BORRISTON
LABORATORIES, INC.

FINAL REPORT

SCREENING OF PRIORITY CHEMICALS FOR REPRODUCTIVE HAZARDS II

Contract No. 200-82-2543
Borriston Project No. 0110
January 9, 1984

Submitted to:
Ronald L. Schuler - NIOSH Study Director
Experimental Toxicology Branch
Division of Biomedical and Behavioral Science
National Institute for Occupational Safety and Health

Submitted by:
Borriston Laboratories, Inc.
5050 Beech Place
Temple Hills, MD 20748

A Subsidiary of Dynamac International, Inc.

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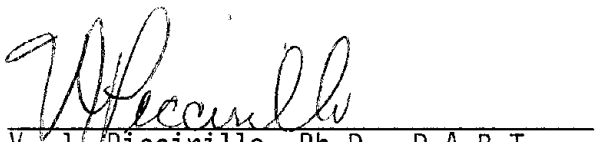
SUBMITTED BY:



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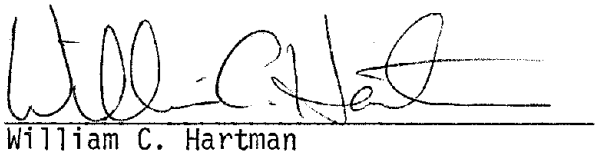
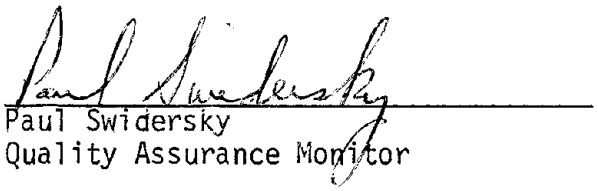


William C. Hartman
Technical Supervision and Report Preparation



Paul Swidersky
Quality Assurance Monitor

QUALITY ASSURANCE
FINAL REPORT STATEMENT

PROJECT NUMBER 0110 was inspected on the following date(s) 11/15/82;1/11/83;2/15/83; 2/25/83; 3/7/83; 5/19/83; 6/2/83; 6/14/83; 7/18/83; 8-1-83; 9-12-83
Final Report 11/18/83, 11/28-12/8/83
by the Quality Assurance Unit, according to Borriston Standard Operating Procedures and FDA's Good Laboratory Practice Regulations. All findings were reported to the Study Director and Management on the following date(s) 11/16/83; 1/11/83; 2/18/83; 2/25/83; 3/8/83; 5/31/83; 6/2/83; 6/15/83; 7/19/83; 8/2/83; 9/12/83; Final Report 12/30/83
Action has been taken in response to all itmes listed by Quality Assurance. It was concluded that the Final Report accurately reflects the raw data for this project. This study has been conducted in compliance with FDA Good Laboratory Practice Regulations.

Paul Sundersky
QUALITY ASSURANCE UNIT
Date 1-6-84

Note: See attached list of inspections

BORRISTON
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Q.A. INSPECTIONS

PROJECT NO. 0110

	EVENT	DATE INSPECTED	REPORTED TO STUDY DIRECTOR	INITIALS
1.	Dosing Animal I.D. Animal Care Raw Data	11-15-82	11-16-82	CS
2.	Dosing Raw Data	1-11-83	1-11-83	CS
3.	Clinical Observations Animal Care Animal I.D. Raw Data	2-15-83	2-18-83	CS
4.	Study Termination First reproduction study	2-25-83	2-25-83	PS
5.	Study Initiation Dosing Compound prep. Animal I.D. Raw Data	3-7-83	3-8-83	CS
6.	Dosing Animal I.D. Animal Care Raw Data	5-19-83	5-13-83	CS
7.	Animal Care Raw Data	6-2-83	6-2-83	CS
8.	Monthly Report	6-14-83	6-15-83	CS

BORRISTON
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Q.A. INSPECTIONS

PROJECT NO._____

	EVENT	DATE INSPECTED	REPORTED TO STUDY DIRECTOR	INITIALS
9.	Dosing Animal Care Raw Data	7-18-83	7-19-83	PS
10.	Litter Weights	8-1-83	8-2-83	PS
11.	Compound prep. Dosing Body Weights Animal Care	9-12-83	9-12-83	CS
12.	Final Report with Raw Data	11/18/83; 11/28 - 12/8/83	12-30-83	PS

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SPONSOR:	NIOSH	INITIATION DATE:	November 8, 1982
MATERIALS:	Priority Chemicals	COMPLETION DATE:	September 29, 1983

SUBJECT: Screening of Priority Chemicals for Reproductive Hazards
Contract No. 200-82-2543
Borriston Project No. 1-0110
Draft Final Report

Summary

This contract was designed to assess fifteen selected chemicals for their potential to cause adverse reproductive effects in the mouse by perinatal/postnatal evaluation. The experimental work was divided into two phases. The initial phase was to determine a minimum effective dose (MED) of the test chemical to be used subsequently in the reproductive phase. For the MED phase, each compound was administred by gavage, once daily, for eight consecutive days to separate groups of ten female CD-1 mice at five dose levels determined upon consultation with the sponsor. During each treatment period, the mice were observed twice daily for general health, mortality, and pharmacotoxic signs. Body weights were measured on days 1, 8, 12 and 16.

The second phase of the study was the reproductive screen. The MED of each chemical, in the appropriate vehicle, was administered once daily by gavage to a group of 50 timed-pregnant CD-1 mice during days 7 through 14 of gestation. The test chemicals were run in four series and a group of 50 timed-pregnant CD-1 mice was dosed with the appropriate vehicle for that series and served as a control. Following dosing, the mice were allowed to deliver their litters. Terminal sacrifice of dams and litters were performed on Day 4 postpartum. Females that did not produce litters by Day 23 of presumed gestation were sacrificed, necropsied, and non-gravid uteri were

treated with 10% sodium sulfide to determine the prior existence of a pregnant state.

The variables used to evaluate the reproductive hazard potential of each block of chemicals were: maternal body weights (measured upon receipt, at study initiation (day 7 of gestation), on day 18 of gestation and terminally on Day 3 postpartum); body weight changes (Day 18-Day7); maternal mortality and signs of toxicity; pup counts (live and dead); pup weights (recorded at birth and on Day 3 postpartum); and offspring viability from birth to Day 3 postpartum.

The results of the reproductive screens are summarized as follows:

TEST CHEMICAL	MED DOSE (mg/kg/day)	REPRODUCTIVE EFFECTS
Decalin	2700	None
Trioctanoin	4750	None
Allyl Chloride	500	Maternal Toxicity; Fetotoxicity indicated by increased dead fetuses and increased number mice with resorptions.
Tergitol NP-10	600	Fetotoxicity indicated by an increased number of mice with resorptions.
Triton X-100	800	None
2-ethylthioethanol	1200	None
2-ethoxyethanethiol	175	None
2-(ethylthio)ethanethiol	125	None
1,3-dichloro-5, 5-dimethyl hydantoin	500	None
disulfiram	4900	Postnatal viability reduced
Tween 60	5200	None; slight reduction in pup body weight change.
2-methoxyethylacrylate	650	Fetotoxicity; all litters resorbed.

2-methoxyethylacetate	1225	Fetotoxicity; all litters resorbed.
2-propoxyethanol	2000	Fetotoxicity; Increased number of dead pups per litter as well as a decreased post partum viability.
3-ethoxy-1-propanol	3000	Fetotoxicity; Increased number of dead pups per litter as well as slightly decreased post partum viability.

Introduction

The objective of this program was to assess the reproductive hazard potential of 15 priority chemicals in the mouse. Because of the different vehicles and availability of the test chemicals, the minimum effective dose (MED) phases and reproductive phases were run in several separate blocks as follows:

Chemical Name	MED Block	Reproductive Block	Vehicle
Decalin	1	1	Corn oil
Trioctanoin	1	1	Corn oil
Allyl chloride	1	1	Corn oil
Tergitol NP-10	2	2	Corn oil
Triton X-100	2	2	Corn oil
Tween 60	2,3	3	Corn oil
2-methoxyethylacrylate	3	4	Distilled Water
2-methoxyethylacetate	3	4	Distilled Water
2-propoxyethanol	3	4	Distilled Water
3-ethoxy-1-propanol	3	4	Distilled Water
2-ethylthioethanol	3	3	Corn oil
2-ethoxyethanethiol	3	3	Corn oil
2-(ethylthio)ethanethiol	3	3	Corn oil
1,3-dichloro-5,5-dimethyl hydantoin	3	3	Corn oil
disulfiram	3	3	Corn oil

Results for the MED phase are reported for each chemical separately. The results for the reproductive screening phase are reported by block.

Test Article

The summary on the following page lists the test articles used in this program and the appropriate receipt and identification information.

TEST ARTICLE IDENTIFICATION INFORMATION

Chemical Name	Supplier	CAS No.	BRL No.	Date Received	Conditions
Decalin	Aldrich Chemical Co.	91-17-8	550	10-22-82	Room temp.
Trioctanoin	Sigma Chemical Co.	538-23-8	549	10-22-82	Frozen
Allyl chloride	Aldrich Chemical Co.	107-05-1	552	10-25-82	Refrigerated
Tergitol NP-10	Curtin Matheson Scientific	9016-45-9	580	12-20-82	Room temp.
Triton X-100	Curtin Matheson Scientific	9002-93-1	578	12-07-82	Room temp.
Tween 60	Curtin Matheson Scientific	9005-66-7	579	12-20-82	Room temp.
2-methoxyethylacrylate	Polysciences, Inc.	3121-61-7	589	01-19-83	Refrigerated
2-methoxyethylacetate	North Strong Corp.	110-49-6	581	12-30-82	Room temp.
2-propoxyethanol	NIOSH	2807-30-9	603	03-07-83	Room temp.
3-ethoxy-1-propanol	Aldrich Chemical Co.	111-35-3	551	10-22-82	Room temp.
2-ethylthioethanol	NIOSH	110-77-0	601	03-07-83	Room temp.
2-ethoxyethanethiol	NIOSH	17362-04-8	602	03-07-83	Room temp.
2-(ethylthio)ethanethiol	Phillips Petroleum Co.	26750-44-7	608	03-18-83	Cool dry place
1,3-dichloro-5,5-dimethyl hydantoin	Aldrich Chemical Co.	118-52-5	633	04-01-83	Room temp.
disulfiram	Aldrich Chemical Co.	97-77-8	611	03-25-83	Room temp.

Test Article Preparation and Administration - MED Phase

Each test article was admixed in the appropriate vehicle at a concentration which provided the desired amount of test compound to the animals in a standard volume of 10 ml/kg body weight. For each test article, appropriate amounts of the compound were weighed on a Mettler H33AR® pan balance (accurate to 0.1 mg). The vehicle was then added and the resulting test article/vehicle admixture was mixed on a Corning® magnetic stirrer for five minutes or until suspended. The dosing mixtures were prepared at study initiation and were stored refrigerated in glass beakers throughout the study, except when in use at which time they were allowed to warm to room temperature prior to dosing.

The test article/vehicle admixtures were administered orally by gavage, once daily, for eight consecutive days. Oral intubation was selected as the route of administration by the sponsor. The dosing mixtures were thoroughly agitated just prior to and continually during dosing. Mice in the vehicle control groups received only distilled water or corn oil and served as the common control group for the test compounds being evaluated in that particular block. All test article/vehicle admixtures remaining at the end of the treatment period were retained frozen at the request of the sponsor for future analysis.

EXPERIMENTAL METHODS - MED PHASE

Test Animals and Husbandry

Virgin female specific pathogen free (SPF) CD1 albino mice, six to eight weeks of age, were obtained from Charles River Breeding Laboratories, Inc. (Portage, Michigan) for use on the MED Phase of this study. Upon receipt, all animals were individually examined for general physical condition and body weights were measured. This strain of mouse was selected by the sponsor; females were used because only females were to be exposed in the subsequent reproductive phase of the study.

The mice were housed five per cage in suspended polycarbonate cages with San-i-cel bedding (L.F. Klein, Baltimore, Maryland). Cages were sanitized and fresh bedding was supplied once during the study. Purina® Certified Rodent Chow® #5002 and fresh water were available ad libitum. The mice were maintained on a 12-hour light/dark cycle in a temperature controlled room (22+3°C) with 10-15 room air changes per hour.

Prior to study initation, the mice were quarantined for five days in the room in which the study was to be conducted. This shortened quarantine period was used to parallel that used in the reproductive phase. During this period, observations were performed twice daily for mortality and general physical appearance.

Assignment to Treatment Groups

Based on the observations conducted during quarantine, clinically acceptable mice were randomly assigned to treatment groups, using a computer-generated random number table. Each test article group consisted of ten females and each control group consisted of 50 females. Each animal received a unique, six-digit, permanent identification number and toe clipping was performed for identification purposes. The toe clip consisted of the last three digits of the permanent animal number. The remaining digits were omitted from the toe clip, since the first two digits indicated the year of study initiation, and the third digit was the same for all animals on study. The toe clipping code is illustrated in Figure 1. In addition, each group of

five mice was assigned a color-coded card which displayed the corresponding project number, individual animal numbers (six digits), treatment group, and dosage level.

Observations

During the dosing period (Day 1 through 8), animals were observed twice daily for signs of toxicity. The first observation was conducted approximately one hour following administration of the test article, and the second, at least five hours later. In addition, mortality checks were performed once in the morning (prior to dosing) and again in the afternoon. All animals which succumbed during the dosing phase were examined for evidence of dosing error. The following criteria were used in determining dosing error deaths: 1) compound in the thoracic cavity; 2) compound in the lungs; and/or 3) a hole in the esophagus. All other deaths were assumed to be treatment related. Observation for signs of toxicity and mortality were performed once on the days the animals were not dosed (Day 9 through 16). Body weights were measured at study initiation (Day 1), on the last day of dosing (Day 8), on the fourth day after completion of dosing (Day 12) and at termination (Day 16). Body weight changes were calculated for each animal for each interval beyond the initial (Day 1) weight; i.e., $(x_t - x_i)$ where x_i is the initial weight and x_t is the weight at time t.

Termination

All surviving mice were sacrificed by carbon dioxide asphyxiation following the collection of terminal body weights on Day 16 of the study. No necropsy examinations were performed and the carcasses were incinerated.

Statistical Analyses

Average body weight per group and average body weight change per group were statistially compared for treatment and control group using a Bonferroni transformation of the Student's t-test.

RESULTS - MED PHASE

BLOCK 1

In the first MED experimental block Decalin, Trioctanoin and Allyl chloride were evaluated along with a common vehicle control (corn oil) group.

The results for each chemical evaluated are discussed below.

Decalin (BRL No. 550)

Mortality

The cumulative mortality which occurred during the study in mice treated with Decalin is presented below. The number of deaths which were attributed to technical errors made during dosing procedures are also indicated.

Group	Dose Level (mg/kg/day)	Total Mortality	Technical Error Mortality
1	0 (Control)	2/50	1/50
2	500	1/10	1/10
3	860	0/10	0/10
4	1480	1/10	1/10
5	2550	1/10	0/10
6	4400 (undiluted)	6/10	0/10

Mortality data are presented by study day in Table 1A. Expect for the deaths in the control and 500 mg/kg/day treatment groups all deaths occurred during the dosing phase.

Clinical Signs

One animal in the 1480 mg/kg/day treatment group was observed as lethargic and exhibiting tremors after dosing on Day 8, lethargic on Day 9 and thin on Day 12. This animal appeared normal by Day 13 and for the remainder of the study. No other compound related clinical signs were observed during the course of the study in any of the other surviving animals treated with Decalin.

Upon receipt of the animals, one male mouse was found included with the females in the shipping crates and was discarded. Subsequently, during the study three females (two control and one 2550 mg/kg/day treated animal) showed signs of pregnancy (abdominal swelling). These animals were Caesarean sectioned at termination and examined for signs of pregnancy. No evidence of pregnancy was observed in any of the three animals.

Body Weights

Mean body weights (Days 1, 8, 12 and 16) and mean body weight changes for each interval beyond Day 1 are presented in Table 2A.

The Day 1, 8 and 16 mean body weights of the 2550 mg/kg/day treatment group were statistically higher than those of the control group. The mean body weights of all other groups were comparable to the control group throughout the study. All groups (including the control) showed a net loss in body weight during the dosing interval (Days 1 through 8). On Day 12 the mean body weight changes for the 1480 and 2550 mg/kg/day groups were statistically lower than the control group. The biological significance of these statistical differences was judged to be minimal.

MED Determination

Based on the results of this study and following consultation with the sponsor, a dose level of 2700 mg/kg/day was selected for use in the reproductive screen for Decalin.

Trioctanoin (BRL No. 549)

Mortality

The cumulative mortality which occurred during the study in mice treated with Trioctanoin is presented below. The number of deaths which were attributed to technical errors made during dosing procedures are also indicated.

Group	Dose Level (mg/kg/day)	Total Mortality	Technical Error Mortality
1	0 (Control)	2/50	1/50
7	500	1/10	0/10
8	880	0/10	0/10
9	1540	0/10	0/10
10	2705	1/10	1/10
11	4750 (undiluted)	0/10	0/10

Mortality data are presented by study day in Table 1B. Expect for the deaths in the control group, all deaths occurred during the dosing phase.

