:
TNTC - Too numerous to count (> 200)
< - Less than
mg/l - milligrams/liter

PA DER #09-332
NJ Cert #77847

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Maryann E. Fedock / President

ANALYTICAL LABORATORIES, INC.
P.O. Box 319
Chalfont, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: Argus Research, Inc.
905 Sheehy Drive
Horsham, PA 19044
FAX: 215-443-8587

Attn: Lab 215-443-8710

Sample Number : 3584-98A
Date Sampled : 04/27/98
Time Sampled : 1340
Date Received : 04/27/98
Sampled By : GWK
Settlement date:

Sample source: 905 DI Formulations Lab

ANALYTICAL RESULTS

Water Safety Classification: No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.

Parameter	MCL	Result
Total Coliform Bacteria, counts/100 ml	< 1	< 1
Fecal coliform bacteria, counts/100 ml		< 1
Total Chlorine, mg/l as Cl		< 0.1

5/1/98

Results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked with asterisks (**).

Symbol key:
TNTC - Too numerous to count (> 200)
< - Less than
mg/l - milligrams/liter

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SAMPLE ANALYSIS REPORT

Customer: Argus Research, Inc.
905 Sheehy Drive
Horsham, PA 19044
FAX: 215-443-8587

Attn: Lab 215-443-8710

Sample source: Room B-DCL #14 5/20/98

Sample Number : 4057-98B
Date Sampled : 05/18/98
Time Sampled : 1500
Date Received : 05/18/98
Sampled By : RW
Settlement date:

ANALYTICAL RESULTS

Water Safety Classification: No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.

Parameter	MCL	Result
Total Coliform Bacteria, counts/100 ml	< 1	< 1
Fecal coliform Bacteria, counts 100 ml		< 1

Sample to be repeated to include Chlorine value DL 5/20/

T. Lilm 5/20/98

Results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked with asterisks (**).

Symbol key:
TNTC - Too numerous to count (> 200)
< - Less than
mg/l - milligrams/liter

PADER #09-332
NJ Cert #77847

7-15-98

Maryann E. Fedock / President

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Chalfont, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: Argus Research, Inc.
905 Sheehy Drive
Horsham, PA 19044
FAX: 215-443-8587

Attn: Lab 215-443-8710

Sample source: Chem. Lab

Sample Number : 4057-98A
Date Sampled : 05/18/98
Time Sampled : 1500
Date Received : 05/18/98
Sampled By : RW
Settlement date:

ANALYTICAL RESULTS

Water Safety Classification: No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.

Parameter	MCL	Result
al Coliform Bacteria, counts/100 ml	< 1	< 1
coliform Bacteria, counts 100 ml		< 1

Sample to be repeated to include Chlorine value ACL 5/20

T. Lebo 5.20.98

Results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked with asterisks (**).

Symbol key:
TNTC - Too numerous to count (> 200)
< - Less than
mg/l - milligrams/liter

DER #09-332
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P.O. Box 319
Chalfont, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: Argus Research, Inc.
905 Sheehy Drive
Horsham, PA 19044
FAX: 215-443-8587

Attn: Lab 215-443-8710

Sample Number : 4128-98B
Date Sampled : 05/29/98
Time Sampled : 1348
Date Received : 05/29/98
Sampled By : RW
Settlement date:

Sample source: Lab - Rm. 10
DL ① 905 Sheehy Drive
6/3/98

ANALYTICAL RESULTS

Water Safety Classification: No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.

Parameter	MCL	Result
Total Coliform Bacteria, counts/100 ml	< 1	< 1
Fecal coliform bacteria, counts/100 ml		< 1
Total Chlorine, mg/l as Cl		0.4

D. Lebo
6/3/98

Results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked with asterisks (**).

Symbol key:
TNTC - Too numerous to count (> 200)
< - Less than
mg/l - milligrams/liter

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NJ Cert #77847

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P.O. Box 319
Chalfont, PA 18914
(215) 723-6466

SAMPLE ANALYSIS REPORT

Customer: Argus Research, Inc.
905 Sheehy Drive
Horsham, PA 19044
FAX: 215-443-8587

Attn: Lab 215-443-8710

Sample Number : 4128-98A
Date Sampled : 05/29/98
Time Sampled : 1348
Date Received : 05/29/98
Sampled By : RW
Settlement date:

Sample source: Lab 905 Sheehy Formulations
(D) DLL 6/3/98

ANALYTICAL RESULTS

Water Safety Classification: No Coliform bacteria were detected. Therefore, the water supply, at the time of sampling, meets the EPA and DEP drinking water standards for this parameter.

Parameter	MCL	Result
Total Coliform Bacteria, counts/100 ml	< 1	< 1
coliform bacteria, counts/100 ml		< 1
al Chlorine, mg/l as Cl		< 0.1

D. Lelo
6/3/98

Results which are outside the "Maximum Contaminant Level" (MCL) established under the "Safe Drinking Water Act" are marked with asterisks (**).

Symbol key:
TNTC - Too numerous to count (> 200)
< - Less than
mg/l - milligrams/liter

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Maryann E.Fedock / President

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NJ Cert #77847

APPENDIX G

ANALYTICAL REPORT

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Abstract:

The following investigation was conducted for analytical support of Argus Research Laboratories, Inc. Study #1416-002. Concentration analyses were performed on ammonium perchlorate in drinking water during Protocol #1416-002. These analyses were performed using the method presented in Appendix I. The validation for this method has been included in Appendix II.

Method and Results:

Concentration:
Samples were analyzed by Lancaster Laboratories to determine concentration accuracy. The results of the analytical determined concentrations of each target level are tabulated below:

Lancaster Laboratories Sample #	Argus Sample Designation	Target Level (µg/mL)	Analytical Result (µg/mL)	% Difference from Target
2917831	A-(24.APR.98)	0	ND	0
2917832	B-(24.APR.98)	1.17	1.11	-5.1
2917833	C-(24.APR.98)	11.67	11.4	-2.3
2917834	D-(24.APR.98)	116.67	113	-3.1
2917835	E-(24.APR.98)	350.00	342	-2.3
2917836	F-(24.APR.98)	1170.00	1140	-2.6
2917837	G-(23.APR.98)	50,000	49,700	-0.6
2930525	A-(18.MAY.98)	0	ND	0
2930526	B-(18.MAY.98)	1.09	1.04	-4.6
2930527	C-(18.MAY.98)	10.82	10.6	-2.0
2930528	D-(18.MAY.98)	108.19	106	-2.0
2930529	E-(18.MAY.98)	290.30	290	-0.1
2930530	F-(18.MAY.98)	1042.78	1030	-1.2
2930531	G-(12.MAY.98)	50,000	51,200	2.4

Approved by: Melanie D. Rittenhouse Date: 6-9-98
Melanie D. Rittenhouse

Title: Principal Chemist

Appendix I
Analytical Procedure
Ammonium Perchlorate in
Drinking Water

Reference:

Tsui, David T. and Latha Narayanan, "Analysis of Perchlorate and Nitrate in Drinking Water," SOP NO: AC-97-036, dated 08/21/97 (sent by client).

All analytical work was conducted by Lancaster Laboratories.

Scope:

Applicable to the determination of ammonium perchlorate in drinking water.

Basic Principles:

The analytical procedure consists of diluting aliquots to the appropriate concentrations in Milli-Q water and analyzing for the perchlorate ion concentration using an ion chromatography system equipped with a conductivity detector.

Safety Precautions:

Follow all general laboratory procedures. Take general precautions when handling ammonium perchlorate which is explosive when heated.

Apparatus and Reagents:

1. Dionex X500 ion chromatography system equipped with an ED40 electrochemical detector or equivalent
2. Dionex ASRS-II self-generating suppressor or equivalent
3. Dionex anion trap column (ATC-1) or equivalent
4. Chrom Perfect or equivalent
5. Dionex IonPac AS11, 4.0 × 250 mm, analytical column
6. Dionex IonPac AG11 (4.0 × 50 mm) guard column
7. Routine laboratory equipment and glassware
8. Methanol, HPLC grade or equivalent

9. Milli-Q water (≈18 Ω) or equivalent

10. 50% (w/w) sodium hydroxide solution available from Baker or equivalent.

11. Mobile phase (100 mM NaOH in 90 Milli-Q water:10 methanol) - Add 16.0 g of 50% (w/w) NaOH to enough 90 Milli-Q:10 methanol to equal 2 L. Vacuum filter the eluent through a nylon membrane.

12. Ammonium perchlorate analytical standard - Aldrich, purity 99.8%, supplied by the sponsor and additionally obtained by Lancaster Laboratories from Aldrich. Store at room temperature. Lot number will be documented as part of the raw data.

13. Stock standard - Accurately weigh 1000 mg to the nearest 0.1 mg of ammonium perchlorate standard into a 200-mL volumetric flask. Dissolve in Milli-Q water and dilute to volume. The necessity of preparing a fresh standard is dependent upon the standard stability in solution. See Appendix II for this data. Use the ammonium perchlorate standard as 100% in purity.

14. Intermediate standard - Dilute 5.0 mL of the stock solution to 100.0 mL with Milli-Q water (concentration = 250 µg/mL).

15. Working standard solutions - Dilute aliquots of the intermediate higher concentration working standards to achieve the following recommended concentrations: 50, 35, 20, 10, 5.6, 2.8, 1.0, 0.5, and 0.1 µg/mL.

16. Spike preparation - Spikes should be prepared to simulate the lowest and highest sample concentrations in the analysis. Spiking solutions may be pipetted or standard weighed and added to the appropriate volume of Milli-Q water.

Procedure:

A. Sample preparation

1. For drinking water samples where the estimated concentration is within the calibration range, analyze as received.

2. For drinking water samples where the target concentration is above the calibration range, dilute appropriately with Milli-Q water to obtain a final solution that is within the calibration range.

B. HPLC determination

1. Set the IC as described in the Apparatus section to the following conditions:

Suppressor	500	mA
Regenerant water flow	>9	mL/min
Conductivity Range	50	µS
Oven Temperature	30	°C
Injection volume	50	µL
Flow rate	1	mL/min

(These conditions may be changed for optimization.)

2. After the column has equilibrated, make 50-µL injections of a standard until peak heights and retention times are consistent.

3. Inject 50 µL of each sample and standard. A standard curve solution should be run after every four sample injections.

Calculations and Quality Assurance Requirements:

1. Calibration may be performed prior to running the samples, while the samples are run, or after all samples are run. Any curve may be used providing standard continuity is maintained throughout the run. Run at least five different concentrations of the stock standard for a standard curve.

2. Use the quadratic fit with reciprocal of standard concentration weighting for the calibration curve. This method of calibration is available with Chrom Perfect. The correlation coefficient must be ≥0.995. Calculate the ammonium perchlorate concentrations in the samples using this calibration.

3. When calculated against the calibration curve, the check standards should not deviate from the nominal concentration by more than ±5%. If the standard is outside of this range, consult SOP-GLP-030, "Statistical Evaluation of Chromatographic Data Used for Support of Toxicology Studies for Client #2423."

4. Spike recovery should be performed at both the highest and lowest target concentrations of ammonium perchlorate in the samples. If only one level is being tested, one spike prepared to simulate the level is necessary.

5. Spike recoveries should be 90% to 110%. If a spike recovery is outside of this range, consult SOP-GLP-030.

NOTE: All sample responses must fall within the standard curve.

NS03222.DOC
022598

Analytical Procedure
Analysis #NS-03-222
Initiated Date: 02/24/98
Effective Date: FEB 2 5 1998
Page 4 of 4

Prepared by: Melanie D. Rittenhouse Date: 2-25-98
Melanie D. Rittenhouse, Ph.D.

Title: Principal Chemist

Approved by: Jeanine L. Schreiber Date: 2.25.98
Jeanine L. Schreiber

Title: Chemist Coordinator

Approved by: David J. Weiser Date: 2-25-98
David J. Weiser

Title: Senior QA Specialist

Appendix II
Analytical Procedure Validation
Ammonium Perchlorate in
Drinking Water

The analytical method was validated for the determination of ammonium perchlorate in drinking water. Ten samples of the 2000-µg/mL level and five samples of the 0.5-µg/mL level were tested to ensure method precision. Spikes in Milli-Q water were prepared and analyzed to demonstrate recovery. Linearity and a stability check of standard solutions were performed to demonstrate adequacy of the method. The method validation consisted of the following:

Method:

1. Blank preparation - Reverse osmosis deionized water containing 0 µg/mL of ammonium perchlorate was supplied by Argus. Comparison of the Argus laboratory water with Lancaster Laboratories Milli-Q water showed both contained no interferences over the elution range of the perchlorate ion.

