FINAL REPORT

PROTOCOL 418-012

ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS

SPONSOR'S STUDY NUMBER: 6295.10

FINAL REPORT DATE: 11 JANUARY 1999

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ARGUS RESEARCH LABORATORIES, INC.
PROTOCOL NUMBER: 418-012
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I. SUMMARY AND CONCLUSION

A. Methods[a]

One hundred ten New Zealand White [Hra(NZW)SPF] rabbits were assigned to each of five dosage groups (Groups I through V) for the main portion of the study. Nineteen additional female rabbits were assigned to one of five dosage groups for the satellite study (three, five, three, three and five rabbits assigned to Groups I through V, respectively). The test article, PFOS, or vehicle, 0.5% Tween® 80 in Reverse Osmosis Membrane Processed Deionized Water (R.O. Deionized Water), was administered orally (via stomach tube) once daily to female rabbits on days 7 through 20 of presumed gestation (DGs 7 through 20). Dosages of 0 (Vehicle), 0.1, 1.0, 2.5 and 3.75 mg/kg/day were administered at a dosage volume of 5 mL/kg, adjusted daily on the basis of individual body weights.

The female rabbits were observed for viability at least twice each day of the study. The rabbits were also examined for clinical observations of effects of the test article, abortions, premature deliveries and deaths before and approximately 60 minutes after each daily intubation during the dosage period, and once daily during the postdosage period. Body weights were recorded on DGs 0 and 6 through 29. Feed consumption values were recorded daily throughout the study.

All surviving rabbits were sacrificed by intravenous administration of Beuthanasia®-D Special euthanasia solution on DG 29 and a gross necropsy of the thoracic, abdominal and pelvic viscera was performed. The number of corpora lutea in each ovary was recorded. The uterus of each rabbit was

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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 AND AMENDMENT).

examined for pregnancy, number and distribution of implantations, live and dead fetuses and early and late resorptions. The fetuses were weighed, examined for gross external alterations and sex. Visceral alterations and cavitated organs were evaluated by dissection. The brains of approximately one half of the fetuses in each litter were free-hand cross-sectioned and examined *in situ*. All fetuses were eviscerated, stained with alizarin red S and evaluated for skeletal alterations.

Rabbits in the satellite study were sacrificed on DG 21. Blood samples were collected and centrifuged. The liver was excised, weighed and sectioned. Fetuses were examined grossly to the extent possible as described for rabbits assigned to the main study. Fetuses and placentae were pooled per litter. After completion of sample collection, serum, liver section, fetal and placental samples were shipped to the Sponsor for analysis.

B. Results

Administration of the 2.5 and 3.75 mg/kg/day dosages of the test article resulted in ten abortions (one in the 2.5 mg/kg/day dosage group and nine in the 3.75 mg/kg/day dosage group). These abortions occurred after the completion of the dosing period (on DGs 22, 24, 25 or 28). All other does survived to scheduled sacrifice.

Increased numbers of does in the 3.75 mg/kg/day dosage group had observations of scant or no feces. Scant feces also occurred in one and three rabbits in the 1.0 and 2.5 mg/kg/day dosage groups, respectively. The 1.0 mg/kg/day dosage group rabbit also had soft or liquid feces on one day. One doe in the 3.75 mg/kg/day dosage group had red substance in the cage pan associated with impending abortion. No other clinical or necropsy observations related to the test article occurred.

Dosage-dependent, significant body weight reductions or body weight losses occurred in the 1.0, 2.5 and 3.75 mg/kg/day dosage groups for the entire dosage period (calculated as DGs 7 to 21). Dosage-dependent reductions in body weight gains occurred in the 2.5 and 3.75 mg/kg/day dosage groups for the entire gestation period (DGs 0 to 29) and for the gestation period after the initiation of dosing (DGs 7 to 29). Average body weights were significantly reduced on DGs 17 through 24 in the 3.75 mg/kg/day dosage group. Absolute (g/day) and relative (g/kg/day) feed consumption values were reduced in the 2.5 and 3.75 mg/kg/day dosage groups for the entire dosage period (DGs 7 to 21), and the entire period after the initiation of dosage (DGs 7 to 29).

Fetal body weights (total, male and female) were significantly reduced in the 2.5 and 3.75 mg/kg/day dosage groups. Delays in fetal ossification associated with

the significantly reduced fetal body weights in the 2.5 and 3.75 mg/kg/day dosage groups were evident as significant reductions in the litter averages for ossified sternal centers in the 2.5 and 3.75 mg/kg/day dosage groups and significant reductions in the litter averages for ossified hyoid and metacarpals and significant reductions in the litter and fetal incidences of incompletely ossified pubes in the 3.75 mg/kg/day dosage group.

C. Conclusion

Based on these data, the maternal no-observable -effect-level (NOEL) for PFOS is 0.1 mg/kg/day. The 1.0 mg/kg/day and higher dosages reduced maternal body weight gain. Dosages of 2.5 and 3.75 mg/kg/day caused abortions and reduced feed consumption. The developmental NOEL is 1.0 mg/kg/day. Dosages of 2.5 and 3.75 mg/kg/day caused reductions in fetal body weights and delays in ossification. Based on these data, PFOS should not be identified as a selective developmental toxicant; the compound was not found to be teratogenic in the rabbit.

11 JAN 99

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

11 JAN 99

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

11-JAN-99

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

II. DESCRIPTION OF TEST PROCEDURES

A. Conduct of Study:

A.1. Sponsor:

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

A.2. Testing Facility:

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

A.3. Study Number:

418-012

A.4. Sponsor's Study Number:

6295.10

A.5. Purpose of the Study:

The purpose of this study was designed to detect adverse effects of PFOS on New Zealand White [Hra:(NZW)SPF] presumed pregnant female rabbits and development of the embryo and fetus consequent to exposure of the doe from implantation to closure of the hard palate. This study was designed to evaluate ICH Harmonised Tripartite Guideline stages C and D of the reproductive process in a nonrodent species.

A.6. Study Design:

The requirements of the International Conference on Harmonisation (ICH) Harmonised Tripartite Guideline[1] were used as the basis for study design.

A.7. Regulatory Compliance:

The study was conducted in compliance with the Good Laboratory Practice (GLP) regulations of the U.S. Food and Drug Administration (FDA)[2], the Japanese Ministry of Health and Welfare (MHW)[3] and the European Economic Community (EEC)[4]. 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.8. Ownership of the Study:

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

A.9. Study Monitor:

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

A.10. Alternate Study Monitor:

Andrew M. Seacat, Ph.D.

A.11. Study Director:

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

A.12. Technical Performance:

John F. Barnett, B.S. (Director of Laboratory Operations)
Kristen Iandola Sherer, B.S. (Research Associate/Fetal Evaluation)
Matthew J. Vaneman, B.S. (Laboratory Technician)

A.13. Report Preparation:

Raymond G. York, Ph.D., DABT
Michelle R. Rzaca, B.S. (Study Coordinator)
Susan K. Bradshaw, B.S. (Data Management Specialist)
Karen G. Parker, A.A. (Report Administrator)

A.14. Report Review:

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

A.15. Date Protocol Signed:

11 August 1998

A.16. Dates of Technical Performance:

Rabbit Arrival Date	21 AUG 98
Dosage Period [Days 7 through 20 of presumed gestation (DGs 7 through 20)]	23 AUG 98 – 09 SEP 98
Toxicokinetic Sample Collection (DG 21)	06 SEP 98 – 10 SEP 98
Caesarean-Sectioning Period (DG 29)	14 SEP 98 – 18 SEP 98

A.17. Records Maintained:

The original report, raw data and reserve samples of the test article and vehicle components are retained in the archives of Argus Research Laboratories, Inc. Any preserved tissues are retained in the archives of the Testing Facility for one year after the mailing of the draft final report, after which time the Sponsor will decide their final disposition. All unused test article suspensions were discarded at the Testing Facility. Unused bulk test article will remain at the Testing Facility until its disposition is decided by the Sponsor.

B. Test Article Information:

B.1. Description:

PFOS – an off-white powder

B.2. Lot Number:

217 (Expiration date: May 2000)

B.3. Date Received and Storage Conditions:

The test article was received on 20 May 1998, and stored at room temperature. Prepared formulations were stored refrigerated.

B.4. Special Handling Instructions:

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

B.5. Analysis of Purity:

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

C. Vehicle Information:

C.1. Description:

0.5% Tween® 80 prepared using 2% Tween® 80, a clear viscous to yellow liquid, in Reverse Osmosis Membrane Processed Deionized Water (R.O. Deionized Water).

C.2. Lot Number:

M03H05

C.3. Date Received and Storage Conditions:

The 2% Tween® 80 was received on 8 July 1998, and stored at room temperature. R.O. deionized water is available from a continuous source at the Testing Facility and is maintained at room temperature.

C.4. Special Handling Instructions:

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

C.5. Analysis of Purity:

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

D. Test Article Preparation:

Suspensions of PFOS were prepared daily at concentrations of 0, 0.02, 0.2, 0.5 and 0.75 mg/mL. The test article was considered 100% pure for the purpose of dosage calculations.

D.1. Sample Information:

Sample Type	Components	Size	Date Retained	Storage Conditions	Shipped To	Date Shipped
Concentration (all levels)	N/A	2 mL[a]	23 AUG 98[b] 09 SEP 98[c]	Frozen	Sponsor	23 AUG 98 09 SEP 98
Bulk Test Article Reserve	N/A	1 g	25 AUG 98	Room temperature	Testing Facility Archives	Not available
Vehicle Reserve	Tween® 80	5 mL	25 AUG 98	Room temperature	Testing Facility Archives	Not available
	R.O. deionized water	5 mL	25 AUG 98	Room temperature	Testing Facility Archives	Not available

a. Duplicate samples were taken from each concentration. One set of samples was sent for analysis; the remaining samples were retained at the Testing Facility as backups.
b. First day of preparation.
c. Last day of preparation.

Homogeneity and stability of prepared formulations are on file with the Sponsor.

D.2. Analytical Results:

Concentration samples (2 mL) were taken on the first and last days of preparation for analyses by 3M Environmental Technology and Safety Services. The results of these analyses were not available at the time of this report.

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:

Timed-pregnant 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[5-7]; and 4) the test article is biologically active in the species and strain.

E.6. Test System Data:

Number of Rabbits	133
Approximate Date of Birth	21 MAR 98
Approximate Age at Arrival	5 months
Weight (kg) on DG 0	2.77 – 4.20
Weight (kg) at Arrival	2.84 – 4.21

E.7. Method of Randomization:

Upon arrival, rabbits were assigned to individual housing on the basis of computer-generated random units. Rabbits were assigned to one of five dosage groups (Groups I through V), 22 rabbits per dosage group, for the main portion of the study. An additional 19 satellite rabbits were assigned for toxicokinetic evaluation; five rabbits were assigned to each of the low and high dosage groups (Groups II and V) and three rabbits were assigned to each of the remaining dosage groups (Groups I, III and IV). Rabbits were assigned to dosage groups using a computer-generated (weight-ordered) randomization procedure based on body weights recorded by and at the Supplier (Covance Research Products, Inc.) on DG 0.

E.8. System of Identification:

Cage tags were marked with the study number, permanent rabbit number, sex, test article 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 to 72°F (16°C to 22°C); relative humidity was targeted at 30% to 70%.

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*[8].

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:

Approximately 150 g of Certified Rabbit Chow® #5322 (PMI Nutrition International, St. Louis, Missouri) was available to each rabbit each day until the first day of dosage, at which time approximately 180 g of the same certified feed was offered to each rabbit each day. The certified feed was available from individual stainless steel "J-type" feeders attached to each cage.

F.7. Feed Analysis:

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

Neither the 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:

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

F.9. Water Analysis:

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

Neither the 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	Number of Rabbits	Dosage (mg/kg/day)	Concentration (mg/mL)	Dosage Volume (mL/kg)	Assigned Rabbit Numbers	
					Main	Satellite[a]
I	22+3[a]	0 (Vehicle)	0	5	8443-8464	8553-8555
II	22+5[a]	0.1	0.02	5	8465-8486	8556-8560
III	22+3[a]	1.0	0.2	5	8487-8508	8561-8563
IV	22+3[a]	2.5	0.5	5	8509-8530	8564-8566
V	22+5[a]	3.75	0.75	5	8531-8552	8567-8571

The test article was considered 100% pure for the purpose of dosage calculations.
a. Rabbits assigned to the toxicokinetic evaluation.

G.2. Rationale for Dosage Selection:

Dosages were selected on the basis of a dosage-range study (Argus Research Laboratories, Inc., Protocol 418-012P).

G.3. Route of Administration:

Oral (stomach tube)

G.4. Rationale for Route of Administration:

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

G.5. Frequency of Administration:

Appropriate dosages of the test article were administered orally (via stomach tube) once daily to naturally-bred rabbits on DGs 7 through 20. Dosages of 0 (Vehicle), 0.1, 1.0, 2.5 and 3.75 mg/kg/day of the test article were administered at a dosage volume of 5 mL/kg, adjusted daily on the basis of the individual body weights recorded before intubation. The rabbits were intubated at approximately the same time each day.

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. The day of mating was considered to be DG 0. A computer-generated (weight-ordered) randomization procedure was used to assign the rabbits to five dosage groups based on body weights recorded on DG 0 and supplied by Covance Research Products, Inc.

All rabbits were observed for viability at least twice each day of the study and for general appearance several times during acclimation and on DG 0. Additional examinations for clinical observations of effects of the test article, abortions, premature deliveries and deaths were made at least once during the predosage period, once before each daily intubation and approximately 60 minutes after intubation during the dosage period. These observations were also made once daily during the postdosage period (DGs 21 through 29).

Body weights were recorded on DGs 0 and 6 through 29. Feed consumption values were recorded daily throughout the study.

G.8. Gross Necropsy:

G.8.a. Satellite Rabbits Assigned to Toxicokinetic Sample Collection:

On day 21 of presumed gestation (the day following the last dosage), toxicokinetic samples were collected from the rabbits assigned to the toxicokinetic evaluation. Following anesthesia of pentobarbital, blood samples (approximately 4 mL per rabbit) were collected from the inferior vena cava into serum separator tubes and centrifuged. The resulting serum (approximately 2 mL) was immediately frozen on dry ice and maintained frozen (-70°C) until shipment to the Sponsor for analysis. The liver was excised, weighed, and a sample was taken from the right lateral lobe, frozen and retained at -70°C until shipment to the Sponsor for analysis.

Rabbits were Caesarean-sectioned and fetuses were examined grossly to the furthest extent. Fetuses and placentae were pooled per litter and retained frozen (-70°C) until shipment to the Sponsor for analysis.

After completion of sample collection, serum, liver sections, fetal and placental samples were shipped (frozen on dry ice) to 3M Environmental Technology and Safety Services, St. Paul, Minnesota.

G.8.b. Scheduled Sacrifice:

All surviving rabbits were sacrificed by intravenous administration of Beuthanasia®-D Special euthanasia solution on DG 29. The thoracic, abdominal and pelvic viscera of each rabbit were examined for gross lesions. Gross lesions were preserved in neutral buffered 10% formalin for possible future evaluation (with the exception of parovarian cysts, which are common, spontaneous lesions in rabbits); all other tissues were discarded.

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. Uteri from does that appeared nonpregnant were stained with 10% ammonium sulfide to confirm the absence of implantation sites[9]. 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 mechanical stimuli. Nonresponding term fetuses are considered to be dead (there were no dead fetuses). Dead fetuses and late resorptions are differentiated by the degree of autolysis present; marked to extreme autolysis indicated that the fetus was a late resorption.

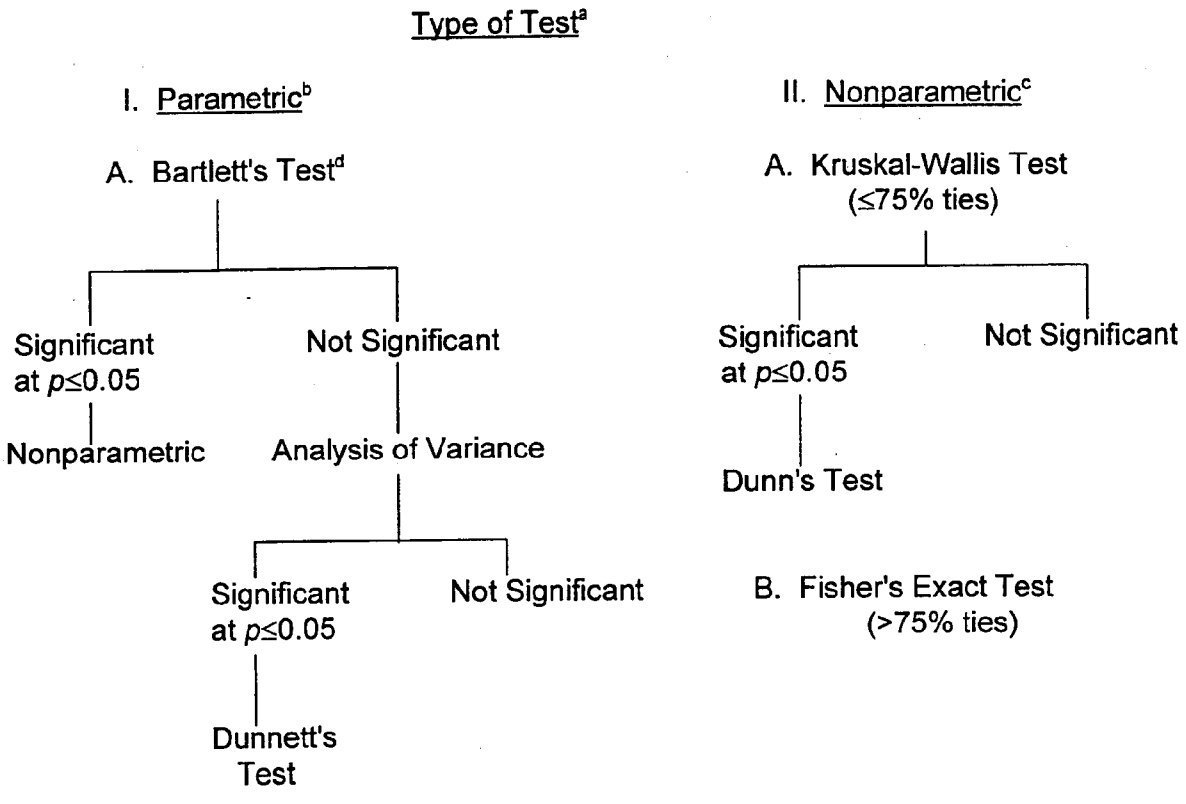
Each Caesarean-delivered fetus was weighed, examined for gross external alterations and individually identified with a tag noting study number, litter number, and uterine distribution. Live fetuses were sacrificed by an intraperitoneal injection of Beuthanasia®-D Special. All fetuses were examined internally to identify sex and visceral alterations; cavitated organs, including the brain, were evaluated by dissection[10]; and the brain was free-hand cross-sectioned (a single cross-section was made between the parietal and the frontal bones) and examined *in situ*. Fetal gross lesions were preserved in neutral buffered 10% formalin for possible future evaluation.

All fetuses were eviscerated, stained with alizarin red S[11] and evaluated for skeletal alterations. All skeletal preparations were stored in 80% glycerin with thymol crystals added to retard fungal growth. Late resorptions were examined to the extent possible. Representative photographs of fetal alterations are available in the raw data.

Rabbits that aborted were examined on the day the observation was made. Pregnancy status and uterine contents were recorded. Aborted fetuses were examined to the extent possible, using the same methods described for fetuses. Uteri of apparently nonpregnant does were stained with 10% ammonium sulfide to confirm the absence of implantation sites[9].

G.9. Statistical Analyses:

The following schematic represents the statistical analyses of the data:



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a. Statistically significant probabilities are reported as either at $p \leq 0.05$ 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[12].

Continuous data (e.g., maternal body weights, body weight changes, feed consumption values and litter averages for percent male fetuses, percent resorbed conceptuses, fetal body weights, fetal anomaly data and fetal ossification site data) were analyzed using Bartlett's Test of Homogeneity of Variances[13] and the Analysis of Variance[14], 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[15] 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[16] was used, when less than or equal to 75% ties were present; when more than 75% ties were present, Fisher's Exact Test[17] was used. In cases in which the Kruskal-Wallis Test was statistically significant ($p\leq0.05$), Dunn's Method of Multiple Comparisons[18] 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[16].

Group I rabbit 8481 had a litter consisting of ten dead fetuses. Because such occurrences can abnormally skew the distribution of the data, statistical analyses were made with and without the values for this rabbit and litter. Data for this litter were excluded from summarization and statistical analyses; values are presented on the individual tables.

III. RESULTS

A. Mortality, Abortions, Clinical and Necropsy Observations (Summary - Table 1; Individual Data - Tables 3, 14 and 15)

A.1 Abortions

A total of ten rabbits aborted; one in the 2.5 mg/kg/day dosage group and nine** in the 3.75 mg/kg/day dosage group. These abortions occurred after the completion of the dosing period [on days 22, 24, 25 or 28 of gestation (DGs 22, 24, 25 or 28)] and were considered related to the test article because they occurred at dosage-dependent incidences in the two highest dosage groups. All other rabbits survived to scheduled sacrifice.

2.5 mg/kg/day

Doe 8517 aborted eight late resorptions on DG 25 and was sacrificed. There were no adverse clinical observations before aborting. This doe lost body weight and feed consumption was severely reduced after DG 13. Necropsy revealed eight implantation sites and all tissues appeared normal. Autolysis precluded further evaluation of the eight late resorptions.

3.75 mg/kg/day

Doe 8534 aborted one dead fetus on DG 22 and was sacrificed. There were no adverse clinical observations before aborting. This doe generally lost weight and had severely reduced feed consumption values throughout the study. Necropsy revealed seven live fetuses in the uterus and all tissues appeared normal. All fetuses appeared normal for their developmental ages at gross external and soft tissue examination. Fetuses 1, 2, 3, 4, 5, 6, 7 and 8 had not ossified pubes at skeletal examination.

Doe 8537 aborted five late resorptions on DG 25 and was sacrificed. The only adverse clinical observation before abortion was absent feces (DG 24). This doe generally lost weight and had severely reduced feed consumption values throughout the study. Necropsy revealed five implantation sites and all tissues appeared normal. Autolysis precluded further evaluation of the five late resorptions.

Doe 8538 aborted eight late resorptions on DG 24 and was sacrificed. There were no adverse clinical observations before aborting. This doe generally lost weight and had severely reduced feed consumption values throughout the study. Necropsy revealed nine implantation sites and all tissues appeared normal. One conceptus was presumed cannibalized and autolysis precluded further evaluation of the eight late resorptions.

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

Doe 8539 aborted seven live fetuses on DG 24 and was sacrificed. The only adverse clinical observation before abortion was scant feces (DGs 22 and 23). This doe generally lost weight and had severely reduced feed consumption values throughout the study. Necropsy revealed seven implantation sites and all tissues appeared normal. All fetuses appeared normal for their developmental ages at gross external and soft tissue examination. Fetuses 1, 2, 3, 4, 5, 6 and 7 had not ossified pubes and fetuses 2 and 3 had not ossified sternal centra at skeletal examination.

Doe 8540 aborted four dead fetuses on DG 25 and was sacrificed. There were no adverse clinical observations before aborting. This doe lost weight and feed consumption values were severely reduced after DG 15. Necropsy revealed three live fetuses, one dead fetuses and six late resorptions in the uterus. All tissues appeared normal at necropsy. All fetuses appeared normal for their developmental ages at gross external and soft tissue examination. Autolysis precluded further evaluation of the six late resorptions. Fetuses 1, 2, 3, 5, 7, 8, 9, and 10 had not ossified pubes and fetus 2 had incompletely ossified nasal bones and short maxillae at skeletal examination.

Doe 8542 aborted six dead fetuses on DG 28 and was sacrificed. The only adverse clinical observation before abortion was scant feces (DGs 21 to 23 and 27). This doe lost weight and had severely reduced feed consumption after DG 18. Necropsy revealed eight implantation sites and all tissues appeared normal. Two conceptuses were presumed cannibalized and all six aborted fetuses were partially cannibalized. All fetuses appeared normal at soft tissue examination.

Doe 8544 aborted nine dead fetuses on DG 25 and was sacrificed. The only adverse clinical observation before abortion was scant feces (DGs 19 to 20 and 22 to 24). After DG 12, this doe lost weight and had severely reduced feed consumption until sacrifice. Necropsy revealed nine implantation sites and all tissues appeared normal. All fetuses appeared normal at gross external and soft tissue examination. Fetuses 1, 2, 3, 4, 5, 6, 7, 8 and 9 had not ossified pubes and fetus 3 had not ossified sternal centra at skeletal examination.

Doe 8547 aborted eight late resorptions on DG 22 and was sacrificed. The only adverse clinical observations before abortion were scant feces (DG 18) and a red substance in the cage pan (DG 21). Body weights and feed consumption values were reduced DGs 11 to 21. Necropsy revealed eight implantation sites and all tissues appeared normal. Autolysis precluded evaluation of the eight late resorptions.

Doe 8548 aborted one dead fetus on DG 25 and was sacrificed. The only adverse clinical observation before abortion was scant feces (DGs 21 and 23 to 24). This doe lost weight after DG 15 and feed consumption was severely reduced after DG 17. Necropsy revealed seven live fetuses, one dead fetus and

two late resorptions in the uterus. All tissues appeared normal at necropsy. All fetuses appeared normal for their developmental ages at gross external and soft tissue examination. The late resorptions appeared normal at gross external examination; autolysis precluded further evaluation. Fetuses 1, 2, 3, 4, 5, 6, 7, 8 and 11 had not ossified pubes at skeletal examination.

A.2. Clinical Observations

Increased numbers of does in the 3.75 mg/kg/day dosage group had observations of scant or no feces; the incidence of scant feces was significant ($p \leq 0.01$). Scant feces also occurred in one and three rabbits in the 1.0 and 2.5 mg/kg/day dosage groups respectively. The 1.0 mg/kg/day dosage group rabbit also had soft or liquid feces on one day. One doe in the 3.75 mg/kg/day dosage group had red substance in the cage pan associated with impending abortion.

All other adverse clinical observations, and any statistically significant ($p \leq 0.01$) increases in the incidences of these observations, were considered unrelated to the test article because the incidences were not dosage-dependent. These observations included localized alopecia on the limbs, back and/or underside and ungroomed coat.

A.3. Necropsy Observations

With the exception of persistent adverse clinical observations, no additional gross lesions were identified at necropsy.

B. Maternal Body Weights and Body Weight Changes (Figure 1; Summaries - Tables 3 and 4; Individual Data - Table 16)

Maternal body weight gains were reduced or body weight losses occurred in the 1.0, 2.5 and 3.75 mg/kg/day dosage groups at most tabulated intervals during the dosage period; these reductions or body weight losses were statistically significant ($p \leq 0.05$ or $p \leq 0.01$) in the 3.75 mg/kg/day dosage group on DGs 10 to 13, 13 to 16 and 16 to 19.

During the first three days of the postdosage period (DGs 21 to 24), body weight gains continued to be reduced in the 1.0 and 2.5 mg/kg/day dosage groups; significant ($p \leq 0.05$) body weight loss occurred in the 3.75 mg/kg/day dosage group during this period. As a result of these reductions, dosage-dependent, significant body weight reductions or body weight losses ($p \leq 0.05$ or $p \leq 0.01$) occurred in the 1.0, 2.5 and 3.75 mg/kg/day dosage groups for the entire dosage period (calculated as DGs 7 to 21).

Dosage-dependent reductions in body weight gains occurred in the 2.5 and 3.75 mg/kg/day dosage groups for the entire gestation period (DGs 0 to 29) and for the gestation period after the initiation of dosing (DGs 7 to 29; significant at

$p \leq 0.01$ in the 2.5 mg/kg/day dosage group). Average body weights were significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) on DGs 17 through 24 in the 3.75 mg/kg/day dosage group, as compared with the vehicle control group values.

Body weights and body weight gains were unaffected by the 0.1 mg/kg/day dosage of PFOS. The significant reduction ($p \leq 0.05$) in body weight gain in the 0.1 mg/kg/day dosage group on DGs 10 to 13 was not considered treatment-related because it was transient and not dosage-dependent.

C. Maternal Absolute (g/day) and Relative (g/kg/day) Feed Consumption Values (Summaries - Tables 5 and 6; Individual Data - Table 17)

Absolute (g/day) and relative (g/kg/day) feed consumption values were reduced during the dosage period (after DG 10) in the 2.5 and 3.75 mg/kg/day dosage groups; these reductions were statistically significant ($p \leq 0.05$ or $p \leq 0.01$) in one or both of these groups on DGs 13 to 16 (relative only), 16 to 19 and 19 to 21. Absolute and relative feed consumption values continued to be reduced in these two groups during the postdosage period; the reductions were generally statistically significant ($p \leq 0.05$ or $p \leq 0.01$) on DGs 21 to 24.

Reflecting these effects of the test article, absolute and relative feed consumption values were reduced or significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) in the 2.5 and 3.75 mg/kg/day dosage groups for the entire dosage period (DGs 7 to 21), and the entire period after the initiation of dosage (DGs 7 to 29).

Absolute and relative feed consumption values were unaffected by the 1.0 mg/kg/day dosage of PFOS.

D. Caesarean-Sectioning and Litter Observations (Summaries - Tables 7 and 8; Individual Data - Tables 18 through 20)

Pregnancy occurred in 20 (90.9%), 19 (86.4%), 19 (86.4%), 17 (77.3%) and 21 (95.4%) rabbits in each dosage group. Caesarean-sectioning observations on DG 29 were based on 20, 18, 19, 16 and 12 pregnant rabbits in each of the five respective dosage groups. One and nine does aborted in the 2.5 and 3.75 mg/kg/day dosage groups, respectively. Values for one 0.1 mg/kg/day dosage group doe (8481) that had a litter consisting of ten dead fetuses were excluded from data tabulation and statistical analyses; this total litter death was considered to be a non test article related, spontaneous event.

Fetal body weights (total, male and female) were significantly reduced ($p \leq 0.05$ and $p \leq 0.01$, respectively) in the 2.5 and 3.75 mg/kg/day dosage groups, as compared to the vehicle control group values. There were no other biologically important or statistically significant differences in the litter averages for corpora lutea, implantations, live fetuses and early or late resorptions. There were no does with all conceptuses resorbed and all placentae appeared normal.

E. Fetal Alterations (Summaries - Tables 9 through 13; Individual Data - Table 21)

Fetal alterations were defined as: 1) malformations (irreversible changes that occur at low incidences in this species and strain); and 2) variations (common findings in this species/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 175, 162, 152, 130 and 108 DG 29 Caesarean delivered live fetuses in 20, 18, 19, 16 and 12 litters in the 0 (Vehicle), 0.1, 1.0, 2.5 and 3.75 mg/kg/day dosage groups, respectively. All fetuses were examined for gross external, soft tissue and skeletal alterations and fetal ossification site averages. It was also possible to examine the ten dead fetuses from litter 8481 in the 2.5 mg/kg/day dosage group for gross external, soft tissue and skeletal alterations. The embryonic sacs of all of these fetuses contained a dark red substance. One fetus had downward flexion of the forelimbs, an observation associated with *in utero* compression (skeletal ossification not affected); another fetus had angulated hyoid alae, and two fetuses had only ten or six caudal vertebrae. The remaining six fetuses appeared normal.

E.1. Summary of Fetal Alterations (Summary - Table 10; Individual Data - Table 22)

Combination of malformations and variations resulted in the following incidences for fetal alterations. In the 0 (Vehicle), 0.1, 1.0, 2.5 and 3.75 mg/kg/day dosage groups, respectively, 14 (70.0%), 11 (61.1%), 9 (47.3%), 4 (25.0%) and 8 (66.7%) litters had fetuses with one or more alterations observed. In these same respective dosage groups, the total numbers of fetuses with any identified alterations were 25 (14.3%), 25 (15.4%), 14 (9.2%), 5 (3.8%)** and 19 (17.6%). One or more alterations occurred in averages of 14.1%, 17.0%, 9.5%, 3.6% and 17.4% of the fetuses per litter in the five respective dosage groups. The significant reduction ($p \leq 0.05$) in the total number of fetuses with identified alterations in the 2.5 mg/kg/day dosage group was not considered treatment-related because the expected response to a toxicant would be an increase, rather than a decrease, in the number of alterations.

Delays in fetal ossification associated with the significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) fetal body weights in the 2.5 and 3.75 mg/kg/day dosage groups were evident as significant reductions ($p \leq 0.05$ or $p \leq 0.01$) in the litter averages for ossified sternal centers in the 2.5 and 3.75 mg/kg/day dosage groups and significant reductions ($p \leq 0.05$ or $p \leq 0.01$) in the litter averages for ossified hyoid and metacarpals and significant reductions ($p \leq 0.01$) in the litter and fetal incidences of incompletely ossified pubes in the 3.75 mg/kg/day dosage group.

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

All other fetal gross external, soft tissue and skeletal alterations (malformations and variations) were considered unrelated to the test article because: 1) the incidences were not dosage-dependent; and/or 2) the incidences were within ranges observed historically at the Testing Facility[a].

E.2. Fetal Gross External Alterations (Summary - Table 10; Individual Data - Table 21)

E.2.a. Malformations

The first digit was absent on both forelimbs for vehicle control group fetus 8448-1. Skeletal examination of this fetus revealed absent 1st medial and distal phalanges and 1st metacarpal on both forelimbs. No additional alterations occurred in this fetus.

E.2.b. Variations

One fetus (8473-6) in a 0.1 mg/kg/day dosage group litter and another fetus (8543-3) in a 3.75 mg/kg/day dosage group litter had downward flexed forepaws, an observation associated with *in utero* compression. Skeletal examination of fetus 8543-3 revealed a variation in skull ossification (hole in the parietal bone). Fetus 8473-6 had no additional alterations.

E.3. Fetal Soft Tissue Alterations (Summary - Table 11; Individual Data - Table 21)

E.3.a. Malformations

No soft tissue malformations were observed.

E.3.b. Variations

E.3.b.1. Eyes

One control dosage group fetus (8449-6) had a circumcorneal hemorrhage of the left eye, a variation generally attributable to trauma during processing. Skeletal evaluation of this fetus revealed variations in ossification of the skull and hyoid (irregular nasal-frontal suture and angulated alae).

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a. See APPENDIX E (HISTORICAL CONTROL DATA).

E.3.b.2. Lungs

The intermediate lobe of the lungs was absent in 2, 7**, 1, 0 and 1 fetuses from 2, 4, 1, 0 and 1 litters in the 0 (Vehicle), 0.1, 1.0, 2.5 ad 3.75 mg/kg/day dosage groups, respectively. Two of the 0.1 mg/kg/day dosage group fetuses (8476-8, 8483-4) also had fused 3rd and 4th sternal centra.

The significant increase ($p \leq 0.01$) in the fetal incidence of this observation in the 0.1 mg/kg/day dosage group was not considered related to the test article because: 1) this variation in lung development is frequent in this rabbit strain[19], 2) the fetal and litter incidences are within the historical ranges of the Testing Facility, 3) it was not dosage-dependent; and 4) it was not significantly increased for the unit of measurement, the litter.

E.4. Fetal Skeletal Alterations (Summaries - Tables 12 and 13; Individual Data - Table 21)

E.4.a. Malformations

E.4.a.1. Thoracic Vertebrae/Ribs

Interrelated vertebral/rib malformations or malformations of only the ribs occurred in one, three and one fetuses in the 0 (Vehicle), 0.1 and 1.0 mg/kg/day dosage groups, respectively. These types of vertebral/rib malformations are relatively common at maternally toxic dosages in rabbits and generally considered to be secondary to maternal stress[20].

Fetus 8452-1 in the vehicle control group had a left hemivertebra present as the 3rd thoracic vertebra and a split 2nd left rib. This fetus also had asymmetric 1st to 3rd sternal centra and an angulated hyoid ala. Fetus 8476-1 in the 0.1 mg/kg/day dosage group had fused centra of the 11th and 12th thoracic vertebrae and a bifid centrum of the 12th thoracic vertebra, and its littermate, fetus 8476-7, had fused 5th and 6th ribs as the only alteration. Fetus 8485-2 in the 0.1 mg/kg/day dosage group had a small left arch of the 11th thoracic vertebra, fused left centra of the 11th and 12th thoracic vertebrae and proximate bases of the 10th and 11th left ribs. Fetus 8500-3 in the 1.0 mg/kg/day dosage group had split 8th right and 7th left ribs as the only alteration.

E.4.a.2. Lumbar Vertebrae

Fetus 8500-8 had a left hemivertebra present as the 1st lumbar vertebra and a bifid centrum of the 2nd lumbar vertebra.

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

E.4.a.3. Metacarpals/Phalanges

The 1st medial and distal phalanges and 1st metacarpal on both forelimbs were absent for vehicle control group fetus 8448-1 that had missing first digits at external examination.

E.4.b. Variations

E.4.b.1. Skull

Common small irregularities in ossification of the skull[19] [the presence of small ossification sites within the sutures or calvaria (nasal, frontal or parietal bones) and/or irregular shaping or fusion of the bones] occurred in 7, 9, 3, 1* and 10** fetuses in 6, 7, 3, 1 and 3 litters in the 0 (Vehicle), 0.1, 1.0, 2.5 and 3.75 mg/kg/day dosage groups, respectively. Irregular ossification of the nasal bones (irregular nasal-frontal suture, fused, internasal, midline suture displaced and intranasal) were the most common of these small irregularities in skull ossification, occurring in 6, 9, 3, 1 and 1 fetuses in 5, 7, 3, 1 and 1 litters in the five respective dosage groups.

The significant reduction ($p \leq 0.05$) in the fetal incidence of variations in skull ossification in the 2.5 mg/kg/day dosage group was considered unrelated to the test article because the expected effect of a toxicant would be an increase in delayed skull ossification, rather than a decrease. The significant increase ($p \leq 0.01$) in the fetal incidence of variations in skull ossification in the 3.75 mg/kg/day dosage group was considered to reflect the significantly increased ($p \leq 0.01$) fetal incidence of hole(s) in the parietal and unrelated to the test article, as discussed below. The fetal incidence of nasal midline suture displaced was significantly increased ($p \leq 0.01$) in the 0.1 mg/kg/day dosage group but was considered unrelated to the test article because: 1) it was not dosage-dependent; and 2) the litter incidence was not significantly increased.

The fetal incidence of a hole in the parietal was significantly increased ($p \leq 0.01$) in the 3.75 mg/kg/day dosage group. This increase was considered unrelated to the test article because the observation occurred in seven fetuses from only one high dosage group litter (8543-1, -3, -4, -5, -6, -8 and -10), so the litter incidence, the more relevant parameter[1], was not significant. Two of the fetuses in this litter also had not ossified pubes; all other fetuses had no additional alterations

One 0.1 mg/kg/day dosage group fetus (8471-1) had unossified premaxillae as the only alteration.

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

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

E.4.b.2. Hyoid

One or both alae of the hyoid were angulated in 10, 4, 7, 3 and 5 fetuses in 6, 3, 3, 2 and 3 litters in the 0 (Vehicle), 0.1, 1.0, 2.5 and 3.75 mg/kg/day dosage groups, respectively. One fetus (8452-1) in the vehicle control group also had vertebral/rib malformations and asymmetric 1st to 3rd sternal centra, as previously described.

E.4.b.3. Vertebrae

E.4.b.3.a. Cervical

One 0.1 mg/kg/day dosage group fetus had unilateral ossification of the centrum of the 2nd cervical vertebrae as the only alteration.

E.4.b.3.b. Thoracic

One vehicle control group fetus had unilateral ossification of the centrum of the 5th thoracic vertebrae as the only alteration.

E.4.b.3.c. Lumbar

Bifid centrum of a lumbar vertebra occurred in one fetus in the 1.0 and 3.75 mg/kg/day dosage groups, respectively. Fetus 8500-8 in the 1.0 mg/kg/day dosage group also had a hemivertebra present as a lumbar vertebra, as previously described. The fetus in the 3.75 mg/kg/day dosage group had no additional alterations.

E.4.b.3.d. Caudal

A misaligned 17th caudal vertebra occurred in one vehicle control group fetus as the only alteration.

E.4.b.4. Ribs

Cervical ribs were present at the 7th cervical vertebra for one fetus in each of the 0 (Vehicle) and 2.5 mg/kg/day dosage groups. No additional alterations occurred in these fetuses.

Thickened areas in two or three ribs occurred in one vehicle control group fetus (8456-4) and one 1.0 mg/kg/day dosage group fetus (8493-7). No other alterations occurred in these fetuses.

E.4.b.5. Sternum

Fused 3rd and 4th sternal centra occurred as the only skeletal alteration in 2 and 3 fetuses from different litters in the 0 (Vehicle) and 0.1 mg/kg/day dosage groups, respectively.

Fetus 8452-1 in the vehicle control group had asymmetric 1st to 3rd sternal centra. This fetus also had vertebral/rib malformations and an angulated hyoid ala, as previously described.

E.4.b.6. Pelvis

Four** fetuses from two** 3.75 mg/kg/day dosage group litters had incompletely ossified pubes. Two of these fetuses also had a variation in skull ossification (hole in parietal), as described previously. The significant increase ($p \leq 0.01$) in the fetal and litter incidences of this observation was considered a test article related delay in ossification and to reflect the significantly reduced ($p \leq 0.01$) fetal body weights in this dosage group.

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

The average numbers of ossification sites per fetus were significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) in the 3.75 mg/kg/day dosage group for hyoid, sternal centers and metacarpals. The average numbers of ossified sternal centers were also significantly reduced ($p \leq 0.01$) in the 2.5 mg/kg/day dosage group, as compared with the vehicle control group value. The values were below the ranges observed historically at the Testing Facility. These delays in ossification were considered effects of the test article associated with the significantly reduced ($p \leq 0.05$ or $p \leq 0.01$) fetal body weights in these dosage groups.

The average numbers of ossification sites in the vertebrae (cervical, thoracic, lumbar, sacral and caudal), ribs, sternum (manubrium and xiphoid), forelimbs (carpals and phalanges) and hindlimbs (tarsals, metatarsals and phalanges) occurred at similar incidences in litters in all dosage groups and did not significantly differ.

F. Satellite Rabbits (Individual Data – Tables 14 through 20)

All rabbits in the satellite dosage groups survived to scheduled sacrifice. There were no adverse clinical observations in these does. Patterns of body weight gain and feed consumption were comparable to the rabbits in the main study at the same dosage levels. Only one rabbit in the 3.75 mg/kg/day dosage group was not pregnant at Caesarean-sectioning on DG 21. Caesarean-sectioning and litter parameters were comparable among the five dosage groups. There was not a reduction in fetal body weights at the 2.5 and 3.75 mg/kg/day dosages as

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

was observed for the main study rabbits. All does appeared normal at necropsy. Average liver weights for pregnant does were 140.5 ± 29.2, 127.1 ± 15.2, 123.9 ± 33.2, 115.7 ± 5.7 and 90.7 ± 22.2 in the 0 (Vehicle), 0.1, 1.0, 2.5 and 3.75 mg/kg/day dosage groups, respectively. The data for rabbits assigned to the satellite portion of the study are provided in individual tables only.

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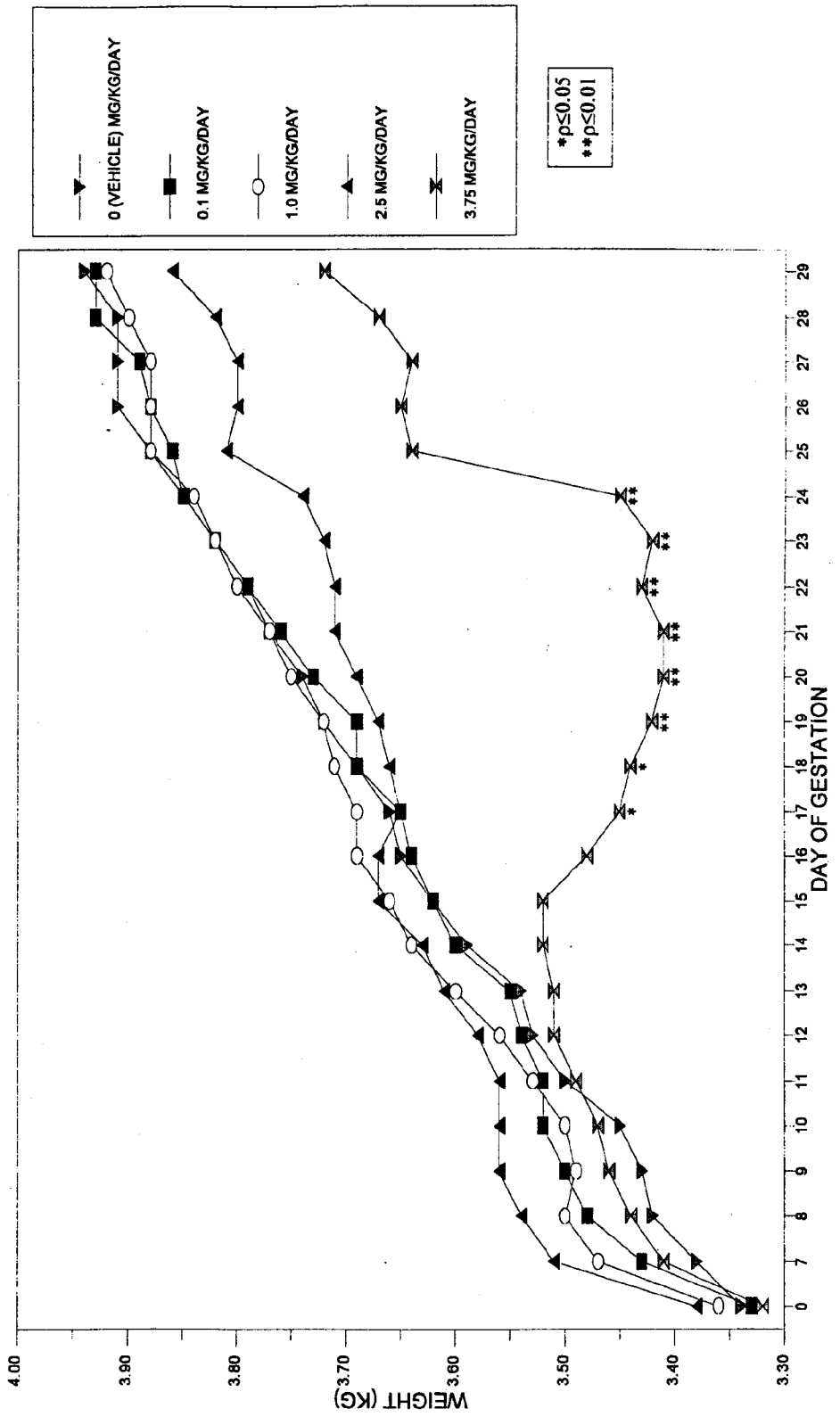
APPENDIX A

REPORT FIGURE

MATERNAL BODY WEIGHTS

Figure 1



APPENDIX B

REPORT TABLES

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

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

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)a		0 (VEHICLE)	0.1	1.0	2.5	3.75
MAXIMUM POSSIBLE INCIDENCE		506/ 22	506/ 22	506/ 22	502/ 22	465/ 22
ABORTED		0	0	0	1b	9**c-k
SCANT FECES		0/ 0	0/ 0	2/ 1	5/ 3	24/ 7**f,h-k
NO FECES		0/ 0	0/ 0	0/ 0	0/ 0	2/ 2d
RED SUBSTANCE IN CAGE PAN		0/ 0	0/ 0	0/ 0	0/ 0	1/ 1j
LOCALIZED ALOPECIA:	TOTAL	0/ 0	11/ 3**	14/ 5**	4/ 2	0/ 0
	LIMBS	0/ 0	8/ 2	7/ 2	3/ 2	0/ 0
	BACK	0/ 0	3/ 1	6/ 2	1/ 1	0/ 0
	UNDERSIDE	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0
UNGROOMED COAT		0/ 0	4/ 2	3/ 1	5/ 1	0/ 0
SOFT OR LIQUID FECES		0/ 0	0/ 0	1/ 1	0/ 0	0/ 0

WITH THE EXCEPTION OF PERSISTENT ADVERSE CLINICAL OBSERVATIONS, NO ADDITIONAL GROSS LESIONS WERE IDENTIFIED AT NECROPSY

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 7 THROUGH 29 OF PRESUMED GESTATION.
N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RABBITS WITH OBSERVATION.

a. Dosage occurred on days 7 through 20 of presumed gestation.
b. Doe 8517 aborted on day 25 of gestation.
c. Doe 8534 aborted on day 22 of gestation.
d. Doe 8537 aborted on day 25 of gestation.
e. Doe 8538 aborted on day 24 of gestation.
f. Doe 8539 aborted on day 24 of gestation.
g. Doe 8540 aborted on day 25 of gestation.
h. Doe 8542 aborted on day 28 of gestation.
i. Doe 8544 aborted on day 25 of gestation.
j. Doe 8547 aborted on day 22 of gestation.
k. Doe 8548 aborted on day 25 of gestation.
** Significantly different from the vehicle control group value ($p \leq 0.01$).

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 2 (PAGE 1): UTERINE CONTENTS AND LITTER DATA FOR INDIVIDUAL RABBITS THAT ABORTED

DOSAGE GROUP DOSAGE (MG/KG/DAY) a	RABBIT NUMBER	DAY OF DEATH	CORPORA LUTEA R	L	T	IMPLANTATIONS R	L	T	FETUSES b R	L	A	T	RESORPTIONS c R	L	A	T
I 0 (VEHICLE)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
II 0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
III 1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IV 2.5	8517	ABORTED ON DAY 25 OF GESTATION	6	3	9	5	3	8	0	0	0	0	0	0	8	8

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

a. Dosage occurred on days 7 through 20 of gestation.
b. Conceptuses appeared normal for developmental ages.
c. Late resorption unless otherwise noted.