Clinical Signs

No compound related clinical signs were observed during the course of the study in any of the Trioctanoin treated animals.

Upon receipt of the animals, one male mouse was found included with the females in the shipping crates and was discarded. Subsequently, during the study two control females showed signs of pregnancy (abdominal swelling). These animals were Caesarian sectioned at termination and examined for signs of pregnancy. No evidence of pregnancy was observed in either animal.

Body Weights

Mean body weights (Days 1, 8, 12, and 16) and mean body weight changes for each interval beyond Day 1 are presented in Table 2B.

Statistical evaluation of the mean body weight data showed that the treated groups' weights were comparable to the respective control value at all intervals. The mean body weight changes for all treated groups were comparable to the control values at each interval and no statistical differences were noted.

MED Determination

Based on the results of this study and following consultation with the sponsor, a dose level of 4750 mg/kg/day was selected for use in the reproductive screen for Trioctanoin.

Allyl chloride (BRL No. 552)

Mortality

The cumulative mortality which occurred during the study in mice treated with Allyl chloride is presented below. The number of deaths which were attributed to technial errors made during dosing procedures are also inicated.

Group	Dose Level (mg/kg/day)	Total Mortality	Technical Error Mortality
1	0 (Control)	2/50	1/50
12	50	0/10	0/10
13	90	1/10	1/10
14	160	0/10	0/10
15	280	0/10	0/10
16	500	1/10	0/10

Mortality data are presented by study day in Table 1A. Expect for the deaths in the control group, all deaths occurred during the dosing phase.

Clinical Signs

No compound related clinical signs were observed during the course of the study in any of the Allyl chloride treated animals.

Upon receipt of the animals, one male was found included with the females in the shipping crates and was discarded. Subsequently during the study five females (2-control, 1-90 mg/kg/day and 2-280 mg/kg/day animals) showed signs of pregnancy (abdominal swelling). One animal (280 mg/kg/day group) delivered a litter of seven mice on Day 13 of study. The remaining four animals were Caesarian sectioned at termination and examined for signs of pregnancy. One of the four females was determined to have been pregnant and one of the remaining three animals showed evidence of pregnancy.

Body Weights

Mean body weights (Days 1, 8, 12 and 16) and mean body weight changes for each interval beyond Day 1 are presented in Table 2C. The body weights of the two pregnant animals were excluded from the means.

Statistical evaluation of the mean body weight data showed that the treated groups' weights were comparable to the respective control value at all intervals. On Day 8 the mean body weight changes for the 50, 90 and 280 mg/kg/day groups were statistically higher than the control group. The biological significance of these statistical differences was judged to be minimal.

MED Determination

Based on the results of this study and folliwng consultation with the sponsor, a dose level of 500 mg/kg/day was selected for use in the reproductive screen for Allyl chloride.

BLOCK 2

In the second MED experimental block Tergitol NP-10, Triton X-100 and Tween 60 were evaluated along with a common vehicle control (corn oil) group.

The results for each chemical evaluated are discussed below.

Terigitol NP-10 (BRL No. 580)

Mortality

The cumulative mortality which occurred during the study in mice treated with Tergitol NP-10 is presented below. The number of deaths which were attributed to technical errors made during dosing procedures are also indicated.

Group	Dose Level (mg/kg/day)	Total Mortality	Technical Error Mortality
1	0 (Control)	9/50	9/50
18	580	3/10	1/10
17	760	5/10	2/10
2	1000	4/10	1/10
3	1315	10/10	0/10
4	1730	10/10	1/10
5	2280	10/10	1/10
6	3000	10/10	2/10

Mortality data are presented by study day in Table 1D. Because of the high compound induced mortality at the 1315, 1730, 2280 and 3000 mg/kg/day dose levels, two additional lower dose levels of 580 and 760 mg/kg/day were added to the study. The mice used for these additional dose levels were selected from extra mice received in the same shipment. These mice were maintained in quarantine for 12 days and were 63 days old at initiation. Except for the deaths of two animals (one control and one 580 mg/kg/day animal), all deaths occurred during the dosing phase.

Clinical Signs

Lethargy, prostration, soiled anal area and/or tremors were the most frequently noted compound related clinical signs of toxicity. These clinical signs were generally observed in the animals which subsequently died. No compound related clinical signs were observed in any of the Tergitol NP-10 treated animals which survived the dosing phase.

Body Weights

Mean body weights (Days 1, 8, 12 and 16) and mean body weight changes for each interval beyond Day 1 are presented in Table 2D.

Statistical evaluation of the mean body weight data showed that the treated groups' weights were comparable to the respective control value at all intervals.

All groups with animals surviving (including the control) showed a net loss in body weight during the dosing interval (Day 1 through 8) and through Day 12. The surviving Tergitol NP-10 treated animals also showed a net loss in body weight through Day 16. The Day 16 mean body weight changes for the

580, 760 and 1000 mg/kg/day groups were all statistically lower than the control group. The biological significance of these statistical differences was judged to be minimal.

MED Determination

Based on the results of this study and following consultation with the sponsor, a dose level of 600 mg/kg/day was selected for use in the reproductive screen for Tergitol NP-10.

Triton X-100 (BRL No. 578)

Mortality

The cumulative mortality which occurred during the study in mice treated with Triton X-100 is presented below. The number of deaths which were attributed to technical errors made during dosing procedures are also indicated.

Group	Dose Level (mg/kg/day)	Total Mortality	Technical Error Mortality
1	0 (Control)	9/50	9/50
7	760	5/10	0/10
8	1000	2/10	1/10
9	1315	3/10	1/10
10	1730	9/10	0/10
11	2280	10/10	0/10

Mortality data are presented by study day in Table 1E. Except for the death of one control animal all deaths occurred during the dosing phase.

Clinical Signs

Lethargy, prostration, tremors, soft feces and slowed breathing were the compound related clinical signs observed. Except for two animals (one 760 and one 1315 mg/kg/day animal) all animals displaying these symptoms succumbed during the study.

Body Weights

Mean body weights (Days 1, 8, 12 and 16) and mean body weight changes for each interval beyond Day 1 are presented in Table 2E.

Statistical evaluation of the mean body weight data showed that the treated groups' weights were comparable to the respective control value at all intervals. The mean body weight changes for all treated groups were comparable to the control values at each interval and no statistical differences were noted.

MED Determination

Based on the results of this study and following consultation with the sponsor, a dose level of 800 mg/kg/day was selected for use in the reproductive screen for Triton X-100.

Tween 60 (BRL No. 579)

Mortality

The cumulative mortality which occurred during the study in mice treated with Tween 60 is presented below. The number of deaths which were attributed to technical errors made during dosing procedures are also indicated.

Group	Dose Level (mg/kg/day)	Total Mortality	Technical Error Mortality
1	0 (Control)	9/50	9/50
12	1000	0/10	0/10
13	1315	1/10	0/10
14	1730	0/10	0/10
15	2280	0/10	0/10
16	3000	0/10	0/10

Mortality data are presented by study day in Table 1F. Only one compound related death was observed in the Tween 60 animals. Except for one control animal all deaths occurred during the dosing phase.

Clinical Signs

Lethargy and prostration were observed in the one Tween 60 treated animal that died during the study and in one Tween 60 treated animal that survived through termination. Both animals were from the 1315 mg/kg/day treatment group. No other compound related clinical signs were observed in the Tween 60 treated animals.

Body Weights

Mean body weights (Day 1, 8, 12 and 16) and mean body weight changes for each interval beyond Day 1 are presented in Table 2F.

Statistical evaluation of the mean body weight data showed that the treated groups' weights were comparable to the respective control value at all intervals. Except for the 3000 mg/kg/day group, all groups (including the control) showed a net loss in body weights during the dosing interval (Days 1 through 8). Also at Day 12 all groups (including the control) showed a net loss in body weights (Days 1 through 12). No statistical differences were noted in mean body weight changes in the treated groups when compared to the control group.

In the second MED experimental block, no apparent signs of toxicity were observed in animals treated with Tween 60 at dose levels ranging from 580 to 3000 mg/kg/day. Because of this lack of toxicity and at the sponsor's request Tween 60 was re-evaluated at dose levels of 3000, 3950 and 5200 mg/kg/day.

Mortality

The cumulative mortality which occurred during the study in mice treated with Tween 60 is presented below. The number of deaths which were attributed to technical errors made during dosing procedures is also indicated.

Group	Dose Level (mg/kg/day)	Total Mortality	Technical Error Mortality
23	0 (Control)	13/50	12/50
53	3000	3/10	2/10
54	3950	5/10	4/10
55	5200	2/10	2/10

Mortality data are presented by study day in Table 1E. Except for one control death, all deaths occurred during the dosing phase.

Clinical Signs

Lethargy and prostration were compound related clinical signs observed in found dead animals treated with Tween 60. The surviving animals generally appeared normal throughout the study.

Body Weights

Mean body weights (Days 1, 8, 12 and 16) and mean body weight changes for each interval beyond Day 1 are presented in Table 2E.

On Day 1, a statistically lower than control body weight mean was noted in the 3000 mg/kg/day group and on Day 8 a statistically higher than control body weight mean was noted in the 5200 mg/kg/day group. No other statistical differences were noted in the mean body weight data. The mean body weight changes for each treated group were comparable to the control value at each interval and no statistical differences were noted.

MED Determination

Based on the results of both this study and the earlier MED in the second experimental block and following consultation with the sponsor, a dose level of 5200 mg/kg/day was selected for use in the reproductive screen for Tween 60.

BLOCK 3

The third MED experimental block was divided into three sections. In the first section (Groups 1-16) 2-methoxyethylacrylate, 2-methoxyethylacetate and 2-propoxyethanol were evaluated along with a common vehicle control (distilled water) group. In the second section (Groups 23-61) 2-ethylthioethanol, 2-ethoxyethanethiol, 2-(ethylthio)ethanethiol, 1,3-dichloro-5,5-dimethyl hydantoin and disulfiram were evaluated along with a common vehicle control (corn oil) group. Since sufficient quantities of 3-ethoxy-1-propanol were not available upon initiation of the first section, a third section (Groups 62-68) was performed in which 3-ethoxy-1-propanol was evaluated along with its own vehicle control (distilled water) group.

The results for each chemical evaluated are discussed below.

2-methoxyethylacrylate (BRL No. 589)

Mortality

The cumulative mortality which occurred during the study in mice treated with 2-methoxyethylacrylate is presented below. The number of deaths which were attributed to technical errors made during dosing procedures is also indicated.

Group	Dose Level (mg/kg/day)	Total Mortality	Technical Error Mortality
1	0 (Control)	1/50	1/50
2	385	1/10	0/10
3	580	1/10	1/10
4	865	10/10	0/10
5	1300	10/10	2/10
6	1950	10/10	0/10

Mortality data are presented by study day in Table 1G. All deaths occurred during the dosing phase.

Clinical Signs

Lethargy and prostration were compound related clinical signs observed in the found dead animals treated with 2-methoxyethylacrylate. These symptons usually preceded the animals' death by 5-24 hours. The surviving animals generally appeared normal throughout the study.

Body Weights

Mean body weights (Days 1, 8, 12 and 16) and mean body weight changes for each interval beyond Day 1 are presented in Table 2G.

Statistical evaluation of the mean body weight data showed that the treated groups' weights were comparable to the respective control value at all intervals for surviving animals. The mean body weight changes for treated groups, with surviving animals, were comparable to the control values at each interval and no statistical differences were noted.

MED Determination

Based on the results of this study and following consultation with the sponsor, a dose level of 650 mg/kg/day was selected for use in the reproductive screen for 2-methoxyethylacrylate.

2-methoxyethylacetate (BRL No. 581)

Mortality

The cumulative mortality which occurred during the study in mice treated with 2-methoxyethylacetate is presented below. The number of deaths which were attributed to technical errors made during dosing procedures is also indicated.

Group	Dose Level (mg/kg/day)	Total Mortality	Technical Error Mortality
1	0 (Control)	1/50	1/50
7	785	1/10	1/10
8	1180	4/10	3/10
9	1770	5/10	1/10
10	2655	8/10	2/10
11	3985	10/10	1/10

Mortality data are presented by study day in Table 1H. Except for two deaths, one each in the 1180 and 2655 mg/kg/day groups, all deaths occurred during the dosing phase.

Clinical Signs

Lethargy and prostration were compound related clinical signs observed prior to death in the found dead animals treated with 2-methoxyethylacetate. Found dead animals in the two highest dose groups generally died before exhibiting any signs of toxicity. The surviving animals generally appeared normal throughout the study.

Body Weights

Mean body weights (Days 1, 8, 12 and 16) and mean body weight changes for each interval beyond Day 1 are presented in Table 2H.

The Day 1 mean body weight for the 1180 mg/kg/day group was statistically higher than that of the control group. The Day 8 mean body weight for the 2655 mg/kg/day group was statistically lower than that of the control group. No other statistical differences were noted for mean body weights. When compared to the control group, statistically lower mean body weight changes were noted on Day 8 for the 785, 1180 and 2655 mg/kg/day treated groups and on Day 12 for the 2655 mg/kg/day treated group. Interpretation of these data are complicated by mortality and the biological significance of these differences was judged to be minimal.

MED Determination

Based on the results of this study and following consultation with the sponsor, a dose level of 1225 mg/kg/day was selected for use in the reproductive screen for 2-methoxyethylacetate.

2-propoxyethanol (BRL No. 603)

Mortality

The cumulative mortality which occurred during the study in mice treated with 2-propoxyethanol is presented below. The number of deaths which were attributed to technical errors made during dosing procedures are also indicated.

Group	Dose Level (mg/kg/day)	Total Mortality	Technical Error Mortality
1	0 (Control)	1/50	1/50
12	1000	1/10	0/10
13	1315	0/10	0/10
14	1730	1/10	1/10
15	2280	3/10	0/10
16	3000	10/10	0/10

Mortality data are presented by study day in Table 1I. Except for three deaths in the 3000 mg/kg/day group, which occurred on Day 9 of study, all deaths occurred during the dosing phase.

Clinical Signs

Lethargy and prostration were compound related clinical signs observed in found dead animals treated with 2-propoxyethanol. These symptoms usually preceded the animals' death by 12-24 hours. The surviving animals generally appeared normal throughout the study.

Body Weights

Mean body weights (Day 1, 8, 12 and 16) and mean body weight changes for each interval beyond Day 1 are presented in Table 2I.

Statistical evaluation of the mean body weight data showed that the treated groups' weights were comparable to the respective control value at all intervals.

Mean body weight changes were statistically lower than the control changes on Day 8 for the 3000 mg/kg/day group and on Day 12 for the 1315 mg/kg/day group. Interpretation of the 3000 mg/kg/day is complicated by mortality and the biological significance of both differences was judged to be minimal.

MED Determination

Based on the results of this study and following consultation with the sponsor, a dose level of 2000 mg/kg/day was selected for use in the reproductive screen for 2-propoxyethanol.

2-ethylthioethanol (BRL No. 601)

Mortality

The cumulative mortality which occurred during the study in mice treated with 2-ethylthioethanol is presented below. The number of deaths which were attributed to technical errors made during dosing procedures is also indicated.

Group	Dose Level (mg/kg/day)	Total Mortality	Technical Error Mortality
23	0 (Control)	13/50	12/50
24	300	2/10	2/10
25	475	3/10	0/10
26	755	5/10	2/10
27	1195	5/10	3/10
28	1895	5/10	2/10
29	3000	9/10	1/10

Mortality data are presented by study day in Table 1J. Except for two deaths, one each in the control and 475 mg/kg/day groups, all deaths occurred during the dosing phase.

Clinical Signs

Lethargy and prostration were compound related clinical signs observed in found dead animals treated with 2-ethylthioethanol. These symptoms usually preceded the animals' death by 5-24 hours. The surviving animals generally appeared normal throughout the study.

Body Weights

Mean body weights (Days 1, 8, 12 and 16) and mean body weight changes for each interval beyond Day 1 are presented in Table 2J.

Statistically lower mean body weights were noted on Day 1 in the 755, 1895 and 3000 mg/kg/day groups and on Day 8 in the 475 mg/kg/day group when compared to the respective control value. Statistically higher than control mean body weight changes were noted in the 755 and 1895 mg/kg/day groups at Days 8, 12 and 16. The biological significance of these differences was judged to be minimal.

MED Determinations

Based on the results of this study and following consulation with the sponsor, a dose level of 1200 mg/kg/day was selected for use in the reproductive screen for 2-ethylthioethanol.

2-ethoxyethanethiol (BRL No. 602)

Mortality

The cumulative mortality which occurred during the study in mice treated with 2-ethoxyethanethiol is presented below. The number of deaths which were attributed to technical errors made during dosing procedures is also indicated.