2. Stock Spiking Solution - 200 mg of ammonium perchlorate were weighed into a volumetric and diluted to 100.0 mL with Milli-Q water (concentration = 2000 µg/mL).

3. Spike sample preparation - Spikes were prepared at the 0.5-µg/mL and 2000-µg/mL levels.

   The 2000-µg/mL spikes were prepared by diluting 2.0 mL of the stock spiking solution to 200.0 mL with Milli-Q water (concentration = 20 µg/mL).

   The 0.5-µg/mL spiked samples were prepared by diluting 2.5 mL of the 20-µg/mL high-level solution to 100.0 mL with Milli-Q water.

System Suitability:

1. There are no peaks in the chromatograms that interfere with the ammonium perchlorate peak; therefore, no resolution determinations were made. The baseline, however, does exhibit a cyclic pattern of low broad variations that may be integrated as peaks depending on the selected integration parameters. The smoothness of the baseline appears dependent on the regenerant water flow through the suppressor. For this reason, the flow should always be above approximately 9 mL/min and may have to be increased further when additional smoothing of the baseline is required.

2. To ensure stability of ammonium perchlorate in the analysis solvent, five replicates of a standard solution stored at ambient temperature for 16 days were analyzed against a freshly prepared standard solution. The calculated response factors were averaged for each standard and the ratio of the average response factors was compared as described in Lancaster Laboratories SOP-GLP-029, "Validation of Chromatographic Methods Used for Support of GLP Toxicology Studies for Client #2423." The results are as follows:

	Stored Standard Response Factors (x10-6)		Fresh Standard Response Factors (x10 - 6)
	8.4567		8.2954
	8.4260		8.2428
	8.3464		8.2450
	8.3791		8.1675
	8.3832		8.4664
Mean (Rf1) =	8.3983	Mean (Rf2) =	8.2834
RSD =	0.5	RSD =	1.4

$$\frac{Rf2}{Rf1} = 0.99 \text{ and } 0.98 < Rf2/Rf1 < 1.02$$

The relative standard deviations of the response factors for both sets of data are less than or equal to ±2.0%.

The evaluation of the data indicates that the areas are statistically similar. All analytical runs should fall within a 16-day period.

Spike Recovery:

The recovery results for the spikes prepared with Milli-Q water were as follows:

Date	Spike Concentration (µg/mL)	Quantity Recovered (µg/mL)		Percent Recovered (%)
	2029	2038		100
	2064	2079		101
	2034	2045		101
	2006	2015		100
	1962	1977		101
			Mean =	101% recovery
			RSD =	0.5%

Date	Spike Concentration (µg/mL)	Quantity Recovered (µg/mL)		Percent Recovered (%)
	0.5072	0.5427		107
	0.5160	0.5294		103
	0.5086	0.5401		106
	0.5016	0.5533		110
	0.4905	0.5016		102
			Mean =	106% recovery
			RSD =	3.0%

Precision:

Precision was checked using samples from each of two concentration levels. These samples were analyzed by a Lancaster Laboratories' employee to validate precision. The following data indicates acceptable precision

Target Level (µg/mL)	Argus Sample Designation	Replicate Number		Quantity Found (µg/mL)
2000	B-1416-002-H (13.JAN.98)	1		2001
2000	B-1416-002-H (13.JAN.98)	2		1984
2000	B-1416-002-H (13.JAN.98)	3		2013
2000	B-1416-002-H (13.JAN.98)	4		2025
2000	B-1416-002-H (13.JAN.98)	5		1989
2000	B-1416-002-H (13.JAN.98)	6		1986
2000	B-1416-002-H (13.JAN.98)	7		2031
2000	B-1416-002-H (13.JAN.98)	8		2017
2000	B-1416-002-H (13.JAN.98)	9		2004
2000	B-1416-002-H (13.JAN.98)	10		2007
			Mean =	2006 µg/mL
			RSD =	1.0%
0.5	B-1416-001-F (29.JAN.98)	1		0.476
0.5	B-1416-001-F (29.JAN.98)	2		0.494
0.5	B-1416-001-F (29.JAN.98)	3		0.476
0.5	B-1416-001-F (29.JAN.98)	4		0.518
0.5	B-1416-001-F (29.JAN.98)	5		0.543
			Mean =	0.501 µg/mL
			RSD =	5.8%

Calibration Relationship:

To ensure the accuracy of the results, a study of the detector response versus ammonium perchlorate concentrations was conducted. Solutions of ammonium perchlorate ranging in concentration from 50 µg/mL to 0.1 µg/mL were chromatographed and plotted (see Figure I). The perchlorate ion has a strong interaction with the column stationary phase selected for this method. This can be seen in the retention time shifts and peak shape changes that occur with concentration changes. As the concentration of the perchlorate ion on the column increases, its retention time decreases and chromatographed peak shape shows greater peak tailing. An acceptable calibration, however, was attained using a quadratic fit with reciprocal concentration weighting. The quadratic fit follows the non-linear curvature of the calibration response and the weighting treatment gives better correlation as concentration decreases. All ammonium perchlorate determinations were chromatographed at concentrations within this calibration range.

Detection Limit:

The lowest concentration of ammonium perchlorate standard which could be detected, 0.04 µg/mL, describes the instrument detection limit and in this case is also equivalent to the limit of detection. Samples that show no detectable signal or are below the region of less-certain quantitation (<LOD) are reported as "none detected" (ND).

Limit of quantitation (LOQ) is defined as the level above which quantitation results may be obtained with a specified degree of confidence. The LOQ for this method is 0.5 mg/mL. The lowest standard, 0.1 mg/mL, is included in the calibration to better define the y-intercept.

NS03222.DOC
022598

Prepared by: Melanie D. Rittenhouse Date: 2-25-98
Melanie D. Rittenhouse, Ph.D.

Title: Principal Chemist

Approved by: Jeanine L. Schreiber Date: 2.25.98
Jeanine L. Schreiber

Title: Senior Chemist Coordinator

Approved by: David J. Weiser Date: 2-25-98
David J. Weiser

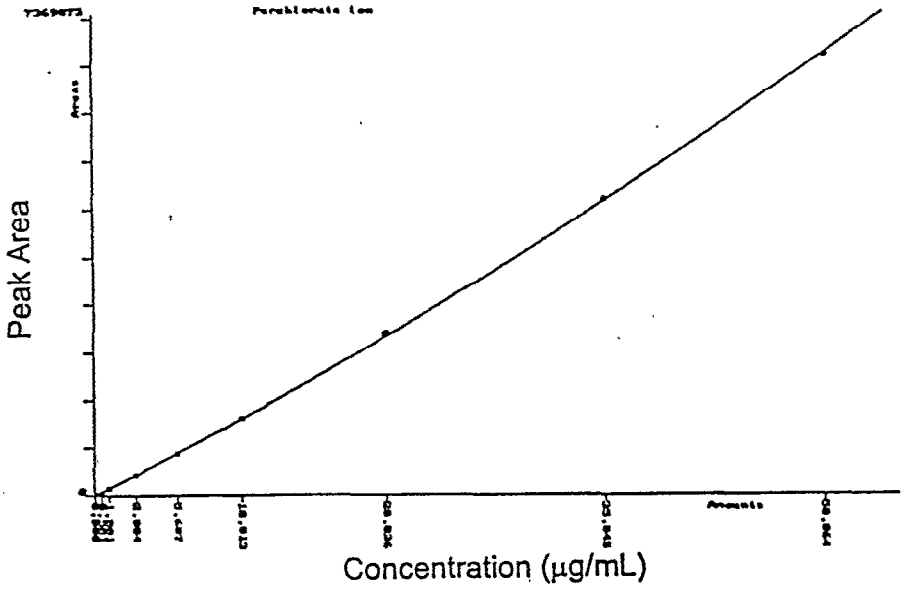
Title: Senior QA Specialist

Figure I: Ammonium Perchlorate Calibration

Quadratic with (1/amount) weighting

$$y = -2839 + 112430\,x + 444.86\,x^2$$

$$r = 0.9999$$



LEVEL	AMOUNT	AREA	Source	Date Updated
1	50.06400	6700043	98030000.03R	01-30-1998 10:27
2	35.04500	4518233	98030000.04R	01-30-1998 10:38
3	20.02600	2470694	98030000.05R	01-30-1998 10:49
4	10.01300	1162937	98030000.06R	01-30-1998 11:00
5	5.60720	631365	98030000.07R	01-30-1998 11:11
6	2.80360	301409	98030000.08R	01-30-1998 11:22
7	1.00130	104730	98030000.09R	01-30-1998 11:33
8	0.50064	51759	98030000.10R	01-30-1998 11:44
9	0.10013	9742	98030000.11R	01-30-1998 11:55

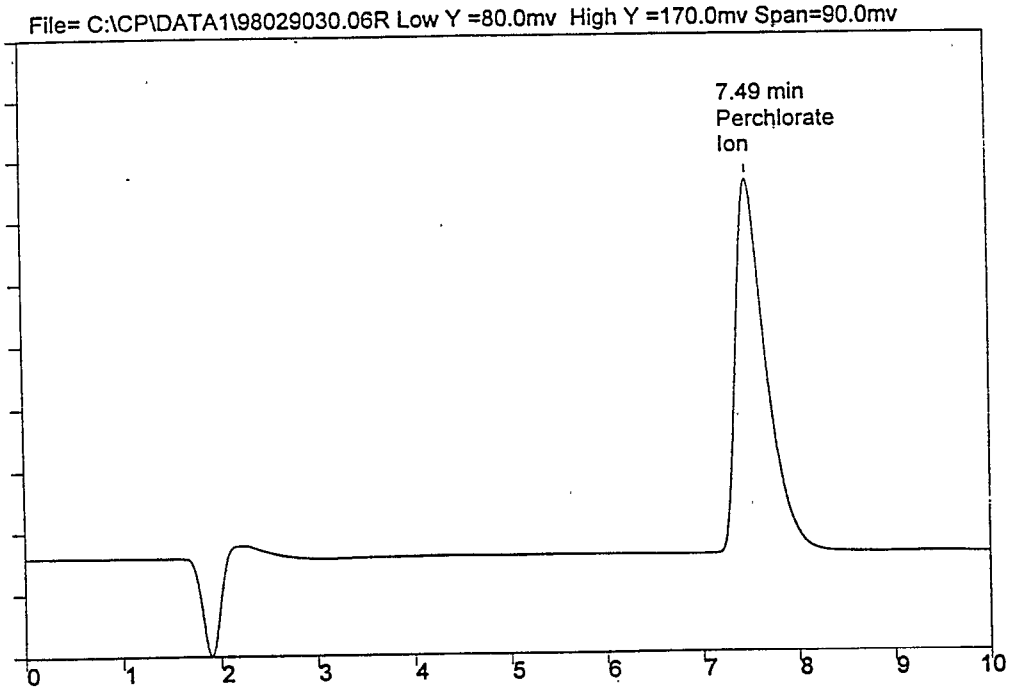


Figure II: Typical Standard Chromatogram

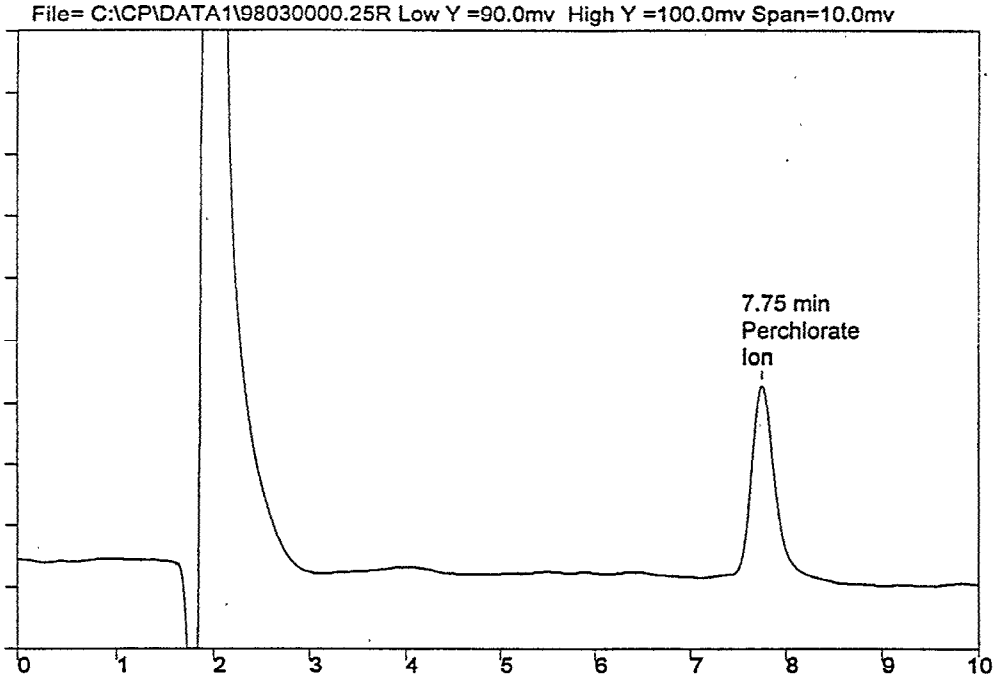


Figure III: Low-Level Sample Chromatogram (0.5 μg/mL)