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 2 (PAGE 2): UTERINE CONTENTS AND LITTER DATA FOR INDIVIDUAL RABBITS THAT ABORTED

DOSAGE GROUP DOSAGE (MG/KG/DAY)a	RABBIT NUMBER	DAY OF DEATH	CORPORA LUTEA R	L	T	IMPLANTATIONS R	L	T	FETUSES b R	L	A	T	RESORPTIONS c R	L	A	T
V 3.75	8534	ABORTED ON DAY 22 OF GESTATION	5	4	9	5	3	8	5	2	1	8	0	0	0	0
	8537	ABORTED ON DAY 25 OF GESTATION	4	2	6	3	2	5	0	0	0	0	0	0	5	5
	8538	ABORTED ON DAY 24 OF GESTATION	5	5	10	5	4	9	0	0	0	0	0	0	8	8d
	8539	ABORTED ON DAY 24 OF GESTATION	4	3	7	4	3	7	0	0	7	7	0	0	0	0
	8540	ABORTED ON DAY 25 OF GESTATION	6	8	14	6	8	14	0	4	4	8	2	4	0	6
	8542	ABORTED ON DAY 28 OF GESTATION	4	5	9	4	4	8	0	0	6	6e	0	0	0	0
	8544	ABORTED ON DAY 25 OF GESTATION	4	5	9	4	5	9	0	0	9	9	0	0	0	0
	8547	ABORTED ON DAY 22 OF GESTATION	5	3	8	5	3	8	0	0	0	0	0	0	8	8
	8548	ABORTED ON DAY 25 OF GESTATION	5	7	12	4	7	11	3	5	1	9	0	2	0	2

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

a. Dosage occurred on days 7 through 20 of gestation.
b. Conceptuses appeared normal for developmental ages.
c. Late resorptions unless otherwise noted.
d. One aborted conceptus was presumed to have been cannibalized.
e. Two aborted conceptuses were presumed to have been cannibalized.

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

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

DOSAGE GROUP DOSAGE (MG/KG/DAY)a		I 0 (VEHICLE)	II 0.1	III 1.0	IV 2.5	V 3.75
RABBITS TESTED	N	22	22	22	22	22
PREGNANT	N	20	19	19	17	21
INCLUDED IN ANALYSES	N	20	18b	19	17	21
MATERNAL BODY WEIGHT (KG)						
DAY 0	MEAN±S.D.	3.34 ± 0.26	3.33 ± 0.27	3.36 ± 0.27	3.38 ± 0.23	3.32 ± 0.23
DAY 7	MEAN±S.D.	3.38 ± 0.29	3.43 ± 0.22	3.47 ± 0.23	3.51 ± 0.23	3.41 ± 0.20
DAY 8	MEAN±S.D.	3.42 ± 0.30	3.48 ± 0.23	3.50 ± 0.22	3.54 ± 0.25	3.44 ± 0.20
DAY 9	MEAN±S.D.	3.43 ± 0.30	3.50 ± 0.23	3.49 ± 0.22	3.56 ± 0.24	3.46 ± 0.22
DAY 10	MEAN±S.D.	3.45 ± 0.27	3.52 ± 0.23	3.50 ± 0.24	3.56 ± 0.25	3.47 ± 0.23
DAY 11	MEAN±S.D.	3.50 ± 0.27	3.52 ± 0.25	3.53 ± 0.24	3.56 ± 0.24	3.49 ± 0.24
DAY 12	MEAN±S.D.	3.53 ± 0.29	3.54 ± 0.28	3.56 ± 0.24	3.58 ± 0.28	3.51 ± 0.24
DAY 13	MEAN±S.D.	3.54 ± 0.29	3.55 ± 0.25	3.60 ± 0.24	3.61 ± 0.27	3.51 ± 0.24
DAY 14	MEAN±S.D.	3.59 ± 0.30	3.60 ± 0.25	3.64 ± 0.26	3.63 ± 0.26	3.52 ± 0.26
DAY 15	MEAN±S.D.	3.62 ± 0.29	3.62 ± 0.25	3.66 ± 0.26	3.67 ± 0.28	3.52 ± 0.29
DAY 16	MEAN±S.D.	3.65 ± 0.26	3.64 ± 0.27	3.69 ± 0.25	3.67 ± 0.29	3.48 ± 0.30
DAY 17	MEAN±S.D.	3.66 ± 0.27	3.65 ± 0.24	3.69 ± 0.25	3.65 ± 0.28	3.45 ± 0.31*
DAY 18	MEAN±S.D.	3.69 ± 0.28	3.69 ± 0.24	3.71 ± 0.25	3.66 ± 0.29	3.44 ± 0.32*
DAY 19	MEAN±S.D.	3.72 ± 0.28	3.69 ± 0.25	3.72 ± 0.24	3.67 ± 0.29	3.42 ± 0.34**
DAY 20	MEAN±S.D.	3.74 ± 0.28	3.73 ± 0.24	3.75 ± 0.24	3.69 ± 0.31	3.41 ± 0.36**

DAY = DAY OF GESTATION
a. Dosage occurred on days 7 through 20 of gestation.
b. Excludes values for doe 8481, which had a litter that consisted of ten dead fetuses
* Significantly different from the vehicle control group value ($p \leq 0.05$).
** Significantly different from the vehicle control group value ($p \leq 0.01$).

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

DOSAGE GROUP DOSAGE (MG/KG/DAY)a		I 0 (VEHICLE)	II 0.1	III 1.0	IV 2.5	V 3.75
RABBITS TESTED	N	22	22	22	22	22
PREGNANT	N	20	19	19	17	21
INCLUDED IN ANALYSES	N	20	18b	19	17	21
MATERNAL BODY WEIGHT (KG)						
DAY 21	MEAN±S.D.	3.77 ± 0.28	3.76 ± 0.24	3.77 ± 0.24	3.71 ± 0.31	3.41 ± 0.38**
DAY 22	MEAN±S.D.	3.79 ± 0.29	3.79 ± 0.25	3.80 ± 0.25	3.71 ± 0.33	3.43 ± 0.37** [19]c
DAY 23	MEAN±S.D.	3.82 ± 0.30	3.82 ± 0.25	3.82 ± 0.24	3.72 ± 0.33	3.42 ± 0.38** [19]c
DAY 24	MEAN±S.D.	3.85 ± 0.31	3.85 ± 0.28	3.84 ± 0.26	3.74 ± 0.35	3.45 ± 0.41** [18]c
DAY 25	MEAN±S.D.	3.88 ± 0.32	3.86 ± 0.28	3.88 ± 0.26	3.81 ± 0.29 [16]c	3.64 ± 0.20 [13]c
DAY 26	MEAN±S.D.	3.91 ± 0.34	3.88 ± 0.29	3.88 ± 0.26	3.80 ± 0.29 [16]c	3.65 ± 0.23 [13]c
DAY 27	MEAN±S.D.	3.91 ± 0.35	3.89 ± 0.30	3.88 ± 0.25	3.80 ± 0.29 [16]c	3.64 ± 0.22 [13]c
DAY 28	MEAN±S.D.	3.91 ± 0.35	3.93 ± 0.30	3.90 ± 0.26	3.82 ± 0.28 [16]c	3.67 ± 0.25 [12]c
DAY 29	MEAN±S.D.	3.94 ± 0.36	3.93 ± 0.30	3.92 ± 0.26	3.86 ± 0.28 [16]c	3.72 ± 0.26 [12]c

DAY = DAY OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 7 through 20 of gestation.
b. Excludes values for doe 8481, which had a litter that consisted of ten dead fetuses.
c. Excludes values for rabbits that aborted.
** Significantly different from the vehicle control group value ($p \leq 0.01$).

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

DOSAGE GROUP DOSAGE (MG/KG/DAY)a		I 0 (VEHICLE)	II 0.1	III 1.0	IV 2.5	V 3.75
RABBITS TESTED	N	22	22	22	22	22
PREGNANT	N	20	19	19	17	21
INCLUDED IN ANALYSES	N	20	18b	19	17	21
MATERNAL BODY WEIGHT CHANGE (KG)						
DAYS 0 - 7	MEAN±S.D.	+0.04 ± 0.13	+0.10 ± 0.13	+0.11 ± 0.08	+0.12 ± 0.08	+0.09 ± 0.11
DAYS 7 - 10	MEAN±S.D.	+0.07 ± 0.07	+0.08 ± 0.06	+0.03 ± 0.06	+0.05 ± 0.06	+0.06 ± 0.12
DAYS 10 - 13	MEAN±S.D.	+0.09 ± 0.08	+0.03 ± 0.07*	+0.10 ± 0.05	+0.06 ± 0.07	+0.04 ± 0.08*
DAYS 13 - 16	MEAN±S.D.	+0.11 ± 0.09	+0.09 ± 0.07	+0.08 ± 0.05	+0.05 ± 0.09	-0.03 ± 0.11**
DAYS 16 - 19	MEAN±S.D.	+0.06 ± 0.09	+0.05 ± 0.08	+0.03 ± 0.06	+0.00 ± 0.06	-0.07 ± 0.10**
DAYS 19 - 21	MEAN±S.D.	+0.05 ± 0.03	+0.07 ± 0.07	+0.05 ± 0.04	+0.04 ± 0.03	-0.01 ± 0.08
DAYS 21 - 24	MEAN±S.D.	+0.09 ± 0.05	+0.09 ± 0.06	+0.07 ± 0.05	+0.04 ± 0.08	-0.03 ± 0.13* [18]c
DAYS 24 - 29	MEAN±S.D.	+0.08 ± 0.11	+0.08 ± 0.09	+0.08 ± 0.08	+0.06 ± 0.14 [16]c	+0.08 ± 0.10 [12]c
DAYS 7 - 21	MEAN±S.D.	+0.38 ± 0.10	+0.33 ± 0.09	+0.30 ± 0.08*	+0.20 ± 0.17**	-0.01 ± 0.35**
DAYS 21 - 29	MEAN±S.D.	+0.17 ± 0.13	+0.17 ± 0.12	+0.15 ± 0.07	+0.11 ± 0.15 [16]c	+0.11 ± 0.20 [12]c
DAYS 7 - 29	MEAN±S.D.	+0.55 ± 0.18	+0.50 ± 0.16	+0.45 ± 0.12	+0.34 ± 0.16** [16]c	+0.30 ± 0.38 [12]c
DAYS 0 - 29	MEAN±S.D.	+0.59 ± 0.21	+0.60 ± 0.13	+0.56 ± 0.13	+0.46 ± 0.14 [16]c	+0.39 ± 0.38 [12]c

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 7 through 20 of gestation.
b. Excludes values for doe 8481, which had a litter that consisted of ten dead fetuses.
c. Excludes values for rabbits that aborted.
* Significantly different from the vehicle control group value ($p \leq 0.05$).
** Significantly different from the vehicle control group value ($p \leq 0.01$).

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

DOSAGE GROUP DOSAGE (MG/KG/DAY)a		I 0 (VEHICLE)	II 0.1	III 1.0	IV 2.5	V 3.75
RABBITS TESTED	N	22	22	22	22	22
PREGNANT	N	20	19	19	17	21
INCLUDED IN ANALYSES	N	20	18b	19	17	21
MATERNAL FEED CONSUMPTION (G/DAY)						
DAYS 7 - 10	MEAN±S.D.	142.6 ± 50.4	171.3 ± 19.1	161.2 ± 22.8 [18]c	161.2 ± 18.9	151.5 ± 41.0
DAYS 10 - 13	MEAN±S.D.	149.7 ± 35.7	142.0 ± 47.8	158.8 ± 24.0	142.6 ± 35.9	129.6 ± 53.7
DAYS 13 - 16	MEAN±S.D.	162.3 ± 24.5	158.1 ± 35.7	162.8 ± 36.6	143.0 ± 45.8	95.8 ± 75.0
DAYS 16 - 19	MEAN±S.D.	177.5 ± 11.8	175.2 ± 12.8 [17]c	163.0 ± 33.7	145.6 ± 43.4**	77.1 ± 76.7**
DAYS 19 - 21	MEAN±S.D.	173.6 ± 19.9	180.1 ± 7.0 [17]c	170.2 ± 20.5	146.1 ± 45.5	69.7 ± 72.9**
DAYS 21 - 24	MEAN±S.D.	160.9 ± 32.5	165.2 ± 20.7	160.2 ± 25.3	130.4 ± 41.0	80.5 ± 72.0** [17]d
DAYS 24 - 29	MEAN±S.D.	124.5 ± 40.5	135.5 ± 38.7	131.3 ± 33.6	112.8 ± 37.2 [16]d	114.6 ± 51.1 [12]d
DAYS 7 - 21	MEAN±S.D.	160.2 ± 20.5	163.3 ± 20.8 [17]c	162.9 ± 20.7	147.8 ± 28.8	107.2 ± 54.6**
DAYS 21 - 29	MEAN±S.D.	138.4 ± 34.8	146.9 ± 29.2	142.1 ± 24.8	120.7 ± 29.3 [16]d	112.7 ± 50.9 [12]d
DAYS 7 - 29	MEAN±S.D.	152.4 ± 21.7	157.8 ± 21.2	155.3 ± 16.6	141.0 ± 20.5 [16]d	127.7 ± 39.0 [12]d

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 7 through 20 of gestation.
b. Excludes values for doe 8481, which had a litter that consisted of ten dead fetuses.
c. Excludes values that were associated with spillage or wet feed.
d. Excludes values for rabbits that aborted.
** Significantly different from the vehicle control group value ($p \leq 0.01$).

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

DOSAGE GROUP DOSAGE (MG/KG/DAY)a		I 0 (VEHICLE)	II 0.1	III 1.0	IV 2.5	V 3.75
RABBITS TESTED	N	22	22	22	22	22
PREGNANT	N	20	19	19	17	21
INCLUDED IN ANALYSES	N	20	18b	19	17	21
MATERNAL FEED CONSUMPTION (G/KG/DAY)						
DAYS 7 - 10	MEAN±S.D.	41.4 ± 14.5	49.1 ± 4.2	46.0 ± 6.5 [18]c	45.5 ± 4.5	43.7 ± 11.9
DAYS 10 - 13	MEAN±S.D.	42.5 ± 9.1	39.9 ± 12.8	44.8 ± 6.9	39.6 ± 8.7	36.7 ± 14.8
DAYS 13 - 16	MEAN±S.D.	45.1 ± 6.5	43.7 ± 9.1	44.5 ± 9.7	39.0 ± 11.8	26.4 ± 20.7*
DAYS 16 - 19	MEAN±S.D.	48.4 ± 3.9	47.8 ± 3.7 [17]c	44.1 ± 9.4	39.3 ± 11.2**	21.2 ± 20.9**
DAYS 19 - 21	MEAN±S.D.	46.6 ± 5.8	48.5 ± 3.4 [17]c	45.5 ± 5.7	39.1 ± 11.6*	19.1 ± 19.6**
DAYS 21 - 24	MEAN±S.D.	42.3 ± 8.0	43.3 ± 4.2	42.1 ± 6.6	34.6 ± 9.3*	22.0 ± 19.4** [17]d
DAYS 24 - 29	MEAN±S.D.	31.7 ± 9.0	34.5 ± 8.6	33.9 ± 8.9	29.5 ± 9.3 [16]d	30.8 ± 13.6 [12]d
DAYS 7 - 21	MEAN±S.D.	44.8 ± 5.1	45.4 ± 4.6 [17]c	45.1 ± 5.8	40.6 ± 6.4	30.4 ± 14.9*
DAYS 21 - 29	MEAN±S.D.	35.7 ± 7.8	37.9 ± 6.0	36.9 ± 6.6	31.7 ± 6.8 [16]d	30.5 ± 13.6 [12]d
DAYS 7 - 29	MEAN±S.D.	41.4 ± 4.9	42.7 ± 4.1	42.0 ± 4.6	38.1 ± 4.0* [16]d	35.4 ± 10.4 [12]d

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 7 through 20 of gestation.
b. Excludes values for doe 8481, which had a litter that consisted of ten dead fetuses.
c. Excludes values that were associated with spillage or wet feed.
d. Excludes values for rabbits that aborted.
* Significantly different from the vehicle control group value ($p \leq 0.05$).
** Significantly different from the vehicle control group value ($p \leq 0.01$).

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TABLE 7 (PAGE 1): CAESAREAN-SECTIONING OBSERVATIONS - SUMMARY

DOSAGE GROUP DOSAGE (MG/KG/DAY)a		I 0 (VEHICLE)	II 0.1	III 1.0	IV 2.5	V 3.75
RABBITS TESTED	N	22	22	22	22	22
PREGNANT	N(%)	20(90.9)	19(86.4)	19(86.4)	17(77.3)	21(95.4)
ABORTED	N(%)	0(0.0)	0(0.0)	0(0.0)	1(5.9)	9(42.8)
RABBITS PREGNANT AND CAESAREAN-SECTIONED ON DAY 29 OF GESTATION	N	20	19	19	16	12
INCLUDED IN ANALYSES	N	20	18b	19	16	12
CORPORA LUTEA	MEAN±S.D.	10.8 ± 2.5	10.9 ± 2.5	10.5 ± 2.3	10.4 ± 2.2	11.1 ± 1.7
IMPLANTATIONS	MEAN±S.D.	9.0 ± 2.2	9.1 ± 1.9	8.4 ± 1.8	8.4 ± 1.8	9.2 ± 1.9
LITTER SIZES	MEAN±S.D.	8.8 ± 2.2	9.0 ± 2.0	8.0 ± 1.9	8.1 ± 1.8	9.0 ± 2.0
LIVE FETUSES	N	175	162	152	130	108
	MEAN±S.D.	8.8 ± 2.2	9.0 ± 2.0	8.0 ± 1.9	8.1 ± 1.8	9.0 ± 2.0
DEAD FETUSES	N	0	0	0	0	0
RESORPTIONS	MEAN±S.D.	0.2 ± 0.4	0.1 ± 0.3	0.4 ± 0.8	0.2 ± 0.4	0.2 ± 0.4
EARLY RESORPTIONS	N	3	2	2	2	1
	MEAN±S.D.	0.2 ± 0.4	0.1 ± 0.3	0.1 ± 0.3	0.1 ± 0.3	0.1 ± 0.3
LATE RESORPTIONS	N	1	0	5	2	1
	MEAN±S.D.	0.0 ± 0.2	0.0 ± 0.0	0.3 ± 0.7	0.1 ± 0.3	0.1 ± 0.3
DOES WITH ANY RESORPTIONS	N(%)	4(20.0)	2(11.1)	5(26.3)	4(25.0)	2(16.7)
DOES WITH ALL CONCEPTUSES RESORBED	N(%)	0	0	0	0	0
DOES WITH VIABLE FETUSES	N(%)	20(100.0)	18(100.0)	19(100.0)	16(100.0)	12(100.0)
PLACENTAE APPEARED NORMAL	N(%)	20(100.0)	18(100.0)	19(100.0)	16(100.0)	12(100.0)

a. Dosage occurred on days 7 through 20 of gestation.
b. Excludes values for doe 8481, which had a litter that consisted of ten dead fetuses.

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TABLE 8 (PAGE 1): LITTER OBSERVATIONS (CAESAREAN-DELIVERED FETUSES) - SUMMARY

DOSAGE GROUP DOSAGE (MG/KG/DAY)a		I 0 (VEHICLE)	II 0.1	III 1.0	IV 2.5	V 3.75
LITTERS WITH ONE OR MORE LIVE FETUSES	N	20	18	19	16	12
IMPLANTATIONS	MEAN±S.D.	9.0 ± 2.2	9.1 ± 1.9	8.4 ± 1.8	8.4 ± 1.8	9.2 ± 1.9
LIVE FETUSES	N	175	162	152	130	108
	MEAN±S.D.	8.8 ± 2.2	9.0 ± 2.0	8.0 ± 1.9	8.1 ± 1.8	9.0 ± 2.0
LIVE MALE FETUSES	N	87	74	71	66	50
% LIVE MALE FETUSES/LITTER	MEAN±S.D.	50.4 ± 15.1	45.8 ± 19.2	45.6 ± 18.0	50.2 ± 14.1	44.1 ± 21.7
LIVE FETAL BODY WEIGHTS (GRAMS)/LITTER	MEAN±S.D.	44.15 ± 4.50	41.67 ± 3.28	42.37 ± 4.34	39.89 ± 4.33*	33.41 ± 7.61**
MALE FETUSES	MEAN±S.D.	44.50 ± 4.90	41.82 ± 2.77	43.12 ± 5.13	40.56 ± 4.52*	34.10 ± 7.36** [11]b
FEMALE FETUSES	MEAN±S.D.	43.86 ± 4.84	41.36 ± 4.09	41.94 ± 4.90	38.98 ± 5.28*	32.31 ± 8.27**
% RESORBED CONCEPTUSES/LITTER	MEAN±S.D.	2.1 ± 4.4	1.4 ± 4.1	4.4 ± 9.4	3.1 ± 5.7	1.8 ± 4.1

[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 7 through 20 of gestation.
b. Litter 8546 had no male fetuses.
* Significantly different from the vehicle control group value ($p \leq 0.05$).
** Significantly different from the vehicle control group value ($p \leq 0.01$).

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TABLE 9 (PAGE 1): FETAL ALTERATIONS - SUMMARY

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)a		0 (VEHICLE)	0.1	1.0	2.5	3.75
LITTERS EVALUATED	N	20	19b	19	16	12
FETUSES EVALUATED	N	175	172	152	130	108
LIVE	N	175	162	152	130	108
DEAD	N	0	10b	0	0	0
LITTERS WITH FETUSES WITH ANY ALTERATION OBSERVED	N(%)	14(70.0)	11(61.1)	9(47.4)	4(25.0)	8(66.7)
FETUSES WITH ANY ALTERATION OBSERVED	N(%)	25(14.3)	25(15.4)	14(9.2)	5(3.8)**	19(17.6)
% FETUSES WITH ANY ALTERATION/LITTER	MEAN±S.D.	14.1 ± 12.9	17.0 ± 18.2	9.5 ± 11.7	3.6 ± 7.0	17.4 ± 22.2

a. Dosage occurred on days 7 through 20 of gestation.
b. Litter 8481 consisted of ten dead fetuses; values were excluded from group averages and statistical analyses. Adverse observations for this litter are cited on Table 21.
** Significantly different from the vehicle control group value ($p \leq 0.01$).

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TABLE 10 (PAGE 1): FETAL GROSS EXTERNAL ALTERATIONS - SUMMARY

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)a		0 (VEHICLE)	0.1	1.0	2.5	3.75
LITTERS EVALUATED	N	20	19b	19	16	12
FETUSES EVALUATED	N	175	162	152	130	108
LIVE	N	175	162	152	130	108
DEAD	N	0	10b	0	0	0
FORELIMBS: FLEXED DOWNWARD						
LITTER INCIDENCE	N(%)	0(0.0)	1(5.3)	0(0.0)	0(0.0)	1(8.3)
FETAL INCIDENCE	N(%)	0(0.0)	1(0.6)	0(0.0)	0(0.0)	1(0.9)
FORELIMB: POLLEX ABSENT						
LITTER INCIDENCE	N(%)	1(5.0)	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)

a. Dosage occurred on days 7 through 20 of gestation.
b. Litter 8481 consisted of ten dead fetuses; values were excluded from group averages and statistical analyses. Adverse observations for this litter are cited on Table 21.

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TABLE 11 (PAGE 1): FETAL SOFT TISSUE ALTERATIONS - SUMMARY

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)a		0 (VEHICLE)	0.1	1.0	2.5	3.75
LITTERS EVALUATED	N	20	19b	19	16	12
FETUSES EVALUATED	N	175	172	152	130	108
LIVE	N	175	162	152	130	108
DEAD	N	0	10b	0	0	0
EYES: CIRCUMCORNEAL HEMORRHAGE						
LITTER INCIDENCE	N(%)	1(5.0)	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)
LUNGS: INTERMEDIATE LOBE ABSENT						
LITTER INCIDENCE	N(%)	2(10.0)	4(22.2)	1(5.3)	0(0.0)	1(8.3)
FETAL INCIDENCE	N(%)	2(1.1)	7(4.3)**	1(0.6)	0(0.0)	1(0.9)

a. Dosage occurred on days 7 through 20 of gestation.
b. Litter 8481 consisted of ten dead fetuses; values were excluded from group averages and statistical analyses. Adverse observations for this litter are cited on Table 21.
** Significantly different from the vehicle control group value ($p \leq 0.01$).

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TABLE 12 (PAGE 1): FETAL SKELETAL OBSERVATIONS - SUMMARY
(See footnotes on the last page of this table.)

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)a		0 (VEHICLE)	0.1	1.0	2.5	3.75
LITTERS EVALUATED	N	20	19b	19	16	12
FETUSES EVALUATED	N	175	172	152	130	108
LIVE	N	175	162	152	130	108
DEAD	N	0	10b	0	0	0
SKULL - IRREGULAR OSSIFICATION:c (SUMMARIZATION OF ALL IRREGULAR OSSIFICATION OF THE SKULL d; INDIVIDUAL SUBCATEGORIES CITED BELOW)						
LITTER INCIDENCE	N(%)	6(30.0)	7(38.9)	3(15.8)	1(6.2)	3(25.0)
FETAL INCIDENCE	N(%)	7(4.0)	9(5.6)	3(2.0)	1(0.8)*	10(9.2)**
SKULL: NASAL(S), IRREGULAR OSSIFICATION (SUMMARIZATION OF FUSED; IRREGULAR SUTURE; MIDLINE SUTURE DISPLACED; INTRANASAL; INTERNASAL)						
LITTER INCIDENCE	N(%)	5(25.0)	7(38.9)	3(15.8)	1(6.2)	1(8.3)
FETAL INCIDENCE	N(%)	6(3.4)	9(5.6)	3(2.0)	1(0.8)	1(0.9)
SKULL: NASAL - FRONTAL, IRREGULAR SUTURE						
LITTER INCIDENCE	N(%)	1(5.0)	2(11.1)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(0.6)f	2(1.2)	0(0.0)	0(0.0)	0(0.0)
SKULL: NASALS, FUSED						
LITTER INCIDENCE	N(%)	1(5.0)	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)
SKULL: NASALS, CONTAINED AN INTERNASAL						
LITTER INCIDENCE	N(%)	1(5.0)	2(11.1)	0(0.0)	1(6.2)	0(0.0)
FETAL INCIDENCE	N(%)	1(0.6)	3(1.8)	0(0.0)	1(0.8)	0(0.0)
SKULL: NASALS, MIDLINE SUTURE DISPLACED						
LITTER INCIDENCE	N(%)	0(0.0)	3(16.7)	1(5.3)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	4(2.5)**	1(0.6)	0(0.0)	0(0.0)
SKULL: NASAL, CONTAINED AN INTRANASAL						
LITTER INCIDENCE	N(%)	3(15.0)	0(0.0)	2(10.5)	0(0.0)	1(8.3)
FETAL INCIDENCE	N(%)	3(1.7)	0(0.0)	2(1.3)	0(0.0)	1(0.9)

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TABLE 12 (PAGE 2): FETAL SKELETAL OBSERVATIONS - SUMMARY
(See footnotes on the last page of this table.)

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)a		0 (VEHICLE)	0.1	1.0	2.5	3.75
LITTERS EVALUATED	N	20	19b	19	16	12
FETUSES EVALUATED	N	175	172	152	130	108
LIVE	N	175	162	152	130	108
DEAD	N	0	10b	0	0	0
SKULL: FRONTALS, CONTAINED AN INTERFRONTAL						
LITTER INCIDENCE	N(%)	1(5.0)	0(0.0)	0(0.0)	0(0.0)	1(8.3)
FETAL INCIDENCE	N(%)	1(0.6)	0(0.0)	0(0.0)	0(0.0)	2(1.8)
SKULL: PARIETAL, CONTAINED A HOLE						
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(8.3)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	7(6.5)k,1**
SKULL - OTHER ALTERATIONS:b						
HYOID: ALA, ANGULATED						
LITTER INCIDENCE	N(%)	6(30.0)	3(16.7)	3(15.8)	2(12.5)	3(25.0)
FETAL INCIDENCE	N(%)	10(5.7)f,g	4(2.5)	7(4.6)	3(2.3)	5(4.6)
SKULL: PREMAXILLAE, NOT OSSIFIED						
LITTER INCIDENCE	N(%)	0(0.0)	1(5.6)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(0.6)	0(0.0)	0(0.0)	0(0.0)
CERVICAL VERTEBRAE: CERVICAL RIB PRESENT AT 7TH CERVICAL VERTEBRA						
LITTER INCIDENCE	N(%)	1(5.0)	0(0.0)	0(0.0)	1(6.2)	0(0.0)
FETAL INCIDENCE	N(%)	1(0.6)	0(0.0)	0(0.0)	1(0.8)	0(0.0)
CERVICAL VERTEBRAE: CENTRUM, UNILATERAL OSSIFICATION						
LITTER INCIDENCE	N(%)	0(0.0)	1(5.6)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(0.6)	0(0.0)	0(0.0)	0(0.0)
THORACIC VERTEBRAE: CENTRUM, BIFID						
LITTER INCIDENCE	N(%)	0(0.0)	1(5.6)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(0.6)h	0(0.0)	0(0.0)	0(0.0)
THORACIC VERTEBRAE: CENTRA, FUSED						
LITTER INCIDENCE	N(%)	0(0.0)	2(11.1)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	2(1.2)h,i	0(0.0)	0(0.0)	0(0.0)

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TABLE 12 (PAGE 3): FETAL SKELETAL OBSERVATIONS - SUMMARY
(See footnotes on the last page of this table.)

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)a		0 (VEHICLE)	0.1	1.0	2.5	3.75
LITTERS EVALUATED	N	20	19b	19	16	12
FETUSES EVALUATED	N	175	172	152	130	108
LIVE	N	175	162	152	130	108
DEAD	N	0	10b	0	0	0
THORACIC VERTEBRAE: HEMIVERTEBRA						
LITTER INCIDENCE	N(%)	1(5.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(0.6)g	0(0.0)	0(0.0)	0(0.0)	0(0.0)
THORACIC VERTEBRAE: ARCH, SMALL						
LITTER INCIDENCE	N(%)	0(0.0)	1(5.6)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(0.6)i	0(0.0)	0(0.0)	0(0.0)
THORACIC VERTEBRAE: CENTRUM, UNILATERAL OSSIFICATION						
LITTER INCIDENCE	N(%)	1(5.0)	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)
LUMBAR VERTEBRAE: CENTRUM, BIFID						
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	1(5.3)	0(0.0)	1(8.3)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	1(0.6)j	0(0.0)	1(0.9)
LUMBAR VERTEBRAE: HEMIVERTEBRA						
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	1(5.3)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	1(0.6)j	0(0.0)	0(0.0)
CAUDAL VERTEBRAE: MISALIGNED						
LITTER INCIDENCE	N(%)	1(5.0)	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)
RIBS: FUSED						
LITTER INCIDENCE	N(%)	0(0.0)	1(5.6)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(0.6)	0(0.0)	0(0.0)	0(0.0)
RIBS: SPLIT						
LITTER INCIDENCE	N(%)	1(5.0)	0(0.0)	1(5.3)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(0.6)g	0(0.0)	1(0.6)	0(0.0)	0(0.0)

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TABLE 12 (PAGE 4): FETAL SKELETAL OBSERVATIONS - SUMMARY
(See footnotes on the last page of this table.)

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)a		0 (VEHICLE)	0.1	1.0	2.5	3.75
LITTERS EVALUATED	N	20	19b	19	16	12
FETUSES EVALUATED	N	175	172	152	130	108
LIVE	N	175	162	152	130	108
DEAD	N	0	10b	0	0	0
RIBS: THICKENED						
LITTER INCIDENCE	N(%)	1(5.0)	0(0.0)	1(5.3)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(0.6)	0(0.0)	1(0.6)	0(0.0)	0(0.0)
RIBS: PROXIMATE						
LITTER INCIDENCE	N(%)	0(0.0)	1(5.6)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(0.6)	0(0.0)	0(0.0)	0(0.0)
STERNAL CENTRA: FUSED						
LITTER INCIDENCE	N(%)	2(10.0)	3(16.7)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	2(1.1)	3(1.8)	0(0.0)	0(0.0)	0(0.0)
STERNAL CENTRA: ASYMMETRIC						
LITTER INCIDENCE	N(%)	1(5.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(0.6)g	0(0.0)	0(0.0)	0(0.0)	0(0.0)
METACARPALS: FORELIMB, 4 METACARPALS PRESENT						
LITTER INCIDENCE	N(%)	1(5.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(0.6)e	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FOREDIGITS: FORELIMB, 4 DIGITS PRESENT						
LITTER INCIDENCE	N(%)	1(5.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(0.6)e	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FOREPHALANGES: FORELIMB, 1ST MEDIAL AND DISTAL PHALANGES ABSENT						
LITTER INCIDENCE	N(%)	1(5.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	1(0.6)e	0(0.0)	0(0.0)	0(0.0)	0(0.0)
PELVIS: PUBIS, NOT OSSIFIED						
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	2(16.7)**
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	4(3.7)k,l**

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TABLE 12 (PAGE 5): FETAL SKELETAL OBSERVATIONS - SUMMARY

FOOTNOTES:

a. Dosage occurred on days 7 through 20 of gestation.
b. Litter 8481 consisted of ten dead fetuses; values were excluded from group averages and statistical analyses. Adverse observations for this litter are cited on Table 21.
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, angulated and skull, premaxillae, not ossified. These categories are excluded because these alterations do not result from irregular ossification.
e. Fetus 8448-1 had other skeletal alterations.
f. Fetus 8449-6 had other skeletal alterations.
g. Fetus 8452-1 had other skeletal alterations.
h. Fetus 8476-1 had other skeletal alterations.
i. Fetus 8485-2 had other skeletal alterations.
j. Fetus 8500-8 had other skeletal alterations.
k. Fetus 8543-4 had other skeletal alterations.
l. Fetus 8543-6 had other skeletal alterations.
* Significantly different from the vehicle control group value ($p \leq 0.05$).
** Significantly different from the vehicle control group value ($p \leq 0.01$).

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TABLE 13 (PAGE 1): FETAL OSSIFICATION SITES - CAESAREAN-DELIVERED LIVE FETUSES (DAY 29 OF GESTATION) - SUMMARY

DOSAGE GROUP		I	II	III	IV	V
DOSAGE (MG/KG/DAY)a		0 (VEHICLE)	0.1	1.0	2.5	3.75
LITTERS EXAMINED	N	20	19b	19	16	12
FETUSES EXAMINED	N	175	172	152	130	108
LIVE	N	175	162	152	130	108
DEAD	N	0	10b	0	0	0
OSSIFICATION SITES PER FETUS PER LITTER						
HYOID	MEAN±S.D.	1.00 ± 0.00	1.00 ± 0.00	1.00 ± 0.00	1.00 ± 0.00	0.92 ± 0.20**
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
THORACIC	MEAN±S.D.	12.72 ± 0.23	12.58 ± 0.28	12.70 ± 0.29	12.49 ± 0.33	12.52 ± 0.32
LUMBAR	MEAN±S.D.	6.26 ± 0.23	6.42 ± 0.28	6.29 ± 0.29	6.51 ± 0.33	6.47 ± 0.31
SACRAL	MEAN±S.D.	3.00 ± 0.00	3.00 ± 0.00	3.00 ± 0.00	3.00 ± 0.00	3.00 ± 0.00
CAUDAL	MEAN±S.D.	16.90 ± 0.24	17.03 ± 0.30	16.95 ± 0.38	16.86 ± 0.28	16.92 ± 0.50
RIBS (PAIRS)	MEAN±S.D.	12.66 ± 0.26	12.50 ± 0.26	12.60 ± 0.29	12.42 ± 0.28	12.47 ± 0.34
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
STERNAL CENTERS	MEAN±S.D.	3.98 ± 0.05	3.92 ± 0.11	3.95 ± 0.12	3.81 ± 0.17**	3.82 ± 0.22*
XIPHOID	MEAN±S.D.	0.98 ± 0.04	0.99 ± 0.05	0.97 ± 0.06	0.94 ± 0.10	0.95 ± 0.10
FORELIMB c						
CARPALS	MEAN±S.D.	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 ± 0.05	4.97 ± 0.06	4.99 ± 0.04	4.97 ± 0.07	4.82 ± 0.31*
DIGITS	MEAN±S.D.	5.00 ± 0.00	5.00 ± 0.00	5.00 ± 0.00	5.00 ± 0.00	5.00 ± 0.00
PHALANGES	MEAN±S.D.	13.92 ± 0.12	13.92 ± 0.17	13.90 ± 0.17	13.96 ± 0.07	13.92 ± 0.15
HINDLIMB c						
TARSALS	MEAN±S.D.	2.00 ± 0.00	2.00 ± 0.00	2.00 ± 0.00	2.00 ± 0.00	1.92 ± 0.23
METATARSALS	MEAN±S.D.	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
PHALANGES	MEAN±S.D.	12.00 ± 0.00	12.00 ± 0.00	12.00 ± 0.00	12.00 ± 0.00	11.92 ± 0.23

a. Dosage occurred on days 7 through 20 of gestation.
b. Litter 8481 consisted of ten dead fetuses; values excluded from group averages and statistical analyses. Adverse observations for this litter are cited on Table 21.
c. Calculated as average per limb.
* Significantly different from the vehicle control group value ($p \leq 0.05$).
** Significantly different from the vehicle control group value ($p \leq 0.01$).

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TABLE 14 (PAGE 1): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

RABBIT #	DESCRIPTION
DOSAGE GROUP I	0 (VEHICLE) MG/KG/DAY
8443	NO ADVERSE FINDINGS
8444	NO ADVERSE FINDINGS
8445	NO ADVERSE FINDINGS
8446	NO ADVERSE FINDINGS
8447	NO ADVERSE FINDINGS
8448	NO ADVERSE FINDINGS
8449	NO ADVERSE FINDINGS
8450	NO ADVERSE FINDINGS
8451	NO ADVERSE FINDINGS
8452	NO ADVERSE FINDINGS
8453	NO ADVERSE FINDINGS
8454	NO ADVERSE FINDINGS
8455	NO ADVERSE FINDINGS
8456	NO ADVERSE FINDINGS
8457	NO ADVERSE FINDINGS
8458	NO ADVERSE FINDINGS
8459	NO ADVERSE FINDINGS
8460	NO ADVERSE FINDINGS
8461	NO ADVERSE FINDINGS
8462	NO ADVERSE FINDINGS
8463	NO ADVERSE FINDINGS
8464	NO ADVERSE FINDINGS

DG = DAY OF PRESUMED GESTATION

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TABLE 14 (PAGE 2): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

RABBIT #		DESCRIPTION
DOSAGE GROUP II		0.1 MG/KG/DAY
8465	DG(28- 29)	LOCALIZED ALOPECIA: LIMBS a
8466		NO ADVERSE FINDINGS
8467		NO ADVERSE FINDINGS
8468		NO ADVERSE FINDINGS
8469		NO ADVERSE FINDINGS
8470		NO ADVERSE FINDINGS
8471		NO ADVERSE FINDINGS
8472		NO ADVERSE FINDINGS
8473	DG(27- 29)	LOCALIZED ALOPECIA: BACK a
8474		NO ADVERSE FINDINGS
8475		NO ADVERSE FINDINGS
8476		NO ADVERSE FINDINGS
8477		NO ADVERSE FINDINGS
8478	DG(28)	UNGROOMED COAT
8479		NO ADVERSE FINDINGS
8480		NO ADVERSE FINDINGS
8481		NO ADVERSE FINDINGS
8482	DG(24- 29)	LOCALIZED ALOPECIA: LIMBS a
8483		NO ADVERSE FINDINGS
8484		NO ADVERSE FINDINGS
8485		NO ADVERSE FINDINGS
8486	DG(27- 29)	UNGROOMED COAT

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

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TABLE 14 (PAGE 3): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

RABBIT #		DESCRIPTION
DOSAGE GROUP III		1.0 MG/KG/DAY
8487		NO ADVERSE FINDINGS
8488		NO ADVERSE FINDINGS
8489	DG(29)	LOCALIZED ALOPECIA: UNDERSIDE a
8490		NO ADVERSE FINDINGS
8491		NO ADVERSE FINDINGS
8492	DG(9)	SOFT OR LIQUID FECES
	DG(9- 11)	UNGROOMED COAT
	DG(10- 11)	SCANT FECES
8493	DG(27- 29)	LOCALIZED ALOPECIA: LIMBS a
8494		NO ADVERSE FINDINGS
8495		NO ADVERSE FINDINGS
8496	DG(26- 29)	LOCALIZED ALOPECIA: BACK a
8497		NO ADVERSE FINDINGS
8498		NO ADVERSE FINDINGS
8499		NO ADVERSE FINDINGS
8500		NO ADVERSE FINDINGS
8501		NO ADVERSE FINDINGS
8502		NO ADVERSE FINDINGS
8503		NO ADVERSE FINDINGS
8504		NO ADVERSE FINDINGS
8505		NO ADVERSE FINDINGS
8506	DG(26- 29)	LOCALIZED ALOPECIA: LIMBS a
8507	DG(28- 29)	LOCALIZED ALOPECIA: BACK a
8508		NO ADVERSE FINDINGS

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

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TABLE 14 (PAGE 4): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

RABBIT #		DESCRIPTION
DOSAGE GROUP IV		2.5 MG/KG/DAY
8509		NO ADVERSE FINDINGS
8510		NO ADVERSE FINDINGS
8511		NO ADVERSE FINDINGS
8512		NO ADVERSE FINDINGS
8513		NO ADVERSE FINDINGS
8514		NO ADVERSE FINDINGS
8515		NO ADVERSE FINDINGS
8516	DG(28- 29)	LOCALIZED ALOPECIA: LIMBS a
8517	DG(25)	ABORTED AND SACRIFICED
8518	DG(28- 29)	SCANT FECES
8519		NO ADVERSE FINDINGS
8520		NO ADVERSE FINDINGS
8521	DG(28)	LOCALIZED ALOPECIA: LIMBS
	DG(29)	ALOPECIA NO LONGER APPARENT
	DG(29)	LOCALIZED ALOPECIA: BACK a
8522		NO ADVERSE FINDINGS
8523		NO ADVERSE FINDINGS
8524	DG(24- 25)	SCANT FECES
8525	DG(26)	SCANT FECES
8526		NO ADVERSE FINDINGS
8527	DG(24- 28)	UNGROOMED COAT
8528		NO ADVERSE FINDINGS
8529		NO ADVERSE FINDINGS
8530		NO ADVERSE FINDINGS

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

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TABLE 14 (PAGE 5): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

RABBIT #		DESCRIPTION
DOSAGE GROUP V		3.75 MG/KG/DAY
8531		NO ADVERSE FINDINGS
8532		NO ADVERSE FINDINGS
8533		NO ADVERSE FINDINGS
8534	DG(22)	ABORTED AND SACRIFICED
8535	DG(26- 27)	SCANT FECES
8536		NO ADVERSE FINDINGS
8537	DG(24)	NO FECES
	DG(25)	ABORTED AND SACRIFICED
8538	DG(24)	ABORTED AND SACRIFICED
8539	DG(22- 23)	SCANT FECES
	DG(24)	ABORTED AND SACRIFICED
8540	DG(25)	ABORTED AND SACRIFICED
8541		NO ADVERSE FINDINGS
8542	DG(21- 23)	SCANT FECES
	DG(27)	SCANT FECES
	DG(28)	ABORTED AND SACRIFICED
8543	DG(19- 20)	SCANT FECES
	DG(22- 23)	SCANT FECES
	DG(24)	NO FECES
	DG(25- 27)	SCANT FECES
8544	DG(19- 20)	SCANT FECES
	DG(22- 24)	SCANT FECES
	DG(25)	ABORTED AND SACRIFICED
8545		NO ADVERSE FINDINGS
8546		NO ADVERSE FINDINGS
8547	DG(18)	SCANT FECES
	DG(21)	RED SUBSTANCE IN CAGE PAN
	DG(22)	ABORTED AND SACRIFICED
8548	DG(21)	SCANT FECES
	DG(23- 24)	SCANT FECES
	DG(25)	ABORTED AND SACRIFICED
8549		NO ADVERSE FINDINGS
8550		NO ADVERSE FINDINGS
8551		NO ADVERSE FINDINGS
8552		NO ADVERSE FINDINGS

DG = DAY OF PRESUMED GESTATION

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 14 (PAGE 6): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

RABBIT #	DESCRIPTION
SATELLITE DOSAGE GROUP I	0 (VEHICLE) MG/KG/DAY
8553	NO ADVERSE FINDINGS
8554	NO ADVERSE FINDINGS
8555	NO ADVERSE FINDINGS
SATELLITE DOSAGE GROUP II	0.1 MG/KG/DAY
8556	NO ADVERSE FINDINGS
8557	NO ADVERSE FINDINGS
8558	NO ADVERSE FINDINGS
8559	NO ADVERSE FINDINGS
8560	NO ADVERSE FINDINGS
SATELLITE DOSAGE GROUP III	1.0 MG/KG/DAY
8561	NO ADVERSE FINDINGS
8562	NO ADVERSE FINDINGS
8563	NO ADVERSE FINDINGS
SATELLITE DOSAGE GROUP IV	2.5 MG/KG/DAY
8564	NO ADVERSE FINDINGS
8565	NO ADVERSE FINDINGS
8566	NO ADVERSE FINDINGS
SATELLITE DOSAGE GROUP V	3.75 MG/KG/DAY
8567	NO ADVERSE FINDINGS
8568	NO ADVERSE FINDINGS
8569	NO ADVERSE FINDINGS
8570	NO ADVERSE FINDINGS
8571	NO ADVERSE FINDINGS

DG = DAY OF PRESUMED GESTATION

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 15 (PAGE 1): NECROPSY OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RABBIT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
I					
0 (VEHICLE)	8443	DG 29	NP	14	ALL TISSUES APPEARED NORMAL.
	8444	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8445	DG 29	NP	14	ALL TISSUES APPEARED NORMAL.
	8446	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8447	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8448	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8449	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8450	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8451	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8452	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8453	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8454	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8455	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8456	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8457	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8458	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8459	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8460	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8461	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8462	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8463	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8464	DG 29	P	14	ALL TISSUES APPEARED NORMAL.

P = PREGNANT NP = NOT PREGNANT
DG = DAY OF PRESUMED GESTATION
a. Refer to the individual clinical observations table (Table 14) for external observations confirmed at necropsy.

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TABLE 15 (PAGE 2): NECROPSY OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RABBIT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
II 0.1	8465	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8466	DG 29	NP	14	ALL TISSUES APPEARED NORMAL.
	8467	DG 29	NP	14	ALL TISSUES APPEARED NORMAL.
	8468	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8469	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8470	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8471	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8472	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8473	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8474	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8475	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8476	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8477	DG 29	NP	14	ALL TISSUES APPEARED NORMAL.
	8478	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8479	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8480	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8481	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8482	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8483	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8484	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8485	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8486	DG 29	P	14	ALL TISSUES APPEARED NORMAL.

P = PREGNANT NP = NOT PREGNANT
DG = DAY OF PRESUMED GESTATION
a. Refer to the individual clinical observations table (Table 14) for external observations confirmed at necropsy.

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TABLE 15 (PAGE 3): NECROPSY OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RABBIT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
III					
1.0	8487	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8488	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8489	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8490	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8491	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8492	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8493	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8494	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8495	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8496	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8497	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8498	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8499	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8500	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8501	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8502	DG 29	NP	14	ALL TISSUES APPEARED NORMAL.
	8503	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8504	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8505	DG 29	NP	14	ALL TISSUES APPEARED NORMAL.
	8506	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8507	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8508	DG 29	P	14	ALL TISSUES APPEARED NORMAL.

P = PREGNANT NP = NOT PREGNANT
DG = DAY OF PRESUMED GESTATION
a. Refer to the individual clinical observations table (Table 14) for external observations confirmed at necropsy.

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TABLE 15 (PAGE 4): NECROPSY OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RABBIT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
IV					
2.5	8509	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8510	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8511	DG 29	NP	14	ALL TISSUES APPEARED NORMAL.
	8512	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8513	DG 29	NP	14	ALL TISSUES APPEARED NORMAL.
	8514	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8515	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8516	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8517	DG 25	P	14	ABORTED ON DAY 25 OF GESTATION. ALL TISSUES APPEARED NORMAL.
	8518	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8519	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8520	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8521	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8522	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8523	DG 29	NP	14	ALL TISSUES APPEARED NORMAL.
	8524	DG 29	NP	14	ALL TISSUES APPEARED NORMAL.
	8525	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8526	DG 29	NP	14	ALL TISSUES APPEARED NORMAL.
	8527	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8528	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8529	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8530	DG 29	P	14	ALL TISSUES APPEARED NORMAL.

P = PREGNANT NP = NOT PREGNANT
DG = DAY OF PRESUMED GESTATION
a. Refer to the individual clinical observations table (Table 14) for external observations confirmed at necropsy.

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TABLE 15 (PAGE 5): NECROPSY OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RABBIT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
V 3.75	8531	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8532	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8533	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8534	DG 22	P	14	ABORTED ON DAY 22 OF GESTATION. ALL TISSUES APPEARED NORMAL.
	8535	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8536	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8537	DG 25	P	14	ABORTED ON DAY 25 OF GESTATION. ALL TISSUES APPEARED NORMAL.
	8538	DG 24	P	14	ABORTED ON DAY 24 OF GESTATION. ALL TISSUES APPEARED NORMAL.
	8539	DG 24	P	14	ABORTED ON DAY 24 OF GESTATION. ALL TISSUES APPEARED NORMAL.
	8540	DG 25	P	14	ABORTED ON DAY 25 OF GESTATION. ALL TISSUES APPEARED NORMAL.
	8541	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8542	DG 28	P	14	ABORTED ON DAY 28 OF GESTATION. ALL TISSUES APPEARED NORMAL.
	8543	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8544	DG 25	P	14	ABORTED ON DAY 25 OF GESTATION. ALL TISSUES APPEARED NORMAL.
	8545	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8546	DG 29	P	14	ALL TISSUES APPEARED NORMAL.