Group	Dose Level (mg/kg/day)	Total Mortality	Technical Error Mortality
23	0 (Control)	13/50	12/50
56	20	0/10	0/10
57	60	0/10	0/10
58	180	3/10	1/10
30	300	10/10	0/10
31	475	10/10	0/10
32	755	10/10	0/10
33	1195	10/10	0/10
34	1895	10/10	0/10
35	3000	10/10	0/10

Mortality data are presented by study day in Table 1K. Because of the high compound induced mortality at the 300, 475, 755, 1195, 1895 and 3000 mg/kg/day dose levels, three additional lower dose levels of 20, 60 and 180 mg/kg/day were added to the study. The mice used for these additional dose levels were selected from extra mice received in the same shipment. These mice were maintained in quarantine for 13 days and were 61 days old at initiation. Except for one of the control deaths, all deaths occurred during the dosing phase. All deaths in the 755, 1195, 1895 and 3000 mg/kg/day groups had occurred within 24 hours after administration of the first dose.

Clinical Signs

Lethargy and prostration were compound related clinical signs observed in some of the animals prior to death; however, most animals died before exhibiting any signs of toxicity. All surviving animals appeared normal throughout the study.

Body Weights

Mean body weights (Days 1, 8, 12 and 16) and mean body weight changes for each interval beyond Day 1 are presented in Table 2K.

Statistically higher than control mean body weights were noted on Day 1 in the 20 and 180 mg/kg/day groups and on Day 8 in the 20 and 60 mg/kg/day groups. The mean body weights of all other groups with surviving animals were comparable to the control group throughout the study. On Day 16 the mean body weight changes for the 20, 60 and 180 mg/kg/day groups were statistically

lower than the control group. The biological significance of these statistical differences was judged to be minimal.

MED Determination

Based on the results of this study and following consultation with the sponsor, a dose level of 175 mg/kg/day was selected for use in the reproductive screen for 2-ethoxyethanethiol.

2-(ethylthio)ethanethiol (BRL No. 608)

Mortality

The cumulative mortality which occurred during the study in mice treated with 2-(ethylthio)ethanethiol is presented below. The number of deaths which were attributed to technical errors made during dosing procedures is also indicated.

Group	Dose Level (mg/kg/day)	Total Mortality	Technical Error Mortality
23	0 (Control)	13/50	12/50
59	20	0/10	0/10
60	60	0/10	0/10
61	180	6/10	0/10
36	300	10/10	0/10
37	475	10/10	0/10
38	755	10/10	0/10
39	1195	10/10	0/10
40	1895	10/10	0/10
41	3000	10/10	0/10

Mortality data are presented by study day in Table 1L. Because of the higher compound induced mortality at the 300, 475, 755, 1195, 1895 and 3000 mg/kg/day dose levels, three additional lower dose levels of 20, 60 and 180 mg/kg/day were added to the study. The mice used for these additional dose levels were selected from extra mice received in the same shipment. These mice were maintained in quarantine for 13 days and were 61 days old at initiation. Except for one control death, all deaths occurred during the dosing phase. All animals in the 475, 755, 1195, 1895 and 3000 mg/kg/day groups had died by the end of the first dosing day.

Clinical Signs

Lethargy and prostration were compound-related clinical signs observed in some animals prior to death; however, most animals died before exhibiting any signs of toxicity. Ataxia and hyperactivity were observed on Days 3-8 of the dosing period in all surviving animals in the 180 mg/kg/day group. All animals in the 20 and 60 mg/kg/day groups were normal throughout the study.

Body Weights

Mean body weights (Days 1, 8, 12 and 16) and mean body weight changes for each interval beyond Day 1 are presented in Table 2L.

Statistically higher than control mean body weights were noted on Day 1 in the 20 and 180 mg/kg/day groups, on Day 8 in the 20 and 60 mg/kg/day groups and on Days 12 and 16 in the 20 mg/kg/day group. Statistically lower than control values were observed on Day 8 in the 180 mg/kg/day group. On Day 8 the mean body weight change for the 180 mg/kg/day group was statistically lower than the respective control value. On Day 16 the 20 mg/kg/day group's mean body weight change was statistically lower than that of the control group. The biological significance of these statistical differences was judged to be minimal.

MED Determination

Based on the results of this study and following consultation with the sponsor, a dose level of 125 mg/kg/day was selected for use in the reproductive screen for 2-(ethylthio)ethane thiol.

1,3-dichloro-5,5-dimethyl hydantoin (BRL No. 633)

Mortality

The cumulative mortality which occurred during this study in mice treated with 1,3-dichloro-5,5-dimethyl hydantoin is presented below. The number of deaths which were attributed to technical errors made during dosing procedures is also indicated.

Group	Dose Level (mg/kg/day)	Total Mortality	Technical Error Mortality
23	0 (Control)	13/50	12/50
42	100	6/10	3/10
43	160	5/10	1/10
44	250	7/10	3/10
45	400	1/10	1/10
46	630	4/10	1/10
47	1000	9/10	0/10

Mortality data are presented by study day in Table 1M. Except for one control death, all deaths occurred during the dosing phase.

Clinical Signs

Lethargy and prostration were compound related clinical signs observed prior to death in found dead animals treated with 1,3-dichloro-5,5-dimethyl hydantoin. Those symptoms usually preceded the animals' death by 5-24 hours. The surviving animals generally appeared normal throughout the study.

Body Weights

Mean body weights (Days 1, 8, 12 and 16) and means body weight changes for all intervals beyond Day 1 are presented in Table 2M.

Statistical evaluation of body weight means showed that, except for lower than control values on Day 1 and Day 8 in the 250 mg/kg/day group and on Day 8 in the 1000 mg/kg/day group (one animal alive), all other treated groups' weights were comparable to the respective control value at all intervals. The mean body weight changes for all treated groups were comparable to the control value at each interval, except on Day 12 when a statistically higher than

control value was noted for the 400 mg/kg/day group. The biological signficance of these statistical differences was judged to be minimal.

MED Determination

Based on the results of this study and following consultation with the sponsor, a dose level of 500 mg/kg/day was selected for use in the reproductive screening for 1,3-dichloro-5,5-dimethyl hydantoin.

disulfiram (BRL No. 611)

Mortality

The cumulative mortality which occurred during the study in mice treated with disulfiram is presented below. The number of deaths which were attributed to technical errors made during dosing procedures is also indicated.

Group	Dose Level (mg/kg/day)	Total Mortality	Technical Error Mortality
23	0 (Control)	13/50	12/50
48	1000	4/10	2/10
49	1495	1/10	0/10
50	2235	3/10	1/10
51	3345	3/10	0/10
52	5000	3/10	3/10

Mortality data are presented by study day in Table 1N. Except for three deaths, one in the control and one each in the 2235 and 3345 mg/kg/day groups, all deaths occurred during the dosing phase.

Clinical Signs

Found dead animals from the disulfiram treated groups generally died before exhibiting any signs of toxicity. Except for thin appearance in a few mice, surviving animals generally appeared normal throughout the study.

Body Weights

Mean body weights (Days 1, 8, 12 and 16) and mean body weight changes for each interval beyond Day 1 are presented in Table 2N.

Statistical evaluation of mean body weight data showed that the treated groups' weights were comparable to the respective control value at each interval. The mean body weight changes for all treated groups were comparable to the control values at all intervals and no statistical differences were noted.

MED Determinations

Based on the results of this study and following consultation with the sponsor, a dose level of 4900 mg/kg/day was selected for use in the reproductive screen for disulfiram.

3-ethoxy-1-propanol (BRL No. 551)

Mortality

The cumulative mortality which occurred during the study in mice treated with 3-ethoxy-1-propanol is presented below. The number of deaths which were attributed to technical errors made during dosing procedures is also indicated.

Group	Dose Level (mg/kg/day)	Total Mortality	Technical Error Mortality
62	0 (Control)	1/50	1/50
63	2000	0/10	0/10
64	2700	1/10	0/10
65	3650	4/10	1/10
66	4930	10/10	0/10
67	6660	10/10	0/10
68	9000 (undiluted)	10/10	0/10

Mortality data are presented by study day in Table 10. All deaths occurred during the dosing phase.

Clinical Signs

Lethargy, prostration and/or rapid or labored breathing were compound related clinical signs observed in found dead animals treated with 3-ethoxy-1-propanol. These symptoms usually preceded the animals' death by 5 to 6 hours. The surviving animals generally appeared normal throughout the study.

Body Weights

Mean body weights (Days 1, 8, 12 and 16) and mean body weight changes for each interval beyond Day 1 are presented in Table 20.

Statistically lower than control mean body weights were noted on Days 1 and 16 in the 3650 mg/kg/day group. A statistically higher than control mean body weight was noted in the 2000 mg/kg/day group on Day 8. A statistically higher than control mean body weight change was seen in the 2000 mg/kg/day group on Day 8 and a statistically lower than control change in body weight was seen in the 3650 mg/kg/day group on Day 16. The biological significance of these differences was judged to be minimal.

MED Determination

Based on the results of this study and following consultation with the sponsor, a dose level of 3000 mg/kg/day was selected for use in the reproductive screen for 3-ethoxy-1-propanol.

EXPERIMENTAL METHODS - REPRODUCTIVE PHASE

Test Animals and Husbandary

Timed-pregnant female specific pathogen free (SPF) CD-1 albino mice from Charles River Breeding Laboratories, Inc. (Portage, Michigan) were used in the reproductive phase of this program. The mice arrived at Borriston on Day 2 of gestation. (Day 1 of gestation was the day on which a copulatory plug was observed by the animal supplier). Upon receipt, the animals were examined for general health and physical condition, and body weights were recorded. This strain and the use of timed-pregnant mice were selected as the test system at the request of the sponsor.

The mice were housed individually in suspended polycarbonate cages with San-i-cel® bedding (L.F. Klein, Baltimore, Maryland). Purina® Certified Rodent Chow® #5002 and fresh water were available ad libitum. Fresh water bottles were supplied once weekly; cages were sanitized and bedding was changed weekly during the study until Day 18 of gestation. The mice were housed in a temperature controlled room with 10-15 room air changes per hour. A 12-hour light/dark illumination cycle was maintained.

Prior to study initiation the mice were quarantined for five days in the room in which the study was to be conducted; this shortened quarantine period was necessitated by the use of timed-pregnant mice. During quarantine, observations were performed twice daily for mortality and general physical appearance.

Assignment to Treatment Groups

On Day 7 of gestation, clinically acceptable mice were assigned to treatment groups using a computer-generated randomization program. Fifty timed-pregnant animals were assigned to each test article treatment group. A vehicle control group of fifty timed-pregnant females was dosed for each experimental block.

Each animal received a unique, six-digit, permanent animal number and was toe clipped for identification purposes. The toe clip consisted of the last three digits of the permanent animal number. The remaining digits were

omitted from the toe clip, since the first two digits indicated the year of study initiation, and the third digit was the same for all animals on study. The toe clipping code used for this study is illustrated in Figure 1. The cage cards were color-coded and displayed the project number, individual animal number (six digits), treatment group and dose level. The cages for each treatment group were arranged vertically on the cage rack.

Test Article Preparation and Administration

Each test article was suspended in the appropriate vehicle (see MED Phase) at a concentration which provided the desired amount of the compound to the animals in a standard volume of 10 ml/kg body weight. For each test article, appropriate amounts of the compound were weighed out on a Mettler H33AR® pan balance (accurate to 0.1 mg) and placed in a 250 ml volumetric flask. The appropriate vehicle was added, quantity sufficient, to 250 ml. The resulting test article/vehicle admixture was mixed on a Corning® magnetic stirrer for five minutes or until suspended. The dosing solutions were prepared just prior to study initiation (Day 7 of gestation) and dosages were calculated based on the body weight data recorded on that day. The solutions were used for eight consecutive days (Day 7 through Day 14 of gestation). During the study, the dosing mixtures were stored at 5°C, except when in use at which time they were allowed to warm to room temperature prior to dosing.

The test article admixtures were administered orally with a stainless steel feeding needle, once daily for eight consecutive days beginning on Day 7 of gestation. Oral intubation was selected as the route of administration by the sponsor. Dosing was performed at approximately the same time each day. Mice in the control groups received either distilled water or corn oil at a volume of 10.0 ml/kg of body weight. This group served as the common control for the experimental block being evaluated.

Observations

All animals were observed twice daily during the study (morning and afternoon) for clinical signs of toxicity and mortality. Body weights for the dams were recorded upon receipt (Day 2 of gestation), immediately before dosing on Days 7-14 of gestation, on Day 18 of gestation, and at termination

(Day 3 post- partum). Body weight changes (Day 18-Day 7) were calculated for each female. Pup counts and litter weights were recorded within 12 hours of birth and on Day 3 postpartum. A per-pup average weight (mean pup weight) was calculated for each litter at birth and Day 3 by dividing the total litter weight by the number of live pups. Mean pup weight changes (Day 3-Birth) were also calculated and the viability of offspring from birth to Day 3 was assessed.

Termination.

Terminal body weight measurements were taken on Day 3 postpartum for females which delivered, and for their litters. All dams were sacrificed on Day 3 postpartum and females which failed to deliver were sacrificed on Day 23 of gestation by asphyxiation with carbon dioxide. Pups were killed by asphyxiation with carbon dioxide on Day 3 postpartum. Necropsy examinations were performed only on females which did not deliver. The non-gravid uteri were treated with a 10% sodium sulfide solution to determine the prior existence of a pregnant state. All carcasses were incinerated.

Statistical Analysis

For each treatment or control group, means and standard deviations were calculated for the following parameters: maternal body weights for each interval collected; mean pup weights, and pup counts (live and dead) for each interval collected; weight changes for dams (Day 18-Day 7 of gestation) and pups (Day 3-Birth); and offspring viability ratios from birth to Day 3 postpartum. Treatment group means were compared to the common control group by Student's t-test[1] with a Bonferroni correction. In addition, delivery indices of the treated groups were compared to the appropriate control group

[1]Snedecor, G.W. and Cochran, W.G., (1967). Statistical Methods. Iowa State University Press, Ames, Iowa 10:258-268.

using the Fisher's exact test.[2] A notation of s+ or s- in the tables of this report indicates that the mean value is statistically higher (s+) or lower (s-) than the respective control value at $p<0.05$.

The use of the word "significant" in this report, where groups are statistically compared, is to imply either no statistically significant difference or that a statistically significant difference is noted. The use of the word "similar" has no statistical connotation, but rather indicates that two groups have similar data sets.

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[2]Zar, J.H. (1974). Biostatistical Analysis. Prentice - Hall Inc., Englewood Cliff, N.J. 291-295.

Results - Reproductive Phase

Block A- Decalin, Trioctanoin and Allyl Chloride

Based on the results of the MED phase, the test articles were dosed as follows: Decalin, 2700 mg/kg/day; Trioctanoin, 4750 mg/kg/day; Allyl Chloride, 500 mg/kg/day. The vehicle control group received corn oil.

Maternal Mortality and Clinical Signs

Mortality data are summarized as follows:

Group	Treatment	# Animals	# Deaths (treatment related)	
			pregnant	non pregnant
1	Corn oil	50	0	0
2	Decalin	48[a]	7	0
3	Trioctanoin	50	3	0
4	Allyl Chloride	50	21	4

[a]Two animals died as a results of technical dosing error.

Based on these data, decalin and trioctanoin are considered slightly toxic to the maternal animals while allyl chloride is considered to be highly toxic at these doses.

No treatment related clinical signs were noted in the vehicle control, decalin or trioctanoin group. Soft feces and soiled anal area were noted 6 hours post dosing on Day 1 of dosing (Day 7 of gestation) in 15/50 mice treated with allyl chloride. All deaths in this group occurred on day 2, 3, and 4 of dosing; clinical signs on these days consisted of lethargy, prostration and rapid breathing. All surviving animals were clinically normal from day 5 of dosing through termination.

Maternal Body Weights

A summary of mean maternal body weights and body weight changes measured at the designated intervals during the study is presented in Table 3A (pregnant animals only). The mean body weights and body weight changes of all

treatment groups were generally similar to the control values throughout the study. Statistically increased mean body weights (days 10, 12 and postpartum) for the decalin-treated females were judged to be incidental.

Reproductive Outcome

Reproductive outcome data are summarized in Table 4A. No evidence of compound related effect on the reproductive outcome was observed in the pregnant females dosed with either decalin or trioctanoin; the delivery index (number of live litters produced/number of mice determined to be pregnant) calculated for decalin (95.8%) and trioctanoin (94.6%) were similar to the control group (94.9%). The delivery index for the allyl chloride treated group (71.4%) was lower than control (94.9%). Because of maternal toxicity only seven litters were available for evaluation of which 2 litters were resorbed. These findings suggest a fetotoxic response elicited by allyl chloride administration.

Pup Weights, Pup Counts and Offspring Viability

Mean pup weights, mean percent weight change, mean pup counts (live and dead), mean percent dead pups, mean live pups at day 3 postpartum and offspring viability ratios are presented in Table 5A.

No significant differences between the control and the decalin or the trioctanoin treated groups were observed for any of the litter parameters evaluated.

The mean number of dead pups per litter and mean percent of dead pups per litter for the allyl chloride treated group were statistically significantly higher than the control. Although not statistically significant, the mean number of live pups at day 3 and the offspring viability ratio for the allyl chloride treated group was lower than control as a result of all pups dying from one litter. Mean pup weight data for the allyl chloride group were similar to control.

Conclusion

Gestational treatment of timed-pregnant CD-1 mice with toxic doses of decalin (2700 mg/kg/day) or trioctanoin (4750 mg/kg/day) did not adversely affect reproductive performance of the maternal animal or growth and viability of the offspring.