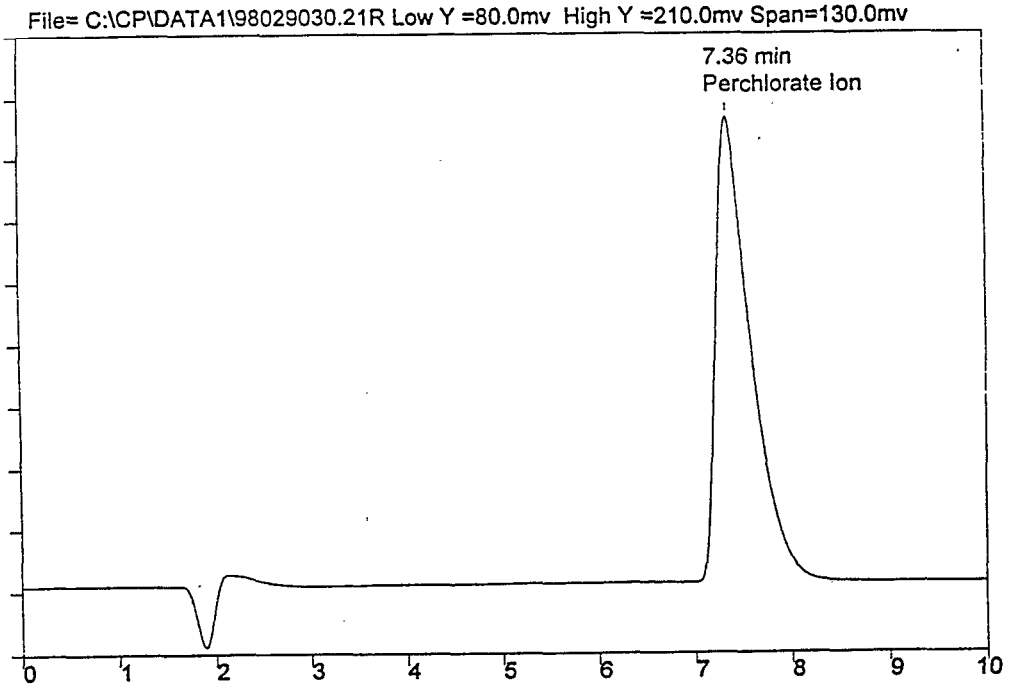


Figure IV: High-Level Sample Chromatogram (2000 µg/mL)

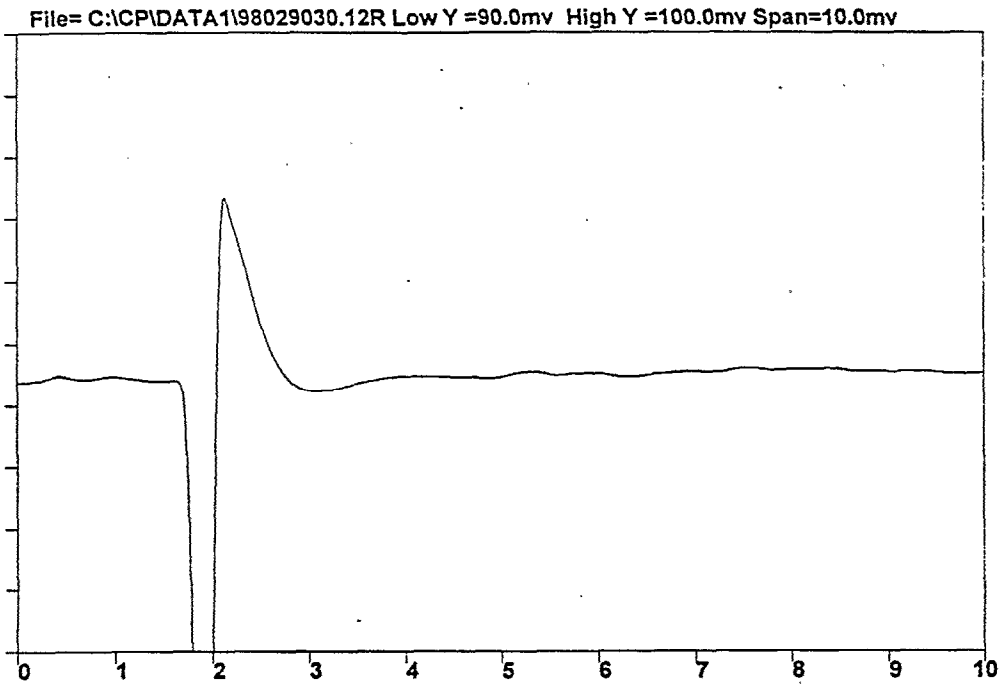


Figure V: Milli-Q Water Blank Chromatogram

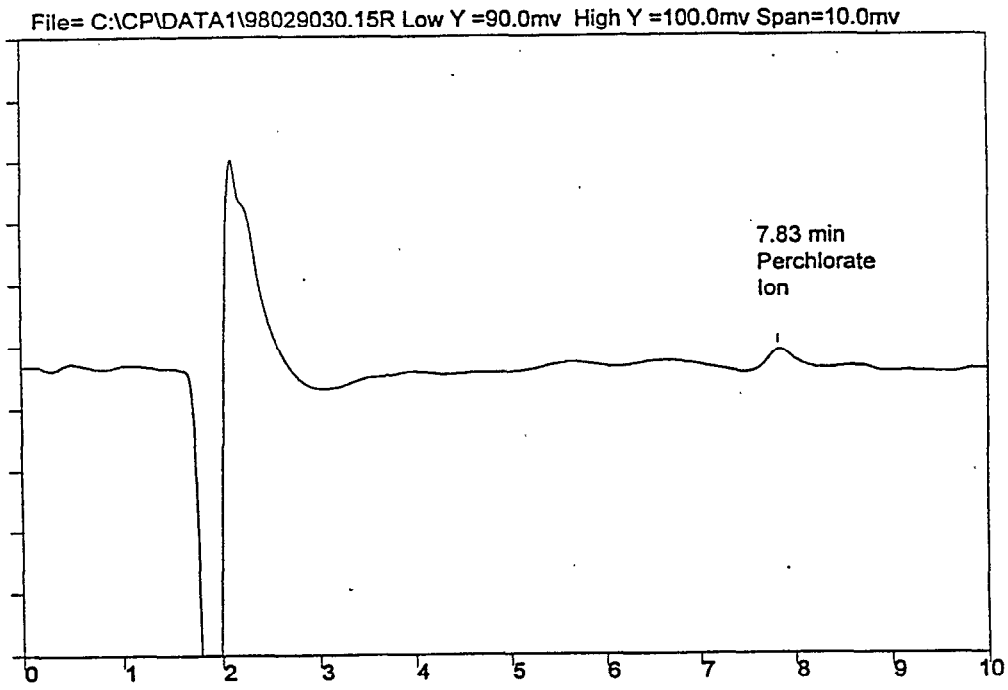


Figure VI: Detection Limit Chromatogram (0.04 μg/mL)

Appendix III

Quality Assurance Statement

Argus Protocol Number: 1416-002

Argus Research study number 1416-002 was inspected on May 5, 1998 in accordance with the U.S. EPA TSCA Good Laboratory Practice regulations (40 CFR Part 792). The critical phases inspected included:

1. Observation of the dilution and transfer of study sample.
2. Observation of standard curve preparation.
3. An audit of the labeling of some of the reagents used during this procedure.
4. A review of the Ion Chromatograph setup parameters.
5. An audit of the training records for the analyst performing this procedure.

The results of this inspection were sent to Lancaster Laboratories' management on May 12, 1998 and to the study director at Argus on May 13, 1998.

The final report and raw data for Argus study 1416-002 were compared and audited for accuracy by the Lancaster Laboratories' Quality Assurance Unit.

Quality Assurance Senior Specialist

6.5.98
Date

APPENDIX H

HISTOPATHOLOGY REPORT

RESEARCH PATHOLOGY SERVICES, INC.

438 East Butler Avenue, New Britain, PA 18901
Phone: 215-345-7070 • Fax: 215-345-4326

ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS PROTOCOL 1416-002 HISTOPATHOLOGY REPORT

SUBMITTED TO:

Raymond G. York, Ph.D., D.A.B.T.
Argus Research Laboratories, Inc.
905 Sheehy Drive
Horsham, PA 19044

SUBMITTED BY:

W. Ray Brown Sept. 1 1998

W. Ray Brown, D.V.M., Ph.D.
Veterinary Pathologist

September 1, 1998

ORAL (DRINKING WATER) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS PROTOCOL 1416-002 HISTOPATHOLOGY REPORT

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ORAL (DRINKING WATER) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS PROTOCOL 1416-002 HISTOPATHOLOGY REPORT

METHOD:

Microscopic examination was made of the thyroid gland from 150 female New Zealand White [Hra:(NZW)SPF] presumed pregnant rabbits equally divided into six treatment groups used in a oral (drinking water) developmental toxicity study of ammonium perchlorate. A brief outline of the study design is shown below.

Group	Target Dosage (mg/kg/day)	Concentration (µg/mL)^	Number of Female Rabbits
1	0 (Carrier)	0	25
2	0.1	1	25
3	1.0	10	25
4	10.0	100	25
5	30.0	300	25
6	100.0	1000	25

^Based on average water consumption of 400 mL/rabbit/day (100 mL/kg/day) for a 4 kg female rabbit. Concentrations were adjusted as necessary based on actual body weight and water consumption levels recorded the previous week. The test substance was considered 100% active for the purpose of dosage calculations.

A constant concentration (%) of the test substance equivalent to the target dosages was offered to the female rabbits in the drinking water on Days 6 through 28 of presumed gestation. The actual dosages in mg/kg/day consumed were calculated and presented for periods corresponding to body weight and water consumption observations. The rabbits were euthanized on Day 29 and necropsied.

The in-life portion of the study, necropsies, and recording of the gross necropsy observations were performed by the staff of Argus Research Laboratories, Inc. At necropsy, the thyroid from all female rabbits was excised and retained in 10% neutral buffered formalin and then submitted to Research Pathology Services, Inc. for tissue processing, microscopic slide preparation and histopathologic evaluation. The thyroid glands were routinely processed, embedded in paraffin, sectioned, and stained with hematoxylin and eosin for microscopic evaluation. The

slides from the control group were evaluated initially and then the slides from Groups 6, 5, 4, 3, and 2 were examined microscopically.

Upon completion of the project, all raw data (remaining wet tissue, paraffin blocks, microscopic slides and histology records) will be returned to Argus Research Laboratories, Inc. for archiving.

RESULTS:

The type, incidence and degree of severity
in the thyroid gland of the female rabbits of all gr
The individual histomorphologic findings are prese

No treatment-related microscopic changes w
of any of the rabbits given 0.1 or 1.0 mg/kg/day
drinking water on Days 6 through 28 of presumed

Microscopic examination of the thyroid glands
follicular epithelium in female rabbits given 10.0, 30.0,
substance. In the thyroids of the affected rabbits, th
enlargement (hypertrophy) of the follicular epithelium, w
a decrease in the lumen of the follicles, which conta
vacuolated colloid. The incidence and severity of this
a dose-related manner (Table 1).

Other changes which were considered to be inci
sporadically among the groups included irregular/cystic f
ectopic thymic tissue and foci of mononuclear inflamm
changes occurred usually at single or very low incide
were not considered to be related to treatment with the

ORAL (DRINKING WATER) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS PROTOCOL 1416-002 HISTOPATHOLOGY REPORT

SUMMARY:

Microscopic examination was made of the thyroid gland of five groups of 25 female rabbits in each group that had been given 0.1, 1.0, 10.0, 30.0, or 100.0 mg/kg/day of ammonium perchlorate in the drinking water in a developmental toxicity study. An additional group of 25 female rabbits was given the carrier (reverse-osmosis membrane processed deionized water) and served as controls.