P = PREGNANT NP = NOT PREGNANT
DG = DAY OF PRESUMED GESTATION
a. Refer to the individual clinical observations table (Table 14) for external observations confirmed at necropsy.

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TABLE 15 (PAGE 6): NECROPSY OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RABBIT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
V 3.75 (cont.)	8547	DG 22	P	14	ABORTED ON DAY 22 OF GESTATION. ALL TISSUES APPEARED NORMAL.
	8548	DG 25	P	14	ABORTED ON DAY 25 OF GESTATION. ALL TISSUES APPEARED NORMAL.
	8549	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8550	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8551	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8552	DG 29	NP	14	ALL TISSUES APPEARED NORMAL.

P = PREGNANT NP = NOT PREGNANT
DG = DAY OF PRESUMED GESTATION
a. Refer to the individual clinical observations table (Table 14) for external observations confirmed at necropsy.

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TABLE 15 (PAGE 7): NECROPSY OBSERVATIONS - INDIVIDUAL DATA

SATELLITE DOSAGE GROUP DOSAGE (MG/KG/DAY)	RABBIT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a	LIVER WEIGHT (G)
I						
0 (VEHICLE)	8553	DG 21	P	14	ALL TISSUES APPEARED NORMAL.	154.4
	8554	DG 21	P	14	ALL TISSUES APPEARED NORMAL.	160.1
	8555	DG 21	P	14	ALL TISSUES APPEARED NORMAL.	107.0
II						
0.1	8556	DG 21	P	14	ALL TISSUES APPEARED NORMAL.	138.0
	8557	DG 21	P	14	ALL TISSUES APPEARED NORMAL.	134.9
	8558	DG 21	P	14	ALL TISSUES APPEARED NORMAL.	136.7
	8559	DG 21	P	14	ALL TISSUES APPEARED NORMAL.	124.1
	8560	DG 21	P	14	ALL TISSUES APPEARED NORMAL.	101.6
III						
1.0	8561	DG 21	P	14	ALL TISSUES APPEARED NORMAL.	159.0
	8562	DG 21	P	14	ALL TISSUES APPEARED NORMAL.	119.9
	8563	DG 21	P	14	ALL TISSUES APPEARED NORMAL.	92.9
IV						
2.5	8564	DG 21	P	14	ALL TISSUES APPEARED NORMAL.	116.7
	8565	DG 21	P	14	ALL TISSUES APPEARED NORMAL.	109.6
	8566	DG 21	P	14	ALL TISSUES APPEARED NORMAL.	120.9
V						
3.75	8567	DG 21	P	14	ALL TISSUES APPEARED NORMAL.	77.9
	8568	DG 21	P	14	ALL TISSUES APPEARED NORMAL.	97.7
	8569	DG 21	NP	14	ALL TISSUES APPEARED NORMAL.	77.6
	8570	DG 21	P	14	ALL TISSUES APPEARED NORMAL.	118.6
	8571	DG 21	P	14	ALL TISSUES APPEARED NORMAL.	68.5

P = PREGNANT NP = NOT PREGNANT
DG = DAY OF PRESUMED GESTATION
a. Refer to the individual clinical observations table (Table 14) for external observations confirmed at necropsy.

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TABLE 16 (PAGE 1): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	7	8	9	10	11	12	13	14	15	16	17	18
RABBIT #	DOSAGE GROUP I				0 (VEHICLE) MG/KG/DAY								
8443 NP	3.22	3.35	3.42	3.38	3.41	3.36	3.43	3.46	3.53	3.53	3.63	3.55	3.60
8444 P	3.40	3.42	3.51	3.52	3.48	3.48	3.46	3.48	3.52	3.53	3.52	3.53	3.56
8445 NP	3.58	3.76	3.81	3.91	3.89	3.87	3.94	3.94	3.92	3.93	4.01	3.91	3.95
8446 P	3.24	3.38	3.45	3.40	3.29	3.31	3.41	3.50	3.56	3.63	3.68	3.59	3.62
8447 P	3.44	3.79	3.82	3.82	3.85	3.94	3.97	3.96	4.00	4.05	4.01	4.04	4.10
8448 P	3.44	3.44	3.54	3.54	3.62	3.61	3.63	3.67	3.74	3.84	3.78	3.81	3.84
8449 P	3.55	3.50	3.41	3.34	3.40	3.55	3.54	3.66	3.66	3.66	3.66	3.69	3.77
8450 P	3.07	3.24	3.29	3.32	3.37	3.34	3.39	3.36	3.40	3.43	3.50	3.55	3.55
8451 P	3.34	3.41	3.43	3.47	3.50	3.51	3.58	3.65	3.80	3.77	3.74	3.77	3.74
8452 P	3.17	2.86	2.83	2.80	2.97	3.15	3.12	3.11	3.16	3.25	3.31	3.40	3.42
8453 P	3.66	3.63	3.70	3.73	3.72	3.80	3.82	3.82	3.92	3.86	3.90	3.98	3.98
8454 P	3.56	3.58	3.58	3.66	3.64	3.73	3.74	3.77	3.77	3.80	3.75	3.78	3.89
8455 P	3.37	3.44	3.49	3.51	3.56	3.58	3.66	3.67	3.75	3.67	3.72	3.72	3.78
8456 P	3.31	3.20	3.16	3.13	3.24	3.34	3.37	3.36	3.41	3.44	3.54	3.58	3.57
8457 P	3.01	3.13	3.19	3.24	3.23	3.24	3.26	3.22	3.26	3.30	3.32	3.38	3.42
8458 P	3.80	3.89	3.91	3.90	3.85	3.87	3.88	3.98	4.04	4.06	4.08	4.10	4.15
8459 P	3.76	3.82	3.89	3.86	3.90	3.94	4.08	4.03	4.07	4.11	4.11	4.09	4.12
8460 P	3.53	3.64	3.64	3.66	3.66	3.74	3.84	3.77	3.81	3.84	3.86	3.91	3.91
8461 P	2.99	3.06	3.14	3.14	3.17	3.16	3.12	3.15	3.15	3.20	3.55	3.24	3.26
8462 P	3.18	3.22	3.29	3.34	3.34	3.35	3.34	3.35	3.40	3.41	3.45	3.45	3.47
8463 P	3.12	3.12	3.21	3.28	3.28	3.34	3.35	3.30	3.32	3.39	3.45	3.48	3.48
8464 P	2.88	2.93	2.90	2.95	3.01	3.05	3.08	3.10	3.14	3.17	3.16	3.17	3.20

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 16 (PAGE 2): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 19	20	21	22	23	24	25	26	27	28	29
RABBIT #	DOSAGE GROUP I				0 (VEHICLE) MG/KG/DAY						
8443 NP	3.60	3.64	3.70	3.68	3.73	3.70	3.74	3.75	3.80	3.80	3.84
8444 P	3.61	3.61	3.64	3.65	3.65	3.67	3.68	3.70	3.68	3.71	3.76
8445 NP	4.06	4.14	4.17	4.16	4.13	4.16	4.20	4.23	4.20	4.38	4.27
8446 P	3.67	3.67	3.72	3.77	3.80	3.85	3.84	3.78	3.69	3.70	3.74
8447 P	4.13	4.18	4.18	4.27	4.31	4.36	4.44	4.52	4.52	4.61	4.64
8448 P	3.85	3.90	3.93	3.98	4.00	4.04	4.13	4.17	4.21	4.24	4.25
8449 P	3.79	3.83	3.83	3.92	3.93	3.97	4.06	4.09	4.14	4.12	4.12
8450 P	3.57	3.60	3.63	3.62	3.66	3.67	3.73	3.73	3.81	3.81	3.88
8451 P	3.78	3.81	3.82	3.83	3.87	3.92	3.97	3.93	3.91	3.88	3.89
8452 P	3.46	3.49	3.50	3.50	3.51	3.57	3.60	3.67	3.65	3.64	3.66
8453 P	3.99	4.04	4.07	4.07	4.12	4.15	4.18	4.23	4.29	4.28	4.37
8454 P	3.89	3.92	3.95	4.00	4.06	4.09	4.11	4.16	4.16	4.12	4.15
8455 P	3.82	3.86	3.90	3.91	3.95	3.98	4.00	4.05	4.07	4.05	4.10
8456 P	3.62	3.61	3.66	3.70	3.69	3.72	3.72	3.74	3.71	3.72	3.72
8457 P	3.47	3.50	3.54	3.55	3.61	3.62	3.64	3.66	3.60	3.61	3.58
8458 P	4.10	4.14	4.16	4.17	4.18	4.21	4.23	4.25	4.24	4.16	4.10
8459 P	4.18	4.15	4.18	4.20	4.29	4.33	4.32	4.42	4.39	4.40	4.52
8460 P	3.98	3.96	3.99	3.98	3.99	4.11	4.15	4.23	4.22	4.24	4.26
8461 P	3.26	3.30	3.29	3.30	3.33	3.33	3.32	3.31	3.34	3.34	3.35
8462 P	3.51	3.50	3.49	3.44	3.50	3.49	3.53	3.53	3.55	3.58	3.61
8463 P	3.52	3.53	3.55	3.58	3.57	3.65	3.68	3.68	3.66	3.67	3.66
8464 P	3.23	3.24	3.29	3.29	3.33	3.35	3.37	3.36	3.37	3.37	3.39

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 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 16 (PAGE 3): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	7	8	9	10	11	12	13	14	15	16	17	18
RABBIT #	DOSAGE GROUP II				0.1 MG/KG/DAY								
8465 P	3.58	3.88	3.94	3.91	3.94	3.97	4.02	4.02	4.09	4.07	4.11	4.04	4.08
8466 NP	3.53	3.63	3.63	3.64	3.57	3.64	3.63	3.66	3.63	3.64	3.68	3.72	3.78
8467 NP	3.43	3.63	3.66	3.66	3.68	3.77	3.73	3.77	3.87	3.80	3.92	3.85	3.85
8468 P	3.23	3.53	3.55	3.57	3.52	3.53	3.60	3.64	3.68	3.72	3.73	3.68	3.77
8469 P	3.17	3.39	3.45	3.46	3.49	3.47	3.50	3.56	3.62	3.65	3.84	3.60	3.65
8470 P	3.00	3.17	3.28	3.22	3.17	3.18	3.17	3.16	3.21	3.27	3.24	3.31	3.33
8471 P	3.10	3.30	3.37	3.40	3.39	3.38	3.30	3.34	3.34	3.40	3.40	3.43	3.46
8472 P	3.40	3.40	3.47	3.55	3.64	3.64	3.63	3.66	3.69	3.75	3.68	3.71	3.78
8473 P	2.95	3.15	3.11	3.11	3.25	3.28	3.25	3.30	3.32	3.30	3.27	3.35	3.37
8474 P	3.28	3.34	3.36	3.41	3.40	3.40	3.42	3.44	3.48	3.54	3.59	3.60	3.58
8475 P	3.51	3.47	3.54	3.54	3.49	3.56	3.63	3.67	3.77	3.72	3.77	3.79	3.83
8476 P	3.58	3.46	3.51	3.52	3.64	3.68	3.59	3.61	3.70	3.64	3.64	3.68	3.71
8477 NP	3.47	3.54	3.58	3.64	3.59	3.57	3.64	3.74	3.78	3.73	3.68	3.70	3.67
8478 P	2.95	3.21	3.24	3.25	3.22	3.05	2.96	3.15	3.28	3.26	3.26	3.26	3.32
8479 P	3.11	3.31	3.39	3.39	3.34	3.34	3.34	3.32	3.33	3.27	3.32	3.39	3.46
8480 P	3.74	3.69	3.76	3.78	3.78	3.84	3.96	3.90	3.94	3.99	4.01	4.04	4.03
8481 P a	3.32	3.43	3.45	3.42	3.35	3.37	3.38	3.46	3.52	3.60	3.57	3.53	3.57
8482 P	3.25	3.30	3.41	3.37	3.36	3.39	3.41	3.44	3.50	3.57	3.56	3.57	3.65
8483 P	3.60	3.57	3.61	3.67	3.72	3.71	3.84	3.74	3.80	3.88	3.92	3.93	3.99
8484 P	3.18	3.25	3.24	3.29	3.34	3.39	3.46	3.39	3.48	3.53	3.58	3.58	3.58
8485 P	3.47	3.49	3.54	3.60	3.63	3.64	3.64	3.68	3.72	3.74	3.75	3.76	3.78
8486 P	3.87	3.90	3.96	3.99	3.97	3.96	3.91	3.89	3.89	3.94	3.95	3.98	4.04

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 8481 had a litter which consisted on 10 dead fetuses; values excluded from group averages and statistical analyses.

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 16 (PAGE 4): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 19	20	21	22	23	24	25	26	27	28	29
RABBIT #	DOSAGE GROUP II				0.1 MG/KG/DAY						
8465 P	4.12	4.15	4.15	4.25	4.23	4.26	4.25	4.32	4.33	4.34	4.34
8466 NP	3.82	3.87	3.89	3.92	3.95	3.94	3.96	4.01	4.03	3.99	4.01
8467 NP	3.90	3.94	3.98	3.99	4.01	3.98	4.05	4.08	4.07	4.13	4.20
8468 P	3.77	3.83	3.89	3.88	3.89	3.92	3.98	3.94	3.97	3.94	3.91
8469 P	3.66	3.69	3.70	3.75	3.83	3.82	3.88	3.87	3.87	3.96	4.03
8470 P	3.37	3.34	3.36	3.32	3.30	3.28	3.31	3.35	3.37	3.38	3.40
8471 P	3.40	3.50	3.58	3.61	3.64	3.67	3.62	3.63	3.66	3.70	3.73
8472 P	3.82	3.84	3.87	3.93	3.95	3.98	4.03	4.05	4.10	4.12	4.12
8473 P	3.36	3.45	3.48	3.50	3.49	3.51	3.48	3.46	3.46	3.42	3.43
8474 P	3.60	3.65	3.64	3.71	3.74	3.75	3.73	3.77	3.79	4.15	3.81
8475 P	3.85	3.85	3.85	3.87	3.90	3.96	3.99	4.03	4.04	4.11	4.13
8476 P	3.74	3.81	3.91	3.91	3.91	3.97	4.01	4.05	4.10	4.13	4.18
8477 NP	3.74	3.78	3.80	3.82	3.82	3.87	3.88	3.93	3.93	3.97	4.06
8478 P	3.34	3.35	3.42	3.44	3.44	3.48	3.48	3.47	3.40	3.55	3.53
8479 P	3.53	3.57	3.59	3.64	3.72	3.74	3.74	3.80	3.78	3.78	3.77
8480 P	4.03	4.06	4.11	4.18	4.20	4.29	4.26	4.25	4.29	4.29	4.30
8481 P a	3.64	3.65	3.72	3.74	3.78	3.86	3.88	3.93	3.92	3.88	3.82
8482 P	3.51	3.65	3.70	3.70	3.77	3.78	3.81	3.87	3.86	3.89	3.91
8483 P	3.99	3.96	4.02	4.02	4.06	4.13	4.15	4.22	4.21	4.22	4.26
8484 P	3.58	3.62	3.64	3.66	3.71	3.67	3.69	3.62	3.63	3.58	3.58
8485 P	3.80	3.79	3.74	3.80	3.80	3.95	3.88	3.97	4.00	4.02	4.13
8486 P	3.99	4.02	4.07	4.11	4.15	4.20	4.25	4.24	4.15	4.16	4.21

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 8481 had a litter which consisted on 10 dead fetuses; values excluded from group averages and statistical analyses.

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 16 (PAGE 5): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	7	8	9	10	11	12	13	14	15	16	17	18
RABBIT #	DOSAGE GROUP III				1.0 MG/KG/DAY								
8487 P	3.37	3.47	3.50	3.49	3.50	3.57	3.60	3.64	3.69	3.68	3.72	3.71	3.77
8488 P	3.18	3.28	3.33	3.33	3.32	3.35	3.40	3.43	3.38	3.44	3.48	3.44	3.49
8489 P	3.09	3.23	3.31	3.34	3.36	3.38	3.40	3.43	3.48	3.50	3.58	3.51	3.56
8490 P	3.58	3.69	3.68	3.59	3.63	3.69	3.77	3.79	3.87	3.88	3.90	3.90	3.94
8491 P	3.65	3.61	3.62	3.66	3.72	3.72	3.76	3.83	3.86	3.92	3.82	3.83	3.89
8492 P	3.16	3.37	3.35	3.29	3.28	3.26	3.29	3.27	3.28	3.34	3.36	3.41	3.43
8493 P	3.71	3.72	3.78	3.74	3.74	3.81	3.84	3.90	3.94	4.00	4.01	4.03	4.03
8494 P	3.33	3.38	3.40	3.40	3.39	3.47	3.52	3.57	3.66	3.64	3.64	3.67	3.65
8495 P	3.43	3.57	3.60	3.66	3.67	3.70	3.64	3.74	3.84	3.82	3.83	3.78	3.78
8496 P	3.52	3.55	3.60	3.45	3.57	3.62	3.65	3.71	3.74	3.76	3.78	3.75	3.82
8497 P	3.25	3.40	3.37	3.35	3.37	3.41	3.44	3.45	3.40	3.28	3.49	3.52	3.46
8498 P	2.87	2.99	3.04	3.06	3.04	3.07	3.11	3.16	3.17	3.19	3.22	3.25	3.28
8499 P	3.56	3.60	3.60	3.63	3.67	3.69	3.73	3.78	3.76	3.80	3.85	3.86	3.90
8500 P	3.17	3.30	3.37	3.34	3.30	3.38	3.44	3.46	3.52	3.53	3.56	3.61	3.59
8501 P	2.96	3.23	3.17	3.24	3.16	3.15	3.17	3.25	3.34	3.44	3.44	3.44	3.48
8502 NP	3.02	3.31	3.33	3.31	3.21	3.29	3.28	3.24	3.22	3.20	3.28	3.32	3.40
8503 P	3.91	4.04	4.03	4.08	4.12	4.10	4.09	4.15	4.20	4.26	4.29	4.33	4.31
8504 P	3.38	3.48	3.53	3.57	3.60	3.62	3.60	3.61	3.64	3.61	3.61	3.59	3.58
8505 NP	3.22	3.28	3.37	3.33	3.38	3.42	3.44	3.43	3.49	3.53	3.54	3.59	3.61
8506 P	3.26	3.50	3.58	3.58	3.53	3.56	3.58	3.64	3.69	3.75	3.79	3.80	3.80
8507 P	3.57	3.56	3.62	3.58	3.57	3.60	3.65	3.66	3.69	3.70	3.71	3.75	3.76
8508 NP	3.49	3.58	3.60	3.57	3.63	3.66	3.72	3.71	3.74	3.81	3.84	3.83	3.87

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 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 16 (PAGE 6): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

RABBIT #	PREGNANCY STATUS	DAY 19	20	21	22	23	24	25	26	27	28	29
DOSAGE GROUP III						1.0 MG/KG/DAY						
8487	P	3.76	3.80	3.81	3.86	3.89	3.92	3.94	3.92	3.88	3.88	3.90
8488	P	3.56	3.56	3.59	3.64	3.66	3.69	3.70	3.75	3.75	3.72	3.83
8489	P	3.59	3.61	3.64	3.68	3.73	3.73	3.78	3.77	3.82	3.82	3.86
8490	P	3.92	3.97	4.02	4.08	4.06	4.09	4.09	4.12	4.12	4.13	4.15
8491	P	3.89	3.91	3.98	4.02	4.04	4.13	4.15	4.17	4.15	4.18	4.20
8492	P	3.46	3.49	3.54	3.57	3.58	3.61	3.61	3.59	3.62	3.68	3.71
8493	P	3.95	3.96	3.95	3.99	3.88	3.98	4.01	4.03	4.03	4.08	4.13
8494	P	3.67	3.70	3.70	3.72	3.75	3.73	3.77	3.76	3.78	3.78	3.81
8495	P	3.82	3.86	3.90	3.96	3.97	3.96	3.96	3.92	3.93	3.93	3.92
8496	P	3.89	3.86	3.92	3.92	3.90	3.88	3.96	3.96	3.96	4.04	4.08
8497	P	3.40	3.50	3.53	3.51	3.58	3.59	3.68	3.66	3.65	3.67	3.65
8498	P	3.33	3.33	3.31	3.33	3.36	3.34	3.37	3.38	3.36	3.37	3.37
8499	P	3.96	3.97	3.97	4.02	4.02	4.05	4.14	4.16	4.24	4.26	4.26
8500	P	3.52	3.64	3.66	3.72	3.73	3.72	3.80	3.82	3.80	3.80	3.79
8501	P	3.46	3.48	3.48	3.46	3.49	3.49	3.51	3.56	3.60	3.65	3.65
8502	NP	3.46	3.44	3.44	3.47	3.48	3.48	3.45	3.42	3.45	3.49	3.51
8503	P	4.31	4.37	4.34	4.38	4.43	4.46	4.48	4.51	4.42	4.45	4.47
8504	P	3.60	3.61	3.62	3.72	3.73	3.78	3.77	3.80	3.72	3.65	3.69
8505	NP	3.54	3.62	3.64	3.69	3.69	3.74	3.76	3.77	3.78	3.86	3.84
8506	P	3.78	3.81	3.84	3.84	3.89	3.94	3.99	4.01	3.99	4.03	4.08
8507	P	3.76	3.81	3.83	3.88	3.89	3.91	3.93	3.91	3.90	3.91	3.98
8508	NP	3.85	3.86	3.86	3.84	3.90	3.99	4.00	3.99	3.88	3.90	3.97

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 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 16 (PAGE 7): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	7	8	9	10	11	12	13	14	15	16	17	18
RABBIT #	DOSAGE GROUP IV				2.5 MG/KG/DAY								
8509 P	3.00	3.11	3.13	3.13	3.09	3.11	3.13	3.20	3.23	3.24	3.25	3.23	3.25
8510 P	3.40	3.53	3.53	3.58	3.61	3.60	3.68	3.78	3.80	3.81	3.78	3.77	3.76
8511 NP	3.17	3.33	3.47	3.47	3.50	3.54	3.56	3.60	3.55	3.54	3.51	3.53	3.56
8512 P	3.37	3.54	3.51	3.60	3.60	3.60	3.59	3.62	3.68	3.73	3.78	3.71	3.77
8513 NP	3.43	3.56	3.57	3.63	3.61	3.59	3.58	3.66	3.67	3.63	3.64	3.66	3.63
8514 P	3.32	3.57	3.64	3.65	3.60	3.56	3.61	3.68	3.72	3.74	3.72	3.70	3.72
8515 P	3.58	3.59	3.71	3.71	3.74	3.71	3.74	3.84	3.85	3.93	3.87	3.86	3.89
8516 P	3.55	3.63	3.67	3.68	3.64	3.62	3.61	3.59	3.68	3.70	3.69	3.71	3.73
8517 P	3.14	3.44	3.38	3.37	3.41	3.45	3.49	3.49	3.43	3.32	3.24	3.20	3.16
8518 P	3.50	3.70	3.69	3.74	3.74	3.78	3.88	3.82	3.88	3.91	3.91	3.91	3.85
8519 P	3.27	3.32	3.29	3.36	3.41	3.47	3.44	3.46	3.50	3.55	3.56	3.55	3.56
8520 P	3.08	3.14	3.16	3.18	3.14	3.15	3.17	3.20	3.26	3.28	3.32	3.32	3.30
8521 P	3.23	3.44	3.48	3.49	3.47	3.47	3.44	3.45	3.51	3.59	3.57	3.52	3.54
8522 P	3.74	3.81	3.85	3.91	3.93	3.93	3.96	4.11	4.02	4.10	4.18	4.11	4.10
8523 NP	3.62	3.83	3.82	3.86	3.90	3.88	3.96	3.96	3.93	3.94	3.80	3.73	3.66
8524 NP	2.88	3.10	3.14	3.14	3.13	3.10	3.12	3.14	3.20	3.24	3.26	3.26	3.24
8525 P	3.57	3.66	3.73	3.70	3.68	3.68	3.65	3.68	3.56	3.64	3.67	3.68	3.71
8526 NP	2.83	2.98	2.95	2.93	2.96	2.99	3.00	3.01	3.01	3.00	3.01	3.04	3.08
8527 P	3.51	3.53	3.62	3.71	3.69	3.61	3.62	3.64	3.63	3.68	3.61	3.63	3.77
8528 P	3.17	3.29	3.28	3.29	3.29	3.26	3.25	3.25	3.28	3.37	3.39	3.37	3.39
8529 P	3.26	3.33	3.41	3.40	3.41	3.41	3.45	3.50	3.53	3.56	3.55	3.57	3.58
8530 P	3.85	4.01	4.07	4.02	4.00	4.03	4.22	4.11	4.19	4.24	4.24	4.24	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.

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 16 (PAGE 8): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 19	20	21	22	23	24	25	26	27	28	29
RABBIT #	DOSAGE GROUP IV				2.5 MG/KG/DAY						
8509 P	3.24	3.29	3.31	3.32	3.34	3.29	3.33	3.34	3.34	3.39	3.42
8510 P	3.75	3.76	3.81	3.80	3.84	3.83	3.89	3.91	3.92	3.94	3.98
8511 NP	3.58	3.62	3.63	3.64	3.65	3.62	3.63	3.68	3.68	3.73	3.72
8512 P	3.82	3.79	3.83	3.85	3.87	3.91	3.93	3.86	3.88	3.86	3.92
8513 NP	3.65	3.64	3.65	3.68	3.65	3.66	3.70	3.71	3.75	3.77	3.76
8514 P	3.72	3.73	3.77	3.70	3.70	3.80	3.82	3.82	3.83	3.86	3.86
8515 P	3.90	3.94	4.00	4.01	4.03	4.04	4.04	4.07	4.07	4.01	3.95
8516 P	3.70	3.71	3.76	3.77	3.81	3.89	3.86	3.86	3.89	3.90	3.98
8517 P	3.11	3.10	3.09	3.03	3.03	2.98	ABORTED ON DAY 25 OF GESTATION				
8518 P	3.92	3.92	3.94	3.96	3.96	3.93	3.86	3.74	3.62	3.56	3.57
8519 P	3.60	3.61	3.66	3.65	3.68	3.69	3.69	3.66	3.73	3.74	3.78
8520 P	3.33	3.33	3.32	3.32	3.35	3.38	3.39	3.39	3.41	3.43	3.49
8521 P	3.51	3.50	3.54	3.57	3.60	3.63	3.68	3.65	3.64	3.71	3.74
8522 P	4.13	4.19	4.18	4.23	4.27	4.33	4.34	4.37	4.39	4.39	4.46
8523 NP	3.60	3.56	3.50	3.46	3.40	3.36	3.32	3.42	3.51	3.63	3.69
8524 NP	3.20	3.25	3.24	3.28	3.24	3.22	3.18	3.25	3.34	3.33	3.36
8525 P	3.70	3.75	3.71	3.70	3.70	3.82	3.83	3.86	3.88	3.84	3.93
8526 NP	3.11	3.15	3.18	3.23	3.26	3.29	3.26	3.26	3.23	3.24	3.26
8527 P	3.79	3.83	3.84	3.89	3.75	3.72	3.77	3.78	3.75	3.86	3.93
8528 P	3.42	3.41	3.43	3.44	3.44	3.44	3.48	3.46	3.46	3.46	3.51
8529 P	3.58	3.60	3.59	3.60	3.58	3.60	3.64	3.68	3.73	3.80	3.81
8530 P	4.19	4.27	4.28	4.31	4.35	4.40	4.41	4.37	4.34	4.34	4.36

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 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 16 (PAGE 9): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	7	8	9	10	11	12	13	14	15	16	17	18
RABBIT #	DOSAGE GROUP V				3.75 MG/KG/DAY								
8531 P	3.36	3.43	3.47	3.52	3.56	3.61	3.66	3.63	3.68	3.74	3.83	3.70	3.78
8532 P	3.42	3.55	3.54	3.56	3.53	3.55	3.48	3.60	3.58	3.52	3.46	3.43	3.34
8533 P	3.55	3.47	3.54	3.48	3.48	3.46	3.49	3.52	3.55	3.58	3.56	3.57	3.51
8534 P	3.28	3.52	3.47	3.48	3.38	3.33	3.31	3.29	3.30	3.35	3.19	3.22	3.14
8535 P	3.42	3.64	3.66	3.63	3.57	3.51	3.63	3.69	3.80	3.82	3.78	3.79	3.80
8536 P	3.32	3.40	3.33	3.71	3.72	3.77	3.74	3.77	3.74	3.72	3.74	3.68	3.66
8537 P	3.25	3.37	3.36	3.27	3.31	3.31	3.42	3.40	3.32	3.33	3.22	3.25	3.24
8538 P	2.86	2.96	2.92	2.84	2.79	2.72	2.74	2.78	2.74	2.68	2.66	2.58	2.56
8539 P	3.07	3.36	3.43	3.36	3.33	3.29	3.30	3.29	3.23	3.17	3.12	3.06	3.04
8540 P	3.58	3.47	3.52	3.53	3.65	3.64	3.67	3.76	3.84	3.84	3.73	3.60	3.55
8541 P	3.16	3.25	3.31	3.34	3.35	3.38	3.42	3.44	3.52	3.53	3.52	3.53	3.54
8542 P	3.58	3.69	3.72	3.74	3.71	3.70	3.74	3.71	3.74	3.77	3.76	3.77	3.77
8543 P	3.68	3.81	3.82	3.86	3.88	3.86	3.79	3.73	3.67	3.62	3.61	3.52	3.50
8544 P	3.00	3.12	3.18	3.20	3.21	3.27	3.28	3.23	3.14	3.08	3.01	2.94	2.89
8545 P	3.02	3.25	3.30	3.35	3.43	3.40	3.42	3.41	3.47	3.50	3.54	3.54	3.56
8546 P	3.21	3.36	3.38	3.38	3.41	3.46	3.51	3.54	3.56	3.58	3.61	3.62	3.60
8547 P	3.53	3.50	3.60	3.61	3.63	3.65	3.62	3.58	3.54	3.46	3.42	3.34	3.31
8548 P	3.59	3.59	3.59	3.65	3.73	3.80	3.88	3.81	3.85	3.89	3.84	3.81	3.79
8549 P	3.20	3.26	3.32	3.30	3.34	3.40	3.39	3.40	3.43	3.41	3.37	3.32	3.32
8550 P	3.12	3.25	3.31	3.38	3.45	3.51	3.52	3.54	3.54	3.53	3.57	3.56	3.60
8551 P	3.49	3.40	3.46	3.49	3.51	3.60	3.69	3.66	3.70	3.77	3.60	3.72	3.75
8552 NP	3.90	3.98	3.99	4.06	3.94	3.96	3.96	3.93	3.90	3.96	3.90	3.93	3.96

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 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 16 (PAGE 10): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 19	20	21	22	23	24	25	26	27	28	29
RABBIT #	DOSAGE GROUP V				3.75 MG/KG/DAY						
8531 P	3.78	3.84	3.87	3.90	3.97	3.97	3.98	4.08	4.03	4.10	4.13
8532 P	3.30	3.24	3.20	3.36	3.41	3.49	3.49	3.56	3.51	3.60	3.65
8533 P	3.48	3.46	3.42	3.45	3.48	3.51	3.56	3.59	3.56	3.57	3.63
8534 P	3.03	3.05	2.93	ABORTED ON DAY 22 OF GESTATION							
8535 P	3.82	3.80	3.75	3.66	3.61	3.55	3.49	3.43	3.49	3.53	3.63
8536 P	3.68	3.73	3.82	3.83	3.83	3.92	3.90	3.95	3.92	3.95	4.02
8537 P	3.10	3.10	3.12	3.05	3.07	3.02	ABORTED ON DAY 25 OF GESTATION				
8538 P	2.55	2.51	2.49	2.53	2.53	2.32	ABORTED ON DAY 24 OF GESTATION				
8539 P	3.02	2.94	2.96	2.85	2.79	ABORTED ON DAY 24 OF GESTATION					
8540 P	3.52	3.40	3.36	3.32	3.28	3.21	ABORTED ON DAY 25 OF GESTATION				
8541 P	3.57	3.61	3.65	3.66	3.71	3.73	3.73	3.70	3.62	3.64	3.73
8542 P	3.70	3.66	3.66	3.58	3.59	3.54	3.58	3.52	3.57	ABORTED ON DAY 28 OF GESTATION	
8543 P	3.45	3.44	3.40	3.36	3.30	3.25	3.19	3.20	3.16	3.11	3.08
8544 P	2.84	2.88	2.85	2.86	2.80	2.74	ABORTED ON DAY 25 OF GESTATION				
8545 P	3.61	3.64	3.66	3.60	3.59	3.66	3.69	3.66	3.69	3.66	3.70
8546 P	3.63	3.65	3.73	3.67	3.67	3.69	3.70	3.70	3.68	3.73	3.76
8547 P	3.25	3.24	3.19	ABORTED ON DAY 22 OF GESTATION							
8548 P	3.76	3.67	3.70	3.62	3.58	3.58	ABORTED ON DAY 25 OF GESTATION				
8549 P	3.30	3.29	3.33	3.36	3.39	3.46	3.52	3.50	3.56	3.54	3.59
8550 P	3.60	3.62	3.64	3.62	3.68	3.68	3.76	3.76	3.77	3.79	3.73
8551 P	3.76	3.83	3.85	3.82	3.74	3.74	3.80	3.81	3.82	3.87	3.96
8552 NP	3.89	3.88	3.88	3.81	3.92	3.89	3.93	3.89	3.92	3.88	3.93

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 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 16 (PAGE 11): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	7	8	9	10	11	12	13	14	15	16	17	18
RABBIT #	SATELLITE DOSAGE GROUP I					0 (VEHICLE) MG/KG/DAY							
8553 P	3.95	3.96	4.05	4.06	4.09	4.11	3.87	4.07	4.09	4.01	4.18	4.20	4.21
8554 P	3.36	3.44	3.45	3.52	3.61	3.67	3.60	3.56	3.51	3.68	3.67	3.71	3.74
8555 P	3.09	3.05	3.06	3.12	3.13	3.17	3.13	3.09	3.12	3.18	3.29	3.26	3.28

	DAY 19	20	21
8553 P	4.23	4.25	4.34
8554 P	3.74	3.75	3.84
8555 P	3.33	3.39	3.39

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 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 16 (PAGE 12): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	7	8	9	10	11	12	13	14	15	16	17	18
RABBIT #	SATELLITE DOSAGE GROUP II					0.1 MG/KG/DAY							
8556 P	3.80	3.92	3.88	3.88	3.88	3.86	3.80	3.88	3.98	4.00	3.95	3.89	3.91
8557 P	3.39	3.41	3.45	3.51	3.46	3.47	3.44	3.46	3.44	3.46	3.51	3.57	3.58
8558 P	3.56	3.51	3.58	3.61	3.70	3.76	3.66	3.58	3.57	3.67	3.69	3.71	3.74
8559 P	3.61	3.50	3.60	3.60	3.64	3.63	3.61	3.68	3.72	3.71	3.75	3.82	3.81
8560 P	3.12	3.22	3.31	3.26	3.28	3.36	3.26	3.34	3.43	3.47	3.52	3.53	3.56

	DAY 19	20	21
8556 P	3.95	3.98	4.03
8557 P	3.63	3.66	3.72
8558 P	3.82	3.83	3.92
8559 P	3.86	3.86	3.88
8560 P	3.50	3.50	3.52

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 16 (PAGE 13): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	7	8	9	10	11	12	13	14	15	16	17	18
RABBIT #	SATELLITE DOSAGE GROUP III					1.0 MG/KG/DAY							
8561 P	3.98	3.87	3.95	3.96	3.97	4.04	3.92	3.96	3.98	3.98	4.01	4.03	4.04
8562 P	3.54	3.55	3.58	3.64	3.63	3.65	3.65	3.70	3.73	3.80	3.81	3.83	3.81
8563 P	2.98	3.16	3.19	3.15	3.20	3.26	3.23	3.24	3.27	3.30	3.32	3.32	3.34

	DAY 19	20	21
8561 P	4.12	4.08	4.06
8562 P	3.84	3.84	3.90
8563 P	3.37	3.36	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 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 16 (PAGE 14): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	7	8	9	10	11	12	13	14	15	16	17	18
RABBIT #	SATELLITE DOSAGE GROUP IV					2.5 MG/KG/DAY							
8564 P	3.86	3.88	3.91	3.95	3.98	4.03	3.95	3.95	4.02	4.07	4.04	4.04	4.04
8565 P	3.34	3.36	3.42	3.51	3.49	3.55	3.38	3.37	3.34	3.28	3.21	3.33	3.44
8566 P	3.08	3.09	3.19	3.24	3.30	3.39	3.30	3.32	3.26	3.23	3.24	3.24	3.21

	DAY 19	20	21
8564 P	4.10	4.07	4.18
8565 P	3.49	3.57	3.60
8566 P	3.27	3.35	3.39

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 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 16 (PAGE 15): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	7	8	9	10	11	12	13	14	15	16	17	18
RABBIT #	SATELLITE DOSAGE GROUP V					3.75 MG/KG/DAY							
8567 P	3.91	3.86	3.91	3.94	3.91	3.90	3.97	3.90	3.95	3.96	4.03	3.98	3.94
8568 P	3.37	3.31	3.34	3.36	3.31	3.30	3.23	3.22	3.28	3.31	3.32	3.31	3.31
8569 NP	3.60	3.59	3.58	3.59	3.51	3.53	3.37	3.31	3.26	3.20	3.17	3.13	3.10
8570 P	3.75	3.58	3.59	3.65	3.72	3.78	3.75	3.71	3.62	3.53	3.45	3.40	3.49
8571 P	2.75	2.85	2.84	2.89	2.88	2.87	2.90	2.91	2.88	2.85	2.84	2.87	2.84

	DAY 19	20	21
8567 P	3.85	3.78	3.68
8568 P	3.34	3.34	3.39
8569 NP	3.06	3.02	3.00
8570 P	3.52	3.60	3.65
8571 P	2.84	2.88	2.90

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 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

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

PREGNANCY STATUS	DAYS 7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20
RABBIT #	DOSAGE GROUP I				0 (VEHICLE) MG/KG/DAY								
8443 NP	185.	180.	184.	180.	181.	185.	183.	180.	167.	183.	180.	183.	180.
8444 P	183.	146.	96.	89.	53.	87.	41.	111.	97.	185.	182.	181.	184.
8445 NP	185.	180.	185.	183.	185.	180.	185.	180.	182.	185.	182.	183.	185.
8446 P	151.	94.	92.	124.	171.	185.	185.	184.	157.	182.	181.	182.	185.
8447 P	183.	180.	180.	183.	183.	177.	180.	166.	185.	182.	180.	184.	180.
8448 P	116.	111.	185.	157.	165.	165.	184.	171.	182.	181.	183.	185.	183.
8449 P	80.	12.	81.	169.	151.	184.	150.	127.	127.	152.	180.	185.	185.
8450 P	180.	184.	166.	168.	166.	161.	125.	182.	184.	182.	185.	184.	180.
8451 P	181.	182.	182.	180.	185.	185.	183.	181.	182.	185.	185.	185.	180.
8452 P	16.	26.	27.	107.	90.	65.	86.	143.	185.	181.	185.	185.	180.
8453 P	183.	180.	180.	185.	182.	181.	185.	182.	182.	185.	184.	185.	185.
8454 P	184.	180.	15.	180.	185.	160.	107.	181.	180.	185.	185.	185.	180.
8455 P	185.	180.	180.	169.	180.	185.	180.	180.	184.	181.	181.	180.	181.
8456 P	4.	5.	107.	159.	118.	90.	169.	185.	183.	185.	185.	180.	182.
8457 P	185.	184.	165.	133.	97.	74.	93.	183.	182.	167.	173.	180.	185.
8458 P	183.	94.	98.	115.	110.	139.	183.	151.	154.	181.	184.	124.	111.
8459 P	180.	184.	180.	182.	185.	185.	184.	184.	181.	180.	180.	180.	184.
8460 P	180.	183.	183.	184.	185.	183.	181.	183.	182.	185.	184.	185.	185.
8461 P	171.	165.	150.	131.	81.	119.	123.	146.	148.	153.	154.	101.	104.
8462 P	184.	185.	167.	130.	110.	114.	152.	166.	182.	172.	181.	184.	180.
8463 P	180.	184.	164.	184.	160.	145.	121.	165.	183.	183.	180.	185.	185.
8464 P	90.	134.	164.	185.	148.	181.	185.	165.	165.	150.	158.	184.	159.

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

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

PREGNANCY STATUS DAYS	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28	28 - 29
RABBIT #	DOSAGE GROUP I				0 (VEHICLE) MG/KG/DAY				
8443 NP	182.	180.	180.	181.	180.	180.	180.	180.	184.
8444 P	163.	180.	122.	106.	173.	100.	101.	102.	122.
8445 NP	184.	185.	185.	182.	180.	182.	180.	181.	180.
8446 P	182.	180.	185.	182.	180.	63.	19.	37.	94.
8447 P	180.	185.	184.	182.	182.	185.	167.	185.	181.
8448 P	183.	185.	185.	181.	185.	182.	152.	180.	107.
8449 P	180.	185.	180.	185.	185.	185.	138.	120.	66.
8450 P	175.	172.	174.	147.	172.	158.	180.	153.	137.
8451 P	185.	185.	185.	177.	182.	125.	99.	35.	130.
8452 P	185.	185.	185.	182.	183.	185.	180.	120.	135.
8453 P	185.	185.	184.	180.	182.	181.	180.	138.	134.
8454 P	182.	180.	182.	166.	159.	132.	154.	104.	83.
8455 P	171.	168.	182.	161.	180.	130.	155.	100.	96.
8456 P	177.	181.	166.	180.	135.	142.	84.	99.	73.
8457 P	185.	182.	153.	182.	145.	154.	83.	91.	68.
8458 P	116.	87.	55.	69.	51.	66.	15.	2.	1.
8459 P	184.	181.	184.	180.	183.	183.	180.	96.	184.
8460 P	181.	180.	180.	180.	182.	182.	184.	184.	181.
8461 P	141.	128.	148.	117.	98.	45.	77.	95.	89.
8462 P	143.	53.	121.	102.	128.	90.	86.	115.	86.
8463 P	185.	172.	155.	112.	151.	113.	102.	91.	90.
8464 P	185.	140.	157.	125.	2.	105.	a	109.	85.

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

PREGNANCY STATUS	DAYS 7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20
RABBIT #	DOSAGE GROUP II				0.1 MG/KG/DAY								
8465 P	185.	184.	183.	184.	182.	180.	185.	184.	183.	181.	184.	180.	180.
8466 NP	164.	180.	184.	165.	143.	129.	70.	118.	121.	181.	183.	185.	185.
8467 NP	185.	185.	183.	184.	180.	135.	185.	181.	185.	184.	183.	185.	181.
8468 P	183.	185.	180.	180.	183.	181.	183.	185.	185.	183.	185.	183.	181.
8469 P	181.	181.	185.	180.	181.	181.	183.	184.	185.	185.	185.	183.	184.
8470 P	180.	139.	79.	55.	97.	51.	95.	116.	182.	183.	182.	180.	183.
8471 P	184.	180.	183.	129.	3.	76.	83.	102.	181.	164.	181.	181.	a
8472 P	184.	183.	183.	181.	148.	173.	183.	185.	184.	180.	185.	181.	185.
8473 P	62.	165.	182.	153.	180.	166.	135.	99.	71.	137.	138.	160.	180.
8474 P	184.	180.	180.	147.	149.	123.	108.	170.	174.	183.	175.	181.	184.
8475 P	184.	181.	180.	159.	185.	185.	185.	180.	185.	182.	185.	183.	180.
8476 P	180.	181.	184.	133.	79.	92.	115.	183.	185.	180.	184.	182.	181.
8477 NP	185.	184.	156.	162.	184.	185.	181.	180.	130.	108.	159.	180.	180.
8478 P	180.	125.	95.	17.	14.	81.	184.	185.	144.	116.	181.	185.	185.
8479 P	185.	180.	117.	127.	118.	102.	80.	67.	89.	128.	155.	181.	185.
8480 P	181.	184.	184.	183.	180.	182.	184.	180.	184.	183.	184.	183.	185.
8481 P b	131.	6.	72.	109.	94.	166.	185.	168.	123.	73.	184.	181.	180.
8482 P	184.	150.	123.	158.	130.	182.	185.	184.	180.	185.	184.	184.	181.
8483 P	184.	180.	182.	184.	183.	184.	181.	183.	182.	180.	183.	181.	184.
8484 P	168.	183.	181.	183.	184.	180.	183.	185.	180.	182.	182.	c	185.
8485 P	182.	184.	182.	185.	138.	181.	185.	181.	180.	180.	180.	185.	185.
8486 P	181.	185.	185.	151.	85.	59.	68.	110.	115.	115.	166.	182.	168.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Wet feed precluded the calculation of this value.
b. Doe 8481 had a litter which consisted of 10 dead fetuses; values excluded from group averages and statistical analyses.
c. Spilled feed precluded the calculation of this value.

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

PREGNANCY STATUS DAYS	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28	28 - 29
RABBIT #	DOSAGE GROUP II			0.1 MG/KG/DAY					
8465 P	183.	181.	183.	185.	181.	180.	185.	180.	182.
8466 NP	183.	184.	170.	180.	185.	167.	182.	144.	126.
8467 NP	180.	184.	184.	183.	182.	180.	180.	180.	180.
8468 P	180.	180.	182.	126.	163.	120.	140.	86.	81.
8469 P	181.	180.	185.	85.	183.	180.	182.	180.	183.
8470 P	132.	93.	172.	50.	81.	123.	98.	134.	90.
8471 P	185.	185.	180.	103.	70.	99.	97.	161.	110.
8472 P	181.	185.	181.	183.	180.	181.	181.	181.	155.
8473 P	185.	159.	157.	158.	134.	119.	112.	104.	81.
8474 P	153.	152.	157.	109.	121.	103.	119.	80.	82.
8475 P	182.	185.	184.	181.	180.	183.	185.	184.	160.
8476 P	185.	183.	180.	158.	159.	147.	182.	160.	154.
8477 NP	183.	180.	180.	182.	183.	185.	183.	184.	172.
8478 P	185.	184.	131.	164.	147.	75.	19.	96.	98.
8479 P	180.	184.	180.	181.	133.	181.	113.	100.	67.
8480 P	180.	185.	183.	180.	185.	168.	172.	167.	140.
8481 P a	185.	180.	182.	185.	180.	153.	154.	132.	0.
8482 P	185.	183.	184.	156.	183.	181.	163.	166.	133.
8483 P	182.	181.	181.	180.	181.	180.	157.	143.	131.
8484 P	185.	160.	162.	118.	98.	40.	50.	64.	48.
8485 P	b	181.	180.	182.	180.	161.	180.	140.	181.
8486 P	184.	185.	182.	154.	150.	96.	b	70.	69.

P = PREGNANT NP = NOT PREGNANT (VALUES EXCLUDED FROM AVERAGES)
DAYS = DAYS OF PRESUMED GESTATION
ALL WEIGHTS WERE RECORDED IN GRAMS (G).
a. Doe 8481 had a litter which consisted of 10 dead fetuses; values excluded from group averages and statistical analyses.
b. Spilled feed precluded the calculation of this value.

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

PREGNANCY STATUS	DAYS	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20
RABBIT #	DOSAGE GROUP III					1.0 MG/KG/DAY								
8487	P	143.	144.	162.	185.	184.	185.	184.	182.	184.	144.	185.	183.	180.
8488	P	185.	150.	133.	163.	170.	152.	110.	150.	144.	183.	185.	183.	185.
8489	P	182.	182.	181.	180.	181.	185.	185.	180.	185.	182.	185.	185.	183.
8490	P	149.	69.	145.	167.	185.	185.	181.	163.	183.	181.	180.	185.	185.
8491	P	182.	183.	180.	170.	182.	176.	184.	183.	185.	184.	184.	180.	180.
8492	P	156.	90.	84.	84.	109.	86.	67.	83.	87.	116.	135.	169.	162.
8493	P	180.	156.	182.	182.	181.	185.	182.	180.	139.	142.	153.	110.	118.
8494	P	185.	180.	171.	184.	185.	153.	185.	182.	184.	184.	180.	180.	185.
8495	P	185.	185.	182.	180.	118.	183.	185.	183.	184.	125.	115.	148.	164.
8496	P	184.	115.	139.	146.	156.	152.	153.	182.	184.	185.	185.	181.	185.
8497	P	132.	138.	138.	158.	140.	92.	31.	29.	105.	124.	26.	97.	183.
8498	P	185.	184.	142.	173.	173.	158.	148.	183.	184.	184.	183.	185.	183.
8499	P	180.	181.	181.	183.	183.	183.	180.	185.	184.	185.	182.	185.	184.
8500	P	180.	126.	123.	145.	155.	143.	183.	184.	183.	183.	182.	137.	102.
8501	P	180.	184.	a	183.	114.	156.	183.	170.	182.	184.	173.	184.	172.
8502	NP	180.	132.	60.	131.	145.	123.	113.	135.	165.	160.	149.	165.	150.
8503	P	180.	184.	183.	116.	118.	158.	180.	181.	183.	181.	180.	180.	185.
8504	P	180.	185.	184.	163.	125.	115.	180.	156.	98.	70.	47.	126.	107.
8505	NP	184.	163.	163.	185.	181.	184.	181.	184.	180.	180.	182.	185.	180.
8506	P	181.	132.	156.	158.	126.	184.	174.	182.	185.	180.	182.	185.	183.
8507	P	183.	170.	154.	166.	168.	181.	170.	157.	180.	184.	181.	184.	184.
8508	NP	180.	182.	182.	185.	185.	183.	180.	183.	182.	185.	183.	185.	184.