The allyl chloride dose (500 mg/kg/day) used in these studies was highly toxic to the pregnant mice; 75% of pregnant mice died during the dosing period as compared to 18% of the non pregnant mice. Five of the seven pregnant survivors bore litters and although the mean number of live birth were similar to control, the mean number of dead pups and mean percent of dead pups were statistically significantly higher. Two of the seven pregnant survivors had resorbed their litters.

In conclusion, allyl chloride is considered to be both maternally toxic and fetotoxic under the conditions of this study.

Block B - Tergitol NP-10 and Triton X-100

Based on the results of the MED phase, the test articles were dosed as follows: Tergitol NP-10, 600 mg/kg/day; Triton X-100, 800 mg/kg/day. The vehicle control group received corn oil.

Maternal Mortality and Clinical Signs

Mortality data summarized as follows:

Group	Treatment	# Animals	# Deaths (treatment related) pregnant	non pregnant
1	Corn oil	49[a]	0	0
2	Tergitol NP-10	49[b]	0	0
3	Triton X-100	50	1	0

[a]One animal escaped from cage

[b]One animal died as a result of technical dosing error.

No treatment related clinical signs were noted in the corn oil, Tergitol or Triton treated groups. Sporadic signs were generally noted in singular animals and consisted of red vaginal discharge, soiled anal area, soft feces and rough haircoat. Antemortem signs in the Triton X-100 animal that died were lethargy and prostration.

Maternal Body Weights

A summary of mean maternal body weights and body weight changes measured at the designated intervals during the study is presented in Table 3B (pregnant animals only).

The mean body weights and body weight changes of all treatment groups were statistically similar to the control group.

Reproductive Outcome

Reproductive outcome data are summarized in Table 4B. No evidence of compound related effect on reproductive outcome was observed in the pregnant females dosed with Triton X-100. A treatment related increase in the number of resorbed litters (4/29) with a concommittant decrease in the delivery index (86.2%) was seen for the Tergitol treated females when compared to the vehicle control group (1/32 resorbed, 96.9% delivery index). The delivery index for Triton X-100 was 97.1%.

Pup Weights, Pup Counts and Offspring Viability

Mean pup weights, mean percent weight change, mean pup counts (live and dead), mean percent dead pups, mean live pups at day 3 post partum and offspring viability ratios are presented in Table 5B.

No treatment related findings were observed for any of the litter parameters evaluated.

Conclusions

Gestational treatment of timed-pregnant CD-1 mice with Tergitol NP-10 (600 mg/kg/day) or Triton X-100 (800 mg/kg/day) had no effect on the growth and viability of the offspring. No effect on reproductive performance was seen for Triton X-100.

Block C - 2-ethylthioethanol, 2-ethoxyethanethiol, 2-(ethylthio)ethanethiol, 1,3-dichloro-5,5-dimethylhydantoin, disulfiram, Tween 60

Based on the results of the MED phase, the test articles were dosed follows: 2-ethylthioethanol (ETE), 1200 mg/kg/day; 2-ethoxyethanethiol (EET), 175 mg/kg/day; 2-(ethylthio)ethanethiol (ETT), 125 mg/kg/day; 1,3-dichloro-5, 5-dimethylhydantoin (DH), 500 mg/kg/day; disulfiram (DS), 4900 mg/kg/day; Tween 60 (T-60), 5200 mg/kg/day. The vehicle control group received corn oil.

Maternal Mortality and Clinical Signs

Mortality data are summarized as follows:

Group	Treatment	# Animals	# Deaths (treatment related)	
			pregnant	non pregnant
1	Corn oil	50	0	0
2	ETE	50	0	0
3	EET	50	0	0
4	ETT	50	0	0
5	DH	50	5	4
6	DS	50	4	0
7	T-60	50	0	0

No treatment related clinical signs were noted in the corn oil, ETE, EET, ETT or T-60 treated groups. Clinical signs of toxicity seen in the DH and DS treated groups were primarily antemortem findings for the found dead animals in these groups. These clinical signs predominantly consisted of thinness, prostration and ataxia; as well as other less consistent findings of hunched posture, wheezing, red discharge from the vagina, rough hair coat and soiled anal area. With few exceptions, the surviving animals from these groups were normal throughout the study.

Maternal Body Weights

A summary of mean maternal body weights and body weights changes measured at the designated intervals during the study is presented in Table 3C (pregnant animals only).

The mean body weights and body weight changes of all treatment groups were statistically similar to the control group at all intervals except for statistically lower than control mean body weight on day 7 for the T-60 group. This statistical difference was judged to be incidental, thus, no effect on maternal body weights was observed.

Reproductive Outcome

Reproductive outcome data are summarized in Table 4C. No evidence of compound related effect on reproductive outcome was observed in the pregnant females dosed with any of the test materials. Singule dead litters were noted for the ETE, ETT and DS groups, but these findings were considered incidental.

Pup Weights, Pup Counts and Offspring Viability

Mean pup weights, mean percent weight change, mean pup counts (live and dead), mean percent dead pups mean live pups at day 3 post partum and offspring viability ratios are presented in Table 5C.

No treatment related differences between the control and the ETE, EET, ETT or DH groups were observed for any of the litter parameters evaluated. Incidental findings for these groups were numerically lower mean number of dead pups per litter for the ETE, EET and DH groups and lower day 3 postpartum mean pup weight for the EET group.

The percent offspring viability for the DS group (81.9%) was numerically lower than control (96.1%). Pup deaths were seen in 8/21 litters (36.4%) with two dams losing their entire litters. The vehicle control group had deaths in 5/34 litters (14.7%). These findings are considered to be a postnatal effect from DS.

Mean pup weights at day 3 post partum as well as percent body weight change for the T-60 group were significantly lower than control. No effect on postnatal survival was seen in this group suggesting that the lower body weights may be incidental to treatment.

Conclusions

Gestational treatment of timed-pregnant, CD-1 mice with 2-ethylthioethanol (1200 mg/kg/day), 2-ethoxyethanethiol (175 mg/kg/day), 2-(ethylthio)ethanethiol (125 mg/kg/day) or 1,3-dichloro-5,5-dimethylhydantoin (500 mg/kg/day) did not adversely affect reproductive performance of the maternal animals or growth and viability of the offspring.

Disulfiram (4900 mg/kg/day) and Tween 60 (5200 mg/kg/day) were without effect on reproductive performance of the maternal animals. Reduced offspring viability was seen in the disulfiram group. Tween 60 pups showed significantly lower day 3 post-partum body weights and body weight changes, however, no effect on offspring viability was noted.

Block D - 2-methoxyethylacrylate, 2-methoxyethylacetate, 2-propoxyethanol and 3-ethoxy-1-propanol

Based on the results of the MED phase, the test articles were dosed as follows: 2-methoxyethylacrylate (ACR), 650 mg/kg/day; 2-methoxyethylacetate (ACE), 1225 mg/kg/day; 2-propoxyethanol (PRO), 2000 mg/kg/day; 3-ethoxy-1-propanol (EPR), 3000 mg/kg/day. The vehicle control group received distilled water.

Maternal Mortality and Clinical Signs

Mortality data are summarized as follows:

Group	Treatment	# Animals	# Deaths (treatment related) pregnant	non pregnant
1	distilled water	50	0	0
2	ACR	50	5	10
3	ACE	49[a]	0	0
4	PRO	49[a]	1	0
5	EPR	50	2	11

[a]One animal died as a result of dosing error.

All deaths occurred on dosing days 1 through 6 for the ACR group and days 2 through 14 for the EPR groups.

No treatment related clinical signs were noted in the distilled water control, ACE or PRO treated groups. Clinical signs of toxicity seen in the ACR and EPR groups were primarily antemortem findings for the found dead animals in these groups. These clinical signs predominantly consisted of lethargy, prostration, labored breathing and thinness. Other less consistent findings were hunched posture, tremors, soiled anal area, cold to touch and red discharge from the vagina. With few exceptions, the surviving animals from these groups were normal throughout the study.

Maternal Body Weights

A summary of mean maternal body weights and body weights changes measured at the designated intervals during the study is presented in Table 3D (pregnant animals only).

Statistically lower than control mean body weights were noted on days 14 and 18 for the ACR group and on days 13, 14 and 18 for the ACE group. Statistically lower than control body weight changes (Day 18-Day 7) were also noted for both the ACR and ACE groups. These statistical differences resulted from the resorption of all litters by the females in these groups. Thus their weights would be lower than those animals carrying their litters to term.

The mean body weights of the EPR group was statistically lower than the control mean body weight on day 8. This statistical difference was judged incidental; thus no treatment-related effect on maternal body weights was observed in the PRO or the EPR groups.

Reproductive Outcome

Reproductive outcome data are summarized in Table 4D.

No evidence of compound-related effect on reproductive outcome was observed in the pregnant females dosed with either PRO or EPR. The delivery index (number of live litters produced/number of mice determined to be pregnant) calculated for PRO (90.3%) and EPR (100.0%) were similar to or greater than the vehicle control group (89.3%).

Gestational dosing with ACR and ACE resulted in resorption of all litters. These test materials were considered fetotoxic.

Pup Weights, Pup Counts and Offspring Viability

Mean pup weights, mean percent weight change mean pup counts (live and dead), mean percent dead pups, mean live pups at day 3 postpartum and offspring viability ratios are presented in Table 5D.

No significant differences between the vehicle control group and the PRO or EPR group were seen in comparison of mean pup weights and weight change.

Treatment-related effects on offspring viability were observed for both the PRO and EPR groups.

The mean number of live pups at birth and the percent dead pups at birth for the PRO group were similar to control; however, a significant increase in the mean number of dead pups at birth was observed. The PRO group had 13 dead pups/252 total pups from 6 of 28 litters compared to 1 dead pup/252 total pups from 1 of 25 litters in the control group.

In addition, post partum offspring viability was compromised by PRO administration. The offspring viability ratio for PRO (83.6%) was numerically lower than the vehicle control (96.1%).

The mean number of live pups at birth for the EPR group was significantly lower than the vehicle control. In addition, the mean number of dead pups at birth and mean percent of dead pups at birth was significantly higher than the control group. The EPR group had 18 dead pups/179 total pups from 7 of 21 litters as compared to the 1 dead pup/252 total pups from 1 of 25 litters in the control group. The mean number of live pups per litter at day 3 post partum was significantly lower than control for the EPR group. The offspring viability ratio was numerically lower but not significantly lower than the control. These findings suggested a post partum effect on offspring viability.

Conclusions

Gestational treatment of timed pregnant mice with 2-methoxyethylacrylate (ACR, 650 mg/kg/day), 2-methoxyethylacetate, (ACE, 1225 mg/kg/day), 2-propoxyethanol (PRO, 2000 mg/kg/day), or 3-ethoxy-1-propanol (EPR, 3000 mg/kg/day) adversely affected reproductive performance. Both ACR and ACE treatment resulted in resorption of all litters. Gestational treatment with PRO and EPR resulted in significant increases in the number of dead pups at birth and the percent of dead pups at birth. The mean number of live pups at birth was significantly reduced in the EPR group.

Offspring viability could not be determined in the ACR and ACE groups since all litters were resorbed. A treatment related reduction in post partum survival was noted in the PRO group. Post partum survival data for EPR was equivocal but suggested a treatment related reduction.

TABLE 1A
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

Decalin

DOSE LEVEL (mg/kg/day)		0		500		860		1480		2550		4400	
NUMBER ON TEST		50		10		10		10		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	0	0	0	0	0	0	0	0	0	0	2	0
	2	0	0	0	0	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0	0	0	3	0
	5	0	0	0	0	0	0	0	1	0	0	0	0
	6	0	0	0	0	0	0	0	0	0	0	1	0
	7	0	0	0	0	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0	1	0	0	0
	9[b]	0	0	0	0	0	0	0	0	0	0	0	0
	10	1	0	0	0	0	0	0	0	0	0	0	0
	11	0	0	0	0	0	0	0	0	0	0	0	0
	12	0	1	0	1	0	0	0	0	0	0	0	0
	13	0	0	0	0	0	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0	0	0	0	0	0
	15	0	0	0	0	0	0	0	0	0	0	0	0
	16	0	0	0	0	0	0	0	0	0	0	0	0
CUMULATIVE DEATHS*		1	1	0	1	0	0	0	1	1	0	6	0

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days

TABLE 1B
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

Trioctanoin

DOSE LEVEL (mg/kg/day)		0		500		880		1540		2705		4750	
NUMBER ON TEST		50		10		10		10		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0	0	1	0	0
	4	0	0	0	0	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0	0	0	0	0
	7	0	0	1	0	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0	0	0	0	0
	9[b]	0	0	0	0	0	0	0	0	0	0	0	0
	10	1	0	0	0	0	0	0	0	0	0	0	0
	11	0	0	0	0	0	0	0	0	0	0	0	0
	12	0	1	0	0	0	0	0	0	0	0	0	0
	13	0	0	0	0	0	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0	0	0	0	0	0
	15	0	0	0	0	0	0	0	0	0	0	0	0
	16	0	0	0	0	0	0	0	0	0	0	0	0
CUMULATIVE DEATHS*		1	1	1	0	0	0	0	0	0	1	0	0

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days.

TABLE 1C
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

Allyl chloride

DOSE LEVEL (mg/kg/day)		0		50		90		160		280		500	
NUMBER ON TEST		50		10		10		10		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0	0	0	1	0
	3	0	0	0	0	0	1	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0	0	0	0	0
	9[b]	0	0	0	0	0	0	0	0	0	0	0	0
	10	1	0	0	0	0	0	0	0	0	0	0	0
	11	0	0	0	0	0	0	0	0	0	0	0	0
	12	0	1	0	0	0	0	0	0	0	0	0	0
	13	0	0	0	0	0	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0	0	0	0	0	0
	15	0	0	0	0	0	0	0	0	0	0	0	0
	16	0	0	0	0	0	0	0	0	0	0	0	0
CUMULATIVE DEATHS*		1	1	0	0	0	1	0	0	0	0	1	0

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days.

TABLE 1D
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

Tergitol NP-10

DOSE LEVEL (mg/kg/day)		0		580		760		1000		1315		1730	
NUMBER ON TEST		50		10		10		10		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	0	0	0	0	0	0	0	0	0	0	2	0
	2	0	1	0	0	0	0	0	1	5	0	2	1
	3	0	2	0	0	1	0	0	0	4	0	5	0
	4	0	1	1	0	1	1	1	0	0	0	-	-
	5	0	3	0	1	0	1	0	0	0	0	-	-
	6	0	1	0	0	0	0	0	0	0	0	-	-
	7	0	0	0	0	0	0	1	0	1	0	-	-
	8	0	0	0	0	1	0	1	0	-	-	-	-
	9[b]	0	0	0	0	0	0	0	0	-	-	-	-
	10	0	1	0	0	0	0	0	0	-	-	-	-
	11	0	0	0	0	0	0	0	0	-	-	-	-
	12	0	0	0	0	0	0	0	0	-	-	-	-
	13	0	0	0	0	0	0	0	0	-	-	-	-
	14	0	0	0	0	0	0	0	0	-	-	-	-
	15	0	0	1	0	0	0	0	0	-	-	-	-
	16	0	0	0	0	0	0	0	0	-	-	-	-
CUMULATIVE DEATHS*		0	9	2	1	3	2	3	1	10	0	9	1

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days.

TABLE 1D (Continued)
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

Tergitol NP-10

DOSE LEVEL (mg/kg/day)		2280		3000	
NUMBER ON TEST		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	2	1	0	2
	2	6	0	7	0
	3	1	0	0	0
	4	-	-	1	0
	5	-	-	-	-
	6	-	-	-	-
	7	-	-	-	-
	8	-	-	-	-
	9[b]	-	-	-	-
	10	-	-	-	-
	11	-	-	-	-
	12	-	-	-	-
	13	-	-	-	-
	14	-	-	-	-
	15	-	-	-	-
	16	-	-	-	-
CUMULATIVE DEATHS*		9	1	8	2

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days.

TABLE 1E
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

Triton X-100

DOSE LEVEL (mg/kg/day)		0		760		1000		1315		1730		2280	
NUMBER ON TEST		50		10		10		10		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	1	2	0	0	1	0	0	4	0	8	0
	3	0	2	0	0	0	0	0	0	0	0	1	0
	4	0	1	1	0	0	0	1	0	0	0	1	0
	5	0	3	0	0	0	0	1	0	5	0	-	-
	6	0	1	0	0	0	0	0	0	0	0	-	-
	7	0	0	1	0	1	0	0	1	0	0	-	-
	8	0	0	1	0	0	0	0	0	0	0	-	-
	9[b]	0	0	0	0	0	0	0	0	0	0	-	-
	10	0	1	0	0	0	0	0	0	0	0	-	-
	11	0	0	0	0	0	0	0	0	0	0	-	-
	12	0	0	0	0	0	0	0	0	0	0	-	-
	13	0	0	0	0	0	0	0	0	0	0	-	-
	14	0	0	0	0	0	0	0	0	0	0	-	-
	15	0	0	0	0	0	0	0	0	0	0	-	-
	16	0	0	0	0	0	0	0	0	0	0	-	-
CUMULATIVE DEATHS*		0	9	5	0	1	1	2	1	9	0	10	0

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days.