There were no treatment-related microscopic changes in the thyroid gland of any of the rabbits given 0.1 or 1.0 mg/kg/day of ammonium perchlorate during gestation.

Treatment-related microscopic changes were observed in the thyroid gland of rabbits of the 10.0, 30.0and 100.0 mg/kg/day dosage groups and consisted of an increased size (hypertrophy) of the follicular epithelium. These follicles contained a pale and sometimes vacuolated colloid. The incidence and severity of this change generally occurred in a dose-related manner in the affected groups.

ORAL (DRINKING WATER) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS
PROTOCOL 1416-002
HISTOPATHOLOGY REPORT

QUALITY ASSURANCE UNIT STATMENT

All aspects of the tissue processing, microscopic slide preparation, histopathologic evaluation and report preparation for the study listed above have been performed according to the Standard Operating Procedures of Research Pathology Services, Inc. and were audited in accordance with the procedures established by the Quality Assurance Unit of Research Pathology Services, Inc. in compliance with the "Good Laboratory Practice Standards" regulations (21 CFR 58).

Quality Assurance inspections were performed on 06/17/98, 06/18/98, 07/01/98, 07/07/98, 07/10/98, 07/13/98, 07/28/98, 07/30/98, 08/05/98, 08/06/98, , 08/07/98 and 08/19/98, and findings were reported to management monthly. There were no deviations from the protocol, Standard Operating Procedures and/or appropriate Good Laboratory Practice regulations noted during the conduct of the study. The summary report of QA inspections was submitted to the Study Director on September 1, 1998.

Karen W. Harkins, BS

Karen W. Harkins, BS
Quality Assurance Unit

09-01-98
Date

ORAL (DRINKING WATER) DEVELOPMENTAL
TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS
PROTOCOL 1416-002

Table 1
Incidence and Degree of Severity of Histomorphologic Observations in the Thyroid Gland

Dose Group:	1	2	3	4	5	6
Target Dosage (mg/kg/day):	0	0.1	1.0	10	30	100
Sex:	F	F	F	F	F	F
Number of Animals/Group:	25	25	25	25	25	25
THYROID:						
NO. EXAMINED	25	25	25	25	25	25
NO. NORMAL	12	13	10	6	7	4
-atrophy, focal	0	0	0	0	0	1
-cyst(s)	10	12	14	16	12	12
-ectopic thymic tissue	2	0	0	0	1	0
-infiltration, mononuclear-cell, focal	1	0	1	0	0	0
-hypertrophy, follicular epithelium						
minimal	0	0	0	4	3	10
mild	0	0	0	3	6	2
moderate	0	0	0	0	4	4
Total Incidence, All Grades	0	0	0	7	13	16
-irregular/cystic follicles						
mild	1	0	0	1	0	0
moderate	0	0	0	0	2	0
marked	0	0	1	0	0	0
Total Incidence, All Grades	1	0	1	1	2	0

ORAL (DRINKING WATER) DEVELOPMENTAL TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS PROTOCOL 1416-002

Grading System for Histomorphologic Observations

The grading system utilized by Research Pathology Services, Inc. is based on a four-point scale: minimal, mild, moderate, and marked. The grading of histomorphologic findings with the light microscope is a very subjective evaluation in which many factors are taken into consideration when a grade is assigned. Such factors include the amount and/or extent of the specified finding with regard to the overall section or sections available for examination. The evaluation is an estimate of both the qualitative as well as the quantitative degree of involvement. It must be emphasized that when a quantitative factor is considered it is merely an "estimate" and is based on the overall impression of involvement of the section(s) with regard to number of cells, structures, etc. involved and not an actual count or measurement. Modifiers such as focal, multifocal, diffuse, unilateral or bilateral are also utilized in the evaluation and are considered when a grade is assigned. The following are the grades and a brief description of each:

1	=	Minimal	The least amount or degree or change discernible by the light microscope which is judged to barely exceed normal limits.
2	=	Mild	This amount or degree of change is easily detected, but generally still is of limited degree, amount or intensity. Other adjectives that may be used for this degree would be slight, small, few, etc.
3	=	Moderate	This amount or degree of change is clearly visible and usually there are relatively extensive and prominent changes visible. This level in this scale would indicate that relatively large, multiple, and/or the majority of cells, structures, or components of the organ are involved and the change is notably increased over a Grade 2 reaction.
4	=	Marked	This is the highest severity of this scale and generally indicates that the lesion is approaching the most severe or extensive level that could be attained. This would indicate that essentially all areas of the section or cells are involved to a very significant degree. This degree certainly would be at a level which could greatly compromise the animal and may or may not be reversible.
P	=	Present	A non-quantitative, non-neoplastic morphologic change is present. For such lesions, it is not appropriate to assign a grade as it is usually not possible to determine the extent of involvement or size. These changes are usually single occurrences within a section. Findings for which the grade "P" would be assigned could include cyst, fracture, abscess, etc.

ORAL (DRINKING WATER) DEVELOPMENTAL
TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS
PROTOCOL 1416-002

Table 2
Histomorphologic Observations in the Thyroid Gland

Dose Group:	1	1	1	1	1	1	1	1	1	1
Target Dosage (mg/kg/day)	0	0	0	0	0	0	0	0	0	0
Animal Number:	7651	7652	7653	7654	7655	7656	7657	7658	7659	7660
Sex:	F	F	F	F	F	F	F	F	F	F
THYROID:										
-cyst(s)	-	P	-	P	-	P	-	P	P	P
-ectopic thymic tissue	-	-	-	-	-	-	-	-	-	P

Dose Group:	1	1	1	1	1	1	1	1	1	1
Target Dosage (mg/kg/day):	0	0	0	0	0	0	0	0	0	0
Animal Number:	7661	7662	7663	7664	7665	7666	7667	7668	7669	7670
Sex:	F	F	F	F	F	F	F	F	F	F
THYROID:										
-cyst(s)	-	-	P	-	-	-	P	-	P	-

Dose Group:	1	1	1	1	1
Target Dosage (mg/kg/day):	0	0	0	0	0
Animal Number:	7671	7672	7673	7674	7675
Sex:	F	F	F	F	F
THYROID:					
-cyst(s)	-	-	-	P	-
-ectopic thymic tissue	P	-	-	-	-
-irregular/cystic follicles	-	-	2	-	-
-infiltration, mononuclear-cell, focal	-	-	-	-	1

KEY:
- \- = Not remarkable (within normal limits or indicated change or lesion not present)
- P = Indicated change or lesion present
- 1 = Minimal degree or amount of indicated change
- 2 = Mild degree or amount of indicated change
- 3 = Moderate degree or amount of indicated
- 4 = Marked degree or amount of indicated change

ORAL (DRINKING WATER) DEVELOPMENTAL
TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS
PROTOCOL 1416-002

Table 2 (Continued)
Histomorphologic Observations in the Thyroid Gland

Dose Group:	2	2	2	2	2	2	2	2	2	2
Target Dosage (mg/kg/day)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Animal Number:	7676	7677	7678	7679	7680	7681	7682	7683	7684	7685
Sex:	F	F	F	F	F	F	F	F	F	F
THYROID:										
-cyst(s)	-	P	-	-	P	-	-	P	-	P

Dose Group:	2	2	2	2	2	2	2	2	2	2
Target Dosage (mg/kg/day):	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Animal Number:	7686	7687	7688	7689	7690	7691	7692	7693	7694	7695
Sex:	F	F	F	F	F	F	F	F	F	F
THYROID:										
-cyst(s)	-	-	P	P	-	-	P	-	-	-

Dose Group:	2	2	2	2	2
Target Dosage (mg/kg/day):	0.1	0.1	0.1	0.1	0.1
Animal Number:	7696	7697	7698	7699	7700
Sex:	F	F	F	F	F
THYROID:					
-cyst(s)	P	P	P	P	P

KEY:
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ORAL (DRINKING WATER) DEVELOPMENTAL
TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS
PROTOCOL 1416-002

Table 2 (Continued)
Histomorphologic Observations in the Thyroid Gland

Dose Group:	3	3	3	3	3	3	3	3	3	3
Target Dosage (mg/kg/day)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Animal Number:	7701	7702	7703	7704	7705	7706	7707	7708	7709	7710
Sex:	F	F	F	F	F	F	F	F	F	F
THYROID:										
-cyst(s)	P	-	-	-	-	-	P	-	P	P
-irregular/cystic follicles	-	4	-	-	-	-	-	-	-	-

Dose Group:	3	3	3	3	3	3	3	3	3	3
Target Dosage (mg/kg/day):	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Animal Number:	7711	7712	7713	7714	7715	7716	7717	7718	7719	7720
Sex:	F	F	F	F	F	F	F	F	F	F
THYROID:										
-cyst(s)	P	-	-	P	P	P	P	P	P	-

Dose Group:	3	3	3	3	3
Target Dosage (mg/kg/day):	1.0	1.0	1.0	1.0	1.0
Animal Number:	7721	7722	7723	7724	7725
Sex:	F	F	F	F	F
THYROID:					
-cyst(s)	P	-	-	P	P
-infiltration, mononuclear-cell, focal	-	-	-	1	-

KEY:
- \- = Not remarkable (within normal limits or indicated change or lesion not present)
- P = Indicated change or lesion present
- 1 = Minimal degree or amount of indicated change
- 2 = Mild degree or amount of indicated change
- 3 = Moderate degree or amount of indicated
- 4 = Marked degree or amount of indicated change

ORAL (DRINKING WATER) DEVELOPMENTAL
TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS
PROTOCOL 1416-002

Table 2 (Continued)
Histomorphologic Observations in the Thyroid Gland

Dose Group:	4	4	4	4	4	4	4	4	4	4
Target Dosage (mg/kg/day)	10	10	10	10	10	10	10	10	10	10
Animal Number:	7726	7727	7728	7729	7730	7731	7732	7733	7734	7735
Sex:	F	F	F	F	F	F	F	F	F	F
THYROID:										
-cyst(s)	-	-	P	P	P	-	-	P	P	P
-hypertrophy, follicular epithelium	-	-	-	-	-	-	2	-	-	1
-irregular/cystic follicles	-	-	-	-	-	-	-	2	-	-

Dose Group:	4	4	4	4	4	4	4	4	4	4
Target Dosage (mg/kg/day):	10	10	10	10	10	10	10	10	10	10
Animal Number:	7736	7737	7738	7739	7740	7741	7742	7743	7744	7745
Sex:	F	F	F	F	F	F	F	F	F	F
THYROID:										
-cyst(s)	P	-	P	-	-	P	P	P	P	P
-hypertrophy, follicular epithelium	-	-	1	-	2	-	-	2	-	1

Dose Group:	4	4	4	4	4
Target Dosage (mg/kg/day):	10	10	10	10	10
Animal Number:	7746	7747	7748	7749	7750
Sex:	F	F	F	F	F
THYROID:					
-cyst(s)	P	-	P	P	-
-hypertrophy, follicular epithelium	-	1	-	-	-

KEY:
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- P = Indicated change or lesion present
- 1 = Minimal degree or amount of indicated change
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- 3 = Moderate degree or amount of indicated
- 4 = Marked degree or amount of indicated change

ORAL (DRINKING WATER) DEVELOPMENTAL
TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS
PROTOCOL 1416-002

Table 2
Histomorphologic Observations in the Thyroid Gland

Dose Group:	5	5	5	5	5	5	5	5	5	5
Target Dosage (mg/kg/day)	30	30	30	30	30	30	30	30	30	30
Animal Number:	7751	7752	7753	7754	7755	7756	7757	7758	7759	7760
Sex:	F	F	F	F	F	F	F	F	F	F
THYROID:										
-cyst(s)	-	-	P	-	P	-	P	-	P	P
-hypertrophy, follicular epithelium	2	-	1	-	-	-	3	-	2	-
-irregular/cystic follicles	-	2	-	-	-	-	-	-	-	-