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

PREGNANCY STATUS DAYS	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28	28 - 29
RABBIT #	DOSAGE GROUP III				1.0 MG/KG/DAY				
8487 P	185.	182.	182.	185.	183.	128.	110.	77.	99.
8488 P	184.	184.	180.	185.	185.	181.	181.	181.	181.
8489 P	185.	182.	180.	182.	185.	183.	185.	168.	173.
8490 P	184.	183.	185.	180.	180.	183.	114.	144.	85.
8491 P	185.	185.	182.	180.	160.	180.	120.	127.	94.
8492 P	170.	178.	173.	182.	133.	157.	138.	184.	120.
8493 P	135.	147.	136.	182.	114.	138.	132.	154.	103.
8494 P	185.	185.	155.	94.	139.	117.	161.	116.	101.
8495 P	162.	181.	162.	109.	83.	56.	90.	66.	62.
8496 P	167.	154.	136.	106.	149.	127.	152.	124.	127.
8497 P	185.	181.	184.	180.	184.	153.	175.	119.	107.
8498 P	164.	162.	165.	109.	183.	88.	101.	73.	50.
8499 P	185.	185.	180.	183.	184.	180.	184.	180.	157.
8500 P	178.	185.	166.	120.	151.	183.	121.	133.	55.
8501 P	107.	74.	75.	130.	129.	182.	161.	169.	125.
8502 NP	154.	184.	130.	180.	80.	114.	112.	134.	46.
8503 P	184.	181.	184.	167.	153.	165.	103.	119.	94.
8504 P	151.	147.	142.	183.	84.	98.	8.	7.	52.
8505 NP	181.	184.	184.	182.	185.	165.	174.	175.	146.
8506 P	180.	180.	2.	180.	184.	140.	136.	132.	120.
8507 P	180.	166.	181.	125.	142.	82.	81.	103.	110.
8508 NP	182.	181.	181.	159.	182.	52.	95.	154.	155.

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

RABBIT #	PREGNANCY STATUS	DAYS 7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20
DOSAGE GROUP IV						2.5 MG/KG/DAY								
8509	P	146.	130.	72.	102.	85.	140.	125.	50.	108.	130.	180.	133.	158.
8510	P	182.	185.	183.	180.	184.	183.	182.	130.	106.	153.	167.	144.	170.
8511	NP	185.	182.	181.	181.	181.	173.	112.	100.	119.	142.	147.	153.	145.
8512	P	182.	181.	181.	180.	169.	178.	184.	185.	180.	180.	180.	182.	184.
8513	NP	183.	185.	159.	163.	147.	168.	136.	112.	108.	161.	115.	94.	97.
8514	P	184.	134.	80.	76.	108.	184.	185.	133.	122.	182.	180.	182.	153.
8515	P	182.	125.	182.	180.	182.	183.	185.	185.	185.	182.	182.	183.	183.
8516	P	180.	158.	108.	79.	101.	49.	110.	138.	180.	169.	140.	98.	113.
8517	P	112.	180.	184.	165.	161.	130.	52.	6.	18.	1.	3.	0.	5.
8518	P	179.	184.	185.	182.	185.	127.	133.	129.	184.	171.	92.	172.	163.
8519	P	121.	185.	185.	162.	125.	138.	110.	162.	180.	144.	145.	144.	181.
8520	P	181.	173.	125.	147.	121.	149.	133.	176.	153.	148.	127.	130.	142.
8521	P	180.	153.	136.	133.	88.	100.	137.	182.	166.	124.	99.	111.	131.
8522	P	180.	185.	184.	185.	185.	182.	183.	185.	185.	180.	180.	180.	184.
8523	NP	185.	183.	164.	149.	185.	185.	184.	183.	109.	39.	8.	1.	58.
8524	NP	184.	167.	155.	127.	140.	111.	175.	166.	159.	153.	118.	102.	117.
8525	P	185.	133.	124.	154.	164.	151.	181.	184.	183.	180.	180.	183.	183.
8526	NP	162.	147.	133.	106.	155.	143.	159.	136.	143.	152.	148.	163.	166.
8527	P	180.	184.	147.	150.	88.	80.	57.	81.	20.	89.	155.	180.	171.
8528	P	159.	145.	156.	106.	84.	62.	113.	146.	143.	132.	135.	150.	94.
8529	P	185.	135.	152.	151.	136.	184.	169.	160.	160.	143.	143.	109.	127.
8530	P	183.	184.	181.	185.	184.	183.	184.	180.	183.	180.	182.	185.	181.

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

PREGNANCY STATUS	DAYS 20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28	28 - 29
RABBIT #	DOSAGE GROUP IV				2.5 MG/KG/DAY				
8509 P	184.	119.	87.	59.	114.	94.	117.	93.	86.
8510 P	150.	154.	138.	152.	180.	166.	157.	133.	118.
8511 NP	143.	153.	146.	135.	150.	144.	159.	147.	132.
8512 P	183.	185.	185.	176.	146.	92.	76.	98.	90.
8513 NP	139.	128.	122.	135.	144.	122.	154.	143.	116.
8514 P	132.	92.	153.	109.	164.	105.	147.	121.	117.
8515 P	183.	185.	185.	180.	110.	154.	106.	90.	10.
8516 P	122.	125.	154.	167.	130.	109.	97.	180.	123.
8517 P	0.	38.	54.	75.	ABORTED ON DAY 25 OF GESTATION				
8518 P	132.	118.	119.	52.	2.	0.	0.	7.	26.
8519 P	148.	137.	134.	90.	94.	78.	126.	104.	108.
8520 P	91.	133.	144.	125.	140.	116.	134.	107.	106.
8521 P	120.	137.	147.	126.	134.	108.	136.	118.	120.
8522 P	185.	181.	150.	180.	154.	180.	160.	166.	183.
8523 NP	4.	0.	2.	0.	0.	93.	108.	163.	172.
8524 NP	128.	98.	67.	28.	78.	176.	158.	145.	110.
8525 P	185.	a	185.	181.	108.	138.	102.	106.	88.
8526 NP	160.	185.	166.	183.	133.	133.	116.	158.	141.
8527 P	182.	149.	30.	89.	128.	168.	84.	180.	170.
8528 P	140.	101.	105.	73.	62.	74.	66.	79.	80.
8529 P	124.	92.	87.	84.	144.	122.	150.	159.	126.
8530 P	185.	180.	183.	182.	181.	116.	103.	62.	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.

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TABLE 17 (PAGE 9): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20
RABBIT #	DOSAGE GROUP V					3.75 MG/KG/DAY								
8531	P	181.	185.	184.	181.	181.	152.	135.	185.	184.	184.	185.	182.	185.
8532	P	184.	146.	117.	93.	64.	183.	131.	21.	5.	10.	0.	10.	3.
8533	P	183.	139.	102.	111.	118.	142.	113.	90.	64.	94.	96.	61.	58.
8534	P	147.	145.	86.	66.	19.	56.	29.	3.	11.	2.	0.	6.	6.
8535	P	167.	93.	65.	105.	185.	185.	185.	150.	181.	180.	152.	150.	115.
8536	P	44.	184.	183.	184.	178.	144.	81.	66.	80.	81.	67.	127.	129.
8537	P	134.	73.	99.	102.	165.	73.	3.	0.	12.	0.	4.	7.	2.
8538	P	8.	44.	18.	2.	46.	23.	5.	0.	2.	0.	10.	16.	5.
8539	P	184.	103.	65.	23.	83.	5.	3.	0.	3.	3.	13.	2.	0.
8540	P	184.	184.	185.	183.	180.	185.	184.	169.	78.	3.	0.	0.	0.
8541	P	180.	183.	180.	180.	171.	174.	165.	182.	181.	184.	185.	180.	180.
8542	P	184.	182.	149.	147.	113.	100.	107.	158.	76.	121.	84.	32.	8.
8543	P	185.	163.	159.	118.	86.	22.	6.	1.	9.	4.	0.	1.	14.
8544	P	185.	180.	184.	182.	143.	84.	10.	2.	2.	24.	12.	0.	27.
8545	P	180.	180.	179.	165.	159.	129.	175.	183.	185.	184.	183.	182.	133.
8546	P	0.	182.	182.	183.	182.	180.	183.	182.	183.	182.	150.	185.	185.
8547	P	181.	181.	151.	90.	28.	22.	4.	1.	7.	3.	5.	3.	0.
8548	P	180.	183.	183.	185.	183.	184.	150.	147.	140.	121.	104.	40.	7.
8549	P	185.	185.	185.	185.	126.	157.	145.	113.	60.	6.	17.	15.	70.
8550	P	183.	185.	182.	185.	160.	171.	183.	184.	184.	173.	152.	148.	160.
8551	P	183.	183.	180.	184.	185.	183.	185.	182.	185.	166.	183.	182.	180.
8552	NP	161.	161.	125.	119.	106.	144.	122.	127.	143.	104.	130.	94.	110.

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 17 (PAGE 10): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS DAYS	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28	28 - 29
RABBIT #	DOSAGE GROUP V				3.75 MG/KG/DAY				
8531 P	180.	180.	185.	184.	185.	182.	180.	127.	141.
8532 P	0.	89.	124.	137.	183.	180.	182.	185.	182.
8533 P	17.	46.	81.	78.	114.	92.	108.	70.	103.
8534 P	5.	ABORTED ON DAY 22 OF GESTATION							
8535 P	40.	4.	1.	2.	2.	1.	41.	171.	82.
8536 P	166.	167.	180.	185.	164.	182.	124.	183.	121.
8537 P	0.	0.	0.	0.	ABORTED ON DAY 25 OF GESTATION				
8538 P	9.	10.	7.	ABORTED ON DAY 24 OF GESTATION					
8539 P	0.	0.	0.	ABORTED ON DAY 24 OF GESTATION					
8540 P	4.	1.	0.	6.	ABORTED ON DAY 25 OF GESTATION				
8541 P	185.	180.	183.	147.	138.	70.	23.	56.	107.
8542 P	1.	2.	7.	3.	13.	8.	10.	ABORTED ON DAY 28 OF GESTATION	
8543 P	2.	2.	0.	1.	1.	0.	0.	0.	0.
8544 P	1.	4.	4.	0.	ABORTED ON DAY 25 OF GESTATION				
8545 P	118.	182.	181.	180.	157.	183.	119.	11.	71.
8546 P	159.	124.	145.	5.	132.	84.	105.	106.	112.
8547 P	0.	ABORTED ON DAY 22 OF GESTATION							
8548 P	180.	12.	2.	122.	ABORTED ON DAY 25 OF GESTATION				
8549 P	92.	95.	99.	181.	180.	144.	166.	128.	131.
8550 P	175.	111.	184.	111.	181.	131.	136.	127.	65.
8551 P	127.	91.	41.	56.	139.	116.	149.	169.	154.
8552 NP	99.	78.	141.	107.	143.	95.	107.	104.	110.

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 17 (PAGE 11): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS DAYS	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20
RABBIT #	SATELLITE DOSAGE GROUP I					0 (VEHICLE) MG/KG/DAY							
8553 P	184.	185.	169.	184.	7.	180.	185.	185.	180.	180.	184.	185.	184.
8554 P	185.	184.	180.	185.	185.	183.	184.	184.	180.	180.	184.	185.	180.
8555 P	103.	142.	114.	97.	87.	113.	85.	126.	107.	150.	171.	139.	158.

	DAYS 20 - 21
8553 P	180.
8554 P	182.
8555 P	120.

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 17 (PAGE 12): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20
RABBIT #	SATELLITE DOSAGE GROUP II					0.1 MG/KG/DAY							
8556 P	147.	142.	133.	130.	128.	165.	143.	165.	85.	68.	157.	166.	184.
8557 P	181.	172.	104.	180.	94.	150.	92.	110.	146.	154.	180.	183.	181.
8558 P	185.	183.	184.	182.	151.	132.	30.	118.	159.	180.	183.	179.	180.
8559 P	182.	180.	183.	185.	83.	182.	184.	183.	185.	185.	181.	185.	183.
8560 P	185.	153.	115.	126.	90.	182.	184.	184.	185.	180.	166.	101.	122.

	DAYS 20 - 21
8556 P	182.
8557 P	183.
8558 P	159.
8559 P	184.
8560 P	108.

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 17 (PAGE 13): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS DAYS	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20
RABBIT #	SATELLITE DOSAGE GROUP III					1.0 MG/KG/DAY							
8561 P	184.	180.	185.	138.	74.	155.	184.	180.	180.	184.	184.	185.	184.
8562 P	181.	180.	180.	184.	134.	185.	185.	183.	180.	185.	180.	185.	182.
8563 P	134.	124.	151.	147.	125.	166.	141.	139.	150.	147.	140.	100.	109.

	DAYS 20 - 21
8561 P	180.
8562 P	173.
8563 P	95.

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 17 (PAGE 14): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS DAYS	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20
RABBIT #	SATELLITE DOSAGE GROUP IV					2.5 MG/KG/DAY							
8564 P	164.	180.	177.	141.	116.	158.	125.	139.	127.	132.	180.	163.	185.
8565 P	183.	163.	185.	151.	38.	30.	2.	1.	1.	154.	185.	185.	185.
8566 P	185.	184.	183.	180.	107.	126.	49.	32.	63.	57.	86.	139.	183.

	DAYS 20 - 21
8564 P	166.
8565 P	123.
8566 P	151.

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 17 (PAGE 15): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20
RABBIT #	SATELLITE DOSAGE GROUP V						3.75 MG/KG/DAY							
8567	P	182.	183.	114.	116.	153.	65.	182.	143.	129.	34.	109.	4.	3.
8568	P	140.	139.	79.	63.	55.	64.	73.	83.	83.	81.	113.	119.	139.
8569	NP	185.	132.	67.	182.	0.	4.	2.	0.	5.	12.	8.	0.	2.
8570	P	185.	184.	184.	182.	148.	180.	83.	4.	7.	13.	6.	54.	164.
8571	P	119.	118.	115.	184.	72.	79.	19.	25.	48.	66.	107.	97.	105.

	DAYS 20 - 21
8567 P	0.
8568 P	132.
8569 NP	0.
8570 P	174.
8571 P	84.

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

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

			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		TOTAL	HORN		TOTAL	HORN		TOTAL	HORN		TOTAL	HORN		TOTAL	OVARY		TOTAL
DOSAGE GROUP I							0 (VEHICLE) MG/KG/DAY													
8443	NOT PREGNANT																			
8444	5	2	2	5	7	0	0	0	0	0	0	0	0	0	2	5	7	2	6	8
8445	NOT PREGNANT																			
8446	3	4	2	5	7	0	0	0	0	0	0	0	0	0	2	5	7	6	7	13
8447	5	7	5	7	12	0	0	0	0	0	0	0	0	0	5	7	12	7	8	15
8448	6	4	6	4	10	0	0	0	0	0	0	1	0	1	7	4	11	7	5	12
8449	7	2	4	5	9	0	0	0	0	0	0	0	0	0	4	5	9	6	6	12
8450	6	4	6	4	10	0	0	0	0	1	1	0	0	0	6	5	11	7	6	13
8451	5	2	5	2	7	0	0	0	0	0	0	0	0	0	5	2	7	7	2	9
8452	2	4	5	1	6	0	0	0	0	1	1	0	0	0	5	2	7	6	3	9
8453	5	4	5	4	9	0	0	0	0	0	0	0	0	0	5	4	9	6	7	13
8454	3	7	6	4	10	0	0	0	0	0	0	0	0	0	6	4	10	7	5	12
8455	5	6	5	6	11	0	0	0	0	0	0	0	0	0	5	6	11	6	7	13
8456	4	2	3	3	6	0	0	0	0	0	0	0	0	0	3	3	6	3	4	7
8457	4	4	5	3	8	0	0	0	0	0	0	0	0	0	5	3	8	5	3	8
8458	6	8	7	7	14	0	0	0	0	0	0	0	0	0	7	7	14	7	7	14
8459	2	5	6	1	7	0	0	0	0	0	0	0	0	0	6	1	7	6	1	7
8460	4	3	4	3	7	0	0	0	0	0	0	0	0	0	4	3	7	4	4	8
8461	3	3	2	4	6	0	0	0	0	0	0	0	0	0	2	4	6	6	4	10
8462	3	6	5	4	9	0	0	0	0	0	0	0	0	0	5	4	9	6	5	11
8463	6	4	9	1	10	0	0	0	1	0	1	0	0	0	10	1	11	10	3	13
8464	3	7	7	3	10	0	0	0	0	0	0	0	0	0	7	3	10	7	3	10

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

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

			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		TOTAL	HORN		TOTAL	HORN		TOTAL	HORN		TOTAL	HORN		TOTAL	OVARY		TOTAL
DOSAGE GROUP II							0.1 MG/KG/DAY													
8465	1	5	3	3	6	0	0	0	1	0	1	0	0	0	4	3	7	4	3	7
8466	NOT PREGNANT																			
8467	NOT PREGNANT																			
8468	3	7	4	6	10	0	0	0	0	0	0	0	0	0	4	6	10	8	7	15
8469	2	5	6	1	7	0	0	0	0	0	0	0	0	0	6	1	7	7	2	9
8470	6	1	4	3	7	0	0	0	0	0	0	0	0	0	4	3	7	4	5	9
8471	3	6	3	6	9	0	0	0	0	0	0	0	0	0	3	6	9	5	8	13
8472	3	6	6	3	9	0	0	0	0	0	0	0	0	0	6	3	9	6	4	10
8473	4	4	5	3	8	0	0	0	1	0	1	0	0	0	6	3	9	6	5	11
8474	4	5	4	5	9	0	0	0	0	0	0	0	0	0	4	5	9	5	5	10
8475	2	5	3	4	7	0	0	0	0	0	0	0	0	0	3	4	7	4	4	8
8476	6	4	6	4	10	0	0	0	0	0	0	0	0	0	6	4	10	6	6	12
8477	NOT PREGNANT																			
8478	6	4	6	4	10	0	0	0	0	0	0	0	0	0	6	4	10	7	5	12
8479	6	9	6	9	15	0	0	0	0	0	0	0	0	0	6	9	15	8	9	17
8480	6	3	6	3	9	0	0	0	0	0	0	0	0	0	6	3	9	6	3	9
8481a	0	0	0	0	0	3	7	10	0	0	0	0	0	0	3	7	10	3	8	11
8482	4	5	3	6	9	0	0	0	0	0	0	0	0	0	3	6	9	3	7	10
8483	6	2	5	3	8	0	0	0	0	0	0	0	0	0	5	3	8	7	4	11
8484	6	3	6	3	9	0	0	0	0	0	0	0	0	0	6	3	9	6	3	9
8485	3	6	6	3	9	0	0	0	0	0	0	0	0	0	6	3	9	7	4	11
8486	3	8	5	6	11	0	0	0	0	0	0	0	0	0	5	6	11	7	6	13

M = MALE F = FEMALE

PLACENTAE APPEARED NORMAL UNLESS NOTED OTHERWISE.

a. Doe 8481 had a litter which consisted of 10 dead fetuses; values excluded from group averages and statistical analyses.

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

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

			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		TOTAL	HORN		TOTAL	HORN		TOTAL	HORN		TOTAL	HORN		TOTAL	OVARY		TOTAL
DOSAGE GROUP III								1.0 MG/KG/DAY												
8487	4	2	3	3	6	0	0	0	0	0	0	0	0	0	3	3	6	3	4	7
8488	3	4	2	5	7	0	0	0	1	0	1	0	0	0	3	5	8	5	6	11
8489	2	4	2	4	6	0	0	0	1	0	1	0	0	0	3	4	7	3	5	8
8490	1	4	0	5	5	0	0	0	0	0	0	0	0	0	0	5	5	2	5	7
8491	5	4	3	6	9	0	0	0	0	0	0	0	1	1	3	7	10	5	8	13
8492	2	7	6	3	9	0	0	0	0	0	0	0	0	0	6	3	9	6	3	9
8493	2	3	1	4	5	0	0	0	0	0	0	0	3	3	1	7	8	2	10	12
8494	2	4	2	4	6	0	0	0	0	0	0	0	0	0	2	4	6	5	6	11
8495	7	3	7	3	10	0	0	0	0	0	0	0	0	0	7	3	10	9	4	13
8496	1	8	7	2	9	0	0	0	0	0	0	0	0	0	7	2	9	8	5	13
8497	4	3	3	4	7	0	0	0	0	0	0	0	0	0	3	4	7	3	5	8
8498	3	6	1	8	9	0	0	0	0	0	0	0	0	0	1	8	9	1	8	9
8499	6	2	3	5	8	0	0	0	0	0	0	0	0	0	3	5	8	3	5	8
8500	5	5	2	8	10	0	0	0	0	0	0	0	1	1	2	9	11	3	9	12
8501	8	3	6	5	11	0	0	0	0	0	0	0	0	0	6	5	11	8	6	14
8502	NOT PREGNANT																			
8503	5	5	8	2	10	0	0	0	0	0	0	0	0	0	8	2	10	9	4	13
8504	4	6	3	7	10	0	0	0	0	0	0	0	0	0	3	7	10	5	7	12
8505	NOT PREGNANT																			
8506	4	5	7	2	9	0	0	0	0	0	0	0	0	0	7	2	9	8	3	11
8507	3	3	0	6	6	0	0	0	0	0	0	0	0	0	0	6	6	3	6	9
8508	NOT PREGNANT																			

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

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

			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		TOTAL	HORN		TOTAL	HORN		TOTAL	HORN		TOTAL	HORN		TOTAL	OVARY		TOTAL
DOSAGE GROUP IV								2.5 MG/KG/DAY												
8509	2	5	3	4	7	0	0	0	1	0	1	0	0	0	4	4	8	4	7	11
8510	4	4	5	3	8	0	0	0	0	0	0	0	0	0	5	3	8	7	5	12
8511	NOT PREGNANT																			
8512	3	4	5	2	7	0	0	0	0	0	0	0	0	0	5	2	7	7	4	11
8513	NOT PREGNANT																			
8514	3	4	3	4	7	0	0	0	0	0	0	0	0	0	3	4	7	6	7	13
8515	4	5	3	6	9	0	0	0	0	0	0	0	0	0	3	6	9	4	6	10
8516	4	3	2	5	7	0	0	0	0	0	0	0	0	0	2	5	7	3	6	9
8517	ABORTED ON DAY 25 OF GESTATION																			
8518	7	2	4	5	9	0	0	0	0	0	0	1	0	1	5	5	10	7	5	12
8519	6	2	3	5	8	0	0	0	0	0	0	0	0	0	3	5	8	3	5	8
8520	3	2	2	3	5	0	0	0	0	0	0	0	0	0	2	3	5	2	4	6
8521	6	4	6	4	10	0	0	0	0	0	0	0	0	0	6	4	10	7	5	12
8522	3	6	5	4	9	0	0	0	0	0	0	0	1	1	5	5	10	6	7	13
8523	NOT PREGNANT																			
8524	NOT PREGNANT																			
8525	5	6	5	6	11	0	0	0	0	0	0	0	0	0	5	6	11	6	7	13
8526	NOT PREGNANT																			
8527	7	4	6	5	11	0	0	0	0	0	0	0	0	0	6	5	11	6	5	11
8528	3	4	5	2	7	0	0	0	0	0	0	0	0	0	5	2	7	6	3	9
8529	2	3	1	4	5	0	0	0	1	0	1	0	0	0	2	4	6	3	4	7
8530	4	6	7	3	10	0	0	0	0	0	0	0	0	0	7	3	10	7	3	10

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 18 (PAGE 5): CAESAREAN-SECTIONING OBSERVATIONS - INDIVIDUAL DATA

			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	TOTAL	HORN	TOTAL	HORN	TOTAL	HORN	TOTAL	OVARY	TOTAL
DOSAGE GROUP V							3.75 MG/KG/DAY								
8531	6	3	4	5	9	0	0	0	0	0	0	4	5	9	4	7	11
8532	4	4	5	3	8	0	0	0	0	0	0	5	3	8	6	6	12
8533	2	4	3	3	6	0	0	0	0	0	0	3	3	6	7	5	12
8534	ABORTED ON DAY 22 OF GESTATION																
8535	8	3	8	3	11	0	0	0	0	0	0	8	3	11	8	3	11
8536	3	5	2	6	8	0	0	1	0	1	0	3	6	9	3	8	11
8537	ABORTED ON DAY 25 OF GESTATION																
8538	ABORTED ON DAY 24 OF GESTATION																
8539	ABORTED ON DAY 24 OF GESTATION																
8540	ABORTED ON DAY 25 OF GESTATION																
8541	2	5	5	2	7	0	0	0	0	0	0	5	2	7	5	3	8
8542	ABORTED ON DAY 28 OF GESTATION																
8543	2	7	6	3	9	0	0	0	0	0	0	1	1	6	4	10	7	5	12
8544	ABORTED ON DAY 25 OF GESTATION																
8545	5	8	6	7	13	0	0	0	0	0	0	0	0	6	7	13	6	7	13
8546	0	7	2	5	7	0	0	0	0	0	0	0	0	2	5	7	3	5	8
8547	ABORTED ON DAY 22 OF GESTATION																
8548	ABORTED ON DAY 25 OF GESTATION																
8549	6	4	5	5	10	0	0	0	0	0	0	0	0	5	5	10	7	5	12
8550	7	3	5	5	10	0	0	0	0	0	0	0	0	5	5	10	7	6	13
8551	5	5	5	5	10	0	0	0	0	0	0	0	0	5	5	10	5	5	10
8552	NOT PREGNANT																

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 18 (PAGE 6): CAESAREAN-SECTIONING OBSERVATIONS - INDIVIDUAL DATA

	VIABLE FETUSES			DEAD FETUSES			EARLY RESORPTIONS			LATE RESORPTIONS			IMPLANTATION SITES			CORPORA LUTEA		
RABBIT #	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
SATELLITE DOSAGE GROUP I						0 (VEHICLE) MG/KG/DAY												
8553	4	9	13	0	0	0	0	0	0	0	0	0	4	9	13	4	9	13
8554	5	5	10	0	0	0	0	0	0	0	0	0	5	5	10	5	5	10
8555	3	5	8	0	0	0	0	0	0	0	0	0	3	5	8	3	5	8
SATELLITE DOSAGE GROUP II						0.1 MG/KG/DAY												
8556	4	4	8	0	0	0	0	0	0	0	0	0	4	4	8	4	4	8
8557	3	4	7	0	0	0	0	0	0	1	0	1	4	4	8	4	4	8
8558	5	5	10	0	0	0	0	0	0	0	0	0	5	5	10	5	5	10
8559	7	4	11	0	0	0	0	0	0	0	0	0	7	4	11	7	4	11
8560	4	7	11	0	0	0	0	0	0	0	0	0	4	7	11	4	7	11
SATELLITE DOSAGE GROUP III						1.0 MG/KG/DAY												
8561	0	2	2	0	0	0	0	0	0	0	0	0	0	2	2	0	3	3
8562	5	4	9	0	0	0	0	0	0	0	0	0	5	4	9	5	4	9
8563	1	6	7	0	0	0	0	0	0	0	0	0	1	6	7	2	6	8
SATELLITE DOSAGE GROUP IV						2.5 MG/KG/DAY												
8564	5	5	10	0	0	0	0	0	0	0	0	0	5	5	10	5	5	10
8565	7	3	10	0	0	0	0	0	0	0	0	0	7	3	10	7	3	10
8566	4	4	8	0	0	0	0	0	0	0	0	0	4	4	8	4	5	9
SATELLITE DOSAGE GROUP V						3.75 MG/KG/DAY												
8567	3	7	10	0	0	0	0	0	0	0	0	0	3	7	10	3	7	10
8568	5	2	7	0	0	0	0	0	0	0	0	0	5	2	7	5	3	8
8569	NOT PREGNANT																	
8570	4	5	9	0	0	0	0	0	0	0	0	0	4	5	9	6	6	12
8571	0	2	2	0	0	0	1	0	1	0	0	0	1	2	3	2	3	5

PLACENTAE APPEARED NORMAL UNLESS NOTED OTHERWISE.

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

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

	NUMBER OF LIVE FETUSES			AVERAGE FETAL BODY WEIGHT (G)			---- CONCEPTUSES ------ DEAD OR RESORBED		
RABBIT #	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL a	N	N	%
DOSAGE GROUP I				0 (VEHICLE) MG/KG/DAY					
8443	NOT PREGNANT								
8444	5	2	7	51.30	49.86	50.89	7	0	0.0
8445	NOT PREGNANT								
8446	3	4	7	51.60	46.62	48.75	7	0	0.0
8447	5	7	12	44.66	42.94	43.66	12	0	0.0
8448	6	4	10	47.24	44.60	46.18	11	1	9.1
8449	7	2	9	44.62	47.62	45.29	9	0	0.0
8450	6	4	10	44.86	42.48	43.91	11	1	9.1
8451	5	2	7	47.34	49.38	47.92	7	0	0.0
8452	2	4	6	47.98	50.26	49.50	7	1	14.3
8453	5	4	9	50.65	45.67	48.44	9	0	0.0
8454	3	7	10	44.11	39.29	40.74	10	0	0.0
8455	5	6	11	46.24	42.17	44.02	11	0	0.0
8456	4	2	6	46.98	51.80	48.59	6	0	0.0
8457	4	4	8	44.81	41.70	43.26	8	0	0.0
8458	6	8	14	37.79	36.06	36.80	14	0	0.0
8459	2	5	7	39.94	43.44	42.44	7	0	0.0
8460	4	3	7	44.86	44.63	44.76	7	0	0.0
8461	3	3	6	44.44	47.33	45.88	6	0	0.0
8462	3	6	9	38.30	38.28	38.29	9	0	0.0
8463	6	4	10	40.69	38.04	39.63	11	1	9.1
8464	3	7	10	31.60	34.98	33.97	10	0	0.0

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

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

	NUMBER OF LIVE FETUSES			AVERAGE FETAL BODY WEIGHT (G)			---- CONCEPTUSES ------ DEAD OR RESORBED		
RABBIT #	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL a	N	N	%
DOSAGE GROUP II				0.1 MG/KG/DAY					
8465	1	5	6	45.60	47.09	46.84	7	1	14.3
8466	NOT PREGNANT								
8467	NOT PREGNANT								
8468	3	7	10	43.49	39.60	40.77	10	0	0.0
8469	2	5	7	43.00	47.51	46.22	7	0	0.0
8470	6	1	7	41.04	36.76	40.43	7	0	0.0
8471	3	6	9	41.56	41.22	41.33	9	0	0.0
8472	3	6	9	44.55	40.00	41.52	9	0	0.0
8473	4	4	8	38.61	39.84	39.23	9	1	11.1
8474	4	5	9	44.18	43.07	43.57	9	0	0.0
8475	2	5	7	41.22	39.68	40.12	7	0	0.0
8476	6	4	10	41.29	36.39	39.33	10	0	0.0
8477	NOT PREGNANT								
8478	6	4	10	38.49	38.54	38.51	10	0	0.0
8479	6	9	15	37.45	34.32	35.57	15	0	0.0
8480	6	3	9	43.58	44.16	43.78	9	0	0.0
8481b	0	0	0	----	----	----	10	10	100.0
8482	4	5	9	37.77	36.95	37.31	9	0	0.0
8483	6	2	8	47.47	48.04	47.61	8	0	0.0
8484	6	3	9	41.16	43.89	42.07	9	0	0.0
8485	3	6	9	42.66	45.71	44.70	9	0	0.0
8486	3	8	11	39.65	41.71	41.14	11	0	0.0

a. TOTAL = SUM OF FETAL WEIGHTS/NUMBER OF LIVE FETUSES.
b. Doe 8481 had a litter which consisted of 10 dead fetuses; values excluded from group averages and statistical analyses.

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

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

	NUMBER OF LIVE FETUSES			AVERAGE FETAL BODY WEIGHT (G)			---- CONCEPTUSES ------ DEAD OR RESORBED		
RABBIT #	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL a	N	N	%
DOSAGE GROUP III				1.0 MG/KG/DAY					
8487	4	2	6	45.08	47.92	46.03	6	0	0.0
8488	3	4	7	44.95	48.43	46.94	8	1	12.5
8489	2	4	6	47.74	45.64	46.34	7	1	14.3
8490	1	4	5	52.43	49.38	49.99	5	0	0.0
8491	5	4	9	43.39	38.25	41.11	10	1	10.0
8492	2	7	9	39.84	39.32	39.44	9	0	0.0
8493	2	3	5	45.12	40.46	42.33	8	3	37.5
8494	2	4	6	40.86	41.00	40.95	6	0	0.0
8495	7	3	10	39.82	37.36	39.09	10	0	0.0
8496	1	8	9	50.85	43.20	44.05	9	0	0.0
8497	4	3	7	44.44	46.43	45.30	7	0	0.0
8498	3	6	9	32.90	35.34	34.52	9	0	0.0
8499	6	2	8	38.95	39.98	39.21	8	0	0.0
8500	5	5	10	40.43	37.51	38.97	11	1	9.1
8501	8	3	11	40.83	35.95	39.50	11	0	0.0
8502	NOT PREGNANT								
8503	5	5	10	40.58	37.54	39.06	10	0	0.0
8504	4	6	10	34.81	37.76	36.58	10	0	0.0
8505	NOT PREGNANT								
8506	4	5	9	49.77	45.23	47.25	9	0	0.0
8507	3	3	6	29.49	50.22	39.85	6	0	0.0
8508	NOT PREGNANT								

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

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

	NUMBER OF LIVE FETUSES			AVERAGE FETAL BODY WEIGHT (G)			---- CONCEPTUSES ------ DEAD OR RESORBED		
RABBIT #	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL a	N	N	%
DOSAGE GROUP IV				2.5 MG/KG/DAY					
8509	2	5	7	42.72	44.49	43.98	8	1	12.5
8510	4	4	8	46.61	34.32	40.46	8	0	0.0
8511	NOT PREGNANT								
8512	3	4	7	46.69	46.17	46.39	7	0	0.0
8513	NOT PREGNANT								
8514	3	4	7	44.41	40.65	42.26	7	0	0.0
8515	4	5	9	36.02	35.39	35.67	9	0	0.0
8516	4	3	7	44.57	41.71	43.34	7	0	0.0
8517	ABORTED ON DAY 25 OF GESTATION								
8518	7	2	9	33.81	29.02	32.74	10	1	10.0
8519	6	2	8	37.80	36.28	37.42	8	0	0.0
8520	3	2	5	38.96	44.59	41.21	5	0	0.0
8521	6	4	10	41.46	36.27	39.39	10	0	0.0
8522	3	6	9	43.88	44.50	44.29	10	1	10.0
8523	NOT PREGNANT								
8524	NOT PREGNANT								
8525	5	6	11	35.57	31.32	33.25	11	0	0.0
8526	NOT PREGNANT								
8527	7	4	11	32.91	33.76	33.22	11	0	0.0
8528	3	4	7	45.15	43.71	44.32	7	0	0.0
8529	2	3	5	38.80	41.40	40.36	6	1	16.7
8530	4	6	10	39.56	40.17	39.93	10	0	0.0

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 19 (PAGE 5): LITTER OBSERVATIONS (CAESAREAN-DELIVERED FETUSES) - INDIVIDUAL DATA

	NUMBER OF LIVE FETUSES			AVERAGE FETAL BODY WEIGHT (G)			---- CONCEPTUSES ------ DEAD OR RESORBED		
RABBIT #	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL a	N	N	%
DOSAGE GROUP V				3.75 MG/KG/DAY					
8531	6	3	9	40.47	39.78	40.24	9	0	0.0
8532	4	4	8	34.20	34.17	34.18	8	0	0.0
8533	2	4	6	40.65	37.75	38.72	6	0	0.0
8534	ABORTED ON DAY 22 OF GESTATION								
8535	8	3	11	32.41	22.67	29.75	11	0	0.0
8536	3	5	8	36.22	36.17	36.19	9	1	11.1
8537	ABORTED ON DAY 25 OF GESTATION								
8538	ABORTED ON DAY 24 OF GESTATION								
8539	ABORTED ON DAY 24 OF GESTATION								
8540	ABORTED ON DAY 25 OF GESTATION								
8541	2	5	7	43.72	39.86	40.96	7	0	0.0
8542	ABORTED ON DAY 28 OF GESTATION								
8543	2	7	9	17.69	13.84	14.70	10	1	10.0
8544	ABORTED ON DAY 25 OF GESTATION								
8545	5	8	13	27.58	25.53	26.32	13	0	0.0
8546	0	7	7	----	38.59	38.59	7	0	0.0
8547	ABORTED ON DAY 22 OF GESTATION								
8548	ABORTED ON DAY 25 OF GESTATION								
8549	6	4	10	28.54	26.52	27.73	10	0	0.0
8550	7	3	10	36.26	34.96	35.87	10	0	0.0
8551	5	5	10	37.36	37.93	37.64	10	0	0.0
8552	NOT PREGNANT								

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 19 (PAGE 6): LITTER OBSERVATIONS (CAESAREAN-DELIVERED FETUSES) - INDIVIDUAL DATA

	NUMBER OF LIVE FETUSES	AVERAGE FETAL BODY WEIGHT (G)	---- CONCEPTUSES ------ DEAD OR RESORBED		
RABBIT #	TOTAL	TOTAL a	N	N	%
SATELLITE DOSAGE GROUP I		0 (VEHICLE) MG/KG/DAY			
8553	13	4.96	13	0	0.0
8554	10	4.59	10	0	0.0
8555	8	5.14	8	0	0.0
SATELLITE DOSAGE GROUP II		0.1 MG/KG/DAY			
8556	8	5.17	8	0	0.0
8557	7	4.69	8	1	12.5
8558	10	4.56	10	0	0.0
8559	11	5.21	11	0	0.0
8560	11	4.96	11	0	0.0
SATELLITE DOSAGE GROUP III		1.0 MG/KG/DAY			
8561	2	5.37	2	0	0.0
8562	9	5.12	9	0	0.0
8563	7	5.06	7	0	0.0
SATELLITE DOSAGE GROUP IV		2.5 MG/KG/DAY			
8564	10	4.89	10	0	0.0
8565	10	5.49	10	0	0.0
8566	8	4.14	8	0	0.0
SATELLITE DOSAGE GROUP V		3.75 MG/KG/DAY			
8567	10	4.30	10	0	0.0
8568	7	4.61	7	0	0.0
8569	NOT PREGNANT				
8570	9	5.18	9	0	0.0
8571	2	5.78	3	1	33.3

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

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

FETUS #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
DOSAGE GROUP I	0 (VEHICLE) MG/KG/DAY																		
RABBIT # CLs																			
8443	NOT PREGNANT																		
8444 2/ 6	MA	FA /	MA	MA	FA	MA	MA												
	56.21	51.03	53.74	53.50	48.70	49.27	43.80												
8445	NOT PREGNANT																		
8446 6/ 7	MA	MA /	MA	FA	FA	FA	FA												
	52.73	45.56	56.50	52.59	46.91	43.50	43.48												
8447 7/ 8	FA	FA	MA	FA	MA /	MA	MA	FA	FA	FA	FA	MA							
	52.34	43.91	43.11	44.81	44.16	44.38	43.14	46.06	44.06	32.77	36.63	48.49							
8448 7/ 5	MA	FA	MA	MA	L	MA	FA /	FA	MA	FA	MA								
	44.73	43.94	50.24	48.10		45.20	42.35	48.09	50.37	44.00	44.83								
8449 6/ 6	FA	FA	MA	MA /	MA	MA	MA	MA	MA										
	46.84	48.40	42.94	48.11	49.00	46.13	42.21	39.98	44.01										
8450 7/ 6	MA	MA	FA	FA	MA	FA /	MA	E	FA	MA	MA								
	50.79	47.41	45.63	41.80	37.55	40.11	50.49		42.39	37.99	44.95								
8451 7/ 2	MA	MA	MA	FA	MA /	FA	MA												
	47.90	49.72	44.85	45.48	49.43	53.27	44.79												
8452 6/ 3	FA	FA	FA	MA	MA /	E	FA												
	45.63	55.44	52.04	48.77	47.20		47.92												
8453 6/ 7	MA	FA	MA	MA	FA /	FA	MA	MA	FA										
	62.37	51.25	52.51	50.58	36.80	48.85	39.38	48.41	45.78										
8454 7/ 5	FA	FA	FA	FA	FA	FA /	FA	MA	MA	MA									
	41.88	38.46	37.67	41.55	36.23	39.41	39.85	42.97	45.40	43.97									
8455 6/ 7	MA	FA	MA	FA	FA /	MA	FA	MA	FA	FA	MA								
	46.20	43.72	42.71	44.40	46.73	48.40	45.18	45.99	36.63	36.36	47.92								

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).

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

FETUS #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
DOSAGE GROUP I	0 (VEHICLE) MG/KG/DAY																		
RABBIT # CLs																			
8456 3/ 4	FA	MA	MA / FA	MA	MA														
	50.69	48.39	46.64	52.91	47.19	45.70													
8457 5/ 3	MA	MA	FA	FA	MA / FA	MA	FA												
	49.24	40.91	45.36	41.77	39.57	43.53	49.51	36.15											
8458 7/ 7	MA	FA	FA	FA	MA	FA	MA / FA	FA	MA	MA	FA	FA	MA						
	48.33	34.86	37.64	41.01	30.01	32.55	38.35	41.70	37.67	40.03	35.05	33.42	29.59	34.98					
8459 6/ 1	FA	FA	MA	MA	FA	FA / FA													
	50.26	46.54	43.89	35.98	37.66	40.16	42.57												
8460 4/ 4	FA	MA	FA	MA / MA	FA	MA													
	47.79	45.01	47.77	40.17	49.24	38.33	45.04												
8461 6/ 4	MA	FA / FA	FA	MA	MA														
	43.96	43.13	48.41	50.44	42.14	47.23													
8462 6/ 5	MA	FA	FA	MA	FA / FA	FA	FA	MA											
	40.36	38.51	38.20	41.28	40.99	39.45	38.36	34.18	33.26										
8463 10/ 3	E	FA	MA	FA	MA	MA	FA	FA	MA	MA / MA									
		41.92	43.20	44.40	38.14	34.30	37.73	28.09	34.76	42.28	51.47								
8464 7/ 3	MA	FA	FA	FA	FA	MA	FA / FA	MA	FA										
	34.27	30.24	35.00	32.69	30.71	26.55	36.96	40.65	33.98	38.63									

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).

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

FETUS #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
DOSAGE GROUP II						0.1 MG/KG/DAY													
RABBIT # CLs																			
8465 4/ 3	MA	FA	FA	E /	FA	FA	FA												
	45.60	43.81	48.51		48.37	48.03	46.75												
8466	NOT PREGNANT																		
8467	NOT PREGNANT																		
8468 8/ 7	MA	MA	MA	FA /	FA	FA	FA	FA	FA	FA									
	47.27	40.38	42.81	36.38	44.10	44.88	39.45	35.81	37.69	38.89									
8469 7/ 2	FA	FA	FA	FA	MA	FA /	MA												
	53.28	51.18	45.06	44.83	39.47	43.21	46.53												
8470 4/ 5	MA	FA	MA	MA /	MA	MA	MA												
	42.48	36.76	36.81	42.03	46.43	41.31	37.18												
8471 5/ 8	MA	MA	FA /	FA	FA	MA	FA	FA	FA										
	33.93	45.03	40.91	38.12	40.87	45.72	42.20	41.34	43.88										
8472 6/ 4	FA	FA	MA	FA	FA	FA /	MA	FA	MA										
	44.77	42.76	40.73	41.27	32.00	33.58	52.07	45.61	40.86										
8473 6/ 5	MA	FA	E	MA	MA	FA /	FA	FA	MA										
	49.18	38.09		34.07	25.96	29.61	47.33	44.35	45.23										
8474 5/ 5	MA	MA	MA	FA /	FA	FA	FA	MA	FA										
	43.52	44.47	43.89	38.06	47.20	45.16	43.96	44.86	40.99										
8475 4/ 4	FA	MA	FA /	MA	FA	FA	FA												
	33.93	42.02	41.30	40.42	38.71	43.59	40.89												
8476 6/ 6	FA	MA	FA	FA	FA	MA /	MA	MA	MA	MA									
	44.27	44.37	38.82	30.39	32.09	37.95	47.12	42.34	35.65	40.30									
8477	NOT PREGNANT																		

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 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

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

FETUS #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
DOSAGE GROUP II						0.1 MG/KG/DAY													
RABBIT # CLs																			
8478 7/ 5	MA	FA	MA	MA	MA	FA /	MA	FA	MA	FA									
	46.49	39.16	38.92	33.12	35.57	41.39	44.32	35.54	32.50	38.05									
8479 8/ 9	FA	FA	FA	FA	FA	MA /	MA	MA	MA	MA	FA	MA	FA	FA	FA				
	22.79	35.71	35.64	38.48	43.11	35.88	34.26	42.60	41.00	43.87	45.69	27.08	25.39	32.10	29.98				
8480 6/ 3	MA	FA	FA	MA	MA	MA /	FA	MA	MA										
	46.60	41.98	40.91	46.54	39.30	42.05	49.60	45.06	41.95										
8481a 3/ 8	FD	FD	FD /	FD	MD	FD	FD	FD	FD	FD									
	45.86	46.91	45.99	51.11	47.50	45.01	38.98	41.14	38.31	41.88									
8482 3/ 7	MA	FA	FA /	MA	MA	FA	MA	FA	FA										
	43.89	45.85	37.85	39.97	35.69	31.76	31.53	30.39	38.88										
8483 7/ 4	MA	FA	FA	MA	MA /	MA	MA	MA											
	55.20	51.95	44.14	38.19	45.14	45.41	47.60	53.27											
8484 6/ 3	FA	MA	MA	MA	FA	MA /	MA	FA	MA										
	48.76	48.13	42.50	46.08	39.88	25.38	42.43	43.02	42.47										
8485 7/ 4	FA	MA	FA	FA	MA	FA /	FA	FA	MA										
	49.61	48.36	43.09	44.08	38.45	43.78	52.45	41.27	41.17										
8486 7/ 6	FA	MA	FA	FA	FA /	FA	FA	MA	FA	MA	FA								
	45.21	44.96	44.27	37.15	39.12	44.51	45.63	40.85	36.11	33.13	41.65								

M = MALE F = FEMALE A = ALIVE D = DEAD E = EARLY RESORPTION L = LATE RESORPTION "/" DENOTES POSITION OF CERVIX
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a. Doe 8481 had a litter which consisted of 10 dead fetuses; values excluded from group averages and statistical analyses.