TABLE 1F
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

Tween 60

DOSE LEVEL (mg/kg/day)		0		1000		1315		1730		2280		3000	
NUMBER ON TEST		50		10		10		10		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	1	0	0	0	0	0	0	0	0	0	0
	3	0	2	0	0	0	0	0	0	0	0	0	0
	4	0	1	0	0	0	0	0	0	0	0	0	0
	5	0	3	0	0	1	0	0	0	0	0	0	0
	6	0	1	0	0	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0	0	0	0	0
	9[b]	0	0	0	0	0	0	0	0	0	0	0	0
	10	0	1	0	0	0	0	0	0	0	0	0	0
	11	0	0	0	0	0	0	0	0	0	0	0	0
	12	0	0	0	0	0	0	0	0	0	0	0	0
	13	0	0	0	0	0	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0	0	0	0	0	0
	15	0	0	0	0	0	0	0	0	0	0	0	0
	16	0	0	0	0	0	0	0	0	0	0	0	0
CUMULATIVE DEATHS*		0	9	0	0	1	0	0	0	0	0	0	0

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days.

TABLE 1F (Continued)
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

Tween 60

DOSE LEVEL (mg/kg/day)		3000		3950		5200					
NUMBER ON TEST		10		10		10		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	0	1	0	0	0	0				
	2	1	0	0	0	0	0				
	3	0	0	0	0	0	0				
	4	0	0	0	0	0	0				
	5	0	0	0	0	0	0				
	6	0	0	0	0	0	0				
	7	0	0	0	1	0	0				
	8	0	1	1	3	0	2				
	9[b]	0	0	0	0	0	0				
	10	0	0	0	0	0	0				
	11	0	0	0	0	0	0				
	12	0	0	0	0	0	0				
	13	0	0	0	0	0	0				
	14	0	0	0	0	0	0				
	15	0	0	0	0	0	0				
	16	0	0	0	0	0	0				
CUMULATIVE DEATHS*		1	2	1	4	0	2				

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days

TABLE 1G
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

2-methoxyethylacrylate

DOSE LEVEL (mg/kg/day)		0		385		580		865		1300		1950	
NUMBER ON TEST		50		10		10		10		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	0	0	0	0	0	1	0	0	4	2	10	0
	2	0	0	0	0	0	0	5	0	4	0	-	-
	3	0	1	0	0	0	0	2	0	-	-	-	-
	4	0	0	1	0	0	0	3	0	-	-	-	-
	5	0	0	0	0	0	0	-	-	-	-	-	-
	6	0	0	0	0	0	0	-	-	-	-	-	-
	7	0	0	0	0	0	0	-	-	-	-	-	-
	8	0	0	0	0	0	0	-	-	-	-	-	-
	9[b]	0	0	0	0	0	0	-	-	-	-	-	-
	10	0	0	0	0	0	0	-	-	-	-	-	-
	11	0	0	0	0	0	0	-	-	-	-	-	-
	12	0	0	0	0	0	0	-	-	-	-	-	-
	13	0	0	0	0	0	0	-	-	-	-	-	-
	14	0	0	0	0	0	0	-	-	-	-	-	-
	15	0	0	0	0	0	0	-	-	-	-	-	-
	16	0	0	0	0	0	0	-	-	-	-	-	-
CUMULATIVE DEATHS*		0	1	1	0	0	1	10	0	8	2	10	0

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days.

TABLE 1H
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

2-methyxoyethylacetate

DOSE LEVEL (mg/kg/day)		0		785		1180		1770		2655		3985	
NUMBER ON TEST		50		10		10		10		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	0	0	0	0	0	1	0	1	0	1	2	1
	2	0	0	0	1	0	0	2	0	2	1	7	0
	3	0	1	0	0	0	0	0	0	0	0	-	-
	4	0	0	0	0	0	0	0	0	0	0	-	-
	5	0	0	0	0	0	2	2	0	1	0	-	-
	6	0	0	0	0	0	0	0	0	1	0	-	-
	7	0	0	0	0	0	0	0	0	0	0	-	-
	8	0	0	0	0	0	0	0	0	1	0	-	-
	9[b]	0	0	0	0	0	0	0	0	1	0	-	-
	10	0	0	0	0	1	0	0	0	0	0	-	-
	11	0	0	0	0	0	0	0	0	0	0	-	-
	12	0	0	0	0	0	0	0	0	0	0	-	-
	13	0	0	0	0	0	0	0	0	0	0	-	-
	14	0	0	0	0	0	0	0	0	0	0	-	-
	15	0	0	0	0	0	0	0	0	0	0	-	-
	16	0	0	0	0	0	0	0	0	0	0	-	-
CUMULATIVE DEATHS*		0	1	0	1	1	3	4	1	6	2	9	1

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days.

TABLE 1I
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

2-propoxyethanol

DOSE LEVEL (mg/kg/day)		0		1000		1315		1730		2280		3000	
NUMBER ON TEST		50		10		10		10		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	0	0	1	0	0	0	0	0	1	0	0	0
	2	0	0	0	0	0	0	0	0	1	0	2	0
	3	0	1	0	0	0	0	0	0	1	0	0	0
	4	0	0	0	0	0	0	0	0	0	0	3	0
	5	0	0	0	0	0	0	0	0	0	0	1	0
	6	0	0	0	0	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	1	0	0	1	0
	9[b]	0	0	0	0	0	0	0	0	0	0	3	0
	10	0	0	0	0	0	0	0	0	0	0	-	-
	11	0	0	0	0	0	0	0	0	0	0	-	-
	12	0	0	0	0	0	0	0	0	0	0	-	-
	13	0	0	0	0	0	0	0	0	0	0	-	-
	14	0	0	0	0	0	0	0	0	0	0	-	-
	15	0	0	0	0	0	0	0	0	0	0	-	-
	16	0	0	0	0	0	0	0	0	0	0	-	-
CUMULATIVE DEATHS*		0	1	1	0	0	0	0	1	3	0	10	0

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days.

TABLE 1J
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

2-ethylthioethanol

DOSE LEVEL (mg/kg/day)		0		300		475		755		1195		1895	
NUMBER ON TEST		50		10		10		10		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	0	0	0	0	0	0	0	0	0	2	0	2
	2	0	0	0	0	0	0	0	1	0	0	0	0
	3	0	0	0	0	0	0	0	0	0	0	0	0
	4	0	0	0	1	0	0	0	0	0	0	0	0
	5	0	1	0	0	1	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	2	0	1	0	3	0
	7	1	4	0	0	1	0	1	0	1	0	0	0
	8	0	6	0	1	0	0	0	1	0	1	0	0
	9[b]	0	1	0	0	1	0	0	0	0	0	0	0
	10	0	0	0	0	0	0	0	0	0	0	0	0
	11	0	0	0	0	0	0	0	0	0	0	0	0
	12	0	0	0	0	0	0	0	0	0	0	0	0
	13	0	0	0	0	0	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0	0	0	0	0	0
	15	0	0	0	0	0	0	0	0	0	0	0	0
	16	0	0	0	0	0	0	0	0	0	0	0	0
CUMULATIVE DEATHS*		1	12	0	2	3	0	3	2	2	3	3	2

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days.

TABLE 1J (Continued)
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

2-ethylthioethanol

DOSE LEVEL (mg/kg/day)		3000	
NUMBER ON TEST		10	
CAUSE OF DEATH		Compound	Treatment
STUDY DAY:	1[a]	1	1
	2	5	0
	3	2	0
	4	0	0
	5	0	0
	6	0	0
	7	0	0
	8	0	0
	9[b]	0	0
	10	0	0
	11	0	0
	12	0	0
	13	0	0
	14	0	0
	15	0	0
	16	0	0
CUMULATIVE DEATHS*2		8	1

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days.

TABLE 1K
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

2-ethoxyethanethiol

DOSE LEVEL (mg/kg/day)		0		20		60		180		300		475	
NUMBER ON TEST		50		10		10		10		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	1	8	0	10	0
	3	0	0	0	0	0	0	0	0	2	0	-	-
	4	0	0	0	0	0	0	0	0	-	-	-	-
	5	0	1	0	0	0	0	0	0	-	-	-	-
	6	0	0	0	0	0	0	0	0	-	-	-	-
	7	1	4	0	0	0	0	1	0	-	-	-	-
	8	0	6	0	0	0	0	1	0	-	-	-	-
	9[b]	0	1	0	0	0	0	0	0	-	-	-	-
	10	0	0	0	0	0	0	0	0	-	-	-	-
	11	0	0	0	0	0	0	0	0	-	-	-	-
	12	0	0	0	0	0	0	0	0	-	-	-	-
	13	0	0	0	0	0	0	0	0	-	-	-	-
	14	0	0	0	0	0	0	0	0	-	-	-	-
	15	0	0	0	0	0	0	0	0	-	-	-	-
	16	0	0	0	0	0	0	0	0	-	-	-	-
CUMULATIVE DEATHS*		1	12	0	0	0	0	2	1	10	0	10	0

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days.

TABLE 1K (Continued)
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

2-ethoxyethanethiol

DOSE LEVEL (mg/kg/day)		755		1195		1895		3000	
NUMBER ON TEST		10		10		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	10	0	10	0	10	0	10	0
	2	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-
	4	-	-	-	-	-	-	-	-
	5	-	-	-	-	-	-	-	-
	6	-	-	-	-	-	-	-	-
	7	-	-	-	-	-	-	-	-
	8	-	-	-	-	-	-	-	-
	9[b]	-	-	-	-	-	-	-	-
	10	-	-	-	-	-	-	-	-
	11	-	-	-	-	-	-	-	-
	12	-	-	-	-	-	-	-	-
	13	-	-	-	-	-	-	-	-
	14	-	-	-	-	-	-	-	-
	15	-	-	-	-	-	-	-	-
	16	-	-	-	-	-	-	-	-
CUMULATIVE DEATHS*		10	0	10	0	10	0	10	0

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrificed.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days

TABLE 1L
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

2-(ethylthio)ethanethiol

DOSE LEVEL (mg/kg/day)		0		755		1195		1895		3000			
NUMBER ON TEST		50		10		10		10		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	0	0	10	0	10	0	10	0	10	0		
	2	0	0	-	-	-	-	-	-	-	-		
	3	0	0	-	-	-	-	-	-	-	-		
	4	0	0	-	-	-	-	-	-	-	-		
	5	0	1	-	-	-	-	-	-	-	-		
	6	0	0	-	-	-	-	-	-	-	-		
	7	1	4	-	-	-	-	-	-	-	-		
	8	0	6	-	-	-	-	-	-	-	-		
	9[b]	0	1	-	-	-	-	-	-	-	-		
	10	0	0	-	-	-	-	-	-	-	-		
	11	0	0	-	-	-	-	-	-	-	-		
	12	0	0	-	-	-	-	-	-	-	-		
	13	0	0	-	-	-	-	-	-	-	-		
	14	0	0	-	-	-	-	-	-	-	-		
	15	0	0	-	-	-	-	-	-	-	-		
	16	0	0	-	-	-	-	-	-	-	-		
CUMULATIVE DEATHS*		1	12	10	0	10	0	10	0	10	0		

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days.

TABLE 1L (Continued)
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

2-(ethylthio)ethanethiol

DOSE LEVEL (mg/kg/day)		20		60		180		300		475	
NUMBER ON TEST		10		10		10		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	0	0	0	0	0	0	4	0	10	0
	2	0	0	0	0	1	0	5	0	-	-
	3	0	0	0	0	2	0	0	0	-	-
	4	0	0	0	0	2	0	1	0	-	-
	5	0	0	0	0	0	0	-	-	-	-
	6	0	0	0	0	0	0	-	-	-	-
	7	0	0	0	0	0	0	-	-	-	-
	8	0	0	0	0	1	0	-	-	-	-
	9[b]	0	0	0	0	0	0	-	-	-	-
	10	0	0	0	0	0	0	-	-	-	-
	11	0	0	0	0	0	0	-	-	-	-
	12	0	0	0	0	0	0	-	-	-	-
	13	0	0	0	0	0	0	-	-	-	-
	14	0	0	0	0	0	0	-	-	-	-
	15	0	0	0	0	0	0	-	-	-	-
	16	0	0	0	0	0	0	-	-	-	-
CUMULATIVE DEATHS*		0	0	0	0	6	0	10	0-	10	0

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days.

TABLE 1M
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

1,3-dichloro-5,5-dimethyl hydantoin

DOSE LEVEL (mg/kg/day)		0		100		160		250		400		630	
NUMBER ON TEST		50		10		10		10		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	0	0	0	2	0	1	0	0	0	1	0	0
	2	0	0	0	0	0	0	0	0	0	0	1	1
	3	0	0	0	0	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0	0	0	0	0
	5	0	1	0	0	0	0	0	0	0	0	0	0
	6	0	0	1	0	2	0	4	0	0	0	2	0
	7	1	4	2	1	2	0	0	2	0	0	0	0
	8	0	6	0	0	0	0	0	1	0	0	0	0
	9[b]	0	1	0	0	0	0	0	0	0	0	0	0
	10	0	0	0	0	0	0	0	0	0	0	0	0
	11	0	0	0	0	0	0	0	0	0	0	0	0
	12	0	0	0	0	0	0	0	0	0	0	0	0
	13	0	0	0	0	0	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0	0	0	0	0	0
	15	0	0	0	0	0	0	0	0	0	0	0	0
	16	0	0	0	0	0	0	0	0	0	0	0	0
CUMULATIVE DEATHS*		1	12	3	3	4	1	4	3	0	1	3	1

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days.

TABLE 1M (Continued)
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

1,3-dichloro-5,5-dimethyl hydantoin

DOSE LEVEL (mg/kg/day)		1000	
NUMBER ON TEST		10	
CAUSE OF DEATH		Compound	Treatment
STUDY DAY:	1[a]	0	0
	2	3	0
	3	4	0
	4	0	0
	5	0	0
	6	1	0
	7	1	0
	8	0	0
	9[b]	0	0
	10	0	0
	11	0	0
	12	0	0
	13	0	0
	14	0	0
	15	0	0
	16	0	0
CUMULATIVE DEATHS*		9	0

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days.

TABLE 1N
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

disulfiram

DOSE LEVEL (mg/kg/day)		0		1000		1495		2235		3345		5000	
NUMBER ON TEST		50		10		10		10		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	0	1	0	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0	1	0	0	0
	4	0	0	0	0	1	0	0	0	0	0	0	0
	5	0	1	0	0	0	0	1	0	0	0	0	0
	6	0	0	0	0	0	0	0	0	0	0	0	0
	7	1	4	1	1	0	0	0	0	0	0	0	0
	8	0	6	0	1	0	0	0	1	1	0	0	3
	9[b]	0	1	0	0	0	0	0	0	1	0	0	0
	10	0	0	0	0	0	0	0	0	0	0	0	0
	11	0	0	0	0	0	0	0	0	0	0	0	0
	12	0	0	0	0	0	0	0	0	0	0	0	0
	13	0	0	0	0	0	0	1	0	0	0	0	0
	14	0	0	0	0	0	0	0	0	0	0	0	0
	15	0	0	0	0	0	0	0	0	0	0	0	0
	16	0	0	0	0	0	0	0	0	0	0	0	0
CUMULATIVE DEATHS*		1	12	2	2	1	0	2	1	3	0	0	3

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days.

TABLE 10
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

3-ethoxy-1-propanol

DOSE LEVEL (mg/kg/day)		0		2000		2700		3650		4930		6660	
NUMBER ON TEST		50		10		10		10		10		10	
CAUSE OF DEATH		Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment	Compound	Treatment
STUDY DAY:	1[a]	0	0	0	0	0	0	0	1	0	0	10	0
	2	0	0	0	0	0	0	3	0	9	0	-	-
	3	0	0	0	0	0	0	0	0	1	0	-	-
	4	0	0	0	0	0	0	0	0	-	-	-	-
	5	0	1	0	0	0	0	0	0	-	-	-	-
	6	0	0	0	0	0	0	0	0	-	-	-	-
	7	0	0	0	0	0	0	0	0	-	-	-	-
	8	0	0	0	0	1	0	0	0	-	-	-	-
	9[b]	0	0	0	0	0	0	0	0	-	-	-	-
	10	0	0	0	0	0	0	0	0	-	-	-	-
	11	0	0	0	0	0	0	0	0	-	-	-	-
	12	0	0	0	0	0	0	0	0	-	-	-	-
	13	0	0	0	0	0	0	0	0	-	-	-	-
	14	0	0	0	0	0	0	0	0	-	-	-	-
	15	0	0	0	0	0	0	0	0	-	-	-	-
	16	0	0	0	0	0	0	0	0	-	-	-	-
CUMULATIVE DEATHS*		0	1	0	0	1	0	3	1	10	0	10	0

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days

TABLE 10 (Continued)
MORTALITY DATA
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)

3-ethoxy-1-propanol

DOSE LEVEL (mg/kg/day)		9000 (undiluted)	
NUMBER ON TEST		10	
CAUSE OF DEATH		Compound	Treatment
STUDY DAY:	1[a]	9	0
	2	1	0
	3	-	-
	4	-	-
	5	-	-
	6	-	-
	7	-	-
	8	-	-
	9[b]	-	-
	10	-	-
	11	-	-
	12	-	-
	13	-	-
	14	-	-
	15	-	-
	16	-	-
CUMULATIVE DEATHS*		10	0

Where Compound Death = a death attributable to toxicity of the test article.