Dose Group:	5	5	5	5	5	5	5	5	5	5
Target Dosage (mg/kg/day):	30	30	30	30	30	30	30	30	30	30
Animal Number:	7761	7762	7763	7764	7765	7766	7767	7768	7769	7770
Sex:	F	F	F	F	F	F	F	F	F	F
THYROID:										
-cyst(s)	-	-	-	-	-	P	-	P	P	P
-hypertrophy, follicular epithelium	-	3	-	-	-	2	3	3	2	-
-irregular/cystic follicles	2	-	-	-	-	-	-	-	-	-
-ectopic thymic tissue	-	-	-	-	-	P	-	-	-	-

Dose Group:	5	5	5	5	5
Target Dosage (mg/kg/day):	30	30	30	30	30
Animal Number:	7771	7772	7773	7774	7775
Sex:	F	F	F	F	F
THYROID:					
-cyst(s)	P	-	-	P	P
-hypertrophy, follicular epithelium	1	-	1	2	2

KEY:
- \- = Not remarkable (within normal limits or indicated change or lesion not present)
- P = Indicated change or lesion present
- 1 = Minimal degree or amount of indicated change
- 2 = Mild degree or amount of indicated change
- 3 = Moderate degree or amount of indicated
- 4 = Marked degree or amount of indicated change

ORAL (DRINKING WATER) DEVELOPMENTAL
TOXICITY STUDY OF AMMONIUM PERCHLORATE IN RABBITS
PROTOCOL 1416-002

Table 2 (Continued)
Histomorphologic Observations in the Thyroid Gland

Dose Group:	6	6	6	6	6	6	6	6	6	6
Target Dosage (mg/kg/day)	100	100	100	100	100	100	100	100	100	100
Animal Number:	7776	7777	7778	7779	7780	7781	7782	7783	7784	7785
Sex:	F	F	F	F	F	F	F	F	F	F
THYROID:										
-cyst(s)	-	P	P	P	P	-	-	-	-	P
-hypertrophy, follicular epithelium	-	1	2	-	-	-	1	-	1	3

Dose Group:	6	6	6	6	6	6	6	6	6	6
Target Dosage (mg/kg/day):	100	100	100	100	100	100	100	100	100	100
Animal Number:	7786	7787	7788	7789	7790	7791	7792	7793	7794	7795
Sex:	F	F	F	F	F	F	F	F	F	F
THYROID:										
-cyst(s)	-	-	P	-	P	P	P	-	-	-
-hypertrophy, follicular epithelium	3	1	-	1	1	3	-	1	1	-

Dose Group:	6	6	6	6	6
Target Dosage (mg/kg/day):	100	100	100	100	100
Animal Number:	7796	7797	7798	7799	7800
Sex:	F	F	F	F	F
THYROID:					
-cyst(s)	P	-	P	-	P
-hypertrophy, follicular epithelium	2	3	-	1	1
-atrophy, focal	-	3	-	-	-

KEY:
- \- = Not remarkable (within normal limits or indicated change or lesion not present)
- P = Indicated change or lesion present
- 1 = Minimal degree or amount of indicated change
- 2 = Mild degree or amount of indicated change
- 3 = Moderate degree or amount of indicated
- 4 = Marked degree or amount of indicated change

APPENDIX I

THYROID HORMONE ANALYSES

Group Designation Key

Group 1 = 0 (Carrier) mg/kg/day target dosage group
Group 2 = 0.1 mg/kg/day target dosage group
Group 3 = 1.0 mg/kg/day target dosage group
Group 4 = 10.0 mg/kg/day target dosage group
Group 5 = 30.0 mg/kg/day target dosage group
Group 6 = 100.0 mg/kg/day target dosage group

STUDY # 1416-002
EQUIPMENT AND PROCEDURES

ANALYTE	METHOD	INSTRUMENT	REAGENTS	SOP & DATE
RABBIT TSH	RadioImmuno Assay	Wallac 1470 Gamma counter	Pituitary and Hormone Ctr. UCLA 1) Rabbit TSH 2) Anti Rabbit TSH	6-69 2/98
	Double Antibody		Covance Laboratories 125I Rabbit TSH	
			Sigma Chemicals	
			Antibodies Inc.	
TOTAL T3	RadioImmuno Assay Solid Phase Coated Tube	Wallac 1470 Gamma counter	Diagnostic Products, Inc.	6-10 9/95
TOTAL T4	RadioImmuno Assay Solid Phase Coated Tube	Wallac 1470 Gamma counter	Diagnostic Products, Inc.	6-11 9/95

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Client: ARGUS RESEARCH LABORATORIES, INC.
905 SHEEHY DRIVE
BUILDING A
HORSHAM, PA 19044-
(215) 443-8710

Date Collected: 05/18/98-05/22/98
Date Received: 05/28/98
Date Reported: 08/28/98

Client No. 1028 Study: 1416-002 Species: RABBIT

Accession No.	Spec. ID	Gp	Sex	Age	T3,TOTAL NG/DL	T4,TOTAL UG/DL	TSH,LA NG/ML
A 0024238	7651	1	F	29D	118.56	2.16	2.77
A 0024239	7652	1	F	29D	90.04	1.41	1.87
A 0024240	7653	1	F	29D	162.82	1.98	1.77
A 0024241	7654	1	F	29D	179.26	2.80	1.90
A 0024267	7655	1	F	29D	102.63	1.20	1.97
A 0024268	7656	1	F	29D	93.53	1.53	2.38
A 0024269	7657	1	F	29D	102.26	1.16	1.75
A 0024270	7658	1	F	29D	100.28	1.09	2.11
A 0024297	7659	1	F	29D	98.27	1.29	1.86
A 0024298	7660	1	F	29D	159.94	0.57	1.73
A 0024299	7661	1	F	29D	146.27	2.10	2.21
A 0024300	7662	1	F	29D	213.18	2.99	2.55
A 0024301	7663	1	F	29D	169.24	1.36	2.31
A 0024302	7664	1	F	29D	164.10	2.59	2.20
A 0024303	7665	1	F	29D	168.41	3.18	2.06
A 0024327	7666	1	F	29D	167.78	0.71	2.18
A 0024328	7667	1	F	29D	180.64	3.51	2.39
A 0024329	7668	1	F	29D	165.72	2.70	2.03
A 0024330	7669	1	F	29D	151.43	2.15	2.19
A 0024331	7670	1	F	29D	139.91	2.26	1.74
A 0024355	7671	1	F	29D	224.04	2.07	2.42
A 0024356	7672	1	F	29D	67.03	0.51	1.47
A 0024357	7673	1	F	29D	209.30	2.84	2.69
A 0024358	7674	1	F	29D	161.62	1.73	2.09
A 0024359	7675	1	F	29D	66.92	0.95	1.76
	Mean				144.127	1.874	2.096
	S.D.				44.319	.85	.325

Group 1

Reference Range	130 - 143	1.7 - 2.4	0 - 0

Page 1 +

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HORSHAM, PA 19044-
(215) 443-8710

Date Collected: 05/18/98-05/22/98
Date Received: 05/28/98
Date Reported: 08/28/98

Client No. 1028 Study: 1416-002 Species: RABBIT

Accession No.	Spec. ID	Gp	Sex	Age	T3,TOTAL NG/DL	T4,TOTAL UG/DL	TSH,LA NG/ML
A 0024242	7676	2	F	29D	125.12	1.93	1.52
A 0024243	7677	2	F	29D	84.52	1.59	1.64
A 0024244	7678	2	F	29D	146.34	2.00	2.25
A 0024245	7679	2	F	29D	77.74	1.61	2.57
A 0024246	7680	2	F	29D	81.65	1.29	2.28
A 0024247	7681	2	F	29D	132.04	1.80	1.76
A 0024248	7682	2	F	29D	126.67	2.97	1.85
A 0024249	7683	2	F	29D	101.12	2.04	1.58
A 0024271	7684	2	F	29D	132.28	4.07	2.02
A 0024272	7685	2	F	29D	134.39	2.41	2.03
A 0024273	7686	2	F	29D	108.50	1.92	1.90
A 0024274	7687	2	F	29D	112.87	2.04	2.06
A 0024304	7688	2	F	29D	113.81	1.43	1.76
A 0024305	7689	2	F	29D	151.32	1.92	2.01
A 0024306	7690	2	F	29D	164.27	2.11	2.42
A 0024332	7691	2	F	29D	119.67	1.88	2.13
A 0024333	7692	2	F	29D	136.06	1.97	3.06
A 0024334	7693	2	F	29D	154.84	1.07	1.92
A 0024335	7694	2	F	29D	135.92	2.08	2.34
A 0024336	7695	2	F	29D	206.18	1.60	1.97
A 0024337	7696	2	F	29D	159.22	2.77	2.06
A 0024360	7697	2	F	29D	127.35	1.21	1.97
A 0024361	7698	2	F	29D	196.72	2.35	1.89
A 0024362	7699	2	F	29D	194.76	3.67	1.87
A 0024363	7700	2	F	29D	179.83	2.29	1.69
	Mean				136.128	2.081	2.022
	S.D.				34.519	.699	.336

Group 2

Reference Range	130 - 143	1.7 - 2.4	0 - 0

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BUILDING A
HORSHAM, PA 19044-
(215) 443-8710

Date Collected: 05/18/98-05/22/98
Date Received: 05/28/98
Date Reported: 08/28/98

Client No. 1028 Study: 1416-002 Species: RABBIT

Accession No.	Spec. ID	Gp	Sex	Age	T3,TOTAL NG/DL	T4,TOTAL UG/DL	TSH,LA NG/ML
A 0024250	7701	3	F	29D	72.61	0.95	1.81
A 0024251	7702	3	F	29D	99.31	0.81	1.90
A 0024252	7703	3	F	29D	104.72	1.04	1.88
A 0024275	7704	3	F	29D	119.09	0.78	1.82
A 0024276	7705	3	F	29D	69.45	0.57	2.19
A 0024277	7706	3	F	29D	70.74	0.94	1.78
A 0024278	7707	3	F	29D	80.83	2.16	1.85
A 0024279	7708	3	F	29D	65.66	0.98	2.38
A 0024307	7709	3	F	29D	179.52	1.11	2.59
A 0024308	7710	3	F	29D	81.95	2.30	2.44
A 0024309	7711	3	F	29D	79.66	1.32	1.94
A 0024310	7712	3	F	29D	209.82	3.19	2.36
A 0024311	7713	3	F	29D	110.12	2.39	2.09
A 0024312	7714	3	F	29D	131.88	2.78	2.00
A 0024313	7715	3	F	29D	153.06	1.80	1.89
A 0024338	7716	3	F	29D	131.20	0.49	1.98
A 0024339	7717	3	F	29D	123.82	2.21	2.18
A 0024340	7718	3	F	29D	114.24	1.92	2.34
A 0024364	7719	3	F	29D	79.64	0.96	1.69
A 0024365	7720	3	F	29D	149.96	1.76	1.79
A 0024366	7722	3	F	29D	104.53	1.07	2.91
A 0024367	7723	3	F	29D	80.41	1.62	1.82
A 0024368	7725	3	F	29D	122.56	0.73	1.58
	Mean				110.208	1.473	2.053
	S.D.				37.357	.752	.323

Group 3

Reference Range	130 - 143	1.7 - 2.4	0 - 0

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HORSHAM, PA 19044-
(215) 443-8710

Date Collected: 05/18/98-05/22/98
Date Received: 05/28/98
Date Reported: 08/28/98

Client No. 1028 Study: 1416-002 Species: RABBIT

Accession No.	Spec. ID	Gp	Sex	Age	T3,TOTAL NG/DL	T4,TOTAL UG/DL	TSH,LA NG/ML
A 0024253	7726	4	F	29D	117.54	1.21	2.30
A 0024254	7727	4	F	29D	99.79	1.14	1.94
A 0024255	7728	4	F	29D	119.98	1.51	2.43
A 0024256	7729	4	F	29D	92.91	1.44	1.70
A 0024257	7730	4	F	29D	76.46	2.19	1.87
A 0024280	7731	4	F	29D	112.63	1.51	2.08
A 0024281	7732	4	F	29D	70.04	1.29	1.82
A 0024282	7733	4	F	29D	106.42	1.49	1.75
A 0024283	7734	4	F	29D	122.99	1.84	2.52
A 0024314	7735	4	F	29D	112.65	0.82	1.71
A 0024315	7736	4	F	29D	142.11	0.66	1.84
A 0024316	7737	4	F	29D	160.59	2.18	1.92
A 0024317	7738	4	F	29D	200.93	1.83	2.44
A 0024318	7739	4	F	29D	180.61	1.92	1.93
A 0024319	7740	4	F	29D	146.20	1.58	2.20
A 0024341	7741	4	F	29D	148.19	1.41	2.25
A 0024342	7742	4	F	29D	154.52	1.97	2.07
A 0024343	7743	4	F	29D	148.57	1.26	1.96
A 0024344	7744	4	F	29D	116.80	1.41	2.18
A 0024345	7745	4	F	29D	180.07	2.97	1.68
A 0024369	7746	4	F	29D	123.60	1.40	1.58
A 0024370	7747	4	F	29D	124.28	1.52	1.79
A 0024371	7748	4	F	29D	179.04	1.68	1.92
A 0024372	7749	4	F	29D	97.66	1.48	2.08
A 0024373	7750	4	F	29D	108.74	0.64	2.03
	Mean				129.733	1.534	2
	S.D.				33.593	.499	.254