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

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

FETUS #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
DOSAGE GROUP III						1.0 MG/KG/DAY													
RABBIT # CLs																			
8487 3/ 4	FA	MA	MA /	FA	MA	MA													
	46.05	48.00	43.38	49.80	45.05	43.88													
8488 5/ 6	E	FA	FA /	FA	FA	MA	MA	MA											
		46.18	49.04	50.97	47.52	43.30	42.11	49.43											
8489 3/ 5	MA	FA	E /	FA	MA	FA	FA												
	47.90	46.58		44.56	47.57	43.24	48.17												
8490 2/ 5 /	MA	FA	FA	FA	FA														
	52.43	50.12	43.68	48.93	54.79														
8491 5/ 8	MA	FA	MA /	FA	MA	L	MA	MA	FA	FA									
	46.90	38.03	43.41	45.04	48.94	1.26	41.01	36.71	35.45	34.47									
8492 6/ 3	MA	FA	FA	MA	FA	FA /	FA	FA	FA										
	42.28	38.88	39.50	37.41	33.81	36.29	44.06	40.60	42.09										
8493 2/10	FA /	MA	L	L	L	MA	FA	FA											
	45.19	45.57	5.95	0.79	0.98	44.67	37.65	38.55											
8494 5/ 6	MA	MA /	FA	FA	FA	FA													
	41.15	40.58	43.50	40.57	38.44	41.47													
8495 9/ 4	MA	MA	FA	MA	FA	MA	MA /	MA	FA	MA									
	43.56	42.88	35.41	31.44	32.83	28.21	45.91	45.94	43.85	40.84									
8496 8/ 5	FA	FA	FA	FA	FA	FA	FA /	FA	MA										
	53.70	48.23	45.40	35.33	41.06	34.07	35.52	52.26	50.85										
8497 3/ 5	MA	FA	FA /	FA	MA	MA	MA												
	47.84	47.91	44.18	47.21	47.13	39.11	43.69												
8498 1/ 8	MA /	FA	FA	FA	MA	FA	FA	MA	FA										
	38.14	38.40	36.49	35.23	32.16	30.78	32.92	28.40	38.21										
8499 3/ 5	MA	MA	MA /	FA	FA	MA	MA	MA											
	42.91	40.01	39.98	41.98	37.98	34.30	37.94	38.55											

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PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

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

FETUS #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
DOSAGE GROUP III						1.0 MG/KG/DAY													
RABBIT # CLs																			
8500 3/ 9	FA	MA /	FA	MA	FA	MA	L	FA	FA	MA	MA								
	43.88	42.23	35.01	43.85	35.53	36.84	1.33	38.59	34.52	42.42	36.79								
8501 8/ 6	MA	MA	MA	MA	MA	MA /	MA	FA	FA	MA	FA								
	43.17	36.70	41.88	42.12	40.72	40.73	48.19	39.68	33.34	33.14	34.84								
8502	NOT PREGNANT																		
8503 9/ 4	MA	MA	MA	MA	FA	FA	MA	FA /	FA	FA									
	49.13	46.49	39.69	39.73	37.16	28.48	27.87	30.10	47.22	44.76									
8504 5/ 7	FA	FA	FA /	MA	FA	MA	MA	FA	MA	FA									
	43.92	40.39	34.65	39.94	38.17	32.76	35.21	36.00	31.32	33.46									
8505	NOT PREGNANT																		
8506 8/ 3	FA	FA	MA	FA	FA	FA	MA /	MA	MA										
	48.96	49.18	52.74	49.93	43.75	34.33	47.69	50.65	48.01										
8507 3/ 6 /	MA	FA	FA	FA	MA	MA													
	51.22	52.40	48.86	49.39	47.99	40.47													
8508	NOT PREGNANT																		

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 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 20 (PAGE 7): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

FETUS #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
DOSAGE GROUP IV	2.5 MG/KG/DAY																		
RABBIT # CLs																			
8509 4/ 7	MA	E	FA	FA /	FA	FA	FA	MA											
	48.53		41.94	46.99	44.40	40.30	48.82	36.91											
8510 7/ 5	MA	MA	FA	FA	FA /	MA	FA	MA											
	52.02	46.80	33.61	35.29	30.02	51.25	38.34	36.38											
8511	NOT PREGNANT																		
8512 7/ 4	MA	FA	MA	FA	MA /	FA	FA												
	52.12	47.92	42.50	43.65	45.46	49.14	43.96												
8513	NOT PREGNANT																		
8514 6/ 7	FA	FA	FA /	MA	MA	FA	MA												
	44.25	42.18	37.29	44.61	45.67	38.88	42.96												
8515 4/ 6	FA	FA	MA /	FA	MA	FA	MA	FA	MA										
	39.20	36.77	37.54	34.18	37.55	34.51	33.67	32.27	35.34										
8516 3/ 6	MA	FA /	MA	MA	FA	MA	FA												
	45.09	41.03	48.93	42.06	42.55	42.20	41.54												
8517	ABORTED ON DAY 25 OF GESTATION																		
8518 7/ 5	MA	MA	MA	MA	L /	MA	FA	MA	MA	FA									
	35.13	37.26	33.35	31.55	0.58	37.57	34.95	30.47	31.32	23.08									
8519 3/ 5	MA	MA	FA /	MA	FA	MA	MA	MA											
	40.52	35.27	34.34	37.48	38.23	37.67	36.38	39.47											
8520 2/ 4	FA	MA /	MA	MA	FA														
	44.00	43.14	35.80	37.94	45.18														
8521 7/ 5	MA	MA	MA	MA	FA	FA /	FA	MA	FA	MA									
	45.57	45.12	37.02	37.95	35.74	36.05	38.45	39.43	34.83	43.70									

M = MALE F = FEMALE A = ALIVE D = DEAD E = EARLY RESORPTION L = LATE RESORPTION "/" DENOTES POSITION OF CERVIX
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PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 20 (PAGE 8): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

FETUS #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
DOSAGE GROUP IV						2.5 MG/KG/DAY													
RABBIT # CLs																			
8522 6/ 7	FA	FA	FA	MA	MA /	MA	FA	FA	FL	FA									
	46.76	45.76	45.05	44.61	38.81	48.21	43.39	43.87	24.30	42.16									
8523	NOT PREGNANT																		
8524	NOT PREGNANT																		
8525 6/ 7	MA	FA	MA	FA	FA /	FA	MA	MA	MA	FA	FA								
	40.08	38.03	34.97	27.49	29.49	36.56	38.99	34.21	29.61	26.10	30.27								
8526	NOT PREGNANT																		
8527 6/ 5	MA	MA	MA	MA	MA	MA /	FA	FA	FA	MA	FA								
	41.16	41.97	38.11	30.51	21.05	18.80	35.72	30.23	34.01	38.80	35.06								
8528 6/ 3	FA	MA	FA	FA	MA /	FA	MA												
	47.70	45.44	41.92	43.95	42.15	41.26	47.86												
8529 3/ 4	E	MA /	FA	FA	MA	FA													
		42.11	42.69	43.75	35.48	37.75													
8530 7/ 3	FA	MA	MA	FA	FA	MA	FA /	FA	FA	MA									
	41.58	41.84	34.18	38.16	38.01	38.42	40.79	43.07	39.43	43.79									

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 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 20 (PAGE 9): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

FETUS #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
DOSAGE GROUP V						3.75 MG/KG/DAY													
RABBIT # CLs																			
8531 4/ 7	FA	FA	FA	MA /	MA	MA	MA	MA	MA										
	40.31	40.21	38.81	31.50	49.16	42.77	39.52	38.03	41.82										
8532 6/ 6	MA	FA	FA	FA	MA /	FA	MA	MA											
	38.54	34.70	33.13	29.40	30.58	39.44	33.18	34.49											
8533 7/ 5	FA	MA	FA /	MA	FA	FA													
	41.03	39.95	37.99	41.35	36.50	35.49													
8534	ABORTED ON DAY 22 OF GESTATION																		
8535 8/ 3	MA	MA	MA	FA	MA	FA	MA	MA /	FA	MA	MA								
	38.06	35.58	37.84	14.27	23.13	21.76	24.00	27.76	31.98	34.42	38.48								
8536 3/ 8	MA	MA	E /	FA	FA	FA	FA	MA	FA										
	39.65	44.51		46.24	41.41	33.54	25.63	24.51	34.03										
8537	ABORTED ON DAY 25 OF GESTATION																		
8538	ABORTED ON DAY 24 OF GESTATION																		
8539	ABORTED ON DAY 24 OF GESTATION																		
8540	ABORTED ON DAY 25 OF GESTATION																		
8541 5/ 3	MA	FA	MA	FA	FA /	FA	FA												
	47.60	42.99	39.85	31.84	38.05	44.51	41.90												
8542	ABORTED ON DAY 28 OF GESTATION																		
8543 7/ 5	FA	MA	MA	FA	FA	FA /	L	FA	FA	FA									
	18.98	21.05	14.33	9.61	12.62	11.15	5.01	13.45	17.13	13.97									

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 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 20 (PAGE 10): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

FETUS #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
DOSAGE GROUP V							3.75 MG/KG/DAY													
RABBIT #	CLs																			
8544		ABORTED ON DAY 25 OF GESTATION																		
8545	6/ 7	FA	FA	MA	FA	FA	FA /	FA	FA	MA	MA	MA	FA	MA						
		33.44	23.74	31.73	30.19	15.63	14.05	34.34	29.81	34.38	26.13	20.57	23.06	25.11						
8546	3/ 5	FA	FA /	FA	FA	FA	FA	FA												
		39.89	43.53	39.73	37.76	40.56	34.02	34.62												
8547		ABORTED ON DAY 22 OF GESTATION																		
8548		ABORTED ON DAY 25 OF GESTATION																		
8549	7/ 5	FA	FA	MA	MA	MA /	MA	FA	MA	MA	FA									
		32.68	19.63	27.15	26.92	31.62	32.57	25.28	30.14	22.82	28.47									
8550	7/ 6	FA	MA	FA	MA	MA /	MA	MA	FA	MA	MA									
		37.27	36.52	39.52	34.53	34.56	41.67	39.86	28.09	32.32	34.34									
8551	5/ 5	FA	MA	MA	MA	FA /	FA	FA	MA	MA	FA									
		41.03	37.47	42.30	33.52	36.51	45.27	36.10	37.49	36.02	30.74									
8552		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 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 20 (PAGE 11): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

FETUS #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
SATELLITE DOSAGE GROUP I							0 (VEHICLE) MG/KG/DAY													
RABBIT #	CLs																			
8553	4/ 9	A	A	A	A /	A	A	A	A	A	A	A	A	A						
		4.78	4.78	4.99	5.18	5.59	4.45	5.56	4.67	4.97	5.12	4.87	4.57	4.89						
8554	5/ 5	A	A	A	A	A /	A	A	A	A	A									
		4.80	3.99	5.19	4.34	4.69	4.63	4.56	4.41	4.25	5.05									
8555	3/ 5	A	A	A /	A	A	A	A	A											
		5.37	5.03	5.58	5.27	5.61	4.18	5.09	5.01											
SATELLITE DOSAGE GROUP II							0.1 MG/KG/DAY													
RABBIT #	CLs																			
8556	4/ 4	A	A	A	A /	A	A	A	A											
		5.44	5.41	5.49	4.02	4.99	5.31	5.62	5.10											
8557	4/ 4	A	A	A	L /	A	A	A	A											
		4.05	4.89	5.05		4.81	4.70	4.87	4.45											
8558	5/ 5	A	A	A	A	A /	A	A	A	A	A									
		3.74	4.78	5.08	4.67	4.46	4.09	4.77	4.53	4.93	4.57									
8559	7/ 4	A	A	A	A	A	A	A /	A	A	A	A								
		5.32	5.54	4.57	5.05	5.54	5.41	4.99	5.33	5.32	5.11	5.10								
8560	4/ 7	A	A	A	A /	A	A	A	A	A	A	A								
		4.37	5.19	5.20	4.59	5.43	4.70	4.63	5.77	4.99	4.55	5.20								
SATELLITE DOSAGE GROUP III							1.0 MG/KG/DAY													
RABBIT #	CLs																			
8561	0/ 3 /	A	A																	
		5.38	5.36																	
8562	5/ 4	A	A	A	A	A /	A	A	A	A										
		5.24	4.76	5.55	5.27	5.34	4.77	5.48	5.00	4.67										
8563	2/ 6	A /	A	A	A	A	A	A												
		5.24	5.06	4.40	5.13	5.17	4.82	5.64												

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 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 20 (PAGE 12): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

FETUS #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
SATELLITE DOSAGE GROUP IV							2.5 MG/KG/DAY													
RABBIT #	CLs																			
8564	5/ 5	A	A	A	A	A /	A	A	A	A	A									
		4.71	5.07	4.76	4.89	5.06	4.72	4.96	4.84	4.81	5.05									
8565	7/ 3	A	A	A	A	A	A	A /	A	A	A									
		6.03	5.78	5.32	5.82	5.76	5.34	4.77	6.15	5.14	4.78									
8566	4/ 5	A	A	A	A /	A	A	A	A											
		4.33	4.06	3.71	3.82	4.42	4.35	4.37	4.10											
SATELLITE DOSAGE GROUP V							3.75 MG/KG/DAY													
RABBIT #	CLs																			
8567	3/ 7	A	A	A /	A	A	A	A	A	A	A									
		4.82	4.53	4.08	4.65	4.49	4.44	4.18	4.28	3.62	3.95									
8568	5/ 3	A	A	A	A	A /	A	A												
		4.64	4.69	4.61	4.46	4.41	4.63	4.82												
8569		NOT PREGNANT																		
8570	6/ 6	A	A	A	A /	A	A	A	A	A										
		5.60	5.44	5.43	4.85	5.51	5.34	4.79	4.85	4.86										
8571	2/ 3	E /	A	A																
			5.93	5.62																

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 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 21 (PAGE 1): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP I 0 (VEHICLE) 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
8443	NOT PREGNANT						
8444	1(14.3)	0/ 7		0/ 7		1/ 7	FETUS 4 HYOID: ALA, ANGULATED, bilateral
8445	NOT PREGNANT						
8446	0(0.0)	0/ 7		0/ 7		0/ 7	
8447	5(41.7)	0/12		0/12		5/12	FETUS 4 HYOID: ALA, ANGULATED, bilateral FETUS 7 HYOID: ALA, ANGULATED, left FETUS 8 CAUDAL VERTEBRAE: MISALIGNED, 17th FETUS 10 THORACIC VERTEBRAE: CENTRUM, UNILATERAL OSSIFICATION, left 5th FETUS 11 HYOID: ALA, ANGULATED, bilateral

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 21 (PAGE 2): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP I 0 (VEHICLE) 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
8448	1(10.0)	1/10	FETUS 1 FORELIMB: POLLEX ABSENT, bilateral FETUS 5 LATE RESORPTION, autolysis precluded further evaluation	0/10		1/10	FETUS 1 FORELIMB: 4 METACARPALS PRESENT, bilateral, 1st metacarpal absent; 4 DIGITS PRESENT, bilateral, 1st digit absent; FOREPHALANGES, 1st MEDIAL AND DISTAL PHALANGES ABSENT, bilateral
8449	3(33.3)	0/ 9		1/ 9	FETUS 6 EYES: CIRCUMCORNEAL HEMORRHAGE, left eye	3/ 9	FETUS 2 HYOID: ALA, ANGULATED, bilateral FETUS 6 SKULL: NASAL - FRONTAL, IRREGULAR SUTURE, bilateral HYOID: ALA, ANGULATED, bilateral FETUS 7 HYOID: ALA, ANGULATED, bilateral

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 21 (PAGE 3): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP I 0 (VEHICLE) MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	DESCRIPTION	SOFT TISSUE EXAMINATION N/N	DESCRIPTION	SKELETAL EXAMINATION N/N	DESCRIPTION
8450	3(30.0)	0/10		1/10	FETUS 7 LUNGS: INTERMEDIATE LOBE ABSENT	2/10	FETUS 2 SKULL: NASAL, CONTAINED AN INTRANASAL, right, 2.0 mm x 3.0 mm, left, 2.5 mm x 4.0 mm FETUS 3 SKULL: NASALS, CONTAINED AN INTERNASAL, 1.) 0.5 mm x 2.5 mm 2.) 0.5 mm x 2.0 mm
8451	1(14.3)	0/ 7		0/ 7		1/ 7	FETUS 1 SKULL: NASAL, CONTAINED AN INTRANASAL, left, 3.0 mm x 5.0 mm
8452	1(16.7)	0/ 6		0/ 6		1/ 6	FETUS 1 HYOID: ALA, ANGULATED, left THORACIC VERTEBRAE: HEMIVERTEBRA, left 3rd, arch and centrum RIBS: SPLIT, left 2nd, medial - distal STERNAL CENTRA: ASYMMETRIC, 1st - 3rd
8453	0(0.0)	0/ 9		0/ 9		0/ 9	
8454	1(10.0)	0/10		0/10		1/10	FETUS 3 SKULL: NASALS, FUSED, partially, 4.0 mm

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 21 (PAGE 4): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP I 0 (VEHICLE) 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
8455	0(0.0)	0/11		0/11		0/11	
8456	1(16.7)	0/ 6		0/ 6		1/ 6	FETUS 4 RIBS: THICKENED, left 8th and 9th, medially
8457	0(0.0)	0/ 8		0/ 8		0/ 8	
8458	1(7.1)	0/14		0/14		1/14	FETUS 4 STERNAL CENTRA: FUSED, 3rd and 4th
8459	2(28.6)	0/ 7		0/ 7		2/ 7	FETUS 4 STERNAL CENTRA: FUSED, 3rd and 4th FETUS 6 SKULL: NASAL, CONTAINED AN INTRANASAL, right, 1.0 mm x 2.0 mm, left, 1.5 mm x 2.0 mm
8460	2(28.6)	0/ 7		0/ 7		2/ 7	FETUS 5 CERVICAL VERTEBRAE: CERVICAL RIB PRESENT AT 7TH CERVICAL VERTEBRA, bilateral FETUS 6 SKULL: FRONTALS, CONTAINED AN INTERFRONTAL, 0.4 mm x 2.0 mm

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 21 (PAGE 5): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP I 0 (VEHICLE) 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
8461	0(0.0)	0/ 6		0/ 6		0/ 6	
8462	0(0.0)	0/ 9		0/ 9		0/ 9	
8463	1(10.0)	0/10		0/10		1/10	FETUS 8 HYOID: ALA, ANGULATED, left
8464	2(20.0)	0/10		1/10	FETUS 1 LUNGS: INTERMEDIATE LOBE ABSENT	1/10	FETUS 7 HYOID: ALA, ANGULATED, right

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 21 (PAGE 6): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP II 0.1 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	DESCRIPTION	SOFT TISSUE EXAMINATION N/N	DESCRIPTION	SKELETAL EXAMINATION N/N	DESCRIPTION
8465	2(33.3)	0/ 6		0/ 6		2/ 6	FETUS 6 SKULL: NASALS, MIDLINE SUTURE DISPLACED, right FETUS 7 HYOID: ALA, ANGULATED, bilateral
8466	NOT PREGNANT						
8467	NOT PREGNANT						
8468	0(0.0)	0/10		0/10		0/10	
8469	2(28.6)	0/ 7		0/ 7		2/ 7	FETUS 5 SKULL: NASALS, CONTAINED AN INTERNASAL, 1.5 mm x 2.5 mm FETUS 6 SKULL: NASALS, CONTAINED AN INTERNASAL, 0.5 mm x 1.0 mm HYOID: ALA, ANGULATED, right
8470	2(28.6)	0/ 7		0/ 7		2/ 7	FETUS 1 SKULL: NASALS, MIDLINE SUTURE DISPLACED, right FETUS 3 SKULL: NASALS, MIDLINE SUTURE DISPLACED, left

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 21 (PAGE 7): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP II 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
8471	1(11.1)	0/ 9		0/ 9		1/ 9	FETUS 1 SKULL: PREMAXILLAE, NOT OSSIFIED, bilateral
8472	0(0.0)	0/ 9		0/ 9		0/ 9	
8473	2(25.0)	1/ 8	FETUS 6 FORELIMBS FLEXED DOWNWARD, forepaws bilateral	0/ 8		1/ 8	FETUS 4 STERNAL CENTRA: FUSED, 3rd and 4th
8474	1(11.1)	0/ 9		0/ 9		1/ 9	FETUS 7 SKULL: NASAL - FRONTAL, IRREGULAR SUTURE, bilateral
8475	4(57.1)	0/ 7		1/ 7	FETUS 2 LUNGS: INTERMEDIATE LOBE ABSENT	3/ 7	FETUS 5 SKULL: NASAL - FRONTAL, IRREGULAR SUTURE, bilateral FETUS 6 SKULL: NASALS, CONTAINED AN INTERNASAL, 0.5 mm x 1.5 mm HYOID: ALA, ANGULATED, left FETUS 7 HYOID: ALA, ANGULATED, bilateral

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 21 (PAGE 8): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP II 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
8476	3(30.0)	0/10		1/10	FETUS 8 LUNGS: INTERMEDIATE LOBE ABSENT	3/10	FETUS 1 THORACIC VERTEBRAE: CENTRUM, BIFID, 12th; CENTRA, FUSED, 11th to left 12th FETUS 7 RIBS: FUSED, left 5th and 6th, medial - distal FETUS 8 STERNAL CENTRA: FUSED, 3rd and 4th
8477	NOT PREGNANT						
8478	0(0.0)	0/10		0/10		0/10	
8479	3(20.0)	0/15		2/15	FETUS 4 LUNGS: INTERMEDIATE LOBE ABSENT FETUS 12 LUNGS: INTERMEDIATE LOBE ABSENT	1/15	FETUS 10 SKULL: NASALS, MIDLINE SUTURE DISPLACED, left
8480	0(0.0)	0/ 9		0/ 9		0/ 9	
8481a	4(40.0)	1/10	FETUS 1 (DEAD) FORELIMBS: FLEXED DOWNWARD	0/10		3/10	FETUS 5 (DEAD) HYOID: ALA, ANGULATED bilateral

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

a. Litter 8481 consisted of ten dead fetuses; all embryonic sacs contained a dark red substance. Values were excluded from group averages and statistical analyses.

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TABLE 21 (PAGE 9): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP II 0.1 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	DESCRIPTION	SOFT TISSUE EXAMINATION N/N	DESCRIPTION	SKELETAL EXAMINATION N/N	DESCRIPTION
8481a (Cont.)							FETUS 7 (DEAD) CAUDAL VERTEBRAE: 10 PRESENT FETUS 9 (DEAD) CAUDAL VERTEBRAE: 6 PRESENT
8482	0(0.0)	0/ 9		0/ 9		0/ 9	
8483	4(50.0)	0/ 8		3/ 8	FETUS 3 LUNGS: INTERMEDIATE LOBE ABSENT FETUS 4 LUNGS: INTERMEDIATE LOBE ABSENT FETUS 7 LUNGS: INTERMEDIATE LOBE ABSENT	2/ 8	FETUS 1 CERVICAL VERTEBRAE: CENTRUM, UNILATERAL OSSIFICATION, left 2nd FETUS 4 STERNAL CENTRA: FUSED, 3rd and 4th
8484	0(0.0)	0/ 9		0/ 9		0/ 9	
8485	1(11.1)	0/ 9		0/ 9		1/ 9	FETUS 2 THORACIC VERTEBRAE: ARCH, SMALL, left 11th; CENTRA, FUSED, left 11th and 12th RIBS: PROXIMATE, left 10th and 11th, bases
8486	0(0.0)	0/11		0/11		0/11	

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

a. Litter 8481 consisted of ten dead fetuses; all embryonic sacs contained a dark red substance. Values were excluded from group averages and statistical analyses.

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 21 (PAGE 10): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP III 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
8487	0(0.0)	0/ 6		0/ 6		0/ 6	
8488	0(0.0)	0/ 7		0/ 7		0/ 7	
8489	1(16.7)	0/ 6		1/ 6	FETUS 6 LUNGS: INTERMEDIATE LOBE ABSENT	0/ 6	
8490	0(0.0)	0/ 5		0/ 5		0/ 5	
8491	1(11.1)	0/ 9	FETUS 6 LATE RESORPTION, autolysis precluded further evaluation	0/ 9		1/ 9	FETUS 4 SKULL: NASAL, CONTAINED AN INTRANASAL, left, 1.0 mm x 2.0 mm
8492	0(0.0)	0/ 9		0/ 9		0/ 9	
8493	1(20.0)	0/ 5	FETUS 3 LATE RESORPTION, autolysis precluded further evaluation FETUS 4 LATE RESORPTION, autolysis precluded further evaluation FETUS 5 LATE RESORPTION, autolysis precluded further evaluation	0/ 5		1/ 5	FETUS 7 RIBS: THICKENED, left 6th - 8th, medially

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 21 (PAGE 11): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP III 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
8494	2(33.3)	0/ 6		0/ 6		2/ 6	FETUS 3 HYOID: ALA, ANGULATED, bilateral FETUS 6 HYOID: ALA, ANGULATED, bilateral
8495	1(10.0)	0/10		0/10		1/10	FETUS 3 SKULL: NASALS, MIDLINE SUTURE DISPLACED, right
8496	3(33.3)	0/ 9		0/ 9		3/ 9	FETUS 4 HYOID: ALA, ANGULATED, right FETUS 7 HYOID: ALA, ANGULATED, right FETUS 9 HYOID: ALA, ANGULATED, bilateral
8497	0(0.0)	0/ 7		0/ 7		0/ 7	
8498	0(0.0)	0/ 9		0/ 9		0/ 9	
8499	0(0.0)	0/ 8		0/ 8		0/ 8	

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 21 (PAGE 12): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP III 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
8500	2(20.0)	0/10	FETUS 7 LATE RESORPTION, autolysis precluded further evaluation	0/10		2/10	FETUS 3 RIBS: SPLIT, right 8th, proximal - distal, left 7th, proximal - distal FETUS 8 LUMBAR VERTEBRAE: HEMIVERTEBRA, left 1st, arch and centrum; CENTRUM, BIFID, 2nd
8501	0(0.0)	0/11		0/11		0/11	
8502	NOT PREGNANT						
8503	2(20.0)	0/10		0/10		2/10	FETUS 1 HYOID: ALA, ANGULATED, bilateral FETUS 9 HYOID: ALA, ANGULATED, right
8504	0(0.0)	0/10		0/10		0/10	
8505	NOT PREGNANT						
8506	0(0.0)	0/ 9		0/ 9		0/ 9	
8507	1(16.7)	0/ 6		0/ 6		1/ 6	FETUS 3 SKULL: NASAL, CONTAINED AN INTRANASAL, left, 1.0 mm x 2.0 mm
8508	NOT PREGNANT						

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 21 (PAGE 13): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP IV 2.5 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
8509	0(0.0)	0/ 7		0/ 7		0/ 7	
8510	0(0.0)	0/ 8		0/ 8		0/ 8	
8511	NOT PREGNANT						
8512	0(0.0)	0/ 7		0/ 7		0/ 7	
8513	NOT PREGNANT						
8514	0(0.0)	0/ 7		0/ 7		0/ 7	
8515	0(0.0)	0/ 9		0/ 9		0/ 9	
8516	1(14.3)	0/ 7		0/ 7		1/ 7	FETUS 1 SKULL: NASALS, CONTAINED AN INTERNASAL, 2.0 mm x 3.0 mm
8517	ABORTED ON DAY 25 OF GESTATION a						
8518	0(0.0)	0/ 9	FETUS 5 LATE RESORPTION, autolysis precluded further evaluation	0/ 9		0/ 9	
8519	1(12.5)	0/ 8		0/ 8		1/ 8	FETUS 2 CERVICAL VERTEBRAE: CERVICAL RIB PRESENT AT 7TH CERVICAL VERTEBRA, bilateral

N/N = NUMBER OF SPECIMENS WITH ALTERATIONS/NUMBER OF SPECIMENS EXAMINED
a. Doe 8517 aborted eight late resorptions on day 25 of gestation; autolysis precluded further evaluation.

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 21 (PAGE 14): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP IV 2.5 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
8520	0(0.0)	0/ 5		0/ 5		0/ 5	
8521	0(0.0)	0/10		0/10		0/10	
8522	2(22.2)	0/ 9	FETUS 9 LATE RESORPTION, autolysis precluded further evaluation	0/ 9		2/ 9	FETUS 4 HYOID: ALA, ANGULATED, bilateral FETUS 5 HYOID: ALA, ANGULATED, bilateral
8523	NOT PREGNANT						
8524	NOT PREGNANT						
8525	1(9.1)	0/11		0/11		1/11	FETUS 9 HYOID: ALA, ANGULATED, right
8526	NOT PREGNANT						
8527	0(0.0)	0/11		0/11		0/11	
8528	0(0.0)	0/ 7		0/ 7		0/ 7	
8529	0(0.0)	0/ 5		0/ 5		0/ 5	
8530	0(0.0)	0/10		0/10		0/10	

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 21 (PAGE 15): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP V 3.75 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
8531	2(22.2)	0/ 9		0/ 9		2/ 9	FETUS 3 SKULL: FRONTALS, CONTAINED AN INTERFRONTAL, 2.0 mm x 3.0 mm FETUS 8 SKULL: FRONTALS, CONTAINED AN INTERFRONTAL, 2.5 mm x 4.0 mm
8532	1(12.5)	0/ 8		1/ 8	FETUS 5 LUNGS: INTERMEDIATE LOBE ABSENT	0/ 8	
8533	0(0.0)	0/ 6		0/ 6		0/ 6	
8534	ABORTED ON DAY 22 OF GESTATION a						
8535	1(9.1)	0/11		0/11		1/11	FETUS 6 LUMBAR VERTEBRAE: CENTRUM, BIFID, 1st
8536	3(37.5)	0/ 8		0/ 8		3/ 8	FETUS 5 SKULL: NASAL, CONTAINED AN INTRANASAL, left, 2.0 mm x 3.0 mm FETUS 6 HYOID: ALA, ANGULATED, bilateral

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

a. Doe 8534 aborted one dead fetus and had seven live fetuses in utero on day 22 of gestation. All fetuses appeared normal at gross external and soft tissue examination. Fetuses 1, 2, 3, 4, 5, 6, 7, and 8 had pelvis, pubis not ossified (bilateral) at skeletal examination.

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 21 (PAGE 16): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP V 3.75 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
8536 (Cont.)							FETUS 7 HYOID: ALA, ANGULATED, bilateral
8537	ABORTED ON DAY 25 OF GESTATION a						
8538	ABORTED ON DAY 24 OF GESTATION b						
8539	ABORTED ON DAY 24 OF GESTATION c						
8540	ABORTED ON DAY 25 OF GESTATION d						
8541	1(14.3)	0/ 7		0/ 7		1/ 7	FETUS 1 HYOID: ALA, ANGULATED, bilateral
8542	ABORTED ON DAY 28 OF GESTATION e						
8543	7(77.8)	1/ 9	FETUS 3 FORELIMBS FLEXED DOWNWARD, bilateral forepaws	0/ 9		7/ 9	FETUS 1 SKULL: PARIETAL, CONTAINED A HOLE, right, 2.5 mm x 3.5 mm - large, left, 2.0 mm x 4.0 mm - large

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

a. Doe 8537 aborted five late resorptions on day 25 of gestation; autolysis precluded further evaluation.

b. Doe 8538 aborted eight late resorptions on day 24 of gestation; autolysis precluded further evaluation. One additional fetus was presumed cannibalized.

c. Doe 8539 aborted seven live fetuses on day 24 of gestation. All fetuses appeared normal at gross external and soft tissue examination. Fetuses 1, 2, 3, 4, 5, 6 and 7 had pelvis, pubis not ossified (bilateral) and fetuses 2 and 3 had sternal centra (first) not ossified at skeletal examination.

d. Doe 8540 aborted four dead fetuses and had three live fetuses, one dead fetus and six late resorptions in utero on day 25 of gestation. Autolysis precluded further evaluation of the late resorptions. All remaining fetuses appeared normal at gross external and soft tissue examination. Fetuses 1, 2, 3, 5, 7, 8, 9 and 10 had pelvis, pubis not ossified (bilateral) and fetus 2 had skull, nasals incompletely ossified and maxillae, short at skeletal examination.

e. Doe 8542 aborted six dead fetuses on day 28 of gestation. All fetuses were partially cannibalized. All pups appeared normal at soft tissue examination.

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 21 (PAGE 17): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP V 3.75 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
8543 (Cont.)			FETUS 7 LATE RESORPTION, autolysis precluded further evaluation				FETUS 3 SKULL: PARIETAL, CONTAINED A HOLE, right, 6.0 mm x 8.0 mm - large, left, 6.0 mm x 8.5 mm - large FETUS 4 SKULL: PARIETAL, CONTAINED A HOLE, right, 2.0 mm x 41.0 mm - large, left, 2.5 mm x 5.0 mm - large PELVIS: PUBIS, NOT OSSIFIED, bilateral FETUS 5 SKULL: PARIETAL, CONTAINED A HOLE, right, 2.5 mm x 3.5 mm - large, left, 4.0 mm x 4.5 mm - large FETUS 6 SKULL: PARIETAL, CONTAINED A HOLE, right, 3.0 mm x 5.0 mm - large, left, 4.0 mm x 5.5 mm - large PELVIS: PUBIS, NOT OSSIFIED, bilateral

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 21 (PAGE 18): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP V 3.75 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	DESCRIPTION	SOFT TISSUE EXAMINATION N/N	DESCRIPTION	SKELETAL EXAMINATION N/N	DESCRIPTION
8543 (Cont.)							FETUS 8 SKULL: PARIETAL, CONTAINED A HOLE, right, 1.0 mm x 1.5 mm - small, left, 2.0 mm x 2.5 mm - large FETUS 10 SKULL: PARIETAL, CONTAINED A HOLE, right, 5.0 mm x 8.0 mm - large, left, 5.0 mm x 8.5 mm - large
8544	ABORTED ON DAY 25 OF GESTATION a						
8545	2(15.4)	0/13		0/13		2/13	FETUS 5 PELVIS: PUBIS, NOT OSSIFIED, bilateral FETUS 6 PELVIS: PUBIS, NOT OSSIFIED, bilateral
8546	0(0.0)	0/ 7		0/ 7		0/ 7	
8547	ABORTED ON DAY 22 OF GESTATION b						
8548	ABORTED ON DAY 25 OF GESTATION c						

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

a. Doe 8544 aborted nine dead fetuses on day 25 of gestation. All fetuses appeared normal at gross external and soft tissues examinations. Fetuses 1, 2, 3, 4, 5, 6, 7, 8 and 9 had pelvis, pubis not ossified (bilateral) and fetus 3 had sternal centra (first) not ossified at skeletal examination.

b. Doe 8547 aborted eight late resorptions on day 22 of gestation; autolysis precluded further evaluation.

c. Doe 8548 aborted one dead fetus and had seven live fetuses, one dead fetus and two late resorption in utero on day 25 of gestation. The late resorptions appeared normal at gross external examination; autolysis precluded further evaluation. All fetuses appeared normal at gross external and soft tissue examinations. Fetuses 1, 2, 3, 4, 5, 6, 7, 8 and 11 had pelvis, pubis not ossified (bilateral) at skeletal examination.

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS (SPONSOR'S STUDY NUMBER: 6295.10)

TABLE 21 (PAGE 19): FETAL ALTERATIONS - INDIVIDUAL DATA

DOSAGE GROUP V 3.75 MG/KG/DAY

RABBIT NUMBER	SPECIMENS WITH ANY ALTERATIONS N(%)	GROSS EXTERNAL EXAMINATION N/N	DESCRIPTION	SOFT TISSUE EXAMINATION N/N	DESCRIPTION	SKELETAL EXAMINATION N/N	DESCRIPTION
8549	0(0.0)	0/10		0/10		0/10	
8550	2(20.0)	0/10		0/10		2/10	FETUS 9 HYOID: ALA, ANGULATED, left FETUS 10 HYOID: ALA, ANGULATED, right
8551	0(0.0)	0/10		0/10		0/10	
8552	NOT PREGNANT						

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

APPENDIX C

PROTOCOL AND AMENDMENT

PRIMEDICA

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

PROTOCOL 418-012

SPONSOR'S STUDY NUMBER: 6295.10

STUDY TITLE: Oral (Stomach Tube) Developmental Toxicity Study of PFOS in Rabbits

PURPOSE: The purpose of this study is to detect adverse effects of PFOS on New Zealand White [Hra:(NZW)SPF] presumed pregnant female rabbits and development of the embryo and fetus consequent to exposure of the doe from implantation to closure of the hard palate. This study evaluates ICH Harmonised Tripartite Guideline stages C and D of the reproductive process in a nonrodent species.

TESTING FACILITY: Argus Research Laboratories, Inc.
905 Sheehy Drive, Building A
Horsham, Pennsylvania 19044-1297
Telephone: (215) 443-8710
Telefax: (215) 443-8587

STUDY DIRECTOR: Raymond G. York, Ph.D., DABT
Associate Director of Research

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

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

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

REGULATORY CITATIONS:

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

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

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

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

REGULATORY COMPLIANCE:

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

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

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

The final report will include a statement signed by the Study Director that the report accurately reflects the raw data obtained during the performance of the study and that all applicable GLP regulations were followed in the conduct of the study. Should significant deviations from GLP regulations occur, each will be described in detail, together with how the deviation might affect the quality or integrity of the study.

SCHEMATIC OF STUDY DESIGN AND STUDY SCHEDULE:

See ATTACHMENT 1 to the protocol.

TEST ARTICLE AND VEHICLE:

Identification:

Test Article:

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

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

Vehicle:

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

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

Safety Precautions:

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

Storage:

Bulk Test Article:	Room temperature.
Vehicle Components:	Room temperature.
Prepared Vehicle:	Room temperature.
Prepared Formulations:	Room temperature (samples to be frozen).

All test article shipments to the Testing Facility should be addressed to the attention of Julian Gulbinski, Manager of Formulations, at the previously cited address and telephone number.

Shipments should include information concerning storage conditions and shipping cartons should be labeled appropriately. The recipient should be notified in advance of shipment.

FORMULATION:

Frequency of Preparation:

Formulations (suspensions) will be prepared daily at the Testing Facility.

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

Adjustment for Purity:

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

Testing Facility Reserve Samples:

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

ANALYSES:

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

Bulk Test Article Sampling:

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

Analyses of Prepared Formulations:

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

Concentration of Test Article Formulations:

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

Shipping Instructions:

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

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

The recipient will be notified in advance of sample shipment.

DISPOSITION:

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

TEST SYSTEM:

Species/Strain and Reason for Selection:

The 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 article is pharmacologically active in the species and strain.

Number and Sex:

Population evaluated:	110 timed-pregnant female rabbits (22 per dosage group).
Population selected for toxicokinetic evaluation:	19 satellite female rabbits (five at the low and high dose levels plus three at the other dose levels).

Body Weight and Age:

The individual body weights of the female rabbits will range from 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 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 dosage, 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:

Water will be available *ad libitum* from individual bottles attached to the cages or from an automatic watering access system. All water will be from a local source and passed through a reverse osmosis membrane before use. Chlorine will be added to the processed water as a bacteriostat; processed water is expected to contain no more than 1.2 ppm chlorine at the time of analysis. Water is analyzed monthly for possible bacterial contamination and twice annually for possible chemical contamination.

Contaminants:

Neither the Sponsor nor the Study Director is aware of any potential contaminants likely to be present in the certified diet or 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 to the Testing Facility after the last mating day to arrive on day 1, 2, 3, 4 or 5 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 (stomach tube) route was selected for use because: 1) in comparison with the dietary route, the exact dosage can be accurately administered; and 2) it is one of the possible routes of human exposure.

Method and Frequency:

Female rabbits will be given the test article once daily on days 7 through 20 of presumed gestation. Dosages will be adjusted daily for body weight changes and given at approximately the same time each day.

Rationale for Dosage Selection:

Dosages were selected on the basis of a dosage-range study (Argus Research Laboratories, Inc., Protocol 418-012P).

Dosage Levels, Concentrations, Volumes and Injection Rates:

Dosage Group	Number of Rabbits	Dosage (mg/kg/day)	Concentration (mg/mL)	Dosage Volume (mL/kg)	Argus Batch Number
I	22+3[a]	0 (Vehicle)	0	5	B-418-012-A(Day.Month.Year)
II	22+5[a]	0.1	0.02	5	B-418-012-B(Day.Month.Year)
III	22+3[a]	1.0	0.2	5	B-418-012-C(Day.Month.Year)
IV	22+3[a]	2.5	0.5	5	B-418-012-D(Day.Month.Year)
V	22+5[a]	3.75	0.75	5	B-418-012-E(Day.Month.Year)

a. Rabbits assigned to toxicokinetic evaluation.
The test article will be considered 100% pure for the purpose of dosage calculations.

TESTS, ANALYSES AND MEASUREMENTS:

Viability:

All Periods: At least twice daily.

Clinical Observations and/or General Appearance:

Predosage Period: At least once.

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

Postdosage Period: Once daily.

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

Body Weights:

Predosage Period: Day 0 of presumed gestation and on the day of arrival at the Testing Facility.

Dosage Period: Daily.

Postdosage Period: Daily.

Feed Consumption Values:

Predosage Period: Recorded daily after arrival at the Testing Facility (values not tabulated).

Dosage Period: Recorded daily.

Postdosage Period: Recorded daily.

Feed consumption values during the dosing period will be tabulated for the same intervals as body weight evaluations.

Caesarean-Sectioning Observations:

Rabbits will be Caesarean-sectioned on day 29 of presumed gestation. 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.
[Placentae that appear abnormal (size, color or shape) will be noted in the raw data].

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

Early and Late Resorptions.
(A conceptus is defined as a late resorption if it is grossly evident that organogenesis has occurred; if this is not the case, the conceptus is 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*.

Skeletal Examination:

All fetuses will be examined for skeletal alterations after staining with alizarin red S[6]. 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:

Beuthanasia®-D Special (manufactured by Schering-Plough Animal Health) will be used to sacrifice rabbits (via intravenous injection) and live fetuses (via intraperitoneal injection).

NECROPSY:

Gross lesions will be retained in neutral buffered 10% formalin for possible future evaluation (corresponding tissues will be retained from rabbits in the vehicle control group at the discretion of the Study Director). (Exception: Parovarian cysts will be discarded; these are common, spontaneous lesions in rabbits.) Unless specifically cited below, all other tissues will be discarded.

Satellite Rabbits Assigned to Toxicokinetic Sample Collection:

On day 21 of presumed gestation (the day following the last dosage), toxicokinetic samples will be collected from the rabbits assigned to the toxicokinetic evaluation. Following anesthesia of pentobarbital, blood samples (approximately 4 mL per rabbit) will be collected from the inferior vena cava into serum separator tubes and centrifuged. The resulting serum (approximately 2 mL) will be immediately frozen on dry ice and maintained frozen (-70°C) until shipment to the Sponsor for analysis. The liver will be excised, weighed, and a sample will be taken from the right lateral lobe, frozen and retained at -70°C until shipment to the Sponsor for analysis.

Rabbits will be Caesarean-sectioned and fetuses will be examined grossly to the extent possible as described above for rabbits assigned to the main study. Fetuses and placentae will be pooled per litter and retained frozen (-70°C) until shipment to the Sponsor for analysis.

After completion of sample collection, serum, liver sections, fetal and placental samples will be shipped (frozen on dry ice) to Kris J. Hansen, Ph.D., at the previously cited

address for analysis. Both the recipient and the Study Monitor will be notified in advance of sample shipment.

Scheduled Sacrifice:

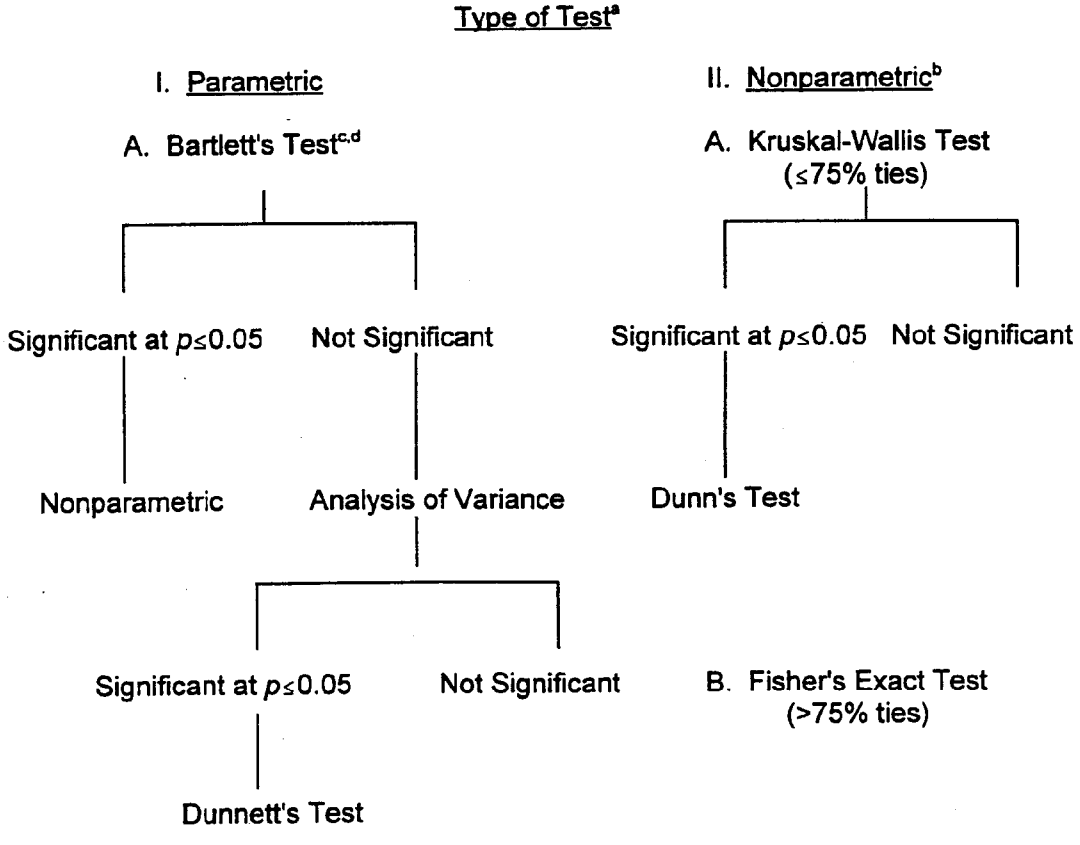
On day 29 of presumed gestation, female rabbits will be Caesarean-sectioned, and a gross necropsy of the thoracic, abdominal and pelvic viscera will be performed. Uteri of apparently nonpregnant does will be stained with 10% ammonium sulfide to confirm the absence of implantation sites[7].

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 will be recorded. Aborted fetuses and/or delivered pups will be examined to the extent possible, using the same methods described for fetuses. Uteri of apparently nonpregnant does will be stained with 10% ammonium sulfide to confirm the absence of implantation sites[7].

PROPOSED STATISTICAL METHODS[8-14]:

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



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a. Statistically significant probabilities are reported as either $p \leq 0.05$ or $p \leq 0.01$.
b. Proportion data are not included in this category.
c. Used only to analyze data with homogeneity of variance.
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 Article Vehicle 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 (if required).
Body Weights.
Feed Consumption Values.
Caesarean-Sectioning and Fetal Observations.
Gross Necropsy Observations.
Organ Weights (if required).
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., Fellow, ATS
Director of Research: Alan M. Hoberman, Ph.D., DABT
Associate Director of Research and Study Director: Raymond G. York, Ph.D., DABT
Director of Laboratory Operations: John F. Barnett, B.S.
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 QAU Statement.

INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE STATEMENT:

The procedures described in this protocol have been reviewed by the Testing Facility's Institutional Animal Care and Use Committee. All procedures described in this protocol that involve study animals will be conducted in a manner to avoid or minimize discomfort, distress or pain to the animals.

The Sponsor's signature below documents the fact that information concerning the necessity for conducting this study and the fact that this is not an unnecessarily duplicative study may be obtained from the Sponsor. No alternative (*in vitro*) procedures were available for meeting the stated purposes of the study.

REFERENCES:

1. Christian, M.S., 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. Staples, R.E. (1974). Detection of visceral alterations in mammalian fetuses. Teratology 9(3):A37-38.

6. Staples, R.E. and Schnell, V.L. (1964). Refinement in rapid clearing technique in the KOH-alizarin red S method for fetal bone. Stain Technol. 39:61-63.

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

8. 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.

9. 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.

10. Snedecor, G.W. and Cochran, W.G. (1967). Analysis of Variance. *Statistical Methods*, 6th Edition, Iowa State University Press, Ames, pp. 258-275.

11. Dunnett, C.W. (1955). A multiple comparison procedure for comparing several treatments with a control. J. Amer. Stat. Assoc. 50:1096-1129.

12. Sokal, R.R. and Rohlf, F.J. (1969). Kruskal-Wallis Test. *Biometry*, W.H. Freeman and Co., San Francisco, pp. 388-389.

13. Dunn, O.J. (1964). Multiple comparisons using rank sums. Technometrics 6(3):241-252.

14. 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

11-AUG-98
Date

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

11-AUG-98
Date

Dena C. Lebo, V.M.D.
Member, Institutional Animal Care and
Use Committee

11 Aug 98
Date

FOR THE SPONSOR

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

12 Aug 98
Date

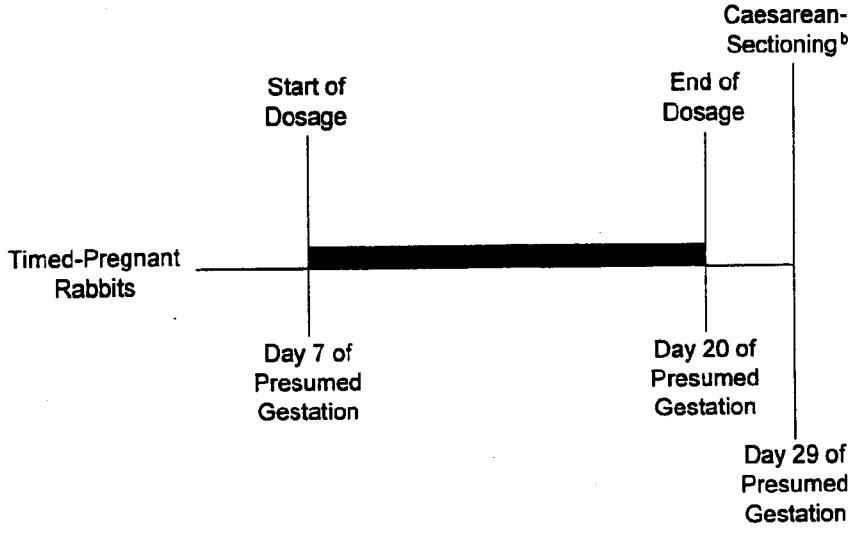
ATTACHMENT 1

SCHEMATIC OF STUDY DESIGN AND STUDY SCHEDULE

ATTACHMENT 1

STUDY SCHEMATIC

RABBIT DEVELOPMENTAL TOXICITY STUDY[a]



■ = Dosage Period

a = For additional details see "Tests, Analyses and Measurements" section of the protocol.

b = Fetal evaluations (external, soft tissue and skeletal).

SCHEDULE[a]

21 AUG 98	Animals Arrive - Acclimation Begins.
23 AUG 98 - 09 SEP 98	Dosage Period (Days 7 through 20 of presumed gestation).
06 SEP 98 - 10 SEP 98	Toxicokinetic Sample Collection (Day 21 of presumed gestation).
14 SEP 98 - 18 SEP 98	Caesarean-Sectioning Period (Day 29 of presumed gestation).
17 DEC 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

MATERIAL SAFETY DATA SHEET

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

DIVISION: 3M CHEMICALS
TRADE NAME:
FC-95 FLUORAD Brand Fluorochemical Surfactant
ID NUMBER/U.P.C.:
98-0207-0103-7 00-51135-09054-1 98-0207-0104-5 00-51135-09055-8
98-0211-0888-5 00-51135-09362-7 98-0211-3916-1 00-51135-02311-2
ZF-0002-1044-1 - - -
ISSUED: January 29, 1998
SUPERSEDES: November 05, 1997
DOCUMENT: 10-3796-9

1. INGREDIENT

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

2. PHYSICAL DATA

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

APPEARANCE AND ODOR:
Light colored, free flowing powder.

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

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... None
FLAMMABLE LIMITS - LEL:..... N/A
FLAMMABLE LIMITS - UEL:..... N/A
AUTOIGNITION TEMPERATURE:..... N/A

EXTINGUISHING MEDIA:
Water, Carbon dioxide, Dry chemical, Foam

SPECIAL FIRE FIGHTING PROCEDURES:
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
See Hazardous Decomposition section for products of combustion.

4. REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:
Not applicable.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:
Carbon Monoxide and Carbon Dioxide, Oxides of Sulfur, Hydrogen Fluoride, Toxic Vapors, Gases or Particulates.

5. ENVIRONMENTAL INFORMATION

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

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

5. ENVIRONMENTAL INFORMATION (continued)

accept chemical waste.

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

REGULATORY INFORMATION:
Volatile Organic Compounds: N/A.
VOC Less H2O & Exempt Solvents: N/A.

Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste Number = None (Not U.S. EPA Hazardous).

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

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

6. SUGGESTED FIRST AID

EYE CONTACT:
Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

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

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

IF SWALLOWED:
Drink two glasses of water. Call a physician.

7. PRECAUTIONARY INFORMATION

EYE PROTECTION:
Avoid eye contact. Wear vented goggles.

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

7. PRECAUTIONARY INFORMATION (continued)

SKIN PROTECTION:
Avoid skin contact. Wear appropriate gloves when handling this material. A pair of gloves made from the following material(s) are recommended: butyl rubber. Use one or more of the following personal protection items as necessary to prevent skin contact: head covering, coveralls. Protective garments (other than gloves) should be made of either of the following materials: polyethylene/polyvinylidene chloride (Saranex).