Where Treatment Death = a death attributable to other causes, e.g., gavage error.

*Indicates total number of deaths prior to terminal sacrifice.

[a]Study days 1 through 8 were dosing days.

[b]Study days 9 through 16 were post-dosing days

TABLE 2A
MEAN BODY WEIGHTS WITH MEAN BODY WEIGHT CHANGES
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)
Decalin

Group No. (Dose Level)		Body Weight (g) Interval						
		Day 1	Day 8	Change (Day 8-Day 1)	Day 12	Change (Day 12-Day 1)	Day 16	Change (Day 16-Day 1
1 (0 mg/kg/day)	Mean	23.5	23.2	-0.3	24.1	0.5	24.3	0.7
	S.D.	2.2	2.1	0.9	2.3	1.5	2.3	2.2
	N	50	50	50	48	48	48	48
2 (500 mg/kg/day)	Mean	22.8	22.4	-0.4	22.7	-0.3	23.1	0.1
	S.D.	1.3	1.5	0.5	1.7	0.9	1.3	0.7
	N	10	10	10	9	9	9	9
3 (860 mg/kg/day)	Mean	24.1	23.7	-0.4	24.9	0.8	25.2	1.1
	S.D.	2.0	2.0	0.7	1.6	1.0	2.2	1.5
	N	10	10	10	10	10	10	10
4 (1480 mg/kg/day)	Mean	24.1	23.8	-0.3	22.9	-1.2^{S-}	24.3	0.2
	S.D.	0.9	2.2	1.8	3.6	3.5	2.2	2.4
	N	10	9	9	9	9	9	9
5 (2550 mg/kg/day)	Mean	26.0^{S+}	25.1^{S+}	-1.0	25.5	-0.7^{S-}	26.4^{S+}	0.2
	S.D.	2.3	3.3	3.1	3.0	2.0	3.3	2.0
	N	10	9	9	9	9	9	9
6 (4400 mg/kg/day)	Mean	23.5	23.5	-0.4	24.8	0.9	24.4	0.4
	S.D.	1.7	2.3	0.8	1.7	0.5	2.5	1.9
	N	10	4	4	4	4	4	4

S+ Statistically significantly higher than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.

S- Statistically significantly lower than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.

TABLE 2D

MEAN BODY WEIGHTS WITH MEAN BODY WEIGHT CHANGES
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)
Trioctanoin

Group No. (Dose Level)		Body Weight (g) Interval						
		Day 1	Day 8	Change (Day 8-Day 1)	Day 12	Change (Day 12-Day 1)	Day 16	Change (Day 16-Day 1
1 (0 mg/kg/day)	Mean	23.5	23.2	-0.3	24.1	0.5	24.3	0.7
	S.D.	2.2	2.1	0.9	2.3	1.5	2.3	2.2
	N	50	50	50	48	48	48	48
7 (500 mg/kg/day)	Mean	23.4	22.8	-0.5	23.6	0.3	24.3	1.1
	S.D.	1.8	1.7	2.3	1.5	2.3	1.7	0.8
	N	10	9	9	9	9	9	9
8 (880 mg/kg/day)	Mean	22.8	22.5	-0.3	23.7	0.9	23.9	1.1
	S.D.	2.0	1.7	0.7	1.6	0.8	1.4	1.2
	N	10	10	10	10	10	10	10
9 (1540 mg/kg/day)	Mean	23.7	23.5	-0.3	23.7	-0.0	24.4	0.6
	S.D.	1.9	2.3	1.2	2.4	1.4	2.2	1.4
	N	10	10	10	10	10	10	10
10 (2705 mg/kg/day)	Mean	22.8	23.0	0.3	23.7	1.1	24.0	1.4
	S.D.	1.7	1.7	1.4	2.2	1.9	1.6	2.5
	N	10	9	9	9	9	9	9
11 (4750 mg/kg/day)	Mean	23.1	23.2	0.1	24.0	0.9	24.7	1.6
	S.D.	1.0	0.9	1.0	0.8	0.8	1.4	1.3
	N	10	10	10	10	10	10	10

TABLE 2C
MEAN BODY WEIGHTS WITH MEAN BODY WEIGHT CHANGES
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)
Allyl chloride

Group No. (Dose Level)		Body Weight (g) Interval						
		Day 1	Day 8	Change (Day 8-Day 1)	Day 12	Change (Day 12-Day 1)	Day 16	Change (Day 16-Day 1
1 (0 mg/kg/day)	Mean	23.5	23.2	-0.3	24.1	0.5	24.3	0.7
	S.D.	2.2	2.1	0.9	2.3	1.5	2.3	2.2
	N	50	50	50	48	48	48	48
12 (50 mg/kg/day)	Mean	22.5	23.1	0.6^{S+}	23.6	1.1	24.1	1.7
	S.D.	1.3	1.5	0.7	1.5	1.0	1.6	1.5
	N	10	10	10	10	10	10	10
13 * (90 mg/kg/day)	Mean	23.0	23.8	0.7^{S+}	24.3	1.1	24.9	1.7
	S.D.	1.8	1.5	1.3	1.5	0.8	1.6	0.7
	N	9	8	8	8	8	8	8
14 (160 mg/kg/day)	Mean	24.0	24.1	0.1	25.3	1.4	25.5	1.6
	S.D.	1.7	2.2	1.1	2.1	2.7	2.7	2.0
	N	10	10	10	10	10	10	10
15 * (280 mg/kg/day)	Mean	23.2	24.0	0.8^{S+}	24.1	0.9	25.0	1.7
	S.D.	1.8	2.1	1.0	1.9	0.7	2.3	1.2
	N	9	9	9	9	9	9	9
16 (500 mg/kg/day)	Mean	24.7	24.1	-0.9	25.0	0.1	25.6	0.6
	S.D.	1.8	1.8	2.8	1.5	2.0	1.1	1.5
	N	10	9	9	9	9	9	9

*One animal in the group was determined to be pregnant, its weights were excluded from the groups means.

S+ Statistically significantly higher than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.

TABLE 2D
MEAN BODY WEIGHTS WITH MEAN BODY WEIGHT CHANGES
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)
Tergitol NP-10

Group No. (Dose Level)		Body Weight (g) Interval						
		Day 1	Day 8	Change (Day 8-Day 1)	Day 12	Change (Day 12-Day 1)	Day 16	Change (Day 16-Day 1
1 (0 mg/kg/day)	Mean	26.0	24.8	-1.5	25.2	-1.0	27.0	0.8
	S.D.	2.1	2.4	2.7	2.3	2.0	2.3	1.6
	N	50	42	42	41	41	41	41
18 (580 mg/kg/day)	Mean	26.8	27.4	-0.4	24.5	-3.2	25.5	-2.6[S-]
	S.D.	4.3	3.8	1.1	4.7	2.2	4.9	2.2
	N	10	8	8	8	8	7	7
17 (760 mg/kg/day)	Mean	26.1	25.8	-1.7	25.2	-1.3	24.9	-1.6[S-]
	S.D.	3.6	3.0	3.2	4.0	3.4	5.1	4.7
	N	10	6	6	5	5	5	5
2 (1000 mg/kg/day)	Mean	26.3	23.9	-2.5	26.3	-1.5	26.5	-0.9[S-]
	S.D.	2.7	3.5	3.4	1.3	1.4	2.2	2.9
	N	10	7	7	5	5	6	6
3 (1315 mg/kg/day)	Mean	24.7						
	S.D.	1.8						
	N	10						
4 (1730 mg/kg/day)	Mean	25.8						
	S.D.	2.2						
	N	10						
5 (2280 mg/kg/day)	Mean	25.9						
	S.D.	2.1						
	N	10						
6 (3000 mg/kg/day)	Mean	25.3						
	S.D.	2.2						
	N	10						

S- Statistically significantly lower than control as determined by Student's t-test at $p \leq 0.05$;

TABLE 2E
MEAN BODY WEIGHTS WITH MEAN BODY WEIGHT CHANGES
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)
Triton X-100

Group No. (Dose Level)		Body Weight (g) Interval						
		Day 1	Day 8	Change (Day 8-Day 1)	Day 12	Change (Day 12-Day 1)	Day 16	Change (Day 16-Day 1
1 (0 mg/kg/day)	Mean	26.0	24.8	-1.5	25.2	-1.0	27.0	0.8
	S.D.	2.1	2.4	2.7	2.3	2.0	2.3	1.6
	N	50	42	42	41	41	41	41
7 (760 mg/kg/day)	Mean	25.9	26.2	-0.3	25.5	-1.0	26.5	0.0
	S.D.	1.8	2.4	0.9	2,3	0.8	2.6	1.1
	N	10	5	5	5	5	5	5
8 (1000 mg/kg/day)	Mean	24.8	25.1	-0.1	24.6	-0.5	25.8	0.7
	S.D.	1.0	1.0	1.3	0.8	1.1	0.8	1.2
	N	10	8	8	8	8	8	8
9 (1315 mg/kg/day)	Mean	24.5	23.9	-0.5	24.1	-0.2	25.7	1.4
	S.D.	1.7	3.0	3.1	2.1	2.2	2.2	2.1
	N	10	7	7	7	7	7	7
10 (1730 mg/kg/day)	Mean	24.5	27.9	1.7	26.8	0.6	28.2	2.0
	S.D.	1.9	0.0	0.0	0.0	0.0	0.0	0.0
	N	10	1	1	1	1	1	1
11 (2280 mg/kg/day)	Mean	25.1						
	S.D.	3.1						
	N	10						

TABLE 2F
MEAN BODY WEIGHTS WITH MEAN BODY WEIGHT CHANGES
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)
Tween 60

Group No. (Dose Level)		Body Weight (g) Interval						
		Day 1	Day 8	Change (Day 8-Day 1)	Day 12	Change (Day 12-Day 1)	Day 16	Change (Day 16-Day 1
1 (0 mg/kg/day)	Mean	26.0	24.8	-1.5	25.2	-1.0	27.0	0.8
	S.D.	2.1	2.4	2.7	2.3	2.0	2.3	1.6
	N	50	42	42	41	41	41	41
12 (1000 mg/kg/day)	Mean	24.5	24.1	-0.4	24.2	-0.3	25.8	1.3
	S.D.	1.3	1.7	1.8	1.6	1.7	1.9	2.0
	N	10	10	10	10	10	10	10
13 (1315 mg/kg/day)	Mean	25.0	24.9	-0.6	25.4	-0.1	26.5	1.0
	S.D.	2.2	1.4	2.8	2.0	0.9	1.9	0.5
	N	10	9	9	9	9	9	9
14 (1730 mg/kg/day)	Mean	24.9	24.7	-0.3	24.5	-0.4	25.6	0.6
	S.D.	2.0	2.3	1.5	1.9	1.2	1.9	1.1
	N	10	10	10	10	10	10	10
15 (2280 mg/kg/day)	Mean	24.5	24.4	-0.1	24.4	-0.2	25.6	1.1
	S.D.	2.0	1.7	0.9	1.9	0.9	2.2	1.2
	N	10	10	10	10	10	10	10
16 (3000 mg/kg/day)	Mean	24.6	24.6	0.0	24.5	-0.1	25.6	1.0
	S.D.	2.4	2.5	0.5	2.4	0.7	2.5	1.4
	N	10	10	10	10	10	10	10

TABLE 2F
MEAN BODY WEIGHTS WITH MEAN BODY WEIGHT CHANGES
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)
Tween 60

Group No. (Dose Level)		Body Weight (g) Interval						
		Day 1	Day 8	Change (Day 8-Day 1)	Day 12	Change (Day 12-Day 1)	Day 16	Change (Day 16-Day 1
23 (0 mg/kg/day)	Mean	22.9	22.8	-0.4	23.6	0.4	24.1	0.9
	S.D.	2.4	2.1	2.2	2.6	2.1	2.5	2.1
	N	50	38	38	37	37	37	37
53 (3000 mg/kg/day)	Mean	21.2[S-]	22.5	1.1	23.5	2.1	22.5	1.2
	S.D.	2.4	2.0	1.6	2.3	1.7	2.6	1.0
	N	10	7	7	7	7	7	7
54 (3950 mg/kg/day)	Mean	22.1	23.6	0.5	24.3	1.2	24.2	1.1
	S.D.	3.3	2.2	1.9	2.4	2.3	1.9	2.1
	N	10	5	5	5	5	5	5
55 (5200 mg/kg/day)	Mean	23.4	24.9[S+]	0.8	25.6	1.5	25.8	1.7
	S.D.	3.0	3.6	1.2	3.4	1.2	3.4	1.9
	N	10	8	8	8	8	8	8

S+ Statistically significantly higher than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.
S- Statistically significantly lower than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.

TABLE 2G
MEAN BODY WEIGHTS WITH MEAN BODY WEIGHT CHANGES
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)
2-methoxyethylacrylate

Group No. (Dose Level)		Body Weight (g) Interval						
		Day 1	Day 8	Change (Day 8-Day 1)	Day 12	Change (Day 12-Day 1)	Day 16	Change (Day 16-Day 1
1 (0 mg/kg/day)	Mean	22.1	23.3	1.1	24.1	1.9	25.2	3.1
	S.D.	2.8	2.7	2.0	2.6	2.0	2.6	1.9
	N	50	49	49	49	49	49	49
2 (385 mg/kg/day)	Mean	23.1	24.4	1.2	24.6	1.4	24.5	1.2
	S.D.	3.3	2.1	1.9	1.8	2.0	2.6	2.5
	N	10	9	9	9	9	9	9
3 (580 mg/kg/day)	Mean	22.6	23.0	0.5	23.3	0.9	24.6	2.2
	S.D.	2.4	3.2	4.2	2.7	3.9	1.4	2.8
	N	10	9	9	9	9	9	9
4 (865 mg/kg/day)	Mean	22.5						
	S.D.	2.7						
	N	10						
5 (1300 mg/kg/day)	Mean	22.7						
	S.D.	2.4						
	N	10						
6 (1950 mg/kg/day)	Mean	22.3						
	S.D.	2.3						
	N	10						

TABLE 2H
MEAN BODY WEIGHTS WITH MEAN BODY WEIGHT CHANGES
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)
2-methoxyethylacetate

Group No. (Dose Level)		Body Weight (g) Interval						
		Day 1	Day 8	Change (Day 8-Day 1)	Day 12	Change (Day 12-Day 1)	Day 16	Change (Day 16-Day 1
1 (0 mg/kg/day)	Mean	22.1	23.3	1.1	24.1	1.9	25.2	3.1
	S.D.	2.8	2.7	2.0	2.6	2.0	2.6	1.9
	N	50	49	49	49	49	49	49
7 (785 mg/kg/day)	Mean	22.8	22.6	-0.4^{S-}	23.5	0.6	24.2	1.2
	S.D.	1.6	2.4	1.8	2.2	1.4	1.7	1.2
	N	10	9	9	9	9	9	9
8 (1180 mg/kg/day)	Mean	24.0^{S+}	22.5	-1.1^{S-}	24.2	0.3	25.2	1.3
	S.D.	2.2	3.0	2.1	1.8	1.8	1.9	2.0
	N	10	7	7	6	6	6	6
9 (1770 mg/kg/day)	Mean	21.1	22.4	0.1	24.2	1.9	25.1	2.8
	S.D.	2.9	1.2	1.9	1.6	2.5	1.3	1.8
	N	10	5	5	5	5	5	5
10 (2655 mg/kg/day)	Mean	23.1	19.3^{S-}	-3.9^{S-}	23.1	-1.2^{S-}	24.5	0.2
	S.D.	2.2	2.9	1.9	3.8	4.7	2.7	3.5
	N	10	3	3	2	2	2	2
11 (3985 mg/kg/day)	Mean	22.6						
	S.D.	2.7						
	N	10						

S+ Statistically significantly higher than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.
S- Statistically significantly lower than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.

TABLE 2I
MEAN BODY WEIGHTS WITH MEAN BODY WEIGHT CHANGES
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)
2-propoxyethanol

Group No. (Dose Level)		Body Weight (g) Interval						
		Day 1	Day 8	Change (Day 8-Day 1)	Day 12	Change (Day 12-Day 1)	Day 16	Change (Day 16-Day 1
1 (0 mg/kg/day)	Mean	22.1	23.3	1.1	24.1	1.9	25.2	3.1
	S.D.	2.8	2.7	2.0	2.6	2.0	2.6	1.9
	N	50	49	49	49	49	49	49
12 (1000 mg/kg/day)	Mean	22.0	24.0	1.7	24.3	2.0	25.3	3.0
	S.D.	3.0	1.8	1.7	1.6	2.2	1.4	2.3
	N	10	9	9	9	9	9	9
13 (1315 mg/kg/day)	Mean	23.5	24.9	1.4	23.4	-0.0 S-	24.7	1.2
	S.D.	1.9	2.0	0.7	2.2	1.1	2.5	1.0
	N	10	10	10	10	10	10	10
14 (1730 mg/kg/day)	Mean	20.9	23.4	2.3	23.1	2.0	23.9	2.8
	S.D.	3.1	2.1	1.5	2.4	2.0	2.5	1.7
	N	10	9	9	9	9	9	9
15 (2280 mg/kg/day)	Mean	22.7	23.1	0.4	22.9	0.2	24.7	2.0
	S.D.	2.1	2.8	1.9	2.9	3.0	2.4	2.6
	N	10	7	7	7	7	7	7
16 (3000 mg/kg/day)	Mean	23.3	21.1	-3.6 S-				
	S.D.	2.3	1.5	1.3				
	N	10	4	4				

S- Statistically significantly lower than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.