Group 4

Reference Range	130 - 143	1.7 - 2.4	0 - 0

Page 4 +

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(215) 443-8710

Date Collected: 05/18/98-05/22/98
Date Received: 05/28/98
Date Reported: 08/28/98

Client No. 1028 Study: 1416-002 Species: RABBIT

Accession No.	Spec. ID	Gp	Sex	Age	T3,TOTAL NG/DL	T4,TOTAL UG/DL	TSH,LA NG/ML
A 0024258	7751	5	F	29D	88.03	2.94	1.97
A 0024259	7752	5	F	29D	133.18	1.17	2.07
A 0024260	7753	5	F	29D	96.60	0.92	2.28
A 0024261	7754	5	F	29D	71.75	0.67	1.82
A 0024262	7755	5	F	29D	109.81	1.27	1.48
A 0024263	7756	5	F	29D	91.79	1.52	1.91
A 0024284	7757	5	F	29D	106.10	1.25	2.35
A 0024285	7758	5	F	29D	85.39	1.29	1.72
A 0024286	7759	5	F	29D	101.88	0.79	2.22
A 0024287	7760	5	F	29D	152.59	2.59	1.85
A 0024288	7761	5	F	29D	145.38	2.21	1.77
A 0024320	7762	5	F	29D	101.51	1.32	2.09
A 0024321	7763	5	F	29D	109.51	0.80	2.01
A 0024322	7764	5	F	29D	72.17	0.44	1.73
A 0024323	7765	5	F	29D	134.48	1.57	1.81
A 0024346	7766	5	F	29D	207.03	1.27	2.09
A 0024347	7767	5	F	29D	196.22	2.35	2.01
A 0024348	7768	5	F	29D	205.05	2.33	2.05
A 0024349	7769	5	F	29D	135.85	1.10	2.03
A 0024350	7770	5	F	29D	211.19	2.23	1.73
A 0024374	7771	5	F	29D	143.17	1.01	1.38
A 0024375	7772	5	F	29D	130.45	1.11	2.06
A 0024376	7773	5	F	29D	88.68	1.26	1.89
A 0024377	7774	5	F	29D	103.41	1.30	1.63
A 0024378	7775	5	F	29D	95.21	0.74	1.94
	Mean				124.657	1.418	1.916
	S.D.				42.084	.654	.231

Group 5

Reference Range	130 - 143	1.7 - 2.4	0 - 0

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BUILDING A
HORSHAM, PA 19044-
(215) 443-8710

Date Collected: 05/18/98-05/22/98
Date Received: 05/28/98
Date Reported: 08/28/98

Client No. 1028 Study: 1416-002 Species: RABBIT

Accession No.	Spec. ID	Gp	Sex	Age	T3,TOTAL NG/DL	T4,TOTAL UG/DL	TSH,LA NG/ML
A 0024264	7777	6	F	29D	76.12	0.25	1.70
A 0024265	7778	6	F	29D	78.30	0.70	2.18
A 0024266	7779	6	F	29D	123.56	0.88	1.86
A 0024289	7780	6	F	29D	165.22	1.97	2.25
A 0024290	7781	6	F	29D	100.98	1.48	1.66
A 0024291	7782	6	F	29D	151.90	1.88	2.06
A 0024292	7783	6	F	29D	77.51	1.63	1.87
A 0024293	7784	6	F	29D	132.58	1.34	2.07
A 0024294	7785	6	F	29D	82.93	0.27	3.21
A 0024295	7786	6	F	29D	75.24	1.47	2.14
A 0024296	7787	6	F	29D	146.54	1.42	2.03
A 0024324	7788	6	F	29D	64.88	0.66	1.84
A 0024325	7789	6	F	29D	179.77	1.58	2.17
A 0024326	7790	6	F	29D	111.29	1.15	2.11
A 0024351	7791	6	F	29D	132.61	0.56	3.11
A 0024352	7792	6	F	29D	186.46	1.77	2.37
A 0024353	7793	6	F	29D	190.48	1.62	1.74
A 0024354	7794	6	F	29D	282.17	2.06	2.33
A 0024379	7795	6	F	29D	153.89	0.86	2.07
A 0024380	7796	6	F	29D	117.10	0.60	1.77
A 0024381	7797	6	F	29D	79.97	0.18	2.07
A 0024382	7798	6	F	29D	99.82	0.77	2.01
A 0024383	7799	6	F	29D	117.44	1.61	1.66
A 0024384	7800	6	F	29D	131.58	1.35	1.93
	Mean				127.431	1.169	2.092
	S.D.				50.069	.572	.386

Group 6

Reference Range			
	130 - 143	1.7 - 2.4	0 - 0

Approved ---------- Date 8/28/98

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The reports listed below was reviewed for compliance with the FDA Good Laboratory Practices and with the EPA Good Laboratory Practices. The final report and all associated raw data were reviewed for accuracy and consistency and the findings were reported to management.

The methods used were the methods described and the report accurately reflects the data. Therefore, these studies were done in compliance with the FDA and EPA Good Laboratory Practices.

Franklin B. Newman
QA Auditor

SPONSOR: ARGUS RESEARCH LABS STUDY: 1416-002

REPORT TYPE:	AUDIT DATE:	REPORT TO MGMT:	AUDIT #:
T3, T4, TSH	6-14-98	6-15-98	98-385

MANAGEMENT

APPENDIX J

HISTORICAL CONTROL DATA

SUMMARY OF REPRODUCTIVE INDICES
NZW RABBIT

PERIOD: JUNE 1995 - JUNE 1997

NUMBER OF STUDIES: 68

NUMBER OF RABBITS:

TESTED	904
PREGNANT	859
FOUND DEAD	8*
ABORTED	15
DELIVERED	3

NUMBER OF RABBITS PREGNANT AT CAESAREAN-SECTIONING ON DAY 29 OF GESTATION: 830

NUMBER OF RABBITS WITH SINGLE CONCEPTUS LITTER:

LIVE	2
RESORBED	2
ABORTED	1

	MEAN or %	RANGE/STUDY MEAN or %
% PREGNANT	95.5	(75.0-100)
AVERAGE # CORPORA LUTEA	9.7	(7.8-11.8)
AVERAGE # IMPLANTATIONS	8.9	(3.8-10.6)
AVERAGE LITTER SIZE		
AVERAGE # LIVE FETUSES	8.5	(3.2-10.4)
AVERAGE # DEAD FETUSES	0.0	(0-0.1)
AVERAGE # RESORPTIONS	0.4	(0-3.2)
AVERAGE # EARLY RESORPTIONS	0.2	(0-2.8)
AVERAGE # LATE RESORPTIONS	0.1	(0-1.2)

* Three were moribund sacrifices, one was attributed to an intubation accident

SUMMARY OF REPRODUCTIVE INDICES
NZW RABBIT

	MEAN or %	RANGE/STUDY MEAN or %
AVERAGE % DOES WITH ANY RESORPTIONS	25.3	(0-100)
AVERAGE % DOES WITH ALL CONCEPTUSES RESORBED	0.6	(0-20.0)
AVERAGE % DOES WITH ONE OR MORE LIVE FETUSES	99.4	(80.0-100)
AVERAGE SEX RATIO, (% MALES/LITTER)	51.6	(32.9-61.0)
AVERAGE FETAL BODY WEIGHT (G)	43.75	(31.85-55.74)
AVERAGE FOR MALES (G)	44.26	(29.55-56.97)
AVERAGE FOR FEMALES (G)	43.08	(32.25-53.76)
AVERAGE % DEAD OR RESORBED CONCEPTUSES/LITTER	4.1	(0-18.8)

SUMMARY OF MATERNAL NECROPSY OBSERVATIONS
NZW RABBITS

PERIOD	JUNE 1995 - JUNE 1997	
TOTAL # STUDIES	69	
TOTAL # DOES	924	
# PREGNANT	874	% OF PREGNANT
# DIED	8*	0.9
# ABORTED	15	1.6
# DELIVERED	3	0.3
# DOES WITH 100% RESORPTIONS	4	0.4

OBSERVATIONS	N	%	RANGE / STUDY N	%
EXTERNAL OBSERVATIONS				
Subcutaneous red areas present in dosage area	3	0.32	0-3	(0-60.0)
Light pink perioral and perinasal substance present	1	0.11	0-1	(0-5.0)
Fecal material in perianal region	1	0.11	0-1	(0-5.0)
Localized alopecia	1	0.11	0-1	(0-5.0)
Left ear, torn	1	0.11	0-1	(0-5.0)
GROSS LESIONS				
TRACHEA				
White, frothy material present	1	0.11	0-1	(0-5.0)
LUNGS				
Discolored	6	0.65	0-4	(0-20.0)
Tear in right diaphragmatic lobe	1	0.11	0-1	(0-4.0)
Multiple lesions	1	0.11	0-1	(0-4.2)
THORACIC CAVITY				
Contained red fluid	1	0.11	0-1	(0-4.0)
LIVER				
Pale and/or mottled	3	0.32	0-2	(0-8.0)
Accentuated lobular pattern on lobe(s)	1	0.11	0-1	(0-5.0)

* Three were moribund sacrifices, one was attributed to an intubation accident

SUMMARY OF MATERNAL NECROPSY OBSERVATIONS
NZW RABBITS

	GROSS LESIONS	N	%	RANGE / STUDY N	%
BACK					
	Break present in lumbar region of spine	1	0.11	0-1	(0-5.0)
	Dorsal muscles, three hemorrhagic areas in lumbar region	1	0.11	0-1	(0-12.5)
STOMACH					
	Contained clear fluid	1	0.11	0-1	(0-5.0)
	Trichobezoar	1	0.11	0-1	(0-4.2)
	Mucosa, eroded in areas	1	0.11	0-1	(0-4.2)
SPLEEN					
	Accessory tissue present	2	0.22	0-2	(0-40.0)
	Caudal end, irregularly shaped	1	0.11	0-1	(0-5.0)
	Small	2	0.22	0-1	(0-20.0)
KIDNEY(S)					
	Small	1	0.11	0-1	(0-20.0)
	Right, displaced caudally	1	0.11	0-1	(0-5.0)
ADRENAL GLANDS					
	Right, absent	1	0.11	0-1	(0-5.0)
ABDOMINAL CAVITY					
	Fluid-filled	1	0.11	0-1	(0-20.0)
UTERUS					
	Right horn contained dark brown fluid	1	0.11	0-1	(0-16.7)
OVARIES					
	Parovarian cyst(s)	30	3.25	0-5	(0-25.0)

SUMMARY OF FETAL EXTERNAL ALTERATIONS
NZW RABBITS

PERIOD	JUNE 1995 - JUNE 1997
# OF STUDIES	68
# LITTERS EXAMINED	825
# LIVE FETUSES EXAMINED (DAY 29)	7043

	ALTERATION				RANGE / STUDY	
			N	%	N	%
SKIN						
	Absent area	L	1	0.12	0-1	(0-5.3)
		F	1	0.01	0-1	(0-0.6)
HEAD						
	Meningocele	L	2	0.24	0-1	(0-16.7)
		F	3	0.04	0-2	(0-3.7)
	Domed	L	1	0.12	0-1	(0-5.3)
		F	2	0.03	0-2	(0-1.3)
	Anencephaly	L	1	0.12	0-1	(0-5.3)
		F	1	0.01	0-1	(0-0.6)
	Cyclops	L	1	0.12	0-1	(0-5.9)
		F	1	0.01	0-1	(0-0.7)
	Upper jaw in two segments	L	1	0.12	0-1	(0-5.9)
		F	1	0.01	0-1	(0-0.7)
	Nares absent	L	1	0.12	0-1	(0-5.3)
		F	1	0.01	0-1	(0-0.6)
	Fleshy protrusion	L	1	0.12	0-1	(0-5.3)
		F	1	0.01	0-1	(0-0.6)
EYES						
	Bulge depressed	L	1	0.12	0-1	(0-5.3)
		F	1	0.01	0-1	(0-0.6)
	Eyelids open	L	1	0.12	0-1	(0-5.9)
		F	1	0.01	0-1	(0-0.7)
SNOUT						
	Short	L	2	0.24	0-1	(0-5.9)
		F	2	0.03	0-1	(0-0.7)
TONGUE						
	Protrudes	L	1	0.12	0-1	(0-5.3)
		F	1	0.01	0-1	(0-0.6)