RECOMMENDED VENTILATION:
Use with appropriate local exhaust ventilation. Use in a well-ventilated area. Provide sufficient ventilation to maintain emissions below recommended exposure limits. If exhaust ventilation is not adequate, use appropriate respiratory protection.

RESPIRATORY PROTECTION:
Avoid breathing of dust. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: half-mask dust and mist respirator, half-mask supplied air respirator, full-face dust and mist respirator, full-face supplied air respirator.

PREVENTION OF ACCIDENTAL INGESTION:
Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Wash hands after handling and before eating.

RECOMMENDED STORAGE:
Keep container dry. Keep container closed when not in use.

FIRE AND EXPLOSION AVOIDANCE:
Nonflammable.

OTHER PRECAUTIONARY INFORMATION:
No smoking: Smoking while using this product can result in contamination of the tobacco and/or smoke and lead to the formation of the hazardous decomposition products mentioned in section 4 of this MSDS.

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

EXPOSURE LIMITS

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

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

EXPOSURE LIMITS (continued)

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

* SKIN NOTATION: Listed substances indicated with 'Y' under SKIN refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

SOURCE OF EXPOSURE LIMIT DATA:
- 3M: 3M Recommended Exposure Guidelines

8. HEALTH HAZARD DATA

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

SKIN CONTACT:
Mild Skin Irritation (after prolonged or repeated contact): signs/symptoms can include redness, swelling, and itching.

May be absorbed through the skin and persist in the body for an extended time.

INHALATION:
May be harmful if inhaled.

May be absorbed by inhalation and persist in the body for an extended time.

Single overexposure, above recommended guidelines, may cause:

Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing.

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

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

May be harmful if swallowed.

MUTAGENICITY:
Mutagenicity assays indicate the product is not mutagenic.

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

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8. HEALTH HAZARD DATA (continued)

REPRODUCTIVE/DEVELOPMENTAL TOXINS:
Not teratogenic in the rat at oral doses below maternally toxic levels.

OTHER HEALTH HAZARD INFORMATION:
This product is not known to contain any substances regulated under California Proposition 65.

A Product Toxicity Summary Sheet is available.

SECTION CHANGE DATES

HEADING SECTION CHANGED SINCE November 05, 1997 ISSUE

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

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ATTACHMENT 3

TEST ARTICLE PREPARATION PROCEDURE

ATTACHMENT 3

Protocol 418-012
Version: 418-012 (09 AUG 98)

TEST ARTICLE AND VEHICLE PREPARATION PROCEDURE

Test Article: PFOS

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

A. Purpose: The purpose of this procedure is to provide a method for the preparation of dosage suspensions of PFOS and the vehicle for oral administration to rabbits on Argus Study 418-012.

B. General Information:

1. All suspension containers will be labeled and color coded. Each label will specify the protocol number, test article identification, Argus batch number, concentration, dosage level, preparation date, expiration date and storage conditions.

2a. Suspensions will be prepared:
_X_ Daily ___ Weekly __ For___ days of use

2b. Vehicle will be prepared:
___ Daily _X_ Weekly __ For___ days of use

3. Suspensions will be prepared at a final dosage volume of 5 mL/kg.

4. Safety:
_X_ Gloves, lab coat, goggles or safety glasses and faceshield
_X_ Dust-Mist Respirator
___ Half-Face Respirator
___ Full-Face Respirator/Positive Pressure Hood
___ Tyvek Suit/Apron

5. Dosage suspensions adjusted for Free base and % Purity.
___ Yes _X_ No (Calculations based on 100%)
___ Free Base ___ Purity

6. Sampling requirements: Cited in protocol.

7. Storage: Cited in protocol.

TEST ARTICLE AND VEHICLE PREPARATION PROCEDURE

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

C. Preparation of Vehicle

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

D. Test Article Suspension Preparation:

1. To prepare the 0.75 mg/mL, Group V suspension, add the required amount of test article (See TEST ARTICLE CALCULATIONS) into an appropriately sized, labeled container. QS ad to the required amount with vehicle and heat the mixture to 80°C ±5°C for approximately 30 minutes or until the TA/S dissolves.

2. Once the test article has dissolved; spin while the suspension cools. (Be sure there is a visible vortex, this will achieve the desired emulsion. This may be prepared the day before use.)

3. To prepare the 0.5 mg/mL, Group IV suspension, remove the required amount of stock suspension (Group V) (See TEST ARTICLE CALCULATIONS), QS ad with the vehicle and mix.

4. To prepare the 0.2 mg/mL, Group III suspension, remove the required amount of stock suspension (Group IV) (See TEST ARTICLE CALCULATIONS), QS ad with the vehicle and mix.

5. To prepare the 0.02 mg/mL, Group II suspension, remove the required amount of stock suspension (Group III) (See TEST ARTICLE CALCULATIONS), QS ad with the vehicle and mix.

ATTACHMENT 3

TEST ARTICLE AND VEHICLE PREPARATION PROCEDURE

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

Written by: Mark A. Coker

Approved by: [signature] Date: 11-AUG-98

Clarification: X No ___ Yes (See attached clarification form.)

Initials/Date : [initials] 29 SEP 98

PRIMEDICA

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

PROTOCOL 418-012

ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY
OF PFOS IN RABBITS

SPONSOR'S STUDY NUMBER: 6295.10

Amendment **1** - 11 December 1998

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1. Sponsor (page 1 of the protocol):

   The Sponsor is 3M Corporate Toxicology, rather than 3M Toxicology Services.

   Reason for Change:

   This change was made at the request of the Sponsor.

2. Species/Strain and Reason for Selection (page 5 of the protocol):

   The test article is biologically active, rather than pharmacologically active in this strain.

   Reason for Change:

   This change was made at the request of the Sponsor.

3. Route and Reason for Choice (page 7 of the protocol):

   The oral (gavage) route is a possible route of human exposure, rather than the one proposed for clinical use.

Reason for Change:

This change was made at the request of the Sponsor.

11-DEC-98
Alan M. Hoberman, Ph.D., DABT Date
Director of Research

11-Dec-98
Raymond G. York, Ph.D., DABT Date
Associate Director of Research
and Study Director

11-Dec-98
Dena C. Lebo, V.M.D. Date
Chairperson, Institutional Animal Care
and Use Committee

14 Dec 98
Marvin T. Case, D.V.M., Ph.D. Date
Study Monitor

APPENDIX D

PILOT REPORT

FINAL PILOT REPORT

Study Title

Oral (Stomach Tube) Dosage-Range Developmental Toxicity Study of PFOS in Rabbits

SPONSOR'S STUDY NUMBER: T-6295.10

Author

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

Study Completed On

6 January 1999
(Final Pilot Report)

Performing Laboratory

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

Laboratory Project ID

Argus Research Laboratories, Inc., Protocol Number: 418-012P

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS

SPONSOR'S STUDY NUMBER: T-6295.10

TABLE OF CONTENTS

TITLE: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS

ARGUS RESEARCH LABORATORIES, INC.
PROTOCOL NUMBER: 418-012P
SPONSOR'S STUDY NUMBER: T-6295.10

ABSTRACT

Thirty-five presumed pregnant New Zealand White [Hra:(NZW)SPF] rabbits were randomly assigned to seven dosage groups, five per group. Suspensions of PFOS were administered orally once daily on days 7 through 20 of presumed gestation (DGs 7 to 20) at dosages of 0 (Vehicle), 0.1, 1, 2.5, 5, 10 and 20 mg/kg/day. The vehicle was 0.5% Tween®80 in reverse osmosis membrane processed deionized water. The dosage volume was 10 mL/kg, adjusted daily on the basis of the individual body weights.

Checks for viability were made twice daily. Clinical observations were recorded twice daily during the dosage period (once prior to dosage administration and once approximately one hour after dosage administration) and once daily during the postdosage period. Body weights and feed consumption values were recorded daily during the dosage and postdosage periods.

All surviving rabbits were sacrificed on DG 29 and examined for the number and distribution of corpora lutea, implantation sites and uterine contents. A gross necropsy of the thoracic, abdominal and pelvic viscera was performed. Fetuses were weighed and examined for gross external alterations and sex.

Two does in the 5 mg/kg/day dosage group and four in the 10 mg/kg/day dosage group aborted and were sacrificed. Additionally, four does in the 20 mg/kg/day dosage group were found dead and one doe in the same dosage group aborted and was sacrificed. Dosage-dependant increases in adverse clinical observations (scant or no feces, ungroomed coat and excess salivation) occurred in the 2.5, 5, 10 and 20 mg/kg/day dosage groups.

Rabbits in the 10 and 20 mg/kg/day dosage groups had body weight losses and severely reduced absolute and relative feed consumption values for all recorded

intervals after initiation of dosage; there were no surviving pregnant rabbits in these groups after DGs 26 and 19, respectively. The 2.5 and 5 mg/kg/day dosage groups had decreased body weight gains or body weight losses for the entire dosage and gestation periods. Absolute and relative feed consumption values for the entire dosage period were reduced in the 2.5 and 5 mg/kg/day dosage groups. Feed consumption values were reduced in the 2.5 and 5 mg/kg/day dosage groups for the entire gestation period after the initiation of dosing.

Fetal body weights were severely reduced and the number of early and late resorptions and the percentage of conceptuses per litter were increased in the 5 mg/kg/day dosage group, however, only two of the four pregnant does in this dosage group survived to Caesarean-sectioning. Fetal body weights were reduced in the 2.5 mg/kg/day dosage group as compared to the concurrent controls but were at the lower end of the range observed historically at the Testing Facility. All other Caesarean-sectioning or litter parameters were unaffected by administration of the test article at dosages as high as 5 mg/kg/day.

One fetus in the 2.5 mg/kg/day dosage group had a cleft snout and absent incisors. Two fetuses in the 0.1 mg/kg/day dosage group had fetal gross malformations. One fetus had a short snout, displaced and small nares and the other fetus had abdominal distention.

Based on these data, dosages of 0 (Vehicle), 0.1, 1.0, 2.5 and 3.75 mg/kg/day PFOS were recommended for the developmental toxicity study in rabbits (Argus Protocol 418-012).

I. Purpose:

The purpose of this study was to provide information for the selection of dosages to be used in the developmental toxicity (embryo-fetal toxicity and teratogenic potential) study of PFOS administered orally via stomach tube to New Zealand White [Hra:(NZW)SPF] presumed pregnant female rabbits.

II. Methods[a]:

The test article, PFOS (Lot 217), an off white powder, was received on 20 May 1998, and was stored at room temperature. The vehicle, 0.5% Tween®80 (lot M03H05), a clear viscous fluid was received on 1 July 1998, and was stored at room temperature. The vehicle diluent, reverse osmosis membrane processed deionized water (R.O. Deionized Water) was available from a continuous source at the Testing Facility and was maintained at room temperature.

Thirty-five presumed pregnant New Zealand White [Hra:(NZW)SPF] rabbits were randomly assigned to seven dosage groups [five per group (Groups I through VII)]. Suspensions of PFOS were administered orally (stomach tube) once daily on days 7 through 20 of presumed gestation (DGs 7 to 20) at dosages of 0 (Vehicle), 0.1, 1, 2.5, 5, 10 and 20 mg/kg/day. The dosage volume was 10 mL/kg, adjusted daily on the basis of the individual body weights recorded immediately before intubation of the test article.

Checks for viability were made twice daily. Clinical observations were recorded twice daily during the dosage period (once prior to dosage administration and once approximately one hour after dosage administration) and once daily during the postdosage period. Body weights and feed consumption values were recorded daily during the dosage and postdosage periods.

All surviving rabbits were sacrificed on DG 29 and examined for the number and distribution of corpora lutea, implantation sites and uterine contents. A gross necropsy of the thoracic, abdominal and pelvic viscera was performed. Fetuses were weighed and examined for gross external alterations and sex.

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a. Detailed descriptions of all procedures used in the conduct of this study are provided in the attached protocol and amendments. Deviations from the Protocol and Standard Operating Procedures of the Testing Facility are available in the raw data.

III. Results:

A. Mortality, Clinical and Necropsy Observations (Summaries - Tables 1 and 2; Individual Data - Tables 3, 11 and 12)

A.1. Mortality, Abortions and Uterine Contents of Aborted Rabbits

Two does (8257 and 8259) in the 5 mg/kg/day dosage group and four does (8261, 8262, 8364 and 8265) in the 10 mg/kg/day dosage group aborted and were sacrificed. Additionally, four does (8266, 8267, 8268 and 8270) in the 20 mg/kg/day dosage group were found dead and one doe (8269) in the same dosage group aborted and was sacrificed. The death of doe 8266 was due to an intubation accident. These does are described below. All other does survived to scheduled sacrifice.

5 mg/kg/day dosage

Doe 8257 in the 5 mg/kg/day dosage group aborted and was sacrificed on DG 23 after 14 daily dosages. The only adverse clinical observation was scant feces (DGs 13 to 22). No gross lesions were revealed by necropsy and five late resorptions were aborted and one late resorption was *in utero*. This doe lost body weight and feed consumption values were reduced throughout the dosage period.

Doe 8259 in the 5 mg/kg/day dosage group aborted and was sacrificed on DG 22 after 14 daily dosages. The only adverse clinical observation was scant feces (DGs 14 and 16 to 21). No gross lesions were revealed by necropsy. This doe aborted seven dead fetuses and two late resorptions; no conceptuses remained *in utero*. This doe lost body weight and feed consumption values were reduced after DG 11.

10 mg/kg/day dosage

Doe 8261 in the 10 mg/kg/day dosage group aborted and was sacrificed on DG 26 after 14 daily dosages. Adverse clinical observations included scant feces (DGs 12, 16 to 20, 23 and 24), no feces (DG 13 to 15, 21, 22, 25 and 26) and an ungroomed coat (DGs 24 to 26). All lobes of the liver were mottled red and tan and the mucosal surface of the stomach had numerous black areas at necropsy. This doe aborted seven dead fetuses and two dead fetuses were *in utero*. The fetuses that were in utero had edematous heads and necks; all other fetuses appeared normal for their developmental ages. This doe generally lost weight and had reduced feed consumption values after DG 9.

Doe 8262 in the 10 mg/kg/day dosage group aborted and was sacrificed on DG 22 after 14 daily dosages. Adverse clinical observations included a mass on the nose (DGs 7 to 21), scant feces (DGs 11 to 12, 14 to 21) and no feces (DG 13). At necropsy, the cut surface of the small mass on the nose revealed a smooth pink material. Nine late resorptions were aborted and no conceptuses remained *in utero*. This doe lost body weight and feed consumption values were reduced after DG 9.

Doe 8264 in the 10 mg/kg/day dosage group aborted and was sacrificed on DG 23 after 14 daily dosages. Adverse clinical observations included scant feces (DGs 12, 14, 15, 19 and 20), no feces (DGs 13, 16 to 18, 21 and 22) and a red substance in the cage pan (DG 22). All tissues appeared normal at necropsy. Nine late resorptions were aborted and no conceptuses remained *in utero*. This doe lost body weight after DG 8 and feed consumption values were reduced after DG 9.

Doe 8265 in the 10 mg/kg/day dosage group aborted and was sacrificed on DG 25 after 14 daily dosages. Adverse clinical observations included scant feces (DGs 9 to 20, 23 and 24), no feces (DGs 21 and 22) and a red substance in the cage pan (DG 25). All tissue s appeared normal at necropsy. This doe aborted one dead fetus and five live fetuses and one early resorption were *in utero.* All fetuses appeared normal for their developmental ages. Body weight losses occurred after DG 8 and feed consumption values were reduced throughout the dosage period.

20 mg/kg/day dosage

Doe 8266 in the 20 mg/kg/day dosage group was found dead on DG 17 after 11 daily dosages. Adverse clinical observations prior to death included scant feces (DGs 12 to 15), a red substance in cage pan, no feces, ungroomed coat, a red perivaginal substance (DGs 16 and 17) and excess salivation (DG 17). Necropsy revealed a white frothy material in the esophagus and inflated lungs. Necropsy also revealed tears in the left diaphragmatic lobe and in the left lateral lobe of the lungs (approximately 2.0 cm in length) and two eroded areas in the fundic mucosa of the stomach (1.5 x 0.5 cm and 1.5 x 0.5 cm). Ten early resorptions were *in utero.* All fetuses appeared normal for their developmental ages. Body weight loss occurred after DG 8 and its feed consumption values were reduced throughout the dosage period. The death of this doe was considered an intubation accident because of the tear in the left lung lobe; however, this doe had adverse clinical and necropsy observations that indicated the doe was moribund.

Doe 8267 in the 20 mg/kg/day dosage group was found dead on DG 20 after 13 daily dosages. Adverse clinical observations included scant feces (DGs 9, 10 and 16 to 19), no feces (DGs 11 to 15) and excess salivation (DG 19). No gross lesions were observed by necropsy and thirteen dead fetuses were *in utero*. All fetuses appeared normal for their developmental ages. Body weight losses occurred after DG 8 and feed consumption values were reduced throughout the dosage period.

Doe 8268 in the 20 mg/kg/day dosage group was found dead on DG 17 after 10 daily dosages. Adverse clinical observations included scant feces (DGs 9 to 15), soft or liquid feces (DGs 12 and 13), a tan perivaginal substance (DG 16) and no feces (DG 16). Necropsy revealed approximately 18 mL of cloudy green fluid in the abdominal cavity, a friable stomach and a ruptured gall bladder. Nine dead fetuses and one early resorption were *in utero*. All fetuses appeared normal for their developmental ages. Body weight losses occurred after DG 9 and feed consumption values were reduced throughout the dosage period.

Doe 8269 in the 20 mg/kg/day dosage group aborted and was sacrificed on DG 19 after 13 daily dosages. Adverse clinical observations included scant feces (DGs 11 to 19), excess salivation (DGs 18 and 19) and a red substance in the cage pan (DG 19). Other than an observation of ungroomed coat and confirmation of persistent adverse clinical observations, no gross lesions were observed by necropsy. This doe aborted three dead fetuses and five live fetuses were *in utero*; all fetuses appeared normal for their developmental ages. Body weight losses occurred and feed consumption values were reduced after DG 8.

Doe 8270 in the 20 mg/kg/day dosage group was found dead on DG 16 after nine daily dosages. The only adverse clinical observation prior to death was scant feces (DGs 9 to 15). Necropsy revealed the non-glandular mucosal surface of the stomach to be red and diffuse. Five fetuses and one early resorption were *in utero*. All fetuses appeared normal for their developmental ages. Body weight losses occurred after DG 7 and feed consumption values were reduced throughout the dosage period.

A.2. Clinical Observations

Dosage-dependant increases in adverse clinical observations occurred in the 2.5, 5, 10 and 20 mg/kg/day dosage groups. One rabbit in the 2.5 dosage group and all rabbits in the 5, 10 and 20 mg/kg/day dosage groups had scant feces (first observed on DGs 14, 13, 9 and 9, respectively). One, five and three rabbits in the 5, 10 and 20 mg/kg/day dosage groups had no feces (first observed on

DG 18, 12 and 11, respectively). Three rabbits in the 20 mg/kg/day dosage group had excess salivation (first observed on DG 17). Two rabbits that aborted or were found dead in each of the 10 and 20 mg/kg/day dosage groups had a red substance in the cage pan (first observed on DGs 22 and 16, respectively). Two rabbits in the 20 mg/kg/day dosage group had a red or tan perivaginal substance (first observed on DG 16). One rabbit in each of the 2.5, 5, 10 and 20 mg/kg/day dosage groups had an ungroomed coat (first observed on DG 18, 23, 24, 24 and 16, respectively).

All other clinical observations were considered unrelated to the test article because: 1) the incidences were not dosage-dependent; or 2) the observations occurred in only one rat. These clinical observations included localized alopecia (underside, head, back and/or limbs) for 2, 1, 1, 0, 2, 0 and 0 does in the seven respective dosage groups, a mass on the nose of one 10 mg/kg/day dosage group doe that aborted, one rabbit in each of the 0.1 and 20 mg/kg/day dosage groups that had soft or liquid feces (first observed on DG 12) and scant feces in one 0.1 mg/kg/day dosage group rabbit on one day of the study.

A.3. Necropsy Observations

There were no necropsy observations for the rabbits that survived until scheduled sacrifice. All necropsy observations in rabbits that died or aborted were described previously.

B. Maternal Body Weights and Body Weight Changes (Figure 1; Summaries - Tables 4 and 5; Individual Data - Table 13)

Rabbits in the 10 and 20 mg/kg/day dosage groups had body weight losses for all recorded intervals after initiation of dosage; there were no surviving pregnant rabbits in these groups after DGs 26 and 19, respectively. The 2.5 and 5 mg/kg/day dosage groups had decreased body weight gains or body weight losses for the entire dosage period (calculated as DGs 7 to 21). During the postdosage period (DGs 21 to 29), body weight gains were increased in the 2.5 and 5 mg/kg/day dosage groups, a rebound phenomenon that commonly occurs in these types of studies. Body weight gains for the entire gestation period (DGs 0 to 29) and the entire gestation period after the initiation of dosing (DGs 7 to 29) were reduced in the 2.5 and 5 mg/kg/day dosage groups.

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

C. Absolute (g/day) and Relative (g/kg/day) Feed Consumption Values (Summaries - Tables 6 and 7; Individual Data - Table 14)

Rabbits in the 10 and 20 mg/kg/day dosage groups had severely reduced absolute and relative feed consumption values for all recorded intervals after initiation of dosage; there were no surviving pregnant rabbits in these groups after DGs 26 and 19, respectively. Absolute and relative feed consumption values for the entire dosage period (calculated as DGs 7 to 21) were reduced in the 2.5 and 5 mg/kg/day dosage groups. During the postdosage period (DGs 21 to 29), feed consumption values were generally comparable among the five surviving groups, although the 5 mg/kg/day dosage group had slightly increased feed consumption values during this period, a rebound phenomenon that commonly occurs in these types of studies. Feed consumption values were reduced in the 2.5 and 5 mg/kg/day dosage groups for the entire gestation period after the initiation of dosing (DGs 7 to 29).

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

D. Caesarean-Sectioning and Litter Observations (Summaries - Tables 8 and 9; Individual Data - Tables 15 through 17)

Caesarean-sectioning observations were based on 5, 4, 4, 5 and 2 pregnant rabbits with one or more live fetuses in the 0, 0.1, 1, 2.5 and 5 mg/kg/day dosage groups, respectively. There were no pregnant rabbits that survived to DG 29 Caesarean-sectioning in the 10 and 20 mg/kg/day dosage groups. Fetal body weights were severely reduced and the number of early and late resorptions and the percent resorbed conceptuses per litter were increased (along with the concomitant decrease in litter size) in the 5 mg/kg/day dosage group. Only two of the four pregnant does in this dosage group survived to Caesarean-sectioning. Fetal body weights were also reduced in the 2.5 mg/kg/day dosage group as compared to the concurrent controls but were at the lower end of the range observed historically at the Testing Facility.

All other Caesarean-sectioning or litter parameters were unaffected by administration of the test article at dosages as high as 5 mg/kg/day. The litter averages for corpora lutea, implantations and percent live male fetuses were comparable among the five surviving dosage groups. No does had a litter consisting of only resorbed conceptuses, there were no dead fetuses and all placentae appeared normal.

E. Fetal Gross Observations (Summary - Table 10)

Totals of 42, 37, 34, 42 and 11 fetuses were examined externally for gross alterations in the five respective dosages groups with live litters. Three fetuses had gross external alterations. One fetus (8251-10) in the 2.5 mg/kg/day dosage group had a cleft snout and absent incisors. Two fetuses (8243-8 and 8244-7) in the 0.1 mg/kg/day dosage group had fetal gross malformations; fetus 8243-8 had a short snout, displaced and small nares and fetus 8244-7 had abdominal distention.

IV. Recommendation:

Based on these data, dosages of 0 (Vehicle), 0.1, 1.0, 2.5 and 3.75 mg/kg/day PFOS were recommended for the developmental toxicity study in rabbits (Argus Protocol 418-012). The 0.1 mg/kg/day dosage is expected to be a no-observable-effect-level (NOEL) for both maternal and embryo-fetal toxicity, and the 3.75 mg/kg/day dosage is expected to produce minimal maternal toxicity and little or no developmental toxicity.

06 JAN 99

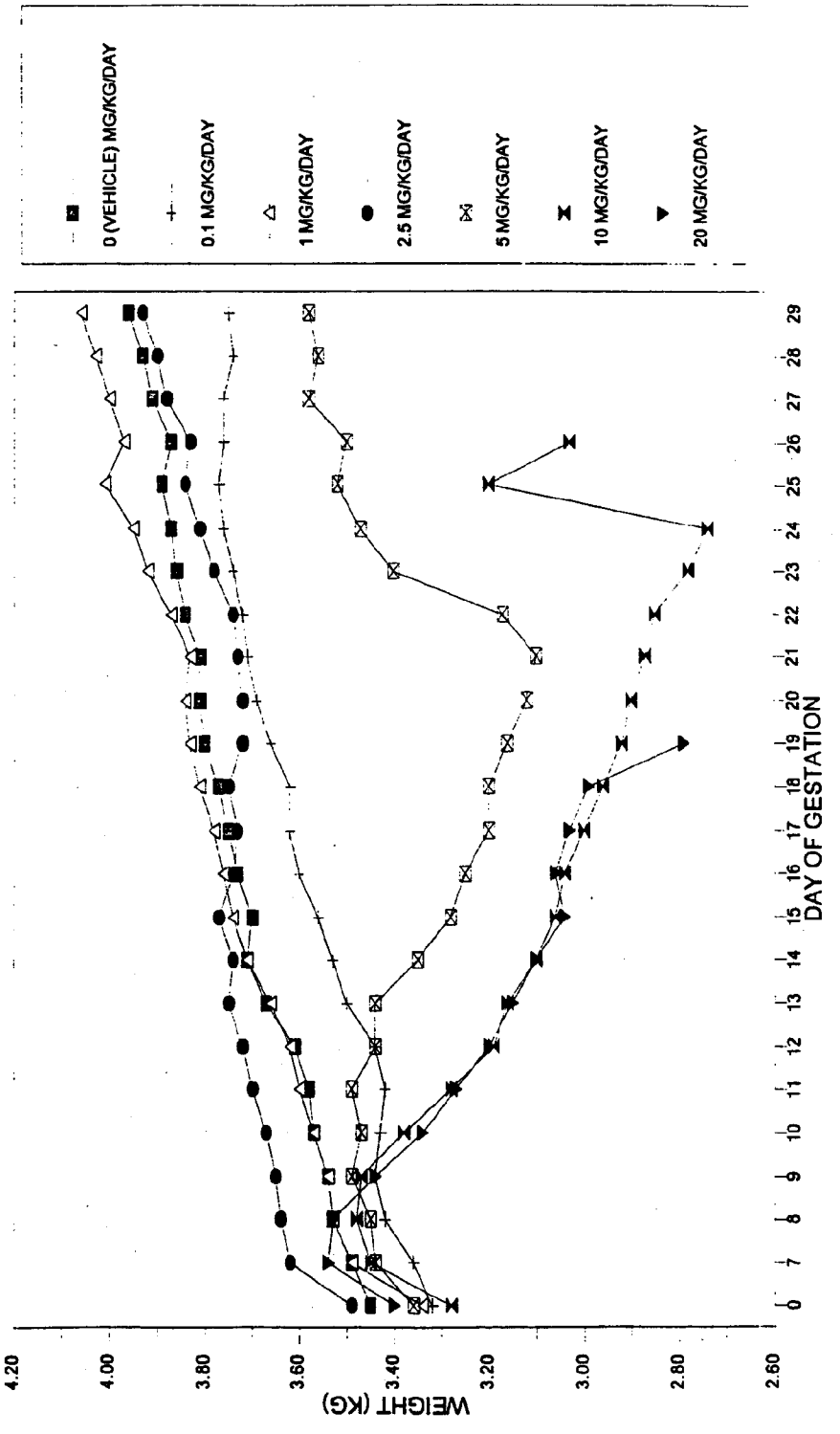
Alan M. Hoberman, Ph.D., DABT Date
Director of Research

06-JAN-99

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

MATERNAL BODY WEIGHTS

Figure 1



PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 1 (PAGE 1): CLINICAL OBSERVATIONS - SUMMARY

DOSAGE GROUP DOSAGE (MG/KG/DAY)a		I 0 (VEHICLE)	II 0.1	III 1	IV 2.5
MAXIMUM POSSIBLE INCIDENCE		115/ 5	115/ 5	115/ 5	115/ 5
MORTALITY		0	0	0	0
FOUND DEAD		0	0	0	0
ABORTED AND SACRIFICED		0	0	0	0
SCANT FECES		0/ 0	1/ 1	0/ 0	8/ 1
NO FECES		0/ 0	0/ 0	0/ 0	0/ 0
EXCESS SALIVATION		0/ 0	0/ 0	0/ 0	0/ 0
RED SUBSTANCE IN CAGE PAN		0/ 0	0/ 0	0/ 0	0/ 0
RED OR TAN PERIVAGINAL SUBSTANCE		0/ 0	0/ 0	0/ 0	0/ 0
SOFT OR LIQUID FECES		0/ 0	2/ 1	0/ 0	0/ 0
UNGROOMED COAT		0/ 0	0/ 0	0/ 0	12/ 1
NOSE: MASS		0/ 0	0/ 0	0/ 0	0/ 0
LOCALIZED ALOPECIA:	TOTAL	15/ 2	3/ 1	2/ 1	0/ 0
	UNDERSIDE	2/ 1	0/ 0	0/ 0	0/ 0
	HEAD	0/ 0	0/ 0	2/ 1	0/ 0
	BACK	0/ 0	3/ 1	0/ 0	0/ 0
	LIMBS	13/ 1	0/ 0	0/ 0	0/ 0

MAXIMUM POSSIBLE INCIDENCE = (DAYS x RABBITS)/NUMBER OF RABBITS EXAMINED PER GROUP ON DAYS 7 THROUGH 29 OF PRESUMED GESTATION.
N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RABBITS WITH OBSERVATION.
a. Dosage occurred on days 7 through 20 of presumed gestation.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 1 (PAGE 2): CLINICAL OBSERVATIONS - SUMMARY

DOSAGE GROUP		V	VI	VII
DOSAGE (MG/KG/DAY)a		5	10	20
MAXIMUM POSSIBLE INCIDENCE		102/ 5	95/ 5	59/ 5
MORTALITY		2	4	5
FOUND DEAD		0	0	4b-e
ABORTED AND SACRIFICED		2f,g	4h-k	1 1
SCANT FECES		50/ 5	49/ 5	33/ 5
NO FECES		2/ 1	23/ 5	8/ 3b-d
EXCESS SALIVATION		0/ 0	0/ 0	4/ 3b,c,l
RED SUBSTANCE IN CAGE PAN		0/ 0	2/ 2j,k	3/ 2b,l
RED OR TAN PERIVAGINAL SUBSTANCE		0/ 0	0/ 0	3/ 2b,d
SOFT OR LIQUID FECES		0/ 0	0/ 0	2/ 1d
UNGROOMED COAT		2/ 1	3/ 1h	2/ 1b
NOSE: MASS		0/ 0	15/ 1i	0/ 0
LOCALIZED ALOPECIA:	TOTAL	16/ 2	0/ 0	0/ 0
	UNDERSIDE	16/ 2	0/ 0	0/ 0
	HEAD	0/ 0	0/ 0	0/ 0
	BACK	0/ 0	0/ 0	0/ 0
	LIMBS	0/ 0	0/ 0	0/ 0

MAXIMUM POSSIBLE INCIDENCE = (DAYS x RABBITS)/NUMBER OF RABBITS EXAMINED PER GROUP ON DAYS 7 THROUGH 29 OF PRESUMED GESTATION.
N/N = TOTAL NUMBER OF OBSERVATIONS/NUMBER OF RABBITS WITH OBSERVATION.

a. Dosage occurred on days 7 through 20 of presumed gestation.
b. Doe 8266 was found dead on day 17 of gestation.
c. Doe 8267 was found dead on day 20 of gestation.
d. Doe 8268 was found dead on day 17 of gestation.
e. Doe 8270 was found dead on day 16 of gestation.
f. Doe 8257 aborted on day 23 of gestation.
g. Doe 8259 aborted on day 22 of gestation.
h. Doe 8261 aborted on day 26 of gestation.
i. Doe 8262 aborted on day 22 of gestation.
j. Doe 8264 aborted on day 23 of gestation.
k. Doe 8265 aborted on day 25 of gestation.
l. Doe 8269 aborted on day 19 of gestation.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 2 (PAGE 1): NECROPSY OBSERVATIONS - SUMMARY

DOSAGE GROUP DOSAGE (MG/KG/DAY)a		I 0 (VEHICLE)	II 0.1	III 1	IV 2.5
RABBITS EXAMINED b	N	5	5	5	5
MORTALITY	N	0	0	0	0
FOUND DEAD	N	0	0	0	0
ABORTED	N	0	0	0	0
APPEARED NORMAL	N	5	5	5	5
ESOPHAGUS:					
WHITE FROTHY MATERIAL	N	0	0	0	0
LUNGS:					
APPEARED INFLATED AND LEFT DIAPHRAGMATIC LOBE, TEAR	N	0	0	0	0
ABDOMINAL CAVITY:					
CLOUDY GREEN FLUID	N	0	0	0	0
GALLBLADDER:					
RUPTURED	N	0	0	0	0

a. Dosage occurred on days 7 through 20 of presumed gestation.
b. Refer to the individual clinical observations table (Table 11) for external observations confirmed at necropsy.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 2 (PAGE 2): NECROPSY OBSERVATIONS - SUMMARY

DOSAGE GROUP DOSAGE (MG/KG/DAY)a		I 0 (VEHICLE)	II 0.1	III 1	IV 2.5
RABBITS EXAMINED b	N	5	5	5	5
STOMACH:					
FUNDIC MUCOSA, TWO ERODED AREAS	N	0	0	0	0
NON-GLANDULAR MUCOSA, RED AND DIFFUSE	N	0	0	0	0
FRIABLE	N	0	0	0	0
MUCOSAL SURFACE, NUMEROUS BLACK AREAS	N	0	0	0	0
LIVER:					
LEFT LATERAL LOBE, TEAR	N	0	0	0	0
MOTTLED RED AND TAN	N	0	0	0	0
EXTERNAL OBSERVATIONS:					
UNGROOMED COAT	N	0	0	0	0
NOSE, MASS, CUT SURFACE REVEALED SMOOTH PINK MATERIAL	N	0	0	0	0

a. Dosage occurred on days 7 through 20 of presumed gestation.
b. Refer to the individual clinical observations table (Table 11) for external observations confirmed at necropsy.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 2 (PAGE 3): NECROPSY OBSERVATIONS - SUMMARY

DOSAGE GROUP		V	VI	VII
DOSAGE (MG/KG/DAY)a		5	10	20
RABBITS EXAMINED b	N	5	5	5
MORTALITY	N	2	4	5
FOUND DEAD	N	0	0	4c-f
ABORTED	N	2g,h	4i-l	1m
APPEARED NORMAL	N	5g,h	3k,l	2d,m
ESOPHAGUS:				
WHITE FROTHY MATERIAL	N	0	0	1c
LUNGS:				
APPEARED INFLATED AND LEFT DIAPHRAGMATIC LOBE, TEAR	N	0	0	1c
ABDOMINAL CAVITY:				
CLOUDY GREEN FLUID	N	0	0	1e
GALLBLADDER:				
RUPTURED	N	0	0	1e

a. Dosage occurred on days 7 through 20 of presumed gestation.
b. Refer to the individual clinical observations table (Table 11) for external observations confirmed at necropsy.
c. Doe 8266 was found dead on day 17 of gestation.
d. Doe 8267 was found dead on day 20 of gestation.
e. Doe 8268 was found dead on day 17 of gestation.
f. Doe 8270 was found dead on day 16 of gestation.
g. Doe 8257 aborted on day 23 of gestation.
h. Doe 8259 aborted on day 22 of gestation.
i. Doe 8261 aborted on day 26 of gestation.
j. Doe 8262 aborted on day 22 of gestation.
k. Doe 8264 aborted on day 23 of gestation.
l. Doe 8265 aborted on day 25 of gestation.
m. Doe 8269 aborted on day 19 of gestation.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 2 (PAGE 4): NECROPSY OBSERVATIONS - SUMMARY

DOSAGE GROUP		V	VI	VII
DOSAGE (MG/KG/DAY)a		5	10	20
RABBITS EXAMINED b	N	5	5	5
MORTALITY	N	2	4	5
FOUND DEAD	N	0	0	4c-f
ABORTED	N	2g,h	4i-l	1m
STOMACH:				
FUNDIC MUCOSA, TWO ERODED AREAS	N	0	0	1c
NON-GLANDULAR MUCOSA, RED AND DIFFUSE	N	0	0	1f
FRIABLE	N	0	0	1e
MUCOSAL SURFACE, NUMEROUS BLACK AREAS	N	0	1i	0
LIVER:				
LEFT LATERAL LOBE, TEAR	N	0	0	1c
MOTTLED RED AND TAN	N	0	1i	0
EXTERNAL OBSERVATIONS:				
UNGROOMED COAT	N	0	0	1m
NOSE, MASS, CUT SURFACE REVEALED SMOOTH PINK MATERIAL	N	0	1j	0

a. Dosage occurred on days 7 through 20 of presumed gestation.
b. Refer to the individual clinical observations table (Table 11) for external observations confirmed at necropsy.
c. Doe 8266 was found dead on day 17 of gestation.
d. Doe 8267 was found dead on day 20 of gestation.
e. Doe 8268 was found dead on day 17 of gestation.
f. Doe 8270 was found dead on day 16 of gestation.
g. Doe 8257 aborted on day 23 of gestation.
h. Doe 8259 aborted on day 22 of gestation.
i. Doe 8261 aborted on day 26 of gestation.
j. Doe 8262 aborted on day 22 of gestation.
k. Doe 8264 aborted on day 23 of gestation.
l. Doe 8265 aborted on day 25 of gestation.
m. Doe 8269 aborted on day 19 of gestation.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 3 (PAGE 1): UTERINE CONTENTS AND LITTER DATA FOR RABBITS THAT WERE FOUND DEAD OR ABORTED

DOSAGE GROUP DOSAGE (MG/KG/DAY)a	RABBIT NUMBER	DAY OF DEATH	CORPORA LUTEA R	L	T	IMPLANTATIONS R	L	T	EMBRYOS/FETUSES b R	L	A	T	RESORPTIONS c R	L	A	T
I 0 (VEHICLE)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
II 0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
III 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IV 2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V 5	8257	ABORTED ON DAY 23 OF GESTATION	2	4	6	2	4	6	0	0	0	0	0	1	5d (5LR)	6
	8259	ABORTED ON DAY 22 OF GESTATION	4	7	11	3	6	9	0	0	7e	7	0	0	2d (2LR)	2
VI 10	8261	ABORTED ON DAY 26 OF GESTATION	4	7	11	2	7	9	2f	0	7e	9	0	0	0	0
	8262	ABORTED ON DAY 22 OF GESTATION	5	5	10	4	5	9	0	0	0	0	0	0	9d (9LR)	9
	8264	ABORTED ON DAY 23 OF GESTATION	4	5	9	4	5	9	0	0	0	0	0	0	9d (9LR)	4
	8265	ABORTED ON DAY 25 OF GESTATION	4	3	7	4	3	7	2	3	1e	6	1	0	0	1

R = RIGHT L = LEFT T = TOTAL A = ABORTED
a. Dosage occurred on days 7 through 20 of gestation.
b. Conceptuses appeared normal for developmental ages.
c. Early resorptions, unless noted otherwise.
d. Autolysis precluded further evaluation.
e. Dead fetuses.
f. Fetus 8261-1 and 8261-2 had edema on the dorsal head and ventral neck.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 3 (PAGE 2): UTERINE CONTENTS AND LITTER DATA FOR RABBITS THAT WERE FOUND DEAD OR ABORTED

DOSAGE GROUP DOSAGE (MG/KG/DAY)a	RABBIT NUMBER	DAY OF DEATH	CORPORA LUTEA R	L	T	IMPLANTATIONS R	L	T	EMBRYOS/FETUSES b R	L	A	T	RESORPTIONS c R	L	A	T
VII 20	8266	FOUND DEAD ON DAY 17 OF GESTATION	5	5	10	5	5	10	0	0	0	0	5	5	0	10
	8267	FOUND DEAD ON DAY 20 OF GESTATION	9	6	15	7	6	13	7	6	0	13d	0	0	0	0
	8268	FOUND DEAD ON DAY 17 OF GESTATION	6	4	10	6	4	10	6	3	0	9d	0	1	0	1
	8269	ABORTED ON DAY 19 OF GESTATION	7	3	10	5	3	8	3	2	3e	8	0	0	0	0
	8270	FOUND DEAD ON DAY 16 OF GESTATION	5	2	7	5	1	6	4	1	0	5d	1	0	0	1

R = RIGHT L = LEFT T = TOTAL A = ABORTED
a. Dosage occurred on days 7 through 20 of gestation.
b. Conceptuses appeared normal for developmental ages.
c. Early resorptions, unless noted otherwise.
d. Unable to determine viability of conceptuses because of death of doe.
e. Dead fetuses.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 4 (PAGE 1): MATERNAL BODY WEIGHTS - SUMMARY

DOSAGE GROUP DOSAGE (MG/KG/DAY)a		I 0 (VEHICLE)	II 0.1	III 1	IV 2.5
RABBITS TESTED	N	5	5	5	5
PREGNANT	N	5	4	4	5
MATERNAL BODY WEIGHT (KG)					
DAY 0	MEAN±S.D.	3.45 ± 0.22	3.32 ± 0.30	3.34 ± 0.18	3.49 ± 0.39
DAY 7	MEAN±S.D.	3.49 ± 0.18	3.36 ± 0.17	3.49 ± 0.23	3.62 ± 0.37
DAY 8	MEAN±S.D.	3.53 ± 0.17	3.42 ± 0.21	3.53 ± 0.24	3.64 ± 0.39
DAY 9	MEAN±S.D.	3.54 ± 0.17	3.44 ± 0.22	3.54 ± 0.22	3.65 ± 0.38
DAY 10	MEAN±S.D.	3.57 ± 0.19	3.43 ± 0.21	3.57 ± 0.22	3.67 ± 0.38
DAY 11	MEAN±S.D.	3.58 ± 0.19	3.42 ± 0.24	3.60 ± 0.19	3.70 ± 0.37
DAY 12	MEAN±S.D.	3.61 ± 0.20	3.44 ± 0.22	3.62 ± 0.25	3.72 ± 0.38
DAY 13	MEAN±S.D.	3.67 ± 0.20	3.50 ± 0.24	3.66 ± 0.27	3.75 ± 0.43
DAY 14	MEAN±S.D.	3.71 ± 0.23	3.53 ± 0.25	3.71 ± 0.28	3.74 ± 0.43
DAY 15	MEAN±S.D.	3.70 ± 0.20	3.56 ± 0.29	3.74 ± 0.28	3.77 ± 0.42
DAY 16	MEAN±S.D.	3.73 ± 0.20	3.60 ± 0.31	3.76 ± 0.28	3.74 ± 0.45
DAY 17	MEAN±S.D.	3.75 ± 0.22	3.62 ± 0.28	3.78 ± 0.30	3.73 ± 0.45
DAY 18	MEAN±S.D.	3.77 ± 0.22	3.62 ± 0.28	3.81 ± 0.28	3.75 ± 0.42
DAY 19	MEAN±S.D.	3.80 ± 0.22	3.66 ± 0.28	3.83 ± 0.30	3.72 ± 0.46
DAY 20	MEAN±S.D.	3.81 ± 0.21	3.69 ± 0.28	3.84 ± 0.28	3.72 ± 0.48
DAY 21	MEAN±S.D.	3.81 ± 0.20	3.71 ± 0.25	3.83 ± 0.31	3.73 ± 0.45

DAY = DAY OF GESTATION
a. Dosage occurred on days 7 through 20 of gestation.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 4 (PAGE 2): MATERNAL BODY WEIGHTS - SUMMARY

DOSAGE GROUP DOSAGE (MG/KG/DAY)a		I 0 (VEHICLE)	II 0.1	III 1	IV 2.5
RABBITS TESTED	N	5	5	5	5
PREGNANT	N	5	4	4	5
MATERNAL BODY WEIGHT (KG)					
DAY 22	MEAN±S.D.	3.84 ± 0.21	3.72 ± 0.26	3.87 ± 0.29	3.74 ± 0.47
DAY 23	MEAN±S.D.	3.86 ± 0.19	3.74 ± 0.26	3.92 ± 0.27	3.78 ± 0.44
DAY 24	MEAN±S.D.	3.87 ± 0.20	3.76 ± 0.23	3.95 ± 0.27	3.81 ± 0.41
DAY 25	MEAN±S.D.	3.89 ± 0.21	3.77 ± 0.20	4.01 ± 0.28	3.84 ± 0.42
DAY 26	MEAN±S.D.	3.87 ± 0.23	3.76 ± 0.20	3.97 ± 0.30	3.83 ± 0.42
DAY 27	MEAN±S.D.	3.91 ± 0.23	3.76 ± 0.18	4.00 ± 0.29	3.88 ± 0.41
DAY 28	MEAN±S.D.	3.93 ± 0.24	3.74 ± 0.14	4.03 ± 0.30	3.90 ± 0.45
DAY 29	MEAN±S.D.	3.96 ± 0.22	3.75 ± 0.16	4.06 ± 0.32	3.93 ± 0.42

DAY = DAY OF GESTATION
a. Dosage occurred on days 7 through 20 of gestation.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 4 (PAGE 3): MATERNAL BODY WEIGHTS - SUMMARY

DOSAGE GROUP		V	VI	VII
DOSAGE (MG/KG/DAY)a		5	10	20
RABBITS TESTED	N	5	5	5
PREGNANT	N	4	4	5
MATERNAL BODY WEIGHT (KG)				
DAY 0	MEAN±S.D.	3.36 ± 0.40	3.28 ± 0.41	3.40 ± 0.18
DAY 7	MEAN±S.D.	3.44 ± 0.33	3.45 ± 0.39	3.54 ± 0.22
DAY 8	MEAN±S.D.	3.45 ± 0.35	3.48 ± 0.38	3.53 ± 0.27
DAY 9	MEAN±S.D.	3.49 ± 0.36	3.47 ± 0.42	3.44 ± 0.25
DAY 10	MEAN±S.D.	3.47 ± 0.39	3.38 ± 0.42	3.34 ± 0.24
DAY 11	MEAN±S.D.	3.49 ± 0.37	3.28 ± 0.39	3.27 ± 0.24
DAY 12	MEAN±S.D.	3.44 ± 0.37	3.19 ± 0.40	3.20 ± 0.24
DAY 13	MEAN±S.D.	3.44 ± 0.39	3.16 ± 0.43	3.15 ± 0.24
DAY 14	MEAN±S.D.	3.35 ± 0.38	3.10 ± 0.42	3.10 ± 0.25
DAY 15	MEAN±S.D.	3.28 ± 0.37	3.06 ± 0.42	3.04 ± 0.26
DAY 16	MEAN±S.D.	3.25 ± 0.36	3.04 ± 0.39	3.06 ± 0.16 [4]b
DAY 17	MEAN±S.D.	3.20 ± 0.35	3.00 ± 0.38	3.03 ± 0.15 [3]b
DAY 18	MEAN±S.D.	3.20 ± 0.35	2.96 ± 0.44	2.99 ± 0.18 [2]b
DAY 19	MEAN±S.D.	3.16 ± 0.34	2.92 ± 0.42	2.79 ± 0.00 [1]b
DAY 20	MEAN±S.D.	3.12 ± 0.35	2.90 ± 0.44	b
DAY 21	MEAN±S.D.	3.10 ± 0.38	2.87 ± 0.43	

DAY = DAY OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 7 through 20 of gestation.
b. Excludes values for rabbits that died or aborted.

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(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 4 (PAGE 4): MATERNAL BODY WEIGHTS - SUMMARY

DOSAGE GROUP		V	VI	VII
DOSAGE (MG/KG/DAY)a		5	10	20
RABBITS TESTED	N	5	5	5
PREGNANT	N	4	4	5
INCLUDED IN ANALYSES	N	3b	3b	0b
MATERNAL BODY WEIGHT (KG)				
DAY 22	MEAN±S.D.	3.17 ± 0.48	2.85 ± 0.52	
DAY 23	MEAN±S.D.	3.40 ± 0.66 [2]b	2.78 ± 0.71 [2]b	
DAY 24	MEAN±S.D.	3.47 ± 0.66 [2]b	2.74 ± 0.70 [2]b	
DAY 25	MEAN±S.D.	3.52 ± 0.60 [2]b	3.20 ± 0.00 [1]b	
DAY 26	MEAN±S.D.	3.50 ± 0.59 [2]b	3.03 ± 0.00 [1]b	
DAY 27	MEAN±S.D.	3.58 ± 0.56 [2]b	b	
DAY 28	MEAN±S.D.	3.56 ± 0.64 [2]b		
DAY 29	MEAN±S.D.	3.58 ± 0.66 [2]b		

DAY = DAY OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 7 through 20 of gestation.
b. Excludes values for rabbits that died or aborted.