TABLE 2J
MEAN BODY WEIGHTS WITH MEAN BODY WEIGHT CHANGES
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)
2-ethylthioethanol

Group No. (Dose Level)		Body Weight (g) Interval						
		Day 1	Day 8	Change (Day 8-Day 1)	Day 12	Change (Day 12-Day 1)	Day 16	Change (Day 16-Day 1
23 (0 mg/kg/day)	Mean	22.9	22.8	-0.4	23.6	0.4	24.1	0.9
	S.D.	2.4	2.1	2.2	2.6	2.1	2.5	2.1
	N	50	38	38	37	37	37	37
24 (300 mg/kg/day)	Mean	23.0	22.8	-0.2	23.3	0.3	24.0	1.1
	S.D.	1.9	2.0	0.8	2.3	0.9	1.8	0.5
	N	10	8	8	8	8	8	8
25 (475 mg/kg/day)	Mean	21.6	20.8^{S-}	-0.3	22.1	1.1	22.7	1.6
	S.D.	1.7	3.0	2.2	2.6	1.4	3.5	2.4
	N	10	8	8	7	7	7	7
26 (755 mg/kg/day)	Mean	20.6^{S-}	23.5	2.1^{S+}	24.1	2.8^{S+}	25.2	3.9^{S+}
	S.D.	3.1	1.2	3.0	1.1	3.1	1.1	3.2
	N	10	5	5	5	5	5	5
27 (1195 mg/kg/day)	Mean	21.7	22.6	0.8	23.3	1.5	24.1	2.2
	S.D.	1.7	2.6	1.0	2.5	0.8	2.5	0.9
	N	10	5	5	5	5	5	5
28 (1895 mg/kg/day)	Mean	19.6^{S-}	23.3	2.6^{S+}	24.0	3.3^{S+}	24.8	4.1^{S+}
	S.D.	1.7	1.4	1.9	0.8	1.6	1.2	1.9
	N	10	5	5	5	5	5	5
29 (3000 mg/kg/day)	Mean	20.9^{S-}	24.2	-0.2	25.0	0.6	24.7	0.3
	S.D.	3.5	0.0	0.0	0.0	0.0	0.0	0.0
	N	10	1	1	1	1	1	1

S+ Statistically significantly higher than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.
S- Statistically significantly lower than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.

TABLE 2K
MEAN BODY WEIGHTS WITH MEAN BODY WEIGHT CHANGES
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)
2-ethoxyethanethiol

Group No. (Dose Level)		Body Weight (g) Interval						
		Day 1	Day 8	Change (Day 8-Day 1)	Day 12	Change (Day 12-Day 1)	Day 16	Change (Day 16-Day 1
23 (0 mg/kg/day)	Mean	22.9	22.8	-0.4	23.6	0.4	24.1	0.9
	S.D.	2.4	2.1	2.2	2.6	2.1	2.5	2.1
	N	50	38	38	37	37	37	37
56 (20 mg/kg/day)	Mean	25.1^{S+}	25.0^{S+}	-0.1	25.1	0.0	25.6	0.4^{S-}
	S.D.	1.4	1.6	0.7	1.4	0.5	1.6	0.7
	N	10	10	10	10	10	10	10
57 (60 mg/kg/day)	Mean	24.3	24.6^{S+}	0.4	24.0	-0.2	24.8	0.5^{S-}
	S.D.	2.2	2.4	0.9	2.1	0.6	1.9	0.9
	N	10	10	10	10	10	10	10
58 (180 mg/kg/day)	Mean	24.8^{S+}	23.5	-1.7	25.2	0.2	25.6	0.6^{S-}
	S.D.	1.6	2.9	2.5	1.4	0.4	1.4	0.5
	N	10	8	8	7	7	7	7
30 (300 mg/kg/day)	Mean	22.1						
	S.D.	1.6						
	N	10						
31 (475 mg/kg/day)	Mean	22.2						
	S.D.	0.9						
	N	10						
32 (755 mg/kg/day)	Mean	22.1						
	S.D.	1.6						
	N	10						

S+ Statistically significantly higher than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.
S- Statistically significantly lower than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.

TABLE 2K (CONTINUED)
MEAN BODY WEIGHTS WITH MEAN BODY WEIGHT CHANGES
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)
2-ethoxyethanethiol (continued)

Group No. (Dose Level)		Body Weight (g) Interval						
		Day 1	Day 8	Change (Day 8-Day 1)	Day 12	Change (Day 12-Day 1)	Day 16	Change (Day 16-Day 1
33 (1195 mg/kg/day)	Mean	22.6						
	S.D.	1.6						
	N	10						
34 (1895 mg/kg/day)	Mean	24.2						
	S.D.	1.3						
	N	10						
35 (3000 mg/kg/day)	Mean	22.8						
	S.D.	2.3						
	N	10						

TABLE 2L
MEAN BODY WEIGHTS WITH MEAN BODY WEIGHT CHANGES
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)
2-(ethylthio)ethanethiol

Group No. (Dose Level)		Body Weight (g) Interval						
		Day 1	Day 8	Change (Day 8-Day 1)	Day 12	Change (Day 12-Day 1)	Day 16	Change (Day 16-Day 1
23 (0 mg/kg/day)	Mean	22.9	22.8	-0.4	23.6	0.4	24.1	0.9
	S.D.	2.4	2.1	2.2	2.6	2.1	2.5	2.1
	N	50	38	38	37	37	37	37
59 (20 mg/kg/day)	Mean	25.9^{S+}	25.9^{S+}	0.0	25.7^{S+}	-0.2	26.1^{S+}	0.2^{S-}
	S.D.	1.9	2.0	0.7	1.5	0.6	1.4	0.8
	N	10	10	10	10	10	10	10
60 (60 mg/kg/day)	Mean	24.2	24.5^{S+}	0.3	24.5	0.3	25.7	1.5^{S-}
	S.D.	1.2	1.2	0.9	1.4	0.6	1.9	1.0
	N	10	10	10	10	10	10	10
61 (180 mg/kg/day)	Mean	25.1^{S+}	20.6^{S-}	-3.1^{S-}	23.3	0.4	25.0	1.3
	S.D.	2.1	1.4	0.7	2.4	1.9	0.9	0.7
	N	10	4	4	4	4	4	4
36 (300 mg/kg/day)	Mean	21.9						
	S.D.	2.4						
	N	10						
37 (475 mg/kg/day)	Mean	22.4						
	S.D.	1.9						
	N	10						
38 (755 mg/kg/day)	Mean	23.2						
	S.D.	3.0						
	N	10						

S+ Statistically significantly higher than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.
S- Statistically significantly lower than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.

TABLE 2L (CONTINUED)
MEAN BODY WEIGHTS WITH MEAN BODY WEIGHT CHANGES
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)
2-(ethylthio)ethanethiol (continued)

Group No. (Dose Level)		Body Weight (g) Interval						
		Day 1	Day 8	Change (Day 8-Day 1)	Day 12	Change (Day 12-Day 1)	Day 16	Change (Day 16-Day 1)
39 (1195 mg/kg/day)	Mean	22.1						
	S.D.	2.2						
	N	10						
40 (1895 mg/kg/day)	Mean	22.9						
	S.D.	2.1						
	N	10						
41 (3000 mg/kg/day)	Mean	23.2						
	S.D.	1.6						
	N	10						

TABLE 2M
MEAN BODY WEIGHTS WITH MEAN BODY WEIGHT CHANGES
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)
1,3-dichloro-5,5-dimethyl hydantoin

Group No. (Dose Level)		Body Weight (g) Interval						
		Day 1	Day 8	Change (Day 8-Day 1)	Day 12	Change (Day 12-Day 1)	Day 16	Change (Day 16-Day 1
23 (0 mg/kg/day)	Mean	22.9	22.8	-0.4	23.6	0.4	24.1	0.9
	S.D.	2.4	2.1	2.2	2.6	2.1	2.5	2.1
	N	50	38	38	37	37	37	37
42 (100 mg/kg/day)	Mean	22.3	23.2	0.0	24.4	1.2	24.5	1.3
	S.D.	2.4	1.6	0.4	2.4	1.1	1.7	0.3
	N	10	4	4	4	4	4	4
43 (160 mg/kg/day)	Mean	22.5	23.8	-0.9	25.2	0.6	24.6	-0.1
	S.D.	3.0	2.1	1.2	1.6	1.2	2.0	1.3
	N	10	5	5	5	5	5	5
44 (250 mg/kg/day)	Mean	21.3^{S-}	20.1^{S-}	-1.7	22.0	0.3	22.3	0.6
	S.D.	1.4	0.8	1.0	2.4	1.1	1.4	0.3
	N	10	3	3	3	3	3	3
45 (400 mg/kg/day)	Mean	21.9	23.4	0.8	24.5	1.9^{S+}	24.2	1.6
	S.D.	2.8	1.9	0.6	2.1	1.0	2.2	1.3
	N	10	9	9	9	9	9	9
46 (630 mg/kg/day)	Mean	22.1	22.4	-0.3	22.4	-0.3	22.7	0.0
	S.D.	1.7	2.4	1.8	3.9	3.4	3.7	3.7
	N	10	6	6	6	6	6	6
47 (1000 mg/kg/day)	Mean	22.1	18.4^{S-}	-3.2	21.9	0.3	23.8	2.2
	S.D.	1.9	0.0	0.0	0.0	0.0	0.0	0.0
	N	10	1	1	1	1	1	1

S+ Statistically significantly higher than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.
S- Statistically significantly lower than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.

TABLE 2N
MEAN BODY WEIGHTS WITH MEAN BODY WEIGHT CHANGES
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)
disulfiram

Group No. (Dose Level)		Body Weight (g) Interval						
		Day 1	Day 8	Change (Day 8-Day 1)	Day 12	Change (Day 12-Day 1)	Day 16	Change (Day 16-Day 1
23 (0 mg/kg/day	Mean	22.9	22.8	-0.4	23.6	0.4	24.1	0.9
	S.D.	2.4	2.1	2.2	2.6	2.1	2.5	2.1
	N	50	38	38	37	37	37	37
48 (1000 mg/kg/day	Mean	21.4	23.0	1.0	23.5	1.5	24.2	2.2
	S.D.	2.1	2.2	1.3	1.9	1.6	1.9	1.6
	N	10	6	6	6	6	6	6
49 (1495 mg/kg/day)	Mean	21.5	22.1	0.7	22.3	0.9	22.6	1.2
	S.D.	1.6	1.2	1.0	1.3	1.1	1.2	1.6
	N	10	9	9	9	9	9	9
50 (2235 mg/kg/day)	Mean	22.0	22.7	0.4	22.4	0.1	23.6	1.0
	S.D.	2.1	1.9	1.2	3.1	2.4	2.1	1.5
	N	10	8	8	8	8	7	7
51 (3345 mg/kg/day)	Mean	22.3	21.8	-0.6	23.1	0.6	23.4	0.9
	S.D.	1.6	3.6	2.4	2.3	0.8	2.5	1.0
	N	10	8	8	7	7	7	7
52 (5000 mg/kg/day)	Mean	21.7	23.4	1.1	23.5	1.3	23.8	1.6
	S.D.	2.0	1.5	1.8	1.7	1.0	1.7	1.1
	N	10	7	7	7	7	7	7

TABLE 20
MEAN BODY WEIGHTS WITH MEAN BODY WEIGHT CHANGES
SCREENING OF PRIORITY CHEMICALS FOR POTENTIAL REPRODUCTIVE HAZARDS (MED PHASE)
3-ethoxy-1-propanol

Group No. (Dose Level)		Body Weight (g) Interval						
		Day 1	Day 8	Change (Day 8-Day 1)	Day 12	Change (Day 12-Day 1)	Day 16	Change (Day 16-Day 1
62 (0 mg/kg/day)	Mean	25.7	25.7	0.0	26.0	0.4	26.8	1.1
	S.D.	1.2	1.2	0.8	1.3	0.9	1.5	1.1
	N	50	49	49	49	49	49	49
63 (2000 mg/kg/day)	Mean	25.9	26.9^{S+}	1.0^{S+}	26.3	0.4	27.1	1.1
	S.D.	0.6	0.6	0.7	0.9	0.7	0.9	0.9
	N	10	10	10	10	10	10	10
64 (2700 mg/kg/day)	Mean	25.8	25.6	-0.2	25.9	0.1	26.5	0.7
	S.D.	1.6	1.6	1.3	1.0	1.7	1.4	1.6
	N	10	9	9	9	9	9	9
65 (3650 mg/kg/day)	Mean	24.8^{S-}	25.8	0.7	24.9	-0.2	25.9^{S-}	0.0^{S-}
	S.D.	0.9	0.9	0.9	1.0	1.0	0.8	1.6
	N	10	6	6	6	6	6	6
66 (4930 mg/kg/day)	Mean	26.2						
	S.D.	1.4						
	N	10						
67 (6660 mg/kg/day)	Mean	25.4						
	S.D.	1.1						
	N	10						
68 (9000 mg/kg/day) (undiluted)	Mean	25.8						
	S.D.	0.9						
	N	10						

S+ Statistically significantly higher than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.
S- Statistically significantly lower than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.

TABLE 3A

SUMMARY OF MEAN MATERNAL BODY WEIGHTS AND WEIGHT CHANGE (GRAMS)
ALL PREGNANT ANIMALS

SCREENING OF PRIORITY CHEMICALS FOR REPRODUCTIVE HAZARD-REPRODUCTIVE PHASE

GROUP			DAY OF GESTATION 7	8	9	10	11	12	13	14	18	CHANGE DAY 18-DAY 7	DAY 3 POST PARTUM (TERMINAL)
1	Corn Oil	MEAN	29.9	29.7	30.6	30.8	31.6	32.6	34.7	36.7	46.2	16.2	36.1
		S.D.	2.8	2.6	2.5	2.7	2.7	4.1	3.4	3.1	5.8	4.5	3.6
		N	39	39	39	39	39	39	39	39	39	39	36
2	Decalin	MEAN	31.3	30.5	31.7	33.2^{S+}	33.9^{S+}	35.4^{S+}	36.7	38.9	46.8	15.5	38.8^{S+}
		S.D.	3.6	3.7	3.7	3.3	3.3	3.4	4.1	4.2	6.0	4.9	4.8
		N	24	24	24	24	24	24	24	24	24	24	23
3	Trioctanoin	MEAN	30.8	30.2	31.1	31.9	32.4	33.7	35.0	36.8	45.4	14.6	36.0
		S.D.	3.8	3.7	3.4	3.5	3.6	3.5	4.0	4.2	6.0	6.0	4.0
		N	37	37	37	37	37	37	37	37	37	37	37
4	Allyl Chloride	MEAN	29.5	29.9	30.6	30.8	32.7	34.3	34.3	36.5	43.6	13.3	37.0
		S.D.	2.4	2.4	2.5	4.2	4.1	5.0	5.0	6.2	11.6	10.8	2.9
		N	7	7	7	7	7	7	7	7	7	7	7

S+ Statistically significantly higher than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.