L: LITTER INCIDENCE
F: FETAL INCIDENCE

SUMMARY OF FETAL EXTERNAL ALTERATIONS
NZW RABBITS

ALTERATION				RANGE / STUDY	
		N	%	N	%
PALATE					
Cleft	L	1	0.12	0-1	(0-5.3)
	F	1	0.01	0-1	(0-0.6)
BODY					
Umbilical Hernia	L	7	0.85	0-2	(0-50.0)
	F	8	0.11	0-3	(0-12.0)
Edema	L	1	0.12	0-1	(0-5.3)
	F	1	0.01	0-1	(0-0.6)
Gastroschisis	L	3	0.36	0-1	(0-25.0)
	F	3	0.04	0-1	(0-2.5)
Skin discolored	L	1	0.12	0-1	(0-5.3)
purple	F	3	0.04	0-3	(0-1.9)
Spina bifida	L	2	0.24	0-1	(0-20.0)
	F	2	0.03	0-1	(0-1.9)
Hemorrhagic area(s)	L	2	0.24	0-1	(0-5.0)
	F	2	0.03	0-1	(0-0.6)
Meningocele	L	2	0.24	0-1	(0-16.7)
	F	2	0.03	0-1	(0-2.0)
PLACENTAS					
Amniotic sac con-	L	2	0.24	0-2	(0-40.0)
tained a small	F	3	0.04	0-3	(0-7.1)
amount of a white substance					
FORELIMBS AND/OR HINDLIMBS					
Paw(s): Flexed/	L	4	0.48	0-2	(0-10.5)
Rotated	F	4	0.06	0-2	(0-1.3)
Paw: Nail missing	L	1	0.12	0-1	(0-5.9)
from digit	F	1	0.01	0-1	(0-0.6)
Paw: Short digits	L	1	0.12	0-1	(0-5.6)
	F	1	0.01	0-1	(0-0.7)
Limb(s): Rotated	L	3	0.36	0-1	(0-16.7)
	F	3	0.04	0-1	(0-1.9)
Limb(s): Absent	L	1	0.12	0-1	(0-5.3)
	F	1	0.01	0-1	(0-0.6)

L: LITTER INCIDENCE
F: FETAL INCIDENCE

SUMMARY OF FETAL EXTERNAL ALTERATIONS
NZW RABBITS

	ALTERATION				RANGE / STUDY	
			N	%	N	%
ANUS						
	Absent	L	1	0.12	0-1	(0-5.9)
		F	1	0.01	0-1	(0-0.6)
TAIL						
	Short	L	7	0.85	0-1	(0-5.3)
		F	10	0.14	0-4	(0-2.1)
	Absent	L	1	0.12	0-1	(0-5.9)
		F	1	0.01	0-1	(0-0.6)

L: LITTER INCIDENCE
F: FETAL INCIDENCE

SUMMARY OF FETAL SOFT TISSUE ALTERATIONS
NZW RABBITS

PERIOD	JUNE 1995 - JUNE 1997
# STUDIES	37
# LITTERS EXAMINED	652
# FETUSES EXAMINED	5571

ALTERATION		N	%	RANGE/STUDY N	RANGE/STUDY %
BRAIN					
Dilated lateral ventricles	L	2	0.31	0-1	(0-5.9)
(Moderate) (Grade 2)	F	2	0.04	0-1	(0-0.6)
Dilated lateral ventricles	L	1	0.15	0-1	(0-5.3)
(Marked) (Grade 3)	F	3	0.05	0-3	(0-1.0)
Dilated third ventricles	L	1	0.15	0-1	(0-5.3)
(Marked) (Grade 3)	F	3	0.05	0-3	(0-1.0)
EYES					
Circumcorneal hemorrhage	L	20	3.07	0-2	(0-16.7)
	F	21	0.38	0-3	(0-1.9)
Microphthalmia	L	1	0.15	0-1	(0-5.9)
	F	1	0.02	0-1	(0-0.6)
HEART					
Large	L	1	0.15	0-1	(0-5.9)
	F	1	0.02	0-1	(0-0.6)
Three ventricles	L	1	0.15	0-1	(0-5.9)
	F	1	0.02	0-1	(0-0.6)
VESSELS					
Persistent truncus	L	2	0.31	0-1	(0-5.3)
arteriosis	F	2	0.04	0-1	(0-0.6)
Innominate, absent	L	1	0.15	0-1	(0-5.3)
	F	1	0.02	0-1	(0-0.7)
Two pulmonary arteries	L	1	0.15	0-1	(0-5.9)
	F	1	0.02	0-1	(0-0.6)
LUNGS					
One or more lobes,	L	65	9.97	0-5	(0-27.8)
partial or	F	81	1.45	0-7	(0-4.4)
complete agenesis					
Right apical and cardiac	L	1	0.15	0-1	(0-5.3)
lobes fused	F	1	0.02	0-1	(0-0.6)

L: LITTER INCIDENCE
F: FETAL INCIDENCE

SUMMARY OF FETAL SOFT TISSUE ALTERATIONS
NZW RABBITS

ALTERATION				RANGE/STUDY	
		N	%	N	%
DIAPHRAGM					
Hernia	L	2	0.31	0-1	(0-5.3)
	F	2	0.04	0-1	(0-0.6)
KIDNEY(S)					
Absent	L	2	0.31	0-1	(0-5.9)
	F	2	0.04	0-1	(0-0.6)
Displaced caudally	L	1	0.15	0-1	(0-4.3)
	F	1	0.02	0-1	(0-0.5)
SPLEEN					
Pale	L	1	0.15	0-1	(0-7.1)
	F	1	0.02	0-1	(0-0.9)
LIVER					
Median lobe, folded	L	1	0.15	0-1	(0-5.9)
	F	1	0.02	0-1	(0-0.6)
URINARY BLADDER					
Absent	L	1	0.15	0-1	(0-5.9)
	F	1	0.02	0-1	(0-0.6)
GONADS					
Absent	L	1	0.15	0-1	(0-5.9)
	F	1	0.02	0-1	(0-0.6)
Right testis displaced caudally	L	1	0.15	0-1	(0-5.9)
	F	1	0.02	0-1	(0-0.6)
FORELIMBS AND/OR HINDLIMBS					
Muscle large	L	1	0.15	0-1	(0-5.9)
	F	1	0.02	0-1	(0-0.6)

L: LITTER INCIDENCE
F: FETAL INCIDENCE

SUMMARY OF FETAL SKELETAL ALTERATIONS
NZW RABBITS

PERIOD	JUNE 1995 - JUNE 1997
# STUDIES	37
# LITTERS EXAMINED	665
# FETUSES EXAMINED	5636

ALTERATIONS SKULL		N	%	RANGE N	STUDY %	# OF STUDIES WITH ALTERATION
Summarization of all irregular ossification of skull	L	205	30.83	0-11	(0-66.7)	36
	F	277	4.91	0-17	(0-9.8)	
Anterior Fontanelle						
: Enlarged (Moderate)	L	1	0.15	0-1	(0-5.3)	1
(Grade 2)	F	1	0.02	0-1	(0-0.6)	
: Irregularly shaped	L	1	0.15	0-1	(0-5.3)	1
	F	1	0.02	0-1	(0-0.5)	
Posterior Fontanelle						
: Enlarged (Slight)	L	2	0.30	0-1	(0-5.9)	2
(Grade 1)	F	2	0.04	0-1	(0-0.6)	
Frontals						
: Irregular suture	L	23	3.46	0-3	(0-17.6)	16
	F	26	0.46	0-3	(0-1.9)	
: Interfrontals	L	14	2.10	0-3	(0-15.0)	11
present	F	14	0.25	0-3	(0-1.7)	
: Fused	L	4	0.60	0-2	(0-10.5)	3
	F	4	0.07	0-2	(0-1.1)	
: Two segments	L	1	0.15	0-1	(0-5.9)	1
	F	1	0.02	0-1	(0-0.7)	
: Suture large	L	1	0.15	0-1	(0-5.0)	1
	F	1	0.02	0-1	(0-0.6)	
: Small	L	1	0.15	0-1	(0-5.3)	1
	F	1	0.02	0-1	(0-0.6)	
Parietal(s)						
: Contain holes	L	4	0.60	0-1	(0-5.9)	4
	F	4	0.07	0-1	(0-0.6)	
: Intraparietals	L	1	0.15	0-1	(0-5.3)	1
present	F	1	0.02	0-1	(0-0.6)	

L: LITTER INCIDENCE
F: FETAL INCIDENCE

SUMMARY OF FETAL SKELETAL ALTERATIONS
NZW RABBITS

ALTERATIONS				RANGE	STUDY	# OF STUDIES WITH
SKULL (CONT.)		N	%	N	%	ALTERATION
Parietal(s) (cont.)						
: Fused and small	L	1	0.15	0-1	(0-5.3)	1
	F	1	0.02	0-1	(0-0.6)	
: Interparietals	L	1	0.15	0-1	(0-5.3)	1
irregularly shaped	F	1	0.02	0-1	(0-0.5)	
: Interparietals incom-	L	1	0.15	0-1	(0-16.7)	1
pletely ossified	F	1	0.02	0-1	(0-1.9)	
Nasals						
: Irregular suture	L	5	0.75	0-2	(0-10.0)	4
	F	5	0.09	0-2	(0-1.2)	
: Internasals	L	29	4.36	0-3	(0-16.7)	20
	F	33	0.59	0-4	(0-2.4)	
: Intranasals	L	20	3.01	0-2	(0-16.7)	16
	F	21	0.37	0-2	(0-1.9)	
: Displaced suture	L	126	18.95	0-8	(0-40.0)	35
	F	140	2.48	0-9	(0-5.2)	
: Fused	L	7	1.05	0-2	(0-10.0)	6
	F	8	0.14	0-2	(0-1.3)	
Nasal/Frontal sutures:	L	21	3.16	0-3	(0-15.8)	14
irregular and/or	F	28	0.50	0-5	(0-4.3)	
misaligned						
Palate: incompletely	L	1	0.15	0-1	(0-5.3)	1
ossified	F	1	0.02	0-1	(0-0.6)	
Premaxillae: fused	L	1	0.15	0-1	(0-5.9)	1
	F	1	0.02	0-1	(0-0.7)	
Maxillae: fused	L	1	0.15	0-1	(0-5.3)	1
	F	1	0.02	0-1	(0-0.6)	
Supraoccipitals:	L	1	0.15	0-1	(0-5.3)	1
irregularly shaped	F	1	0.02	0-1	(0-0.5)	
Skull: not ossified and	L	1	0.15	0-1	(0-5.3)	1
irregularly shaped	F	1	0.02	0-1	(0-0.6)	
Skull: extra ossification	L	1	0.15	0-1	(0-5.6)	1
	F	1	0.02	0-1	(0-0.6)	
HYOID						
A1a(e), angulated	L	114	17.14	0-8	(0-40.0)	33
	F	143	2.54	0-18	(0-9.9)	