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

DOSAGE GROUP DOSAGE (MG/KG/DAY)a		I 0 (VEHICLE)	II 0.1	III 1	IV 2.5
RABBITS TESTED	N	5	5	5	5
PREGNANT	N	5	4	4	5
MATERNAL BODY WEIGHT CHANGE (KG)					
DAYS 0 - 7	MEAN±S.D.	+0.04 ± 0.09	+0.04 ± 0.14	+0.14 ± 0.10	+0.13 ± 0.08
DAYS 7 - 10	MEAN±S.D.	+0.09 ± 0.04	+0.07 ± 0.05	+0.08 ± 0.02	+0.05 ± 0.02
DAYS 10 - 13	MEAN±S.D.	+0.10 ± 0.04	+0.06 ± 0.05	+0.10 ± 0.05	+0.08 ± 0.10
DAYS 13 - 16	MEAN±S.D.	+0.05 ± 0.01	+0.10 ± 0.08	+0.09 ± 0.06	-0.01 ± 0.11
DAYS 16 - 19	MEAN±S.D.	+0.07 ± 0.02	+0.07 ± 0.04	+0.08 ± 0.05	-0.02 ± 0.11
DAYS 19 - 21	MEAN±S.D.	+0.01 ± 0.04	+0.04 ± 0.03	+0.00 ± 0.05	+0.01 ± 0.05
DAYS 21 - 25	MEAN±S.D.	+0.09 ± 0.06	+0.07 ± 0.08	+0.18 ± 0.05	+0.11 ± 0.06
DAYS 25 - 29	MEAN±S.D.	+0.06 ± 0.04	-0.02 ± 0.12	+0.06 ± 0.09	+0.09 ± 0.06
DAYS 7 - 21	MEAN±S.D.	+0.32 ± 0.04	+0.34 ± 0.10	+0.34 ± 0.09	+0.11 ± 0.28
DAYS 21 - 29	MEAN±S.D.	+0.15 ± 0.08	+0.04 ± 0.16	+0.23 ± 0.09	+0.20 ± 0.06
DAYS 7 - 29	MEAN±S.D.	+0.47 ± 0.11	+0.38 ± 0.07	+0.57 ± 0.12	+0.31 ± 0.25
DAYS 0 - 29	MEAN±S.D.	+0.51 ± 0.18	+0.43 ± 0.21	+0.72 ± 0.20	+0.44 ± 0.31

DAYS = DAYS OF GESTATION
a. Dosage occurred on days 7 through 20 of gestation.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 5 (PAGE 2): MATERNAL BODY WEIGHT CHANGES - SUMMARY

DOSAGE GROUP DOSAGE (MG/KG/DAY)a		V 5	VI 10	VII 20
RABBITS TESTED	N	5	5	5
PREGNANT	N	4	4	5
MATERNAL BODY WEIGHT CHANGE (KG)				
DAYS 0 - 7	MEAN±S.D.	+0.08 ± 0.08	+0.17 ± 0.11	+0.15 ± 0.10
DAYS 7 - 10	MEAN±S.D.	+0.02 ± 0.10	-0.08 ± 0.05	-0.20 ± 0.11
DAYS 10 - 13	MEAN±S.D.	-0.03 ± 0.04	-0.22 ± 0.02	-0.20 ± 0.08
DAYS 13 - 16	MEAN±S.D.	-0.19 ± 0.04	-0.12 ± 0.06	-0.18 ± 0.02 [4]b
DAYS 16 - 19	MEAN±S.D.	-0.08 ± 0.07	-0.12 ± 0.03	-0.21 ± 0.00 [1]b
DAYS 19 - 21	MEAN±S.D.	-0.06 ± 0.06	-0.05 ± 0.02	b
DAYS 21 - 25	MEAN±S.D.	+0.29 ± 0.01 [2]b	-0.16 ± 0.00 [1]b	
DAYS 25 - 29	MEAN±S.D.	+0.05 ± 0.06 [2]b	b	
DAYS 7 - 21	MEAN±S.D.	-0.34 ± 0.09	-0.58 ± 0.06	
DAYS 21 - 29	MEAN±S.D.	+0.35 ± 0.04 [2]b	b	
DAYS 7 - 29	MEAN±S.D.	+0.06 ± 0.11 [2]b		
DAYS 0 - 29	MEAN±S.D.	+0.10 ± 0.01 [2]b		

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 7 through 20 of gestation.
b. Excludes values for rabbits that died or aborted.

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(SPONSOR'S STUDY NUMBER: T-6295.10)

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

DOSAGE GROUP DOSAGE (MG/KG/DAY)a		I 0 (VEHICLE)	II 0.1	III 1	IV 2.5
RABBITS TESTED	N	5	5	5	5
PREGNANT	N	5	4	4	5
MATERNAL FEED CONSUMPTION (G/DAY)					
DAYS 7 - 10	MEAN±S.D.	181.0 ± 3.2	163.2 ± 21.9	181.8 ± 1.3	181.4 ± 1.6
DAYS 10 - 13	MEAN±S.D.	172.5 ± 22.9	144.2 ± 41.8	169.5 ± 21.3	162.8 ± 33.4
DAYS 13 - 16	MEAN±S.D.	167.6 ± 32.4	152.1 ± 51.5 [3]b	173.9 ± 14.0	135.3 ± 72.7
DAYS 16 - 19	MEAN±S.D.	176.4 ± 12.0	178.8 ± 8.4	175.3 ± 11.8	122.0 ± 80.3
DAYS 19 - 21	MEAN±S.D.	172.3 ± 17.5	182.5 ± 1.8	181.0 ± 4.1	114.4 ± 83.9
DAYS 21 - 25	MEAN±S.D.	153.6 ± 40.4	158.0 ± 37.2	169.6 ± 10.8	125.0 ± 56.2
DAYS 25 - 29	MEAN±S.D.	138.9 ± 37.1	89.0 ± 56.2	144.2 ± 35.8	143.2 ± 27.7
DAYS 7 - 21	MEAN±S.D.	174.1 ± 17.5	163.0 ± 23.6	176.0 ± 10.8	145.2 ± 49.4
DAYS 21 - 29	MEAN±S.D.	146.2 ± 37.4	121.7 ± 45.1	156.9 ± 23.0	134.1 ± 35.8
DAYS 7 - 29	MEAN±S.D.	164.0 ± 22.0	148.4 ± 10.6	169.0 ± 13.9	141.2 ± 42.9

DAYS = DAYS OF GESTATION
a. Dosage occurred on days 7 through 20 of gestation.
b. Excludes a value that was associated with spillage.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 6 (PAGE 2): MATERNAL ABSOLUTE FEED CONSUMPTION VALUES (G/DAY) - SUMMARY

DOSAGE GROUP		V	VI	VII
DOSAGE (MG/KG/DAY)a		5	10	20
RABBITS TESTED	N	5	5	5
PREGNANT	N	4	4	5
MATERNAL FEED CONSUMPTION (G/DAY)				
DAYS 7 - 10	MEAN±S.D.	168.4 ± 25.3	111.8 ± 42.6	46.2 ± 24.0
DAYS 10 - 13	MEAN±S.D.	88.4 ± 37.4	3.3 ± 3.6	0.7 ± 0.4
DAYS 13 - 16	MEAN±S.D.	3.7 ± 5.7	0.7 ± 0.5	1.2 ± 0.2 [4]b
DAYS 16 - 19	MEAN±S.D.	11.2 ± 11.3	1.2 ± 0.9	0.7 ± 0.0 [1]b
DAYS 19 - 21	MEAN±S.D.	17.8 ± 27.9	0.4 ± 0.8	b
DAYS 21 - 25	MEAN±S.D.	135.2 ± 50.1 [2]b	1.8 ± 0.0 [1]b	
DAYS 25 - 29	MEAN±S.D.	182.6 ± 1.6 [2]b	b	
DAYS 7 - 21	MEAN±S.D.	60.8 ± 17.6	25.1 ± 9.3	
DAYS 21 - 29	MEAN±S.D.	158.9 ± 25.9 [2]b	b	
DAYS 7 - 29	MEAN±S.D.	103.2 ± 21.7 [2]b		

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 7 through 20 of gestation.
b. Excludes values for rabbits that died or aborted.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
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TABLE 7 (PAGE 1): MATERNAL RELATIVE FEED CONSUMPTION VALUES (G/KG/DAY) - SUMMARY

DOSAGE GROUP		I	II	III	IV
DOSAGE (MG/KG/DAY)a		0 (VEHICLE)	0.1	1	2.5
RABBITS TESTED	N	5	5	5	5
PREGNANT	N	5	4	4	5
MATERNAL FEED CONSUMPTION (G/KG/DAY)					
DAYS 7 - 10	MEAN±S.D.	51.3 ± 2.0	47.8 ± 6.0	51.6 ± 3.2	50.2 ± 5.2
DAYS 10 - 13	MEAN±S.D.	47.7 ± 4.8	41.6 ± 11.0	46.8 ± 3.2	43.9 ± 8.3
DAYS 13 - 16	MEAN±S.D.	45.0 ± 7.2	42.8 ± 12.0 [3]b	46.8 ± 0.7	35.8 ± 19.8
DAYS 16 - 19	MEAN±S.D.	46.9 ± 1.7	49.4 ± 1.8	46.2 ± 0.5	32.4 ± 22.1
DAYS 19 - 21	MEAN±S.D.	45.3 ± 3.2	49.6 ± 3.2	47.4 ± 2.8	30.4 ± 22.8
DAYS 21 - 25	MEAN±S.D.	39.8 ± 9.8	42.7 ± 11.4	43.4 ± 3.4	33.3 ± 14.4
DAYS 25 - 29	MEAN±S.D.	35.4 ± 9.1	24.0 ± 15.6	35.7 ± 7.2	36.8 ± 4.9
DAYS 7 - 21	MEAN±S.D.	47.4 ± 3.2	46.0 ± 5.0	47.8 ± 0.5	39.2 ± 13.8
DAYS 21 - 29	MEAN±S.D.	37.6 ± 9.1	32.9 ± 13.1	39.6 ± 4.4	35.1 ± 8.6
DAYS 7 - 29	MEAN±S.D.	43.7 ± 4.9	41.3 ± 3.8	44.6 ± 1.7	37.6 ± 11.5

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 7 through 20 of gestation.
b. Excludes a value that was associated with spillage.

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(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 7 (PAGE 2): MATERNAL RELATIVE FEED CONSUMPTION VALUES (G/KG/DAY) - SUMMARY

DOSAGE GROUP		V	VI	VII
DOSAGE (MG/KG/DAY)a		5	10	20
RABBITS TESTED	N	5	5	5
PREGNANT	N	4	4	5
MATERNAL FEED CONSUMPTION (G/KG/DAY)				
DAYS 7 - 10	MEAN±S.D.	48.9 ± 8.3	31.7 ± 9.9	13.1 ± 6.0
DAYS 10 - 13	MEAN±S.D.	25.0 ± 7.5	1.0 ± 1.1	0.2 ± 0.1
DAYS 13 - 16	MEAN±S.D.	1.0 ± 1.5	0.2 ± 0.2	0.4 ± 0.0 [4]b
DAYS 16 - 19	MEAN±S.D.	3.5 ± 3.6	0.4 ± 0.4	0.2 ± 0.0 [1]b
DAYS 19 - 21	MEAN±S.D.	5.0 ± 7.5	0.1 ± 0.2	b
DAYS 21 - 25	MEAN±S.D.	39.3 ± 7.5 [2]b	0.5 ± 0.0 [1]b	
DAYS 25 - 29	MEAN±S.D.	52.2 ± 8.6 [2]b	b	
DAYS 7 - 21	MEAN±S.D.	18.1 ± 3.6	7.8 ± 2.2	
DAYS 21 - 29	MEAN±S.D.	46.0 ± 0.8 [2]b	b	
DAYS 7 - 29	MEAN±S.D.	29.8 ± 1.1 [2]b		

DAYS = DAYS OF GESTATION
[ ] = NUMBER OF VALUES AVERAGED
a. Dosage occurred on days 7 through 20 of gestation.
b. Excludes values for rabbits that died or aborted.

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TABLE 8 (PAGE 1): CAESAREAN-SECTIONING OBSERVATIONS - SUMMARY

DOSAGE GROUP DOSAGE (MG/KG/DAY)a		I 0 (VEHICLE)	II 0.1	III 1	IV 2.5
RABBITS TESTED	N	5	5	5	5
PREGNANT	N(%)	5(100.0)	4(80.0)	4(80.0)	5(100.0)
FOUND DEAD	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
ABORTED	N(%)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
RABBITS PREGNANT AND CAESAREAN-SECTIONED ON DAY 29 OF GESTATION	N	5	4	4	5
CORPORA LUTEA	MEAN±S.D.	10.2 ± 1.6	11.8 ± 2.9	10.0 ± 0.8	11.0 ± 1.4
IMPLANTATIONS	MEAN±S.D.	8.8 ± 1.6	9.5 ± 1.7	8.5 ± 1.3	8.8 ± 2.0
LITTER SIZES	MEAN±S.D.	8.4 ± 1.1	9.2 ± 1.5	8.5 ± 1.3	8.4 ± 1.5
LIVE FETUSES	N	42	37	34	42
	MEAN±S.D.	8.4 ± 1.1	9.2 ± 1.5	8.5 ± 1.3	8.4 ± 1.5
DEAD FETUSES	N	0	0	0	0
RESORPTIONS	MEAN±S.D.	0.4 ± 0.5	0.2 ± 0.5	0.0 ± 0.0	0.4 ± 0.5
EARLY RESORPTIONS	N	0	0	0	1
	MEAN±S.D.	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.2 ± 0.4
LATE RESORPTIONS	N	2	1	0	1
	MEAN±S.D.	0.4 ± 0.5	0.2 ± 0.5	0.0 ± 0.0	0.2 ± 0.4
DOES WITH ANY RESORPTIONS	N(%)	2(40.0)	1(25.0)	0(0.0)	2(40.0)
DOES WITH ALL CONCEPTUSES RESORBED	N	0	0	0	0
DOES WITH VIABLE FETUSES	N(%)	5(100.0)	4(100.0)	4(100.0)	5(100.0)
PLACENTAE APPEARED NORMAL	N(%)	5(100.0)	4(100.0)	4(100.0)	5(100.0)

a. Dosage occurred on days 7 through 20 of gestation.

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(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 8 (PAGE 2): CAESAREAN SECTIONING OBSERVATIONS - SUMMARY

DOSAGE GROUP		V	VI	VII
DOSAGE (MG/KG/DAY)a		5	10	20
RABBITS TESTED	N	5	5	5
PREGNANT	N(%)	4(80.0)	4(80.0)	5(100.0)
FOUND DEAD	N(%)	0(0.0)	0(0.0)	4(80.0)
ABORTED	N(%)	2(50.0)	4(100.0)	1(20.0)
RABBITS PREGNANT AND CAESAREAN-SECTIONED ON DAY 29 OF GESTATION	N	2	0	0
CORPORA LUTEA	MEAN±S.D.	10.5 ± 0.7		
IMPLANTATIONS	MEAN±S.D.	9.5 ± 0.7		
LITTER SIZES	MEAN±S.D.	5.5 ± 2.1		
LIVE FETUSES	N	11		
	MEAN±S.D.	5.5 ± 2.1		
DEAD FETUSES	N	0		
RESORPTIONS	MEAN±S.D.	4.0 ± 1.4		
EARLY RESORPTIONS	N	5		
	MEAN±S.D.	2.5 ± 3.5		
LATE RESORPTIONS	N	3		
	MEAN±S.D.	1.5 ± 2.1		
DOES WITH ANY RESORPTIONS	N(%)	2(100.0)		
DOES WITH ALL CONCEPTUSES RESORBED	N	0		
DOES WITH VIABLE FETUSES	N(%)	2(100.0)		
PLACENTAE APPEARED NORMAL	N(%)	2(100.0)		

a. Dosage occurred on days 7 through 20 of gestation.

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(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 9 (PAGE 1): LITTER OBSERVATIONS (CAESAREAN-DELIVERED FETUSES) - SUMMARY

DOSAGE GROUP		I	II	III	IV
DOSAGE (MG/KG/DAY)a		0 (VEHICLE)	0.1	1	2.5
LITTERS WITH ONE OR MORE LIVE FETUSES	N	5	4	4	5
IMPLANTATIONS	MEAN±S.D.	8.8 ± 1.6	9.5 ± 1.7	8.5 ± 1.3	8.8 ± 2.0
LIVE FETUSES	N	42	37	34	42
	MEAN±S.D.	8.4 ± 1.1	9.2 ± 1.5	8.5 ± 1.3	8.4 ± 1.5
LIVE MALE FETUSES	N	23	14	13	20
% LIVE MALE FETUSES/LITTER	MEAN±S.D.	53.9 ± 9.4	37.2 ± 5.7	38.0 ± 8.9	48.5 ± 17.8
LIVE FETAL BODY WEIGHTS (GRAMS)/LITTER	MEAN±S.D.	43.77 ± 5.95	40.76 ± 7.53	44.05 ± 2.70	38.18 ± 5.65
MALE FETUSES	MEAN±S.D.	44.06 ± 5.55	41.31 ± 7.46	45.67 ± 2.75	39.44 ± 5.84
FEMALE FETUSES	MEAN±S.D.	43.37 ± 7.09	40.40 ± 7.66	42.82 ± 3.12	38.04 ± 7.04
% RESORBED CONCEPTUSES/LITTER	MEAN±S.D.	3.8 ± 5.2	2.3 ± 4.6	0.0 ± 0.0	3.6 ± 5.0

a. Dosage occurred on days 7 through 20 of gestation.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 9 (PAGE 2): LITTER OBSERVATIONS (CAESAREAN-DELIVERED FETUSES) - SUMMARY

DOSAGE GROUP		V	VI	VII
DOSAGE (MG/KG/DAY)a		5	10	20
LITTERS WITH ONE OR MORE LIVE FETUSES	N	2	0	0
IMPLANTATIONS	MEAN±S.D.	9.5 ± 0.7		
LIVE FETUSES	N	11		
	MEAN±S.D.	5.5 ± 2.1		
LIVE MALE FETUSES	N	5		
% LIVE MALE FETUSES/LITTER	MEAN±S.D.	46.4 ± 5.1		
LIVE FETAL BODY WEIGHTS (GRAMS)/LITTER	MEAN±S.D.	26.05 ± 5.40		
MALE FETUSES	MEAN±S.D.	28.52 ± 11.60		
FEMALE FETUSES	MEAN±S.D.	23.35 ± 0.47		
% RESORBED CONCEPTUSES/LITTER	MEAN±S.D.	42.8 ± 18.1		

a. Dosage occurred on days 7 through 20 of gestation.

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TABLE 10 (PAGE 1): FETAL GROSS EXTERNAL ALTERATIONS - SUMMARY

DOSAGE GROUP		I	II	III	IV
DOSAGE (MG/KG/DAY)a		0 (VEHICLE)	0.1	1	2.5
LITTERS EVALUATED	N	5	4	4	5
FETUSES EVALUATED	N	42	37	34	42
LIVE	N	42	37	34	42
SNOUT: CLEFT					
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	1(20.0)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	1(2.4)b
INCISORS: ABSENT					
LITTER INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	1(20.0)
FETAL INCIDENCE	N(%)	0(0.0)	0(0.0)	0(0.0)	1(2.4)b
SNOUT: SHORT					
LITTER INCIDENCE	N(%)	0(0.0)	1(25.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(2.7)c	0(0.0)	0(0.0)
NARES: DISPLACED					
LITTER INCIDENCE	N(%)	0(0.0)	1(25.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(2.7)c	0(0.0)	0(0.0)
NARES: SMALL					
LITTER INCIDENCE	N(%)	0(0.0)	1(25.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(2.7)c	0(0.0)	0(0.0)
BODY: ABDOMINAL DISTENTION					
LITTER INCIDENCE	N(%)	0(0.0)	1(25.0)	0(0.0)	0(0.0)
FETAL INCIDENCE	N(%)	0(0.0)	1(2.7)	0(0.0)	0(0.0)

a. Dosage occurred on days 7 through 20 of gestation.
b. Fetus 8251-10 had other gross external alterations.
c. Fetus 8243-8 had other gross external alterations.

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(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 10 (PAGE 2): FETAL GROSS EXTERNAL ALTERATIONS - SUMMARY

DOSAGE GROUP		V	VI	VII
DOSAGE (MG/KG/DAY)a		5	10	20
LITTERS EVALUATED	N	2	0	0
FETUSES EVALUATED	N	11	0	0
LIVE	N	11	0	0
SNOUT: CLEFT				
LITTER INCIDENCE	N(%)	0(0.0)		
FETAL INCIDENCE	N(%)	0(0.0)		
INCISORS: ABSENT				
LITTER INCIDENCE	N(%)	0(0.0)		
FETAL INCIDENCE	N(%)	0(0.0)		
SNOUT: SHORT				
LITTER INCIDENCE	N(%)	0(0.0)		
FETAL INCIDENCE	N(%)	0(0.0)		
NARES: DISPLACED				
LITTER INCIDENCE	N(%)	0(0.0)		
FETAL INCIDENCE	N(%)	0(0.0)		
NARES: SMALL				
LITTER INCIDENCE	N(%)	0(0.0)		
FETAL INCIDENCE	N(%)	0(0.0)		
BODY: ABDOMINAL DISTENTION				
LITTER INCIDENCE	N(%)	0(0.0)		
FETAL INCIDENCE	N(%)	0(0.0)		

a. Dosage occurred on days 7 through 20 of gestation.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 11 (PAGE 1): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

RABBIT #		DESCRIPTION
DOSAGE GROUP I		0 (VEHICLE) MG/KG/DAY
8236	DG(17- 29)	LOCALIZED ALOPECIA: LIMBS a
8237	DG(28- 29)	LOCALIZED ALOPECIA: UNDERSIDE a
8238		NO ADVERSE FINDINGS
8239		NO ADVERSE FINDINGS
8240		NO ADVERSE FINDINGS
DOSAGE GROUP II		0.1 MG/KG/DAY
8241	DG(28)	SCANT FECES
	DG(28- 29)	SOFT OR LIQUID FECES
8242		NO ADVERSE FINDINGS
8243		NO ADVERSE FINDINGS
8244	DG(27- 29)	LOCALIZED ALOPECIA: BACK a
8245		NO ADVERSE FINDINGS
DOSAGE GROUP III		1 MG/KG/DAY
8246		NO ADVERSE FINDINGS
8247	DG(28- 29)	LOCALIZED ALOPECIA: HEAD a
8248		NO ADVERSE FINDINGS
8249		NO ADVERSE FINDINGS
8250		NO ADVERSE FINDINGS
DOSAGE GROUP IV		2.5 MG/KG/DAY
8251		NO ADVERSE FINDINGS
8252		NO ADVERSE FINDINGS
7650		NO ADVERSE FINDINGS
8254	DG(14)	SCANT FECES
	DG(16- 22)	SCANT FECES
	DG(18- 29)	UNGROOMED COAT
8255		NO ADVERSE FINDINGS

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

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 11 (PAGE 2): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP V		5 MG/KG/DAY
RABBIT #		DESCRIPTION
8256	DG(14)	SCANT FECES
	DG(16- 21)	SCANT FECES
	DG(19- 29)	LOCALIZED ALOPECIA: UNDERSIDE a
8257	DG(13- 22)	SCANT FECES
	DG(23)	ABORTED AND SACRIFICED
8258	DG(13- 27)	SCANT FECES
	DG(25- 29)	LOCALIZED ALOPECIA: UNDERSIDE
	DG(29)	SCANT FECES
8259	DG(14)	SCANT FECES
	DG(16- 21)	SCANT FECES
	DG(22)	ABORTED AND SACRIFICED
8260	DG(13- 17)	SCANT FECES
	DG(18- 19)	NO FECES
	DG(20- 24)	SCANT FECES
	DG(23- 24)	UNGROOMED COAT

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

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 11 (PAGE 3): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP VI		10 MG/KG/DAY
RABBIT #		DESCRIPTION
8261	DG(12)	SCANT FECES
	DG(13- 15)	NO FECES
	DG(16- 20)	SCANT FECES
	DG(21- 22)	NO FECES
	DG(23- 24)	SCANT FECES
	DG(24- 26)	UNGROOMED COAT
	DG(25- 26)	NO FECES
	DG(26)	ABORTED AND SACRIFICED
8262	DG(7- 21)	NOSE: MASS (0.3 CM IN DIAMETER)a
	DG(11- 12)	SCANT FECES
	DG(13)	NO FECES
	DG(14- 21)	SCANT FECES
	DG(22)	ABORTED AND SACRIFICED
8263	DG(11)	SCANT FECES
	DG(12- 13)	NO FECES
	DG(14- 20)	SCANT FECES
	DG(21- 23)	NO FECES
	DG(24- 27)	SCANT FECES
	DG(28- 29)	NO FECES
8264	DG(12)	SCANT FECES
	DG(13)	NO FECES
	DG(14- 15)	SCANT FECES
	DG(16- 18)	NO FECES
	DG(19- 20)	SCANT FECES
	DG(21- 22)	NO FECES
	DG(22)	RED SUBSTANCE IN CAGE PAN
	DG(23)	ABORTED AND SACRIFICED
8265	DG(9- 20)	SCANT FECES
	DG(21- 22)	NO FECES
	DG(23- 24)	SCANT FECES
	DG(25)	RED SUBSTANCE IN CAGE PAN
	DG(25)	ABORTED AND SACRIFICED

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

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 11 (PAGE 4): CLINICAL OBSERVATIONS - INDIVIDUAL DATA

DOSAGE GROUP VII		20 MG/KG/DAY
RABBIT #		DESCRIPTION
8266	DG(12- 15)	SCANT FECES
	DG(16- 17)	RED SUBSTANCE IN CAGE PAN
	DG(16- 17)	RED PERIVAGINAL SUBSTANCE a
	DG(16- 17)	UNGROOMED COAT
	DG(16- 17)	NO FECES
	DG(17)	EXCESS SALIVATION
	DG(17)	FOUND DEAD
8267	DG(9- 10)	SCANT FECES
	DG(11- 15)	NO FECES
	DG(16- 19)	SCANT FECES
	DG(19)	EXCESS SALIVATION
	DG(20)	FOUND DEAD
8268	DG(9- 15)	SCANT FECES
	DG(12- 13)	SOFT OR LIQUID FECES
	DG(16)	TAN PERIVAGINAL SUBSTANCE a
	DG(16)	NO FECES
	DG(17)	FOUND DEAD
8269	DG(11- 19)	SCANT FECES
	DG(18- 19)	EXCESS SALIVATION
	DG(19)	RED SUBSTANCE IN CAGE PAN
	DG(19)	ABORTED AND SACRIFICED
8270	DG(9- 15)	SCANT FECES
	DG(16)	FOUND DEAD

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

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

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

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RABBIT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
I					
0 (VEHICLE)	8236	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8237	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8238	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8239	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8240	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
II					
0.1	8241	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8242	DG 29	NP	14	ALL TISSUES APPEARED NORMAL.
	8243	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8244	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8245	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
III					
1	8246	DG 29	NP	14	ALL TISSUES APPEARED NORMAL.
	8247	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8248	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8249	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8250	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
IV					
2.5	8251	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8252	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	7650	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8254	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8255	DG 29	P	14	ALL TISSUES APPEARED NORMAL.

P = PREGNANT NP = NOT PREGNANT
DG = DAY OF PRESUMED GESTATION
a. Refer to the individual clinical observations table (Table 11) for external observations confirmed at necropsy.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

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

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RABBIT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
V					
5	8256	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
	8257	DG 23	P	14	ABORTED ON DAY 23 OF GESTATION. ALL TISSUES APPEARED NORMAL.
	8258	DG 29	NP	14	ALL TISSUES APPEARED NORMAL.
	8259	DG 22	P	14	ABORTED ON DAY 22 OF GESTATION. ALL TISSUES APPEARED NORMAL.
	8260	DG 29	P	14	ALL TISSUES APPEARED NORMAL.
VI					
10	8261	DG 26	P	14	ABORTED ON DAY 26 OF GESTATION. LIVER: MOTTLED RED AND TAN. STOMACH: MUCOSAL SURFACE, NUMEROUS BLACK AREAS (PINPOINT TO 0.2 CM IN DIAMETER). ALL OTHER TISSUES APPEARED NORMAL.
	8262	DG 22	P	14	ABORTED ON DAY 22 OF GESTATION. EXTERNAL OBSERVATIONS: NOSE, MASS (1.0 CM X 1.0 CM X 0.3 CM), CUT SURFACE REVEALED SMOOTH PINK MATERIAL.b ALL OTHER TISSUES APPEARED NORMAL.
	8263	DG 29	NP	14	ALL TISSUES APPEARED NORMAL.
	8264	DG 23	P	14	ABORTED ON DAY 23 OF GESTATION. ALL TISSUES APPEARED NORMAL.
	8265	DG 25	P	14	ABORTED ON DAY 25 OF GESTATION. ALL TISSUES APPEARED NORMAL.

P = PREGNANT NP = NOT PREGNANT
DG = DAY OF PRESUMED GESTATION
a. Refer to the individual clinical observations table (Table 11) for external observations confirmed at necropsy.
b. Confirms a clinical observation.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

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

DOSAGE GROUP DOSAGE (MG/KG/DAY)	RABBIT NUMBER	DAY OF NECROPSY	PREGNANCY STATUS	DOSAGES ADMINISTERED	OBSERVATIONS a
VII					
20	8266	DG 17	P	11	FOUND DEAD ON DAY 17 OF GESTATION (11 MINUTES AFTER DOSAGE). ESOPHAGUS: WHITE FROTHY MATERIAL. LUNGS: APPEARED INFLATED AND LEFT DIAPHRAGMATIC LOBE, TEAR (2.0 CM IN LENGTH). LIVER: LEFT LATERAL LOBE, TEAR (2.0 CM IN LENGTH). STOMACH: FUNDIC MUCOSA, TWO ERODED AREAS (1.5 CM X 0.5 CM AND 1.5 CM X 0.5 CM). ALL OTHER TISSUES APPEARED NORMAL.
	8267	DG 20	P	13	FOUND DEAD ON DAY 20 OF GESTATION (DEATH OCCURRED OVERNIGHT). ALL TISSUES APPEARED NORMAL.
	8268	DG 17	P	10	FOUND DEAD ON DAY 17 OF GESTATION (22 HOURS AND 27 MINUTES AFTER DOSAGE). ABDOMINAL CAVITY: CLOUDY GREEN FLUID (APPROXIMATELY 18 ML). STOMACH: FRIABLE. GALLBLADDER: RUPTURED. ALL OTHER TISSUES APPEARED NORMAL.
	8269	DG 19	P	13	ABORTED ON DAY 19 OF GESTATION. EXTERNAL OBSERVATIONS: UNGROOMED COAT. ALL OTHER TISSUES APPEARED NORMAL.
	8270	DG 16	P	9	FOUND DEAD ON DAY 16 OF GESTATION (DEATH OCCURRED OVERNIGHT). STOMACH: NON-GLANDULAR MUCOSA, RED AND DIFFUSE. ALL OTHER TISSUES APPEARED NORMAL.

P = PREGNANT NP = NOT PREGNANT
DG = DAY OF PRESUMED GESTATION
a. Refer to the individual clinical observations table (Table 11) for external observations confirmed at necropsy.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 13 (PAGE 1): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	7	8	9	10	11	12	13	14	15	16	17	18
RABBIT #	DOSAGE GROUP I				0 (VEHICLE) MG/KG/DAY								
8236 P	3.76	3.64	3.71	3.74	3.75	3.74	3.74	3.80	3.86	3.82	3.86	3.87	3.91
8237 P	3.38	3.47	3.50	3.54	3.57	3.59	3.62	3.68	3.70	3.72	3.72	3.75	3.76
8238 P	3.44	3.49	3.47	3.48	3.50	3.53	3.51	3.61	3.63	3.62	3.66	3.71	3.73
8239 P	3.52	3.64	3.67	3.66	3.76	3.76	3.84	3.91	3.99	3.94	3.96	4.01	4.01
8240 P	3.14	3.20	3.28	3.30	3.29	3.30	3.32	3.37	3.38	3.41	3.43	3.43	3.42

	DAY 19	20	21	22	23	24	25	26	27	28	29
8236 P	3.93	3.94	3.98	4.01	3.97	3.95	3.98	3.96	4.00	4.01	4.04
8237 P	3.82	3.81	3.84	3.85	3.91	3.96	3.98	4.00	4.01	4.03	4.05
8238 P	3.74	3.78	3.75	3.80	3.82	3.78	3.83	3.77	3.74	3.83	3.84
8239 P	4.03	4.03	3.97	4.02	4.04	4.08	4.12	4.12	4.18	4.21	4.23
8240 P	3.46	3.48	3.50	3.50	3.54	3.56	3.56	3.52	3.61	3.58	3.64

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 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 13 (PAGE 2): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	7	8	9	10	11	12	13	14	15	16	17	18
RABBIT #	DOSAGE GROUP II				0.1 MG/KG/DAY								
8241 P	3.68	3.53	3.62	3.62	3.66	3.70	3.71	3.75	3.77	3.85	3.89	3.88	3.89
8242 NP	3.36	3.49	3.60	3.56	3.57	3.64	3.62	3.68	3.70	3.71	3.81	3.78	3.77
8243 P	3.42	3.49	3.58	3.63	3.54	3.51	3.49	3.58	3.64	3.70	3.74	3.73	3.77
8244 P	3.20	3.27	3.30	3.32	3.35	3.34	3.39	3.47	3.53	3.53	3.58	3.62	3.59
8245 P	2.98	3.17	3.18	3.19	3.18	3.13	3.19	3.18	3.19	3.17	3.17	3.23	3.24

DAY 19	20	21	22	23	24	25	26	27	28	29
8241 P	3.95	3.96	3.99	4.01	4.00	4.00	3.94	3.88	3.82	3.78	3.82
8242 NP	3.82	3.88	3.88	3.88	3.91	3.92	3.91	3.90	3.96	4.03	4.02
8243 P	3.78	3.84	3.79	3.78	3.86	3.85	3.88	3.90	3.92	3.90	3.94
8244 P	3.63	3.63	3.66	3.68	3.72	3.75	3.79	3.77	3.78	3.70	3.65
8245 P	3.30	3.33	3.40	3.39	3.40	3.45	3.48	3.47	3.50	3.56	3.59

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 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 13 (PAGE 3): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	7	8	9	10	11	12	13	14	15	16	17	18
RABBIT #	DOSAGE GROUP III				1 MG/KG/DAY								
8246 NP	3.57	3.63	3.76	3.76	3.79	3.80	3.84	3.86	3.87	3.86	3.94	3.94	3.97
8247 P	3.29	3.57	3.63	3.62	3.65	3.63	3.74	3.76	3.79	3.80	3.82	3.88	3.92
8248 P	3.46	3.63	3.64	3.63	3.68	3.68	3.67	3.76	3.87	3.94	3.94	3.94	3.93
8249 P	3.52	3.61	3.69	3.69	3.71	3.75	3.81	3.87	3.88	3.90	3.92	3.96	3.99
8250 P	3.11	3.15	3.17	3.22	3.25	3.32	3.26	3.27	3.30	3.34	3.34	3.34	3.39

	DAY 19	20	21	22	23	24	25	26	27	28	29
8246 NP	4.02	4.05	4.03	4.06	4.05	4.09	4.11	4.11	4.16	4.19	4.21
8247 P	3.93	3.94	3.90	3.93	3.96	3.98	4.03	4.01	4.06	4.12	4.16
8248 P	3.97	3.99	4.04	4.06	4.10	4.14	4.23	4.21	4.24	4.29	4.35
8249 P	4.04	4.00	4.02	4.05	4.09	4.12	4.17	4.11	4.12	4.12	4.13
8250 P	3.38	3.41	3.37	3.44	3.53	3.55	3.60	3.54	3.58	3.59	3.60

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 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 13 (PAGE 4): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	7	8	9	10	11	12	13	14	15	16	17	18
RABBIT #	DOSAGE GROUP IV				2.5 MG/KG/DAY								
8251 P	3.62	3.80	3.80	3.81	3.86	3.88	3.94	4.01	4.05	4.08	4.11	4.09	4.11
8252 P	3.31	3.55	3.56	3.56	3.60	3.64	3.67	3.73	3.64	3.75	3.72	3.76	3.79
7650 P	4.05	4.12	4.18	4.18	4.16	4.20	4.23	4.31	4.29	4.30	4.27	4.25	4.20
8254 P	3.47	3.52	3.56	3.55	3.59	3.58	3.54	3.50	3.46	3.39	3.33	3.26	3.36
8255 P	3.00	3.12	3.12	3.14	3.14	3.20	3.23	3.20	3.25	3.34	3.28	3.29	3.29

	DAY 19	20	21	22	23	24	25	26	27	28	29
8251 P	4.13	4.19	4.20	4.24	4.27	4.29	4.32	4.31	4.34	4.40	4.41
8252 P	3.84	3.83	3.82	3.89	3.88	3.93	3.94	3.92	3.94	3.93	3.94
7650 P	4.16	4.14	4.11	4.08	4.09	4.07	4.14	4.15	4.21	4.26	4.28
8254 P	3.17	3.13	3.19	3.16	3.30	3.37	3.40	3.40	3.46	3.47	3.48
8255 P	3.29	3.29	3.33	3.35	3.35	3.40	3.41	3.39	3.47	3.42	3.54

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 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 13 (PAGE 5): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	7	8	9	10	11	12	13	14	15	16	17	18
RABBIT #	DOSAGE GROUP V				5 MG/KG/DAY								
8256 P	3.93	3.90	3.94	4.01	4.04	4.02	3.97	4.01	3.91	3.82	3.77	3.71	3.71
8257 P	3.27	3.44	3.40	3.40	3.34	3.33	3.30	3.25	3.23	3.14	3.12	3.15	3.10
8258 NP	3.40	3.44	3.50	3.48	3.46	3.43	3.42	3.35	3.30	3.24	3.20	3.16	3.13
8259 P	3.22	3.29	3.33	3.35	3.34	3.42	3.37	3.35	3.21	3.17	3.15	3.06	3.06
8260 P	3.02	3.14	3.12	3.19	3.15	3.18	3.12	3.14	3.05	2.97	2.95	2.90	2.92

	DAY 19	20	21	22	23	24	25	26	27	28	29
8256 P	3.66	3.64	3.66	3.72	3.87	3.94	3.95	3.92	3.98	4.01	4.04
8257 P	3.08	3.03	2.99	2.94	ABORTED ON DAY 23 OF GESTATION						
8258 NP	3.12	2.98	2.93	2.88	2.83	2.80	2.76	2.69	2.69	2.67	2.62
8259 P	2.98	2.98	2.95	ABORTED ON DAY 22 OF GESTATION							
8260 P	2.93	2.84	2.80	2.85	2.93	3.00	3.10	3.08	3.18	3.10	3.11

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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(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 13 (PAGE 6): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	7	8	9	10	11	12	13	14	15	16	17	18
RABBIT #	DOSAGE GROUP VI			10 MG/KG/DAY									
8261 P	3.77	3.94	3.92	3.95	3.87	3.73	3.64	3.68	3.60	3.54	3.48	3.44	3.46
8262 P	3.33	3.35	3.40	3.41	3.28	3.18	3.10	3.04	2.98	2.97	2.97	2.96	2.90
8263 NP	3.42	3.45	3.51	3.52	3.41	3.29	3.24	3.17	3.15	3.08	3.00	2.92	2.90
8264 P	3.26	3.52	3.60	3.57	3.50	3.42	3.33	3.27	3.22	3.17	3.15	3.10	3.08
8265 P	2.77	3.00	3.02	2.94	2.86	2.81	2.69	2.64	2.59	2.54	2.54	2.51	2.41

	DAY 19	20	21	22	23	24	25	26	27	28	29
8261 P	3.39	3.39	3.36	3.34	3.28	3.24	3.20	3.03	ABORTED ON DAY 26 OF GESTATION		
8262 P	2.82	2.80	2.74	ABORTED ON DAY 22 OF GESTATION							
8263 NP	2.91	2.88	2.83	2.77	2.73	2.68	2.64	2.56	2.57	2.56	2.53
8264 P	3.06	3.04	3.03	2.90	ABORTED ON DAY 23 OF GESTATION						
8265 P	2.40	2.35	2.34	2.30	2.27	2.25	ABORTED ON DAY 25 OF GESTATION				

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 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
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TABLE 13 (PAGE 7): MATERNAL BODY WEIGHTS - INDIVIDUAL DATA

PREGNANCY STATUS	DAY 0	7	8	9	10	11	12	13	14	15	16	17	18
RABBIT #	DOSAGE GROUP VII				20 MG/KG/DAY								
8266 P	3.59	3.70	3.74	3.61	3.51	3.42	3.34	3.29	3.24	3.16	3.10	2.98	a
8267 P	3.37	3.37	3.37	3.28	3.21	3.18	3.15	3.14	3.13	3.09	3.00	2.92	2.86
8268 P	3.43	3.64	3.48	3.36	3.27	3.19	3.12	3.06	3.00	2.94	2.88	b	
8269 P	3.49	3.75	3.87	3.77	3.67	3.59	3.51	3.45	3.39	3.34	3.26	3.20	3.12
8270 P	3.10	3.26	3.21	3.16	3.06	2.98	2.88	2.80	2.72	2.65	c		

	DAY 19	20	21	22	23	24	25	26	27	28	29
8266 P	FOUND DEAD ON DAY 17 OF GESTATION										
8267 P	2.79	FOUND DEAD ON DAY 20 OF GESTATION									
8268 P	FOUND DEAD ON DAY 17 OF GESTATION										
8269 P	ABORTED ON DAY 19 OF GESTATION										
8270 P	FOUND DEAD ON DAY 16 OF GESTATION										

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 8266 was found dead on day 17 of gestation.
b. Doe 8268 was found dead on day 17 of gestation.
c. Doe 8270 was found dead on day 16 of gestation.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 14 (PAGE 1): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20
RABBIT #	DOSAGE GROUP I	0 (VEHICLE) MG/KG/DAY												
8236 P		181.	183.	183.	185.	180.	183.	184.	185.	181.	182.	182.	183.	157.
8237 P		180.	185.	181.	183.	181.	183.	181.	182.	180.	181.	184.	181.	185.
8238 P		184.	185.	181.	185.	184.	185.	180.	183.	182.	181.	182.	180.	182.
8239 P		182.	182.	182.	181.	181.	182.	184.	183.	180.	180.	184.	181.	183.
8240 P		178.	166.	182.	159.	127.	109.	102.	122.	105.	180.	135.	150.	152.

	DAYS	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28	28 - 29
8236 P		184.	151.	106.	75.	82.	92.	96.	108.	121.
8237 P		184.	185.	185.	184.	182.	170.	119.	124.	125.
8238 P		180.	182.	180.	185.	184.	182.	180.	184.	185.
8239 P		183.	182.	180.	182.	184.	182.	170.	151.	180.
8240 P		133.	120.	111.	114.	118.	97.	116.	71.	125.

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

PREGNANCY STATUS	DAYS 7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20
RABBIT #	DOSAGE GROUP II				0.1 MG/KG/DAY								
8241 P	181.	184.	182.	182.	183.	167.	182.	181.	182.	183.	184.	184.	183.
8242 NP	185.	184.	182.	181.	184.	181.	181.	180.	181.	184.	182.	180.	183.
8243 P	181.	165.	98.	126.	102.	123.	125.	185.	a	184.	183.	185.	182.
8244 P	180.	182.	183.	181.	182.	184.	180.	184.	182.	181.	182.	180.	185.
8245 P	138.	143.	141.	93.	118.	89.	124.	93.	61.	136.	182.	181.	178.

	DAYS 20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28	28 - 29
8241 P	185.	160.	127.	78.	45.	15.	4.	8.	41.
8242 NP	181.	180.	180.	182.	185.	181.	185.	185.	185.
8243 P	185.	181.	182.	181.	184.	152.	124.	83.	132.
8244 P	180.	a	180.	182.	163.	104.	123.	58.	8.
8245 P	182.	153.	173.	183.	182.	145.	140.	135.	152.

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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(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 14 (PAGE 3): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS DAYS	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20
RABBIT #	DOSAGE GROUP III				1 MG/KG/DAY								
8246 NP	181.	182.	183.	181.	183.	185.	185.	181.	180.	180.	182.	184.	185.
8247 P	181.	182.	181.	182.	181.	168.	182.	181.	180.	180.	181.	180.	180.
8248 P	182.	181.	182.	181.	181.	182.	185.	183.	169.	180.	180.	184.	184.
8249 P	185.	181.	185.	184.	180.	182.	185.	183.	180.	181.	184.	181.	185.
8250 P	180.	180.	182.	182.	107.	124.	131.	183.	145.	145.	176.	152.	168.

DAYS	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28	28 - 29
8246 NP	185.	182.	183.	182.	184.	183.	184.	183.	181.
8247 P	183.	182.	183.	183.	181.	173.	181.	174.	183.
8248 P	184.	182.	176.	175.	167.	166.	181.	152.	181.
8249 P	182.	182.	167.	146.	143.	150.	115.	115.	126.
8250 P	182.	181.	175.	153.	138.	114.	113.	93.	90.

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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(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 14 (PAGE 4): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20
RABBIT #	DOSAGE GROUP IV				2.5 MG/KG/DAY								
8251 P	183.	180.	180.	182.	184.	184.	183.	185.	182.	180.	182.	184.	181.
8252 P	184.	181.	183.	183.	182.	180.	126.	184.	180.	183.	181.	183.	183.
7650 P	185.	182.	182.	184.	183.	184.	167.	181.	110.	102.	76.	58.	47.
8254 P	180.	181.	176.	153.	122.	43.	17.	1.	2.	0.	2.	0.	0.
8255 P	182.	179.	183.	166.	164.	148.	162.	180.	169.	166.	165.	168.	172.

	DAYS 20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28	28 - 29
8251 P	168.	180.	182.	182.	181.	181.	163.	160.	183.
8252 P	183.	152.	152.	148.	161.	148.	148.	141.	181.
7650 P	37.	30.	30.	10.	94.	123.	161.	155.	169.
8254 P	11.	38.	100.	130.	117.	84.	102.	93.	113.
8255 P	162.	158.	134.	156.	166.	153.	142.	115.	149.

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

PREGNANCY STATUS	DAYS	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20
RABBIT #	DOSAGE GROUP V					5 MG/KG/DAY								
8256 P		185.	183.	182.	168.	137.	123.	36.	0.	1.	0.	45.	13.	40.
8257 P		117.	144.	131.	115.	66.	9.	1.	0.	3.	1.	3.	0.	3.
8258 NP		182.	182.	169.	134.	84.	13.	1.	0.	0.	0.	2.	0.	1.
8259 P		184.	180.	182.	173.	56.	21.	0.	0.	0.	2.	2.	1.	0.
8260 P		182.	166.	185.	142.	44.	7.	0.	0.	4.	5.	6.	57.	11.

	DAYS	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28	28 - 29
8256 P		79.	133.	181.	184.	185.	184.	185.	181.	185.
8257 P		7.	7.	14.	ABORTED ON DAY 23 OF GESTATION					
8258 NP		2.	3.	1.	0.	0.	1.	4.	1.	1.
8259 P		2.	ABORTED ON DAY 22 OF GESTATION							
8260 P		0.	55.	62.	113.	169.	180.	181.	182.	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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(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 14 (PAGE 6): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20
RABBIT #	DOSAGE GROUP VI				10 MG/KG/DAY									
8261 P		181.	171.	86.	2.	0.	3.	0.	0.	0.	1.	0.	1.	2.
8262 P		180.	145.	28.	1.	0.	2.	0.	2.	0.	0.	0.	1.	0.
8263 NP		180.	164.	28.	2.	1.	2.	0.	0.	0.	1.	0.	1.	0.
8264 P		179.	128.	93.	0.	24.	2.	0.	4.	0.	4.	0.	0.	0.
8265 P		121.	30.	0.	3.	0.	2.	0.	1.	1.	2.	5.	0.	0.

	DAYS	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28	28 - 29
8261 P		1.	5.	0.	1.	1.	ABORTED ON DAY 26 OF GESTATION			
8262 P		0.	ABORTED ON DAY 22 OF GESTATION							
8263 NP		0.	2.	1.	0.	2.	4.	3.	0.	0.
8264 P		0.	2.	1.	ABORTED ON DAY 23 OF GESTATION					
8265 P		0.	1.	0.	3.	1.	ABORTED ON DAY 25 OF GESTATION			

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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(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 14 (PAGE 7): MATERNAL FEED CONSUMPTION VALUES - INDIVIDUAL DATA

PREGNANCY STATUS	DAYS 7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20
RABBIT #	DOSAGE GROUP VII				20 MG/KG/DAY								
8266 P	143.	12.	0.	1.	2.	0.	0.	2.	2.	0.	a		
8267 P	124.	5.	3.	0.	0.	1.	0.	2.	1.	0.	1.	1.	b
8268 P	71.	4.	0.	2.	0.	0.	1.	2.	1.	c			
8269 P	181.	69.	2.	2.	0.	1.	0.	2.	1.	3.	2.	d	
8270 P	52.	27.	0.	1.	0.	0.	0.	2.	e				

	DAYS 20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28	28 - 29
8266 P	FOUND DEAD ON DAY 17 OF GESTATION								
8267 P	FOUND DEAD ON DAY 20 OF GESTATION								
8268 P	FOUND DEAD ON DAY 17 OF GESTATION								
8269 P	ABORTED ON DAY 19 OF GESTATION								
8270 P	FOUND DEAD ON DAY 16 OF GESTATION								

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

a. Doe 8266 was found dead on day 17 of gestation.
b. Doe 8267 was found dead on day 20 of gestation.
c. Doe 8268 was found dead on day 17 of gestation.
d. Doe 8269 aborted on day 19 of gestation.
e. Doe 8270 was found dead on day 16 of gestation.