TABLE 3B

SUMMARY OF MEAN MATERNAL BODY WEIGHTS AND WEIGHT CHANGE (GRAMS)
ALL PREGNANT ANIMALS

SCREENING OF PRIORITY CHEMICALS FOR REPRODUCTIVE HAZARD-REPRODUCTIVE PHASE

			DAY OF GESTATION										
GROUP			7	8	9	10	11	12	13	14	18	CHANGE DAY 18-DAY 7	DAY 3 POST PARTUM (TERMINAL)
1	Corn Oil	MEAN	29.0	29.4	29.9	30.6	31.3	32.2	33.4	34.9	44.3	15.3	33.9
		S.D.	3.9	3.9	3.9	3.9	4.0	4.0	4.3	4.4	5.7	4.7	3.5
		N	32	32	32	32	32	32	32	32	32	32	31
2	Tergitol NP-10	MEAN	30.8	31.1	31.3	31.8	32.5	33.0	34.5	35.7	44.4	13.6	34.8
		S.D.	4.4	4.3	3.8	3.9	3.7	3.8	4.5	4.4	8.6	8.9	4.4
		N	29	29	29	29	29	29	29	29	29	29	25
3	Triton X-100	MEAN	30.4	30.5	31.1	32.1	32.9	34.1	34.7	36.8	46.8	16.4	35.6
		S.D.	2.8	3.7	2.9	2.6	2.6	2.9	4.2	3.4	5.1	4.6	3.2
		N	34	34	34	34	34	34	34	34	34	34	33

TABLE 3C

SUMMARY OF MEAN MATERNAL BODY WEIGHTS AND WEIGHT CHANGE (GRAMS)
ALL PREGNANT ANIMALS

SCREENING OF PRIORITY CHEMICALS FOR REPRODUCTIVE HAZARD-REPRODUCTIVE PHASE

GROUP			DAY OF GESTATION										
			7	8	9	10	11	12	13	14	18	CHANGE DAY 18-DAY 7	DAY 3 POST PARTUM (TERMINAL)
1	Corn Oil	MEAN	30.8	31.2	31.5	31.9	32.7	34.0	35.3	36.5	45.6	14.9	35.1
		S.D.	3.0	2.8	2.8	3.1	3.1	3.2	3.4	4.0	6.9	6.4	4.1
		N	37	37	37	37	37	37	37	37	37	37	34
2	2-ethylthioethanol	MEAN	30.4	31.0	31.3	32.2	33.2	34.7	36.2	37.5	46.9	16.5	36.2
		S.D.	2.9	3.1	3.4	3.1	3.2	3.2	3.1	3.3	4.4	3.4	3.4
		N	32	32	32	32	32	32	32	32	32	32	31
3	2-ethoxyethanethiol	MEAN	29.3	29.7	30.2	30.9	31.9	33.2	35.0	36.7	45.7	16.5	34.8
		S.D.	2.9	2.7	2.5	2.7	2.5	2.7	2.7	2.7	3.3	2.0	2.6
		N	22	22	22	22	22	22	22	22	22	22	22
4	2-(ethylthio)ethanethiol	MEAN	30.2	30.5	30.6	31.1	32.2	33.3	35.2	36.1	45.0	14.8	34.5
		S.D.	2.4	2.7	2.6	2.6	2.6	2.7	2.6	2.4	4.4	3.6	2.9
		N	29	29	29	29	29	29	29	29	29	29	28
5	1,3-dichloro-5,5-dimethyl hydantoin	MEAN	29.0	30.3	30.7	31.0	32.1	33.6	35.6	36.1	45.8	16.9	34.3
		S.D.	3.6	3.7	3.1	3.2	3.4	3.7	3.3	2.8	3.7	4.1	3.0
		N	24	24	24	24	24	24	24	24	24	24	24
6	disulfiram	MEAN	30.4	31.3	31.5	31.9	33.0	35.0	37.2	37.7	45.0	14.6	34.8
		S.D.	2.6	2.8	2.6	2.5	2.3	2.8	2.7	3.1	4.5	4.4	3.4
		N	24	24	24	24	24	24	24	24	24	24	23
7	Tween 60	MEAN	28.9[S-]	29.7	30.3	31.1	32.0	33.3	35.7	37.1	47.1	18.2	33.9
		S.D.	2.6	2.7	2.6	2.5	2.6	2.7	3.0	3.4	5.7	4.2	3.4
		N	34	34	34	34	34	34	34	34	34	34	34

S- Statistically significantly lower than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.

TABLE 3D

SUMMARY OF MEAN MATERNAL BODY WEIGHTS AND WEIGHT CHANGE (GRAMS)
ALL PREGNANT ANIMALS

SCREENING OF PRIORITY CHEMICALS FOR REPRODUCTIVE HAZARD-REPRODUCTIVE PHASE

GROUP			DAY OF GESTATION									CHANGE	DAY 3 POST PARTUM
			7	8	9	10	11	12	13	14	18	DAY 18-DAY 7	(TERMINAL)
1	Distilled Water	MEAN	29.0	30.2	30.9	30.6	32.1	33.6	35.3	36.2	44.4	15.4	35.6
		S.D.	2.2	1.8	1.9	2.7	2.4	2.8	3.0	3.4	7.2	6.8	2.8
		N	28	28	28	28	28	28	28	28	28	28	25
2	2-Methoxyethylacrylate	MEAN	29.6	30.4	30.8	30.8	31.8	33.7	33.6	33.0[S-]	33.8[S-]	4.2[S-]	0.0
		S.D.	1.7	1.6	2.2	2.0	2.2	2.3	3.1	3.2	3.3	2.8	0.0
		N	14	14	14	14	14	14	14	14	14	14	0
3	2-Methoxyethylacetate	MEAN	29.2	30.0	30.5	30.3	31.9	32.4	32.4[S-]	31.1[S-]	33.5[S-]	4.2[S-]	0.0
		S.D.	1.5	1.7	1.7	2.1	2.5	3.2	2.9	2.3	2.3	1.7	0.0
		N	31	31	31	31	31	31	31	31	31	31	0
4	2-Propoxyethanol	MEAN	28.9	29.2	30.0	30.4	32.0	33.1	34.6	35.3	43.1	14.2	34.5
		S.D.	1.8	1.9	2.0	2.3	2.5	2.7	3.0	3.2	5.4	5.0	2.8
		N	31	31	31	31	31	31	31	31	31	31	28
5	3-ethoxy-1-propanol	MEAN	28.4	28.4[S-]	29.6	30.3	32.0	33.6	34.9	35.6	43.9	15.6	33.9
		S.D.	1.8	1.6	1.7	1.8	1.8	2.3	2.3	2.3	3.7	3.2	2.9
		N	21	21	21	21	21	21	21	21	21	21	21

S- Statistically significantly lower than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.

TABLE 4A

SUMMARY OF REPRODUCTIVE OUTCOME

SCREENING OF PRIORITY CHEMICALS FOR REPRODUCTIVE HAZARDS - REPRODUCTIVE PHASE

	GROUP AND TREATMENT			
	1 Vehicle Control (Corn oil)	2 Decalin 2700 mg/kg/day	3 Trioctanoin 4750 mg/kg/day	4 Allyl Chloride 500 mg/kg/day
Number Treated[a]	50	48	50	50
Number of Deaths	0	7	3	25
Number of Survivors:	50	41	47	25
Nonpregnant	11	17	10	18
Pregnant	39	24	37	7
Number of Litters:	39	24	37	7
Live Litters	37	23	35	5
Dead Litters	1	0	0	0
Resorbed Litters	1	1	2	2
Delivery Index[b]:				
Ratio	37/39	23/24	35/37	5/7
Percent	94.9	95.8	94.6	71.4

[a]Does not include mice that died as a result of dosing error.

[b]Delivery Index = Number of live litters produced/total number pregnant; denominator excludes mice that were determined to have been fertilized without subsequent implantation.

TABLE 4B

SUMMARY OF REPRODUCTIVE OUTCOME

SCREENING OF PRIORITY CHEMICALS FOR REPRODUCTIVE HAZARDS - REPRODUCTIVE PHASE

	GROUP AND TREATMENT		
	1 Vehicle Control (Corn oil)	2 Tergitol NP-10 600 mg/kg/day	3 Triton X-100 800 mg/kg/day
Number Treated[a]	49[d]	49	50
Number of Deaths	0	0	1
Number of Survivors:	49	49	49
Nonpregnant	17	20	15
Pregnant	32	29	34
Number of Litters:	32	29	34
Live Litters	31	25	33
Dead Litters	0	0	0
Resorbed Litters	1	4	1
Delivery Index[b]:			
Ratio	31/32	25/29	33/34
Percent	96.9	86.2	97.1

[a]Does not include mice that died as a result of dosing error.

[b]Determined by the presence of corpora lutea upon examination of uteri at necropsy.

[c]Delivery Index = Number of live litters produced/total number pregnant; denominator excludes mice that were determined to have been fertilized without subsequent implantation.

[d]One animal escaped from cage.

TABLE 4C

SUMMARY OF REPRODUCTIVE OUTCOME

SCREENING OF PRIORITY CHEMICALS FOR REPRODUCTIVE HAZARDS - REPRODUCTIVE PHASE

	GROUP AND TREATMENT			
	1 Vehicle Control (Corn oil)	2 2-ethylthioethanol 1200 mg/kg/day	3 2-ethoxyethanethiol 175 mg/kg/day	4 2-(ethylthio)ethanethiol 125 mg/kg/day
Number Treated	50	50	50	50
Number of Deaths	0	0	0	0
Number of Survivors:	50	50	50	50
Nonpregnant	13	18	28	21
Pregnant	37	32	22	29
Number of Litters:	37	32	22	29
Live Litters	34	31	22	27
Dead Litters	0	1[b]	0	1
Resorbed Litters	3	1[b]	0	1
Delivery Index[b]:				
Ratio	34/37	31/32	22/22	27/29
Percent	91.9	96.9	100.0	93.1

[a]Resorption sites were observed in the uteri of the dams which delivered a dead litter.

[b]Delivery Index = Number of live litters produced/total number pregnant; denominator excludes mice that were determined to have been fertilized without subsequent implation.

TABLE 4C (Continued)

SUMMARY OF REPRODUCTIVE OUTCOME

SCREENING OF PRIORITY CHEMICALS FOR REPRODUCTIVE HAZARDS - REPRODUCTIVE PHASE

	GROUP AND TREATMENT		
	5 1,3-dichloro-5,5-dimethyl hydantoin 500 mg/kg/day	6 disulfiram 4900 mg/kg/day	7 Tween 60 5200 mg/kg/day
Number Treated	50	50	50
Number of Deaths	9	4	0
Number of Survivors:	41	46	50
Nonpregnant	17	22	16
Pregnant	24	24	34
Number of Litters:	24	24	34
Live Litters	24	22	34
Dead Litters	0	1	0
Resorbed Litters	0	1	0
Delivery Index[b]:			
Ratio	24/24	22/24	34/34
Percent	100.0	91.7	100.0

[a]Resorption sites were observed in the uteri of the dams which delivered a dead litter.

[b]Delivery Index = Number of live litters produced/total number pregnant; denominator excludes mice that were determined to have been fertilized without subsequent implation.

TABLE 4D

SUMMARY OF REPRODUCTIVE OUTCOME

SCREENING OF PRIORITY CHEMICALS FOR REPRODUCTIVE HAZARDS - REPRODUCTIVE PHASE

	GROUP AND TREATMENT				
	1 Vehicle Control Distilled Water	2 2-methoxyethylacrylate 650 mg/kg/day	3 2-methoxyethylacetate 1225 mg/kg/day	4 2-propoxyethanol 2000 mg/kg/day	5 3-ethoxy-1-propanol 3000 mg/kg/day
Number Treated[a]	50	50	49	49	50
Number of Deaths	0	15	0	1	13
Number of Survivors:	50	35	49	48	37
Nonpregnant	22	21	18	17	16
Pregnant	28	14	31	31	21
Number of Litters:	28	14	31	31	21
Live Litters	25	0	0	28	21
Dead Litters	0	0	0	0	0
Resorbed Litters	3	14	31	3	0
Delivery Index[b]:					
Ratio	25/28	0/14	0/31	28/31	21/21
Percent	89.3	0.0	0.0	90.3	100.0

[a]Does not include mice that died as a result of dosing error.

[b]Resorption sites were observed in the uteri of both dams which delivered dead litters.

[b]Delivery Index = Number of live litters produced/total number pregnant; denominator exclude mice that were determined to have been fertilized without subsequent implantation.

TABLE 5A

SUMMARY OF MEAN PUP WEIGHTS, PUP COUNTS,
AND OFFSPRING VIABILITY DATA

SCREENING OF PRIORITY CHEMICALS FOR REPRODUCTIVE HAZARDS - REPRODUCTIVE PHASE

		GROUP AND TREATMENT			
		1	2	3	4
MEAN PUP WEIGHTS[a] (g)		Vehicle Control (Corn oil)	Decalin 2700 mg/kg/day	Trioctanoin 4750 mg/kg/day	Allyl chloride 500 mg/kg/day
Birth	MEAN	1.5	1.6	1.6	1.4
	S.D.	0.2	0.1	0.3	0.3
	N	37	23	35	5
Day 3 Postpartum	MEAN	2.4	2.5	2.5	2.4
	S.D.	0.3	0.3	0.5	0.3
	N	35	23	34	4
%Weight Change (Day 3 - Birth)	MEAN	57.2	61.9	54.4	63.8
	S.D.	15.1	9.0	19.3	19.9
	N	35	23	34	4
PUP COUNTS (per litter)					
Birth:					
Live	MEAN	9.4	9.9	9.2	9.2
	S.D.	2.7	2.3	2.9	2.5
	N	37	23	35	5
Dead	MEAN	0.0	0.0	0.1	2.0[S+]
	S.D.	0.0	0.2	0.3	2.3
	N	37	23	35	5
%Dead	MEAN	0	0.6	1.1	17.8[S+]
	S.D.	0	3.0	3.9	19.7
	N	37	23	35	5
Day 3 Postpartum:					
Live	MEAN	9.3	9.9	8.6	8.0
	S.D.	2.9	2.3	3.3	4.8
	N	36	23	35	5
Offspring Viability Ratio[b] (%)	MEAN	96.6	100.0	93.9	80.0
	S.D.	16.8	0.0	19.4	45.0
	N	36	23	35	5

[a]Mean Pup Weights = Litter weight/Number of live pups.

[b]Offspring Viability Ratio = (Number of live pups on Day 3/Number of live pups at birth) x 100.

S+ Statistically significantly higher than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.

TABLE 5B

SUMMARY OF MEAN PUP WEIGHTS, PUP COUNTS,
AND OFFSPRING VIABILITY DATA

SCREENING OF PRIORITY CHEMICALS FOR REPRODUCTIVE HAZARDS - REPRODUCTIVE PHASE

		GROUP AND TREATMENT		
		1	2	3
MEAN PUP WEIGHTS[a] (g)		Vehicle Control (Corn oil)	Tergitol NP-10 600 mg/kg/day	Triton X-100 800 mg/kg/day
Birth	MEAN	1.5	1.6	1.5
	S.D.	0.1	0.2	0.2
	N	31	25	33
Day 3 Postpartum	MEAN	2.0	2.1	2.1
	S.D.	0.3	0.3	0.3
	N	31	24	33
%Weight Change (Day 3 - Birth)	MEAN	30.5	31.2	34.6
	S.D.	12.5	6.5	5.8
	N	31	24	33
PUP COUNTS (per litter)				
Birth:				
Live	MEAN	9.0	9.2	9.6
	S.D.	2.4	2.9	2.0
	N	31	25	33
Dead	MEAN	0.1	0.4	0.0
	S.D.	0.3	1.3	0.2
	N	31	25	33
%Dead	MEAN	1.0	3.4	0.4
	S.D.	3.1	10.3	2.2
	N	31	25	33
Day 3 Postpartum:				
Live	MEAN	8.8	8.9	9.5
	S.D.	2.4	3.4	2.0
	N	31	25	33
Offspring Viability Ratio[b] (%)	MEAN	98.5	96.0	99.3
	S.D.	5.0	20.0	3.9
	N	31	25	33

[a]Mean Pup Weights = Litter weight/Number of live pups.

[b]Offspring Viability Ratio = (Number of live pups on Day 3/Number of live pups at birth) x 100.

TABLE 5C

SUMMARY OF MEAN PUP WEIGHTS, PUP COUNTS,
AND OFFSPRING VIABILITY DATA

SCREENING OF PRIORITY CHEMICALS FOR REPRODUCTIVE HAZARDS - REPRODUCTIVE PHASE

		GROUP AND TREATMENT			
		1	2	3	4
MEAN PUP WEIGHTS[a] (g)		Vehicle Control (Corn oil)	2-ethylthioethanol 1200 mg/kg/day	2-ethoxyethanethiol 175 mg/kg/day	2-(ethylthio)ethanethiol 125 mg/kg/day
Birth	MEAN	1.5	1.4	1.4	1.4
	S.D.	0.3	0.1	0.2	0.2
	N	33	31	22	27
Day 3 Postpartum	MEAN	2.0	1.9	1.8	1.9
	S.D.	0.3	0.3	0.2	0.3
	N	33	31	22	26
%Weight Change (Day 3 - Birth)	MEAN	30.3	30.9	30.2	33.7
	S.D.	12.2	11.2	7.7	12.6
	N	33	31	22	26
PUP COUNTS (per litter)					
Birth:					
Live	MEAN	9.1	9.8	10.4	8.8
	S.D.	3.9	2.9	1.6	3.5
	N	34	32	22	28
Dead	MEAN	0.6	0.2	0.1	0.6
	S.D.	1.4	0.5	0.4	1.6
	N	34	32	22	28
%Dead	MEAN	8.2	4.4	1.4	7.1
	S.D.	18.2	17.9	3.7	20.3
	N	34	32	22	28
Day 3 Postpartum:					
Live	MEAN	9.0	9.9	10.3	8.6
	S.D.	3.8	2.3	1.6	3.3
	N	34	31	22	27
Offspring Viability Ratio[b] (%)	MEAN	96.1	97.7	99.2	92.3
	S.D.	12.2	5.2	3.9	20.2
	N	34	31	22.0	27

[a]Mean Pup Weights = Litter weight/Number of live pups.

[b]Offspring Viability Ratio = (Number of live pups on Day 3/Number of live pups at birth) x 100

TABLE 5C (Continued)

SUMMARY OF MEAN PUP WEIGHTS, PUP COUNTS,
AND OFFSPRING VIABILITY DATA

SCREENING OF PRIORITY CHEMICALS FOR REPRODUCTIVE HAZARDS - REPRODUCTIVE PHASE

		GROUP AND TREATMENT		
		5	6	7
MEAN