L: LITTER INCIDENCE
F: FETAL INCIDENCE

SUMMARY OF FETAL SKELETAL ALTERATIONS
NZW RABBITS

ALTERATIONS		N	%	RANGE N	RANGE %	STUDY	# OF STUDIES WITH ALTERATION
HYOID(CONT.)							
Small	L	1	0.15	0-1	(0-5.3)		1
	F	4	0.07	0-4	(0-2.4)		
Irregularly shaped	L	1	0.15	0-1	(0-5.3)		1
	F	1	0.02	0-1	(0-0.6)		
VERTEBRAE							
Cervical							
: Centrum, unilateral ossification	L	2	0.30	0-1	(0-5.6)		2
	F	2	0.04	0-1	(0-0.7)		
: Arches and/or Centra, fused	L	3	0.45	0-1	(0-5.6)		3
	F	3	0.05	0-1	(0-0.7)		
: Hemivertebra	L	3	0.45	0-1	(0-5.9)		3
	F	3	0.05	0-1	(0-0.6)		
: Centrum, asymmetric	L	1	0.15	0-1	(0-5.6)		1
	F	1	0.02	0-1	(0-0.7)		
: Centra, bifid	L	1	0.15	0-1	(0-5.3)		1
	F	1	0.02	0-1	(0-0.6)		
Thoracic							
: Hemivertebra	L	10	1.50	0-1	(0-5.9)		10
	F	10	0.18	0-1	(0-0.6)		
: Arches and/or Centra, fused	L	7	1.05	0-2	(0-10.5)		6
	F	7	0.12	0-2	(0-1.2)		
: Centrum, unilateral ossification	L	5	0.75	0-1	(0-5.3)		5
	F	5	0.09	0-1	(0-0.6)		
: Centra, one or more asymmetric	L	1	0.15	0-1	(0-5.6)		1
	F	1	0.02	0-1	(0-0.6)		
: Centrum, bifid	L	5	0.75	0-2	(0-10.5)		4
	F	5	0.09	0-2	(0-1.2)		
: Arch, absent	L	1	0.15	0-1	(0-5.6)		1
	F	1	0.02	0-1	(0-0.6)		
: Arch, small	L	2	0.30	0-1	(0-5.9)		2
	F	2	0.04	0-1	(0-0.6)		
Lumbar							
: 5 present	L	1	0.15	0-1	(0-5.9)		1
	F	1	0.02	0-1	(0-0.6)		

L: LITTER INCIDENCE
F: FETAL INCIDENCE

SUMMARY OF FETAL SKELETAL ALTERATIONS
NZW RABBITS

ALTERATIONS		N	%	RANGE N	RANGE %	STUDY	# OF STUDIES WITH ALTERATION
VERTEBRAE (CONT.)							
Lumbar (cont.)							
: Hemivertebra	L	2	0.30	0-1	(0-5.9)		2
	F	2	0.04	0-1	(0-0.8)		
: Centrum, unilateral	L	1	0.15	0-1	(0-5.0)		1
ossification	F	1	0.02	0-1	(0-0.6)		
Sacral							
: Arches and	L	1	0.15	0-1	(0-5.9)		1
Centrum, fused	F	1	0.02	0-1	(0-0.6)		
: Arches open	L	1	0.15	0-1	(0-5.3)		1
	F	1	0.02	0-1	(0-0.5)		
Caudal							
: One or more	L	32	4.81	0-3	(0-16.7)		25
misaligned	F	33	0.58	0-3	(0-2.0)		
: Fused	L	9	1.35	0-1	(0-5.9)		9
	F	13	0.23	0-3	(0-1.9)		
: 6 present	L	1	0.15	0-1	(0-5.9)		1
	F	1	0.02	0-1	(0-0.6)		
: 11 present	L	1	0.15	0-1	(0-4.3)		1
	F	1	0.02	0-1	(0-0.5)		
: 12 present	L	1	0.15	0-1	(0-4.3)		1
	F	2	0.04	0-1	(0-1.0)		
: 13 to 14 present	L	4	0.60	0-1	(0-5.6)		4
	F	4	0.07	0-1	(0-0.6)		
: 15 present	L	1	0.15	0-1	(0-4.3)		1
	F	1	0.02	0-1	(0-0.5)		
: Irregularly	L	1	0.15	0-1	(0-5.0)		1
shaped	F	1	0.02	0-1	(0-0.6)		
VERTEBRAE/RIB							
Interrelated Vertebral/	L	3	0.45	0-3	(0-15.8)		1
Rib malformations	F	3	0.05	0-3	(0-1.6)		

L: LITTER INCIDENCE
F: FETAL INCIDENCE

SUMMARY OF FETAL SKELETAL ALTERATIONS
NZW RABBITS

ALTERATIONS		N	%	RANGE N	RANGE %	STUDY	# OF STUDIES WITH ALTERATION
RIBS							
Cervical Rib present	L	2	0.30	0-1	(0-5.9)		2
	F	2	0.04	0-1	(0-0.6)		
Two or more, fused	L	7	1.05	0-2	(0-10.5)		6
	F	7	0.12	0-2	(0-1.2)		
Bases, proximate	L	8	1.20	0-1	(0-5.9)		8
	F	8	0.14	0-1	(0-0.6)		
One or more, split	L	6	0.90	0-1	(0-5.6)		6
	F	6	0.11	0-1	(0-0.6)		
One or more, thickened	L	22	3.31	0-3	(0-16.7)		16
areas	F	24	0.42	0-3	(0-2.2)		
Flat	L	3	0.45	0-1	(0-5.6)		3
	F	3	0.05	0-1	(0-0.6)		
Extra rib	L	3	0.45	0-1	(0-5.3)		3
	F	3	0.05	0-1	(0-0.8)		
Small	L	2	0.30	0-1	(0-5.9)		2
	F	2	0.04	0-1	(0-0.6)		
Broad	L	1	0.15	0-1	(0-5.9)		1
	F	1	0.02	0-1	(0-0.6)		
Wavy	L	1	0.15	0-1	(0-5.9)		1
	F	1	0.02	0-1	(0-0.6)		
MANUBRIUM							
Duplicated	L	1	0.15	0-1	(0-5.9)		1
	F	1	0.02	0-1	(0-0.7)		
Fused	L	3	0.45	0-2	(0-10.5)		2
	F	3	0.05	0-2	(0-1.1)		
STERNEBRAE							
Two or more, fused	L	54	8.12	0-5	(0-27.8)		30
	F	64	1.14	0-6	(0-3.3)		
One or more, asymmetric	L	8	1.20	0-2	(0-10.5)		7
	F	8	0.14	0-2	(0-1.2)		
One or more, incompletely	L	10	1.50	0-2	(0-10.5)		8
or not ossified	F	10	0.18	0-2	(0-1.2)		
Duplicated	L	1	0.15	0-1	(0-5.9)		1
	F	1	0.02	0-1	(0-0.7)		

L: LITTER INCIDENCE
F: FETAL INCIDENCE

SUMMARY OF FETAL SKELETAL ALTERATIONS
NZW RABBITS

ALTERATIONS		N	%	RANGE N	RANGE %	STUDY	# OF STUDIES WITH ALTERATION
PELVIS							
Pubis(es): incompletely or not ossified	L	4	0.60	0-1	(0-5.9)		4
	F	5	0.09	0-2	(0-1.1)		
SCAPULAE							
Ala(e): irregularly shaped	L	7	1.05	0-2	(0-10.5)		5
	F	7	0.12	0-2	(0-1.3)		
Ala(e): wavy	L	1	0.15	0-1	(0-5.3)		1
	F	1	0.02	0-1	(0-0.6)		
Misaligned	L	4	0.60	0-2	(0-10.5)		3
	F	4	0.07	0-2	(0-1.2)		
Bent	L	1	0.15	0-1	(0-5.0)		1
	F	1	0.02	0-1	(0-0.6)		
FORELIMB(S)							
1 Phalanx present	L	1	0.15	0-1	(0-5.6)		1
	F	1	0.02	0-1	(0-0.7)		
0 Phalanges present	L	1	0.15	0-1	(0-5.6)		1
	F	1	0.02	0-1	(0-0.7)		
Humerus, Radius, Ulna, Carpals, Metacarpals, Foredigits and Fore-phalanges absent	L	1	0.15	0-1	(0-5.3)		1
	F	1	0.02	0-1	(0-0.6)		
HINDLIMB(S)							
Misaligned	L	1	0.15	0-1	(0-5.9)		1
	F	1	0.02	0-1	(0-0.6)		
Phalanx absent	L	1	0.15	0-1	(0-5.9)		1
	F	1	0.02	0-1	(0-0.6)		

L: LITTER INCIDENCE
F: FETAL INCIDENCE

SUMMARY OF FETAL OSSIFICATION SITES
NZW RABBITS

PERIOD	JUNE 1995 - JUNE 1997
# STUDIES	37
# LITTERS EXAMINED	665
# FETUSES EXAMINED	5636

	FETUS / LITTER	
SKELETAL AVERAGES	MEAN	RANGE/STUDY
HYOID	1.00	(0.99-1.00)
VERTEBRAE		
CERVICAL	7.00	--
THORACIC	12.58	(12.38-12.72)
LUMBAR	6.42	(6.27-6.61)
SACRAL	3.00	--
CAUDAL	16.95	(16.75-17.28)
RIBS (Pairs)	12.51	(12.34-12.67)
STERNUM		
MANUBRIUM	1.00	--
STERNAL CENTERS	3.91	(3.83-3.97)
XIPHOID	0.98	(0.92-1.00)
FOREPAWS (Calculated as average per limb)		
CARPALS	0.00	--
METACARPALS	4.99	(4.96-5.00)
DIGITS	5.00	--
PHALANGES	13.91	(13.80-13.99)
HINDPAWS (Calculated as average per limb)		
TARSALS	2.00	(1.98-2.00)
METATARSALS	4.00	--
DIGITS	4.00	--
PHALANGES	12.00	(11.97-12.00)

APPENDIX K

QUALITY ASSURANCE UNIT FINAL REPORT STATEMENT

PRIMEDICA

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

QUALITY ASSURANCE UNIT FINAL REPORT STATEMENT

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

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

Protocol 1416-002: Oral (Drinking Water) Developmental Toxicity Study of Ammonium Perchlorate in Rabbits

The draft protocol for this study was audited for adherence to U.S. Environmental Protection Agency (FIFRA) Good Laboratory Practice Standards, U.S. Environmental Protection Agency (TSCA) Good Laboratory Practice Standards, Organization for Economic Cooperation and Development (OECD), The OECD Principles of Good Laboratory Practice and Japanese Ministry of Agriculture, Forestry and Fisheries (MAFF) Good Laboratory Practice Standards on 21 JAN 98.

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

The draft final report and the raw data for this study were compared and audited for accuracy, for adherence to protocol requirements, and for adherence to U.S. Environmental Protection Agency (FIFRA) Good Laboratory Practice Standards, U.S. Environmental Protection Agency (TSCA) Good Laboratory Practice Standards, Organization for Economic Cooperation and Development (OECD), The OECD Principles of Good Laboratory Practice and Japanese Ministry of Agriculture, Forestry and Fisheries (MAFF) Good Laboratory Practice Standards between 27 JUL 98 and 01 SEP 98.

This study was conducted according to U.S. Environmental Protection Agency (FIFRA) Good Laboratory Practice Standards, U.S. Environmental Protection Agency (TSCA) Good Laboratory Practice Standards, Organization for Economic Cooperation and Development (OECD), The OECD Principles of Good Laboratory Practice and Japanese Ministry of Agriculture, Forestry and Fisheries (MAFF) Good Laboratory Practice Standards.

Kathleen A Moran 01 SEP 98
Kathleen A. Moran, M.S. Date
Manager of Regulatory Compliance

Heather L. Rabuttino 01SEP98
Heather L. Rabuttino, M.S. Date
Quality Assurance Auditor
and Principal Auditor

TABLE 1

CRITICAL PHASES INSPECTED

Water Consumption

Date of inspection: 30 APR 98

Date results reported to the Study Director and Management: 01 MAY 98

Test Substance Preparation

Date of inspection: 06 MAY 98

Date results reported to the Study Director and Management: 15 MAY 98

Caesarean-Sectioning

Date of inspection: 19 MAY 98

Date results reported to the Study Director and Management: 21 MAY 98

Blood Collection

Date of inspection: 19 MAY 98

Date results reported to the Study Director and Management: 21 MAY 98

TABLE 2

RAW DATA AUDIT(S)

The following study information and raw data were audited on 08 JUN 98 to 10 JUN 98, and 12 JUN 98 to 14 JUN 98:

Protocol.
List of personnel and computer operator codes.
Error codes and codes for clinical sign observations.
Animal receipt, randomization, and acclimation.
Veterinary examination.
In-life transaction record.
Feed consumption.
Water consumption.
Caesarean-sectioning.
Maternal gross observations.
Fetal gross observations.
Fetal fixative assignment.
Fetal visceral examination.
Fetal skeletal examination.
Organ weights.
Tissue packing lists.
General comments.
Study maintenance records.
Temperature and relative humidity reports.
Feed and water analyses.
Edit requests.
Deviations.
Data review page.
Blood collection data and packing lists.
Key for test facility computer back-up record abbreviations.

The results of this audit were reported to the Study Director and Management on 15 JUN 98.

The following study information and raw data were audited on 15 JUN 98:

Test substance receipt, preparation and use.
Test substance packing lists.

The results of this audit were reported to the Study Director and Management on 15 JUN 98.