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TABLE 15 (PAGE 1): CAESAREAN-SECTIONING OBSERVATIONS - INDIVIDUAL DATA

			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		TOTAL	HORN		TOTAL	HORN		TOTAL	HORN		TOTAL	HORN		TOTAL	OVARY		TOTAL
DOSAGE GROUP I					0 (VEHICLE) MG/KG/DAY															
8236	6	4	3	7	10	0	0	0	0	0	0	0	1	1	3	8	11	4	8	12
8237	3	4	4	3	7	0	0	0	0	0	0	0	0	0	4	3	7	4	4	8
8238	6	3	4	5	9	0	0	0	0	0	0	1	0	1	5	5	10	5	6	11
8239	4	4	5	3	8	0	0	0	0	0	0	0	0	0	5	3	8	7	4	11
8240	4	4	5	3	8	0	0	0	0	0	0	0	0	0	5	3	8	6	3	9
DOSAGE GROUP II					0.1 MG/KG/DAY															
8241	4	6	6	4	10	0	0	0	0	0	0	0	0	0	6	4	10	7	5	12
8242	NOT PREGNANT																			
8243	4	6	6	4	10	0	0	0	0	0	0	0	0	0	6	4	10	8	4	12
8244	4	6	5	5	10	0	0	0	0	0	0	0	1	1	5	6	11	6	9	15
8245	2	5	5	2	7	0	0	0	0	0	0	0	0	0	5	2	7	5	3	8
DOSAGE GROUP III					1 MG/KG/DAY															
8246	NOT PREGNANT																			
8247	2	6	2	6	8	0	0	0	0	0	0	0	0	0	2	6	8	3	7	10
8248	4	6	5	5	10	0	0	0	0	0	0	0	0	0	5	5	10	5	6	11
8249	3	4	3	4	7	0	0	0	0	0	0	0	0	0	3	4	7	5	5	10
8250	4	5	5	4	9	0	0	0	0	0	0	0	0	0	5	4	9	5	4	9
DOSAGE GROUP IV					2.5 MG/KG/DAY															
8251	4	6	7	3	10	0	0	0	0	0	0	1	0	1	8	3	11	9	3	12
8252	4	6	2	8	10	0	0	0	0	1	1	0	0	0	2	9	11	4	9	13
7650	5	2	4	3	7	0	0	0	0	0	0	0	0	0	4	3	7	5	5	10
8254	5	3	4	4	8	0	0	0	0	0	0	0	0	0	4	4	8	6	4	10
8255	2	5	6	1	7	0	0	0	0	0	0	0	0	0	6	1	7	7	3	10

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

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(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 15 (PAGE 2): CAESAREAN-SECTIONING OBSERVATIONS - INDIVIDUAL DATA

			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	TOTAL	HORN	TOTAL	HORN	TOTAL	HORN	HORN	TOTAL	OVARY	OVARY	TOTAL
DOSAGE GROUP V					5 MG/KG/DAY												
8256	2	2	2	2	4	0	0	0	5	5	0	0	0	2	7	9	2	8	10
8257	ABORTED ON DAY 23 OF GESTATION																		
8258	NOT PREGNANT																		
8259	ABORTED ON DAY 22 OF GESTATION																		
8260	3	4	2	5	7	0	0	0	0	0	0	2	1	3	4	6	10	4	7	11
DOSAGE GROUP VI					10 MG/KG/DAY												
8261	ABORTED ON DAY 26 OF GESTATION																		
8262	ABORTED ON DAY 22 OF GESTATION																		
8263	NOT PREGNANT																		
8264	ABORTED ON DAY 23 OF GESTATION																		
8265	ABORTED ON DAY 25 OF GESTATION																		
DOSAGE GROUP VII					20 MG/KG/DAY												
8266	FOUND DEAD ON DAY 17 OF GESTATION																		
8267	FOUND DEAD ON DAY 20 OF GESTATION																		
8268	FOUND DEAD ON DAY 17 OF GESTATION																		
8269	ABORTED ON DAY 19 OF GESTATION																		
8270	FOUND DEAD ON DAY 16 OF GESTATION																		

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

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TABLE 16 (PAGE 1): LITTER OBSERVATIONS (CAESAREAN-DELIVERED FETUSES) - INDIVIDUAL DATA

	NUMBER OF LIVE FETUSES			AVERAGE FETAL BODY WEIGHT (G)			CONCEPTUSES RESORBED		
RABBIT #	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL a	N	N	%
DOSAGE GROUP I			0 (VEHICLE) MG/KG/DAY						
8236	6	4	10	41.51	44.35	42.64	11	1	9.1
8237	3	4	7	49.42	48.82	49.08	7	0	0.0
8238	6	3	9	35.68	32.03	34.46	10	1	10.0
8239	4	4	8	47.94	49.68	48.80	8	0	0.0
8240	4	4	8	45.74	41.99	43.87	8	0	0.0
DOSAGE GROUP II			0.1 MG/KG/DAY						
8241	4	6	10	31.86	32.38	32.17	10	0	0.0
8242	NOT PREGNANT								
8243	4	6	10	40.24	36.62	38.06	10	0	0.0
8244	4	6	10	43.30	42.58	42.86	11	1	9.1
8245	2	5	7	49.83	50.02	49.97	7	0	0.0
DOSAGE GROUP III			1 MG/KG/DAY						
8246	NOT PREGNANT								
8247	2	6	8	43.46	44.07	43.92	8	0	0.0
8248	4	6	10	45.87	40.83	42.84	10	0	0.0
8249	3	4	7	49.48	46.60	47.84	7	0	0.0
8250	4	5	9	43.88	39.77	41.59	9	0	0.0
DOSAGE GROUP IV			2.5 MG/KG/DAY						
8251	4	6	10	37.63	33.19	34.97	11	1	9.1
8252	4	6	10	36.26	33.94	34.86	11	1	9.1
7650	5	2	7	43.25	48.32	44.70	7	0	0.0
8254	5	3	8	32.69	32.30	32.54	8	0	0.0
8255	2	5	7	47.36	42.44	43.85	7	0	0.0

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

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 16 (PAGE 2): LITTER OBSERVATIONS (CAESAREAN-DELIVERED FETUSES) - INDIVIDUAL DATA

	NUMBER OF LIVE FETUSES			AVERAGE FETAL BODY WEIGHT (G)			---- CONCEPTUSES ------ RESORBED		
RABBIT #	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL a	N	N	%
DOSAGE GROUP V			5 MG/KG/DAY						
8256	2	2	4	36.72	23.02	29.87	9	5	55.6
8257	ABORTED ON DAY 23 OF GESTATION								
8258	NOT PREGNANT								
8259	ABORTED ON DAY 22 OF GESTATION								
8260	3	4	7	20.31	23.68	22.23	10	3	30.0
DOSAGE GROUP VI			10 MG/KG/DAY						
8261	ABORTED ON DAY 26 OF GESTATION								
8262	ABORTED ON DAY 22 OF GESTATION								
8263	NOT PREGNANT								
8264	ABORTED ON DAY 23 OF GESTATION								
8265	ABORTED ON DAY 25 OF GESTATION								
DOSAGE GROUP VII			20 MG/KG/DAY						
8266	FOUND DEAD ON DAY 17 OF GESTATION								
8267	FOUND DEAD ON DAY 20 OF GESTATION								
8268	FOUND DEAD ON DAY 17 OF GESTATION								
8269	ABORTED ON DAY 19 OF GESTATION								
8270	FOUND DEAD ON DAY 16 OF GESTATION								

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

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 17 (PAGE 1): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

FETUS #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
DOSAGE GROUP I	0 (VEHICLE) MG/KG/DAY																		
RABBIT # CLs																			
8236 4/ 8	MA	MA	FA /	FA	MA	MA	MA	MA	FA	FA	L								
	49.46	45.09	46.98	50.29	40.84	41.52	34.50	37.65	40.06	40.06	1.95								
8237 4/ 4	FA	FA	MA	FA /	MA	FA	MA												
	51.77	48.72	51.46	50.21	47.56	44.56	49.25												
8238 5/ 6	FA	MA	MA	MA	FL /	MA	FA	MA	MA	FA									
	28.71	39.23	34.06	29.22	3.43	37.90	34.83	36.81	36.85	32.56									
8239 7/ 4	FA	FA	MA	MA	MA /	FA	MA	FA											
	51.85	48.42	44.55	46.27	53.37	48.22	47.55	50.21											
8240 6/ 3	MA	FA	MA	FA	FA /	MA	MA	FA											
	48.74	46.03	42.81	39.01	41.58	44.95	46.48	41.33											
DOSAGE GROUP II	0.1 MG/KG/DAY																		
8241 7/ 5	FA	FA	FA	MA	MA	FA /	FA	FA	MA	MA									
	35.65	35.91	34.09	28.52	29.38	27.65	29.03	31.97	34.81	34.72									
8242	NOT PREGNANT																		
8243a 8/ 4	FA	FA	FA	FA	MA	MA /	MA	FA	FA	MA									
	36.00	44.04	41.86	31.80	35.20	36.12	44.09	27.20	38.79	45.53									
8244b 6/ 9	MA	FA	FA	FA	FA /	MA	FA	MA	MA	FL	FA								
	47.16	48.85	44.45	39.22	32.31	39.16	52.80	51.48	35.38	7.32	37.84								
8245 5/ 3	FA	FA	FA	FA	FA /	MA	MA												
	52.45	48.54	52.22	46.73	50.17	52.15	47.51												

M = MALE F = FEMALE A = ALIVE E = EARLY RESORPTION L = LATE RESORPTION "/" DENOTES POSITION OF CERVIX
CLs = CORPORA LUTEA/OVARY FETAL BODY WEIGHTS WERE RECORDED IN GRAMS (G).
a. Fetus 8243-8 had a short snout, and small and displaced nares.
b. Fetus 8244-7 had abdominal distention.

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(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 17 (PAGE 2): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

FETUS #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
DOSAGE GROUP III					1 MG/KG/DAY														
RABBIT # CLs																			
8246	NOT PREGNANT																		
8247 3/ 7	MA	FA /	FA	FA	FA	FA	FA	MA											
	48.57	46.46	45.73	42.90	45.12	46.63	37.60	38.34											
8248 5/ 6	MA	FA	FA	MA	FA /	MA	FA	FA	FA	MA									
	51.27	39.44	44.56	37.77	37.44	54.03	44.11	42.15	37.26	40.42									
8249 5/ 5	MA	FA	FA /	MA	MA	FA	FA												
	52.58	47.34	42.63	50.08	45.79	49.87	46.58												
8250 5/ 4	MA	MA	FA	MA	FA /	MA	FA	FA	FA										
	46.56	43.22	42.44	40.21	33.62	45.52	38.82	43.04	40.91										
DOSAGE GROUP IV					2.5 MG/KG/DAY														
8251a 9/ 3	MA	L	FA	FA	MA	FA	FA	MA /	FA	MA	FA								
	47.06	1.11	31.11	31.19	31.49	28.19	29.34	40.49	40.44	31.48	38.87								
8252 4/ 9	FA	FA /	MA	FA	MA	FA	MA	FA	E	MA	FA								
	40.31	37.60	39.80	30.92	36.40	30.75	36.62	32.98		32.20	31.05								
7650 5/ 5	MA	FA	MA	MA /	FA	MA	MA												
	55.61	50.54	45.68	49.64	46.11	34.14	31.18												
8254 6/ 4	FA	MA	MA	FA /	MA	FA	MA	MA											
	38.36	37.08	32.34	32.57	38.10	25.98	28.90	27.03											
8255 7/ 3	FA	MA	FA	FA	FA	FA /	MA												
	47.02	46.53	41.50	40.14	38.39	45.17	48.19												

M = MALE F = FEMALE A = ALIVE E = EARLY RESORPTION L = LATE RESORPTION "/" DENOTES POSITION OF CERVIX
CLs = CORPORA LUTEA/OVARY FETAL BODY WEIGHTS WERE RECORDED IN GRAMS (G).
a. Fetus 8251-10 had a cleft snout and no incisors.

PROTOCOL 418-012P: ORAL (STOMACH TUBE) DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
(SPONSOR'S STUDY NUMBER: T-6295.10)

TABLE 17 (PAGE 3): FETAL SEX, VITAL STATUS AND BODY WEIGHT - INDIVIDUAL DATA

FETUS #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
DOSAGE GROUP V					**5 MG/KG/DAY**														
RABBIT # CLs																			
8256 2/ 8	MA	MA /	FA	E	E	E	E	E	FA										
	40.97	32.48	31.20						14.84										
8257	ABORTED ON DAY 23 OF GESTATION																		
8258	NOT PREGNANT																		
8259	ABORTED ON DAY 22 OF GESTATION																		
8260 4/ 7	FA	L	FA	L /	MA	MA	FA	MA	L	FA									
	26.90	4.03	28.15	4.33	19.67	20.02	21.85	21.23	3.13	17.82									
DOSAGE GROUP VI					**10 MG/KG/DAY**														
8261	ABORTED ON DAY 26 OF GESTATION																		
8262	ABORTED ON DAY 22 OF GESTATION																		
8263	NOT PREGNANT																		
8264	ABORTED ON DAY 23 OF GESTATION																		
8265	ABORTED ON DAY 25 OF GESTATION																		
DOSAGE GROUP VII					**20 MG/KG/DAY**														
RABBIT # CLs																			
8266	FOUND DEAD ON DAY 17 OF GESTATION																		
8267	FOUND DEAD ON DAY 20 OF GESTATION																		
8268	FOUND DEAD ON DAY 17 OF GESTATION																		
8269	ABORTED ON DAY 19 OF GESTATION																		
8270	FOUND DEAD ON DAY 16 OF GESTATION																		

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

ATTACHMENT 1

PROTOCOL

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

PROTOCOL 418-012P

SPONSOR'S STUDY NUMBER: T-6295.10

STUDY TITLE: Oral (Stomach Tube) Dosage-Range Developmental Toxicity Study of PFOS in Rabbits

PURPOSE: The purpose of this study is to provide information for the selection of dosages to be used in the developmental toxicity (embryo-fetal toxicity and teratogenic potential) study of PFOS administered orally via stomach tube 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
Telefax: (215) 443-8587

STUDY DIRECTOR: Raymond G. York, Ph.D., DABT
Associate Director of Research

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

STUDY MONITOR: Marvin T. Case, D.V.M., Ph.D.
Telephone: (612) 733-5180
Telefax: (612) 733-1773

ALTERNATE STUDY MONITOR: Andrew M. Seacat, Ph.D.
Telephone: (612) 575-3161
Telefax: (612) 733-1773

REGULATORY CITATIONS:

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

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

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

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

REGULATORY COMPLIANCE:

This study will be conducted in the spirit of the Good Laboratory Practice (GLP) regulations cited above in that the Testing Facility personnel will adhere to the Standard Operating Procedures for laboratory operations and data collection. The Testing Facility Quality Assurance Unit (QAU) will not audit the protocol, the raw data, the reports or the critical phases of the study.

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

SCHEMATIC OF STUDY DESIGN AND STUDY SCHEDULE:

See ATTACHMENT 1 to the protocol.

TEST ARTICLE AND VEHICLE:

Identification:

Test Article:

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

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

Vehicle:

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

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

Safety Precautions:

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

Storage:

Bulk Test Article:	Room temperature.
Vehicle Components:	Room temperature.
Prepared Vehicle:	Room temperature.
Prepared Formulations:	Frozen (-20°C).

All test article shipments to the Testing Facility should be addressed to the attention of Julian Gulbinski, Manager of Formulations, at the previously cited address and telephone number.

Shipments should include information concerning storage conditions and shipping cartons should be labeled appropriately. The recipient should be notified in advance of shipment.

FORMULATION:

Frequency of Preparation:

Formulations (suspensions) will be prepared daily at the Testing Facility. Vehicle will be prepared weekly at the Testing Facility.

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

Adjustment for Purity:

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

Testing Facility Reserve Samples:

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

ANALYSES:

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

Bulk Test Article Sampling:

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

Analyses of Prepared Formulations:

At the request of the Sponsor, no analyses of prepared test article formulations will be conducted during the course of the study. However, records will be maintained to document how the test article formulations were prepared.

DISPOSITION:

Prepared formulations will be discarded at the Testing Facility. All remaining bulk test article will be returned to the Study Monitor at the previously cited address.

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 article is pharmacologically active in the species and strain.

Number and Sex:

Population evaluated: 35 timed-pregnant female rabbits (5 per dosage group).

Body Weight and Age:

The individual body weights of the female rabbits will range from 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.

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 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 dosage, 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:

Water will be available *ad libitum* from individual bottles attached to the cages or from an automatic watering access system. All water will be from a local source and passed through a reverse osmosis membrane before use. Chlorine will be added to the processed water as a bacteriostat; processed water is expected to contain no more than 1.2 ppm chlorine at the time of analysis. Water is analyzed monthly for possible bacterial contamination and twice annually for possible chemical contamination.

Contaminants:

Neither the Sponsor nor the Study Director is aware of any potential contaminants likely to be present in the certified diet or 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 shipped to the Testing Facility after mating, to arrive on day 1 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 (stomach tube) route was selected for use because: 1) in comparison with the dietary route, the exact dosage can be accurately administered; and 2) it is one of the possible routes of human exposure.

Method and Frequency:

Female rabbits will be given the test article once daily on days 7 through 20 of presumed gestation. Dosages will be adjusted daily for body weight changes and given at approximately the same time each day.

Rationale for Dosage Selection:

Dosages will be selected by the Sponsor on the basis of previous studies conducted with the test article.

Dosage Levels, Concentrations and Volumes:

Dosage Group	Number of Animals	Dosage (mg/kg/day)	Concentration (mg/mL)	Volume (mL/kg)	Argus Batch Number
I	5	0 (Vehicle)	0	10	B-418-012P-A(Day.Month.Year)
II	5	0.1	0.01	10	B-418-012P-B(Day.Month.Year)
III	5	1	0.1	10	B-418-012P-C(Day.Month.Year)
IV	5	2.5	0.25	10	B-418-012P-D(Day.Month.Year)
V	5	5	0.5	10	B-418-012P-E(Day.Month.Year)
VI	5	10	1	10	B-418-012P-F(Day.Month.Year)
VII	5	20	2	10	B-418-012P-G(Day.Month.Year)

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

TESTS, ANALYSES AND MEASUREMENTS:

Viability:

All Periods: At least twice daily.

Clinical Observations and/or General Appearance:

Predosage Period: At least once.

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

Postdosage Period: Once daily.

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

Body Weights:

Predosage Period: Day 0 of presumed gestation and on the day of arrival at the Testing Facility.

Dosage Period: Daily.

Postdosage Period: Daily.

Feed Consumption Values:

Predosage Period:	Recorded daily after arrival at the Testing Facility (values not tabulated).
Dosage Period:	Recorded daily.
Postdosage Period:	Recorded daily.

Feed consumption values during the dosage period will be tabulated for the same intervals as body weight evaluations.

Caesarean-Sectioning Observations:

Rabbits will be Caesarean-sectioned on day 29 of presumed gestation. 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.
[Placentae that appear abnormal (size, color or shape) will be noted in the raw data.]

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

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

Fetal Observations:

Body Weights:

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.

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. Fetuses with gross external alterations will be preserved in neutral buffered 10% formalin. All other fetuses will be discarded.

Representative photographs of fetal gross alterations will be taken.

Sex:

All fetuses will be examined internally to determine sex.

METHOD OF SACRIFICE:

Beuthanasia®-D Special (manufactured by Schering-Plough Animal Health) will be used to sacrifice rabbits (via intravenous injection) and live fetuses (via intraperitoneal injection).

NECROPSY:

Gross lesions will be retained in neutral buffered 10% formalin for possible future evaluation (corresponding tissues will be retained from rabbits in the vehicle control group at the discretion of the Study Director). (Exception: Parovarian cysts will be discarded; these are common, spontaneous lesions in rabbits.) Unless specifically cited below, all other tissues will be discarded.

Scheduled Sacrifice:

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. Uteri of apparently nonpregnant does will be stained with 10% ammonium sulfide to confirm the absence of implantation sites[5].

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 will be recorded. Aborted fetuses and/or delivered pups will be examined to the extent possible, using the same methods described for fetuses. Uteri of apparently nonpregnant does will be stained with 10% ammonium sulfide to confirm the absence of implantation sites[5].

STATISTICAL EVALUATION:

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

DATA ACQUISITION, VERIFICATION AND STORAGE:

Data will be hand- and/or computer-recorded. Records will be reviewed by the Study Director and/or appropriate management personnel within 21 days after generation. All original records will be stored in the archives of the Testing Facility. All original data will be bound and indexed. A copy of all raw data will be supplied to the Sponsor upon request. Preserved tissues will be stored at the Testing Facility at no charge for one year after mailing of the draft final report, after which time the Sponsor will be contacted to determine the disposition of these materials.

RECORDS TO BE MAINTAINED:

Protocol and Amendments.
Test Article, Vehicle and/or Reagent Receipt, Preparation and Use.
Animal Acquisition.
Randomization Schedules.
Veterinarian Examination.
Mating History.
Treatment (if prescribed by Staff Veterinarian).
General Comments.
Clinical Observations and/or General Appearance.
Body Weights.
Feed Consumption Values.
Caesarean-Sectioning and Fetal Observations.
Gross Necropsy Observations.
Organ Weights (if required).
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

REPORT:

A letter report for the purpose of dosage selection for the full study will be prepared immediately following completion of the in-life phase.

A summary report will be prepared including: abstract, summaries of the methods, results and conclusion; table of contents; copy of the protocol; amendments; summary and individual tables; and reports of supporting data (if appropriate). The report will be included as an appendix to the full study report. The Sponsor will receive one copy of the draft report and two copies of the final report.

INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE STATEMENT:

The procedures described in this protocol have been reviewed by the Testing Facility's Institutional Animal Care and Use Committee. All procedures described in this protocol that involve study animals will be conducted in a manner to avoid or minimize discomfort, distress or pain to the animals.

The Sponsor's signature below documents the fact that information concerning the necessity for conducting this study and the fact that this is not an unnecessarily duplicative study may be obtained from the Sponsor. No alternative (*in vitro*) procedures were available for meeting the stated purposes of the study.

REFERENCES:

1. Christian, M.S., 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. Salewski, E. (1964). Färbemethode zum makroskopischen Nachweis von Implantationsstellen am Uterus der Ratte. Arch. Pathol. Exp. Pharmakol. 247:367.

PROTOCOL APPROVAL:

FOR THE TESTING FACILITY

George E. Dearlove — 17-JUN-98

George E. Dearlove, Ph.D., DABT
Associate Director of Research

Date

Raymond G. York — 17-JUN-98

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

Date

Dena C. Lebo — 17 Jun 98

Dena C. Lebo, V.M.D.
Member, Institutional Animal Care and
Use Committee

Date

FOR THE SPONSOR

Marvin T. Case — 19 June 1998

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

Date

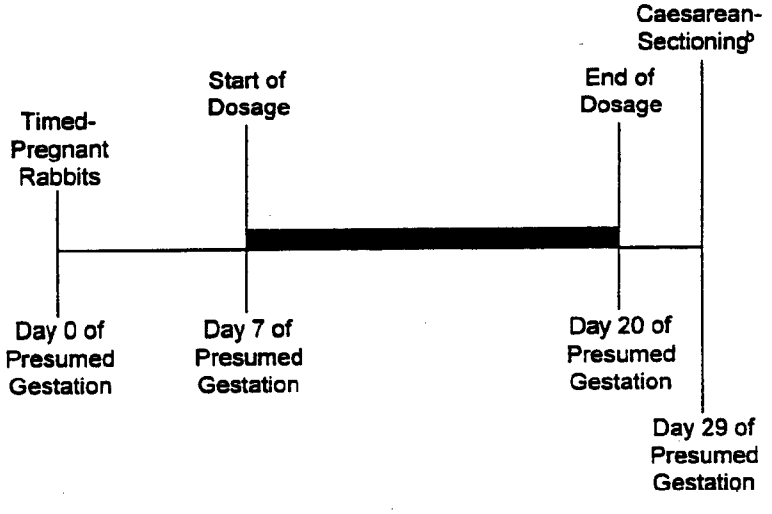
ATTACHMENT 1

SCHEMATIC OF STUDY DESIGN AND STUDY SCHEDULE

ATTACHMENT 1

STUDY SCHEMATIC

DOSAGE-RANGE DEVELOPMENTAL TOXICITY STUDY[a]



Dosage Period.

a. For additional details see "Tests, Analyses and Measurements" section of the protocol.

b. Fetal evaluations (all fetuses - external examinations).

SCHEDULE[a]

26 JUN 98	Animals Arrive - Acclimation Begins.
02 JUL 98 - 15 JUL 98	Dosage Period (Days 7 through 20 of presumed gestation).
24 JUL 98	Caesarean-Sectioning Period (Day 29 of presumed gestation).
31 JUL 98	Letter Report.
08 OCT 98	Summary 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

PFOS

MATERIAL SAFETY DATA SHEET

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

DIVISION: 3M CHEMICALS
TRADE NAME:
FC-95 FLUORAD Brand Fluorochemical Surfactant
ID NUMBER/U.P.C.:
98-0207-0103-7 00-51135-09054-1 98-0207-0104-5 00-51135-09055-8
98-0211-0888-5 00-51135-09362-7 98-0211-3916-1 00-51135-02311-2
ZF-0002-1044-1 - - -
ISSUED: January 29, 1998
SUPERSEDES: November 05, 1997
DOCUMENT: 10-3796-9

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

2. PHYSICAL DATA

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

APPEARANCE AND ODOR:
Light colored, free flowing powder.

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

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... None
FLAMMABLE LIMITS - LEL:..... N/A
FLAMMABLE LIMITS - UEL:..... N/A
AUTOIGNITION TEMPERATURE:..... N/A

EXTINGUISHING MEDIA:
Water, Carbon dioxide, Dry chemical, Foam

SPECIAL FIRE FIGHTING PROCEDURES:
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
See Hazardous Decomposition section for products of combustion.

4. REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:
Not applicable.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:
Carbon Monoxide and Carbon Dioxide, Oxides of Sulfur, Hydrogen Fluoride, Toxic Vapors, Gases or Particulates.

5. ENVIRONMENTAL INFORMATION

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

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

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

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5. ENVIRONMENTAL INFORMATION (continued)

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accept chemical waste.

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

REGULATORY INFORMATION:
Volatile Organic Compounds: N/A.
VOC Less H2O & Exempt Solvents: N/A.

Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste Number = None (Not U.S. EPA Hazardous).

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

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

---

6. SUGGESTED FIRST AID

EYE CONTACT:
Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

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

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

IF SWALLOWED:
Drink two glasses of water. Call a physician.

---

7. PRECAUTIONARY INFORMATION

EYE PROTECTION:
Avoid eye contact. Wear vented goggles.

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

7. PRECAUTIONARY INFORMATION (continued)

SKIN PROTECTION:
Avoid skin contact. Wear appropriate gloves when handling this material. A pair of gloves made from the following material(s) are recommended: butyl rubber. Use one or more of the following personal protection items as necessary to prevent skin contact: head covering, coveralls. Protective garments (other than gloves) should be made of either of the following materials: polyethylene/polyvinylidene chloride (Saranex).

RECOMMENDED VENTILATION:
Use with appropriate local exhaust ventilation. Use in a well-ventilated area. Provide sufficient ventilation to maintain emissions below recommended exposure limits. If exhaust ventilation is not adequate, use appropriate respiratory protection.

RESPIRATORY PROTECTION:
Avoid breathing of dust. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: half-mask dust and mist respirator, half-mask supplied air respirator, full-face dust and mist respirator, full-face supplied air respirator.

PREVENTION OF ACCIDENTAL INGESTION:
Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Wash hands after handling and before eating.

RECOMMENDED STORAGE:
Keep container dry. Keep container closed when not in use.

FIRE AND EXPLOSION AVOIDANCE:
Nonflammable.

OTHER PRECAUTIONARY INFORMATION:
No smoking: Smoking while using this product can result in contamination of the tobacco and/or smoke and lead to the formation of the hazardous decomposition products mentioned in section 4 of this MSDS.

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

EXPOSURE LIMITS

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

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

EXPOSURE LIMITS (continued)

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

* SKIN NOTATION: Listed substances indicated with 'Y' under SKIN refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

SOURCE OF EXPOSURE LIMIT DATA:
- 3M: 3M Recommended Exposure Guidelines

8. HEALTH HAZARD DATA

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

SKIN CONTACT:
Mild Skin Irritation (after prolonged or repeated contact): signs/symptoms can include redness, swelling, and itching.

May be absorbed through the skin and persist in the body for an extended time.

INHALATION:
May be harmful if inhaled.

May be absorbed by inhalation and persist in the body for an extended time.

Single overexposure, above recommended guidelines, may cause:

Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing.

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

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

May be harmful if swallowed.

MUTAGENICITY:
Mutagenicity assays indicate the product is not mutagenic.

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

8. HEALTH HAZARD DATA (continued)

REPRODUCTIVE/DEVELOPMENTAL TOXINS:
Not teratogenic in the rat at oral doses below maternally toxic levels.

OTHER HEALTH HAZARD INFORMATION:
This product is not known to contain any substances regulated under California Proposition 65.

A Product Toxicity Summary Sheet is available.

SECTION CHANGE DATES

HEADING	SECTION CHANGED SINCE November 05, 1997 ISSUE

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

The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

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ATTACHMENT 3

TEST ARTICLE AND VEHICLE PREPARATION PROCEDURE

ATTACHMENT 3

TEST ARTICLE AND VEHICLE PREPARATION PROCEDURE

Test Article: PFOS

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

A. Purpose: The purpose of this procedure is to provide a method for the preparation of dosage suspensions of PFOS and the vehicle for oral administration to rabbits on Argus Study 418-012P.

B. General Information:

1. All suspension containers will be labeled and color coded. Each label will specify the protocol number, test article identification, Argus batch number, concentration, dosage level, preparation date, expiration date and storage conditions.

2a. Suspensions will be prepared:
_X_ Daily ___ Weekly __ For___ days of use

2b. Vehicle will be prepared:
___ Daily _X_ Weekly __ For___ days of use

3. Suspensions will be prepared at a final dosage volume of 10 mL/kg.

4. Safety:
_X_ Gloves, lab coat, goggles or safety glasses and faceshield
_X_ Dust-Mist Respirator
___ Half-Face Respirator
___ Full-Face Respirator/Positive Pressure Hood
___ Tyvek Suit/Apron

5. Dosage solutions adjusted for Free base and % Purity.
___ Yes _X_ No (Calculations based on 100%)
___ Free Base ___ Purity

6. Sampling requirements: Cited in protocol.

7. Storage: Cited in protocol.

ATTACHMENT 3

TEST ARTICLE AND VEHICLE PREPARATION PROCEDURE

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

C. Preparation of Vehicle

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

D. Test Article Suspension Preparation:

1. To prepare the 2-mg/mL, Group VII suspension, add the required amount of test article (See TEST ARTICLE CALCULATIONS) into an appropriately sized, labeled container. Add the required amount of vehicle and heat the mixture to 80°C, ±5°C for approximately 30 minutes.

2. Once the test article has dissolved; spin while the solution cools. (Be sure there is a visible vortex, this will achieve the desired emulsion. This may be prepared the day before use.)

3. To prepare the 1-mg/mL, Group VI suspension, remove the required amount of stock suspension (Group VII) (See TEST ARTICLE CALCULATIONS), add the required amount of vehicle and mix.

4. To prepare the .5-mg/mL, Group V suspension, remove the required amount of stock suspension (Group VI) (See TEST ARTICLE CALCULATIONS), add the required amount of vehicle and mix.

5. To prepare the .25-mg/mL, Group IV suspension, remove the required amount of stock suspension (Group V) (See TEST ARTICLE CALCULATIONS), add the required amount of vehicle and mix.

ATTACHMENT 3

TEST ARTICLE AND VEHICLE PREPARATION PROCEDURE

6. To prepare the 0.1-mg/mL, Group III suspension, remove the required amount of stock suspension (Group IV) (See TEST ARTICLE CALCULATIONS), add the required amount of vehicle and mix.

7. To prepare the 0.01-mg/mL, Group II suspension, remove the required amount of stock suspension (Group III) (See TEST ARTICLE CALCULATIONS), add the required amount of vehicle and mix.

Written by: _____

Approved by: _____ Date: 12-JUN-98

Clarification: ✓ No ___ Yes (See attached clarification form.)

Initials/Date : _____

APPENDIX E

HISTORICAL CONTROL DATA

SUMMARY OF REPRODUCTIVE INDICES
NZW RABBIT

PERIOD: JANUARY 1996 - JANUARY 1998

NUMBER OF STUDIES: 66

NUMBER OF RABBITS:

TESTED	901
PREGNANT	861
FOUND DEAD	6*
ABORTED	22
DELIVERED PREMATURELY	4

NUMBER OF RABBITS PREGNANT AT CAESAREAN-SECTIONING ON DAY 29 OF GESTATION: 825

NUMBER OF RABBITS WITH SINGLE CONCEPTUS LITTER:

LIVE	1
RESORBED	1
ABORTED	2

	MEAN or %	RANGE/STUDY MEAN or %
% PREGNANT	96.0	(75.0-100)
AVERAGE # CORPORA LUTEA	9.7	(7.8-11.7)
AVERAGE # IMPLANTATIONS	8.9	(3.8-10.6)
AVERAGE LITTER SIZE		
AVERAGE # LIVE FETUSES	8.4	(3.2-10.4)
AVERAGE # DEAD FETUSES	0.0	(0-0.1)
AVERAGE # RESORPTIONS	0.4	(0-3.2)
AVERAGE # EARLY RESORPTIONS	0.3	(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	26.8	(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)	51.2	(31.4-61.0)
AVERAGE FETAL BODY WEIGHT (G)	43.74	(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	4.4	(0-18.8)

SUMMARY OF MATERNAL NECROPSY OBSERVATIONS
NZW RABBITS

PERIOD	JANUARY 1996 - JANUARY 1998	
TOTAL # STUDIES	67	
TOTAL # DOES	921	
# PREGNANT	876	% OF PREGNANT
# DIED	6*	0.6
# ABORTED	22	2.4
# DELIVERED PREMATURELY	4	0.4
# DOES WITH 100% RESORPTIONS	5	0.5

			RANGE / STUDY	
EXTERNAL OBSERVATIONS	N	%	N	%
Fecal material in perianal region	1	0.11	0-1	(0-5.0)
Localized alopecia	2	0.22	0-1	(0-5.0)
Left ear, torn	1	0.11	0-1	(0-5.0)
GROSS LESIONS				
THYMUS				
Small	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 discolored	7	0.76	0-4	(0-16.0)
Accentuated lobular pattern on lobe(s)	1	0.11	0-1	(0-5.0)
BACK				
Break present in lumbar region of spine	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 (CONT.)				
Dorsal muscles, three hemorrhagic areas in lumbar region	1	0.11	0-1	(0-12.5)
STOMACH				
Trichobezoar	2	0.22	0-1	(0-4.3)
Mucosa, eroded in areas	1	0.11	0-1	(0-4.2)
SPLEEN				
Small	3	0.32	0-1	(0-20.0)
Large	1	0.11	0-1	(0-4.0)
KIDNEY(S)				
Small	1	0.11	0-1	(0-20.0)
Right, displaced caudally	1	0.11	0-1	(0-5.0)
ADRENAL GLAND				
Right, absent	1	0.11	0-1	(0-5.0)
UTERUS				
Right horn contained dark brown fluid	1	0.11	0-1	(0-16.7)
Horns contained a viscous, green-brown substance	1	0.11	0-1	(0-4.0)
Vascularization	1	0.11	0-1	(0-4.3)
Placentae surrounded by a thick, yellow substance	1	0.11	0-1	(0-5.0)
OVARIES				
Parovarian cyst(s)	30	3.26	0-5	(0-25.0)

SUMMARY OF FETAL GROSS EXTERNAL ALTERATIONS
NZW RABBITS

PERIOD	JANUARY 1996 - JANUARY 1998
# OF STUDIES	65
# LITTERS EXAMINED	816
# LIVE FETUSES EXAMINED (DAY 29)	6929

	ALTERATION		N	%	RANGE / STUDY 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)
	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	3	0.37	0-1	(0-5.3)
		F	3	0.04	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)
BODY						
	Umbilical Hernia	L	9	1.10	0-2	(0-50.0)
		F	10	0.14	0-3	(0-12.0)
	Edema	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 GROSS EXTERNAL ALTERATIONS
NZW RABBITS

ALTERATION		N	%	RANGE / STUDY N	%
BODY (CONT.)					
Skin discolored purple	L	1	0.12	0-1	(0-5.3)
	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)
Hematoma	L	1	0.12	0-1	(0-5.9)
	F	1	0.01	0-1	(0-0.8)
Dark red areas	L	1	0.12	0-1	(0-5.6)
	F	1	0.01	0-1	(0-0.6)
FORELIMBS AND/OR HINDLIMBS					
Paw(s): Flexed/ Rotated	L	2	0.24	0-1	(0-5.6)
	F	2	0.03	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	2	0.24	0-1	(0-16.7)
	F	2	0.03	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)
TAIL					
Short	L	7	0.86	0-1	(0-20.0)
	F	10	0.14	0-4	(0-2.3)

L: LITTER INCIDENCE
F: FETAL INCIDENCE

SUMMARY OF FETAL SOFT TISSUE ALTERATIONS
NZW RABBITS

PERIOD	JANUARY 1996 - JANUARY 1998
# STUDIES	38
# LITTERS EXAMINED	674
# FETUSES EXAMINED	5739

ALTERATION		N	%	RANGE/STUDY N	RANGE/STUDY %
BRAIN					
Dilated lateral ventricles (Moderate) (Grade 2)	L	2	0.30	0-1	(0-5.0)
	F	2	0.03	0-1	(0-0.6)
EYE(S)					
Circumcorneal hemorrhage	L	20	2.97	0-2	(0-16.7)
	F	21	0.36	0-3	(0-1.9)
Microphthalmia	L	1	0.15	0-1	(0-5.0)
	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 arteriosis	L	1	0.15	0-1	(0-5.0)
	F	1	0.02	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, partial or complete agenesis	L	69	10.24	0-5	(0-27.8)
	F	90	1.57	0-9	(0-5.0)
Right apical and cardiac lobes fused	L	1	0.15	0-1	(0-5.3)
	F	1	0.02	0-1	(0-0.6)
DIAPHRAGM					
Hernia	L	1	0.15	0-1	(0-5.0)
	F	1	0.02	0-1	(0-0.6)

L: LITTER INCIDENCE
F: FETAL INCIDENCE

SUMMARY OF FETAL SOFT TISSUE ALTERATIONS
NZW RABBITS

ALTERATION		N	%	RANGE/STUDY N	%
KIDNEY(S)					
Absent	L	1	0.15	0-1	(0-5.6)
	F	1	0.02	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)
GONADS					
Right testis displaced caudally	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	JANUARY 1996 - JANUARY 1998
# STUDIES	37
# LITTERS EXAMINED	668
# FETUSES EXAMINED	5684

ALTERATIONS				RANGE / STUDY		# OF STUDIES WITH
SKULL		N	%	N	%	ALTERATION
Summarization of all irregular ossification of skull	L	185	27.69	0-11	(0-66.7)	35
	F	237	4.17	0-17	(0-9.8)	
Anterior Fontanelle						
: 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) (Grade 1)	L	1	0.15	0-1	(0-5.3)	1
	F	1	0.02	0-1	(0-0.6)	
Frontals						
: Irregular suture	L	18	2.69	0-3	(0-16.7)	13
	F	20	0.35	0-3	(0-1.8)	
: Interfrontals present	L	17	2.54	0-3	(0-15.0)	13
	F	17	0.30	0-3	(0-1.7)	
: Fused	L	5	0.75	0-2	(0-10.5)	4
	F	5	0.09	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	3	0.45	0-1	(0-5.6)	3
	F	3	0.05	0-1	(0-0.6)	
: Fused and small	L	1	0.15	0-1	(0-5.3)	1
	F	1	0.02	0-1	(0-0.6)	
: Interparietals irregularly shaped	L	1	0.15	0-1	(0-5.3)	1
	F	1	0.02	0-1	(0-0.5)	
: Interparietals incompletely ossified	L	1	0.15	0-1	(0-16.7)	1
	F	1	0.02	0-1	(0-1.9)	

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SUMMARY OF FETAL SKELETAL ALTERATIONS
NZW RABBITS

ALTERATIONS				RANGE / STUDY		# OF STUDIES WITH
SKULL (CONT.)		N	%	N	%	ALTERATION
Nasals						
: Irregular suture	L	4	0.60	0-2	(0-10.0)	3
	F	4	0.07	0-2	(0-1.2)	
: Internasals	L	26	3.89	0-3	(0-15.8)	18
	F	29	0.51	0-4	(0-2.3)	
: Intranasals	L	16	2.40	0-2	(0-16.7)	13
	F	16	0.28	0-2	(0-1.9)	
: Displaced suture	L	116	17.36	0-8	(0-40.0)	34
	F	129	2.27	0-9	(0-5.2)	
: Fused	L	10	1.50	0-2	(0-10.0)	9
	F	11	0.19	0-2	(0-1.3)	
: Small	L	1	0.15	0-1	(0-5.0)	1
	F	1	0.02	0-1	(0-0.6)	
Nasal/Frontal sutures:	L	12	1.80	0-2	(0-11.1)	9
irregular and/or misaligned	F	13	0.23	0-3	(0-1.9)	
Premaxillae: fused	L	1	0.15	0-1	(0-5.9)	1
	F	1	0.02	0-1	(0-0.7)	
Premaxillae: not ossified	L	1	0.15	0-1	(0-5.0)	1
	F	1	0.02	0-1	(0-0.6)	
Maxillae: fused	L	1	0.15	0-1	(0-5.3)	1
	F	1	0.02	0-1	(0-0.6)	
Supraoccipitals: irregularly	L	1	0.15	0-1	(0-5.3)	1
shaped	F	1	0.02	0-1	(0-0.5)	
Eye socket: small	L	2	0.30	0-1	(0-5.0)	2
	F	2	0.04	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	108	16.17	0-8	(0-40.0)	34
	F	137	2.41	0-18	(0-9.9)	
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)	

L: LITTER INCIDENCE
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SUMMARY OF FETAL SKELETAL ALTERATIONS
NZW RABBITS

ALTERATIONS		N	%	RANGE / STUDY N	RANGE / STUDY %	# OF STUDIES WITH ALTERATION
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	11	0.19	0-2	(0-1.1)	
: Arches and/or Centra, fused	L	5	0.75	0-2	(0-10.5)	4
	F	6	0.10	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	4	0.60	0-2	(0-10.5)	3
	F	4	0.07	0-2	(0-1.2)	
: Centra, not ossified	L	1	0.15	0-1	(0-4.5)	1
	F	1	0.02	0-1	(0-0.6)	
: Arch, absent	L	1	0.15	0-1	(0-5.6)	1
	F	1	0.02	0-1	(0-0.6)	
: Arch, small	L	3	0.45	0-1	(0-5.9)	3
	F	3	0.05	0-1	(0-0.6)	
Lumbar						
: Hemivertebra	L	2	0.30	0-1	(0-5.9)	2
	F	2	0.04	0-1	(0-0.8)	
: Centrum, unilateral ossification	L	1	0.15	0-1	(0-5.0)	1
	F	1	0.02	0-1	(0-0.6)	
: Arch, small	L	2	0.30	0-1	(0-5.0)	2
	F	2	0.04	0-1	(0-0.6)	
: Centrum, not ossified	L	1	0.15	0-1	(0-5.0)	1
	F	1	0.02	0-1	(0-0.6)	

L: LITTER INCIDENCE
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SUMMARY OF FETAL SKELETAL ALTERATIONS
NZW RABBITS

ALTERATIONS		N	%	RANGE / STUDY N	RANGE / STUDY %	# OF STUDIES WITH ALTERATION
VERTEBRAE (CONT.)						
Sacral						
: 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 misaligned	L	30	4.49	0-3	(0-16.7)	24
	F	31	0.54	0-3	(0-2.0)	
: Fused	L	8	1.20	0-1	(0-5.6)	8
	F	10	0.18	0-3	(0-1.6)	
: 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	0-2	(0-1.0)	
: 13 to 14 present	L	3	0.45	0-1	(0-5.6)	3
	F	3	0.05	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 shaped	L	1	0.15	0-1	(0-5.0)	1
	F	1	0.02	0-1	(0-0.6)	
VERTEBRAE/RIB						
Interrelated Vertebral / Rib malformations	L	3	0.45	0-3	(0-15.8)	1
	F	3	0.05	0-3	(0-1.6)	
RIBS						
Cervical Rib present	L	2	0.30	0-1	(0-5.6)	2
	F	2	0.04	0-1	(0-0.6)	
Two or more, fused	L	6	0.90	0-2	(0-10.5)	5
	F	6	0.10	0-2	(0-1.2)	
Bases proximate	L	10	1.50	0-2	(0-9.1)	9
	F	10	0.18	0-2	(0-1.1)	
One or more, split	L	8	1.20	0-1	(0-5.6)	8
	F	8	0.14	0-1	(0-0.6)	
One or more, thickened areas	L	27	4.04	0-3	(0-16.7)	19
	F	29	0.51	0-3	(0-2.2)	
Flat	L	2	0.30	0-1	(0-5.6)	2
	F	2	0.04	0-1	(0-0.6)	

L: LITTER INCIDENCE
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SUMMARY OF FETAL SKELETAL ALTERATIONS
NZW RABBITS

ALTERATIONS		N	%	RANGE / STUDY N	RANGE / STUDY %	# OF STUDIES WITH ALTERATION
RIBS (CONT.)						
Extra rib	L	1	0.15	0-1	(0-4.3)	1
	F	1	0.02	0-1	(0-0.5)	
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	(0-0.8)	
Bent	L	1	0.15	0-1	(0-4.5)	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	64	9.58	0-5	(0-27.8)	31
	F	78	1.37	0-7	(0-3.9)	
One or more, asymmetric	L	6	0.90	0-2	(0-10.5)	5
	F	6	0.10	0-2	(0-1.2)	
One or more, incompletely	L	11	1.65	0-2	(0-10.5)	9
or not ossified	F	11	0.19	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)	
PELVIS						
Pubis(es): incompletely	L	4	0.60	0-1	(0-5.9)	4
or not ossified	F	5	0.09	0-2	(0-1.1)	
SCAPULAE						
Ala(e): irregularly	L	4	0.60	0-2	(0-10.5)	3
shaped	F	4	0.07	0-2	(0-1.2)	
Ala(e): wavy	L	1	0.15	0-1	(0-5.3)	1
	F	1	0.02	0-1	(0-0.6)	

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SUMMARY OF FETAL SKELETAL ALTERATIONS
NZW RABBITS

ALTERATIONS		N	%	RANGE / STUDY N	RANGE / STUDY %	# OF STUDIES WITH ALTERATION
SCAPULAE (CONT.)						
Misaligned	L	5	0.75	0-2	(0-10.5)	4
	F	5	0.09	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, Fore-digits and Forephalanges absent	L	1	0.15	0-1	(0-5.3)	1
	F	1	0.02	0-1	(0-0.6)	

L: LITTER INCIDENCE
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APPENDIX F

STATEMENT OF THE STUDY DIRECTOR

PRIMEDICA

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

PROTOCOL 418-012: ORAL (STOMACH TUBE) DEVELOPMENTAL TOXICITY STUDY OF PFOS IN RABBITS
SPONSOR'S STUDY NUMBER: 6295.10

STATEMENT OF THE STUDY DIRECTOR

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

11-JAN-99

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

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

b. Japanese Ministry of Health and Welfare (1988). *Good Laboratory Practice Standard for Safety Studies on Drugs*, MHW Ordinance Number 21, March 26, 1997.

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

APPENDIX G

QUALITY ASSURANCE UNIT FINAL REPORT STATEMENT

PRIMEDICA

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QUALITY ASSURANCE UNIT FINAL REPORT STATEMENT

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

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

Protocol 418-012: Oral (Stomach Tube) Developmental Toxicity Study of PFOS in Rabbits
Sponsor's Study Number: 6295.10

The draft protocol for this study was audited for adherence to U.S. Food and Drug Administration (FDA) Good Laboratory Practice Regulations, Japanese Ministry of Health and Welfare (MHW); Good Laboratory Practice Standard for Safety Studies on Drugs, and European Economic Community (1989) council decision on 28 July 1989 on the acceptance by the European Economic Community of an OECD decision/recommendation on compliance with principles of good laboratory practice on 10 AUG 98.

Critical phases of this study were inspected five 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 [except for Appendix F, the Pilot Report, which was conducted in the spirit of Good Laboratory Practice (GLP)] were compared and audited for accuracy, for adherence to protocol requirements, and for adherence to U.S. Food and Drug Administration (FDA) Good Laboratory Practice Regulations, Japanese Ministry of Health and Welfare (MHW); Good Laboratory Practice Standard for Safety Studies on Drugs, and European Economic Community (1989) council decision on 28 July 1989 on the acceptance by the European Economic Community of an OECD decision/recommendation on compliance with principles of good laboratory practice between 04 DEC 98 and 17 DEC 98, for revisions requested by the Sponsor 23 DEC 98, and for finalization on 11 JAN 99.

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

Barbara J. Patterson, B.A. Date
Director of Operations
and Compliance

Heather L. Rabuttino, M.S. Date
Quality Assurance Supervisor
and Principal Auditor

TABLE 1

CRITICAL PHASES INSPECTED

Test Article Administration - Gavage

Date of inspection: 25 AUG 98

Date results reported to the Study Director and Management: 12 SEP 98

Test Article Preparation

Date of inspection: 04 SEP 98

Date results reported to the Study Director and Management: 12 SEP 98

Blood Collection

Date of inspection: 10 SEP 98

Date results reported to the Study Director and Management: 10 SEP 98

Caesarean-Sectioning

Dates of inspection: 10 SEP 98, 18 SEP 98

Dates results reported to the Study Director and Management:
10 SEP 98, 24 SEP 98

TABLE 2

RAW DATA AUDIT(S)

The following study information and raw data were audited on 12 OCT 98:

Vehicle receipt, preparation and use.
Test article receipt, preparation and use.
Test article packing lists.

The results of this audit were reported to the Study Director and Management on 13 OCT 98.

The following study information and raw data were audited on 13 OCT 98:

Protocol.
Protocol amendments.
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.
Caesarean-sectioning.
Maternal gross observations.
Fetal gross observations.
Fetal fixative assignment.
Fetal visceral examination.
Fetal skeletal examination.
Necropsy.
Organ weights.
Tissue packing lists.
General comments.
Study maintenance records.
Tempscribes.
Feed and water analyses.
Edit requests.
Dosage volumes.
Deviations.
Data review page.
Blood collection.

The results of this audit were reported to the Study Director and Management on 14 OCT 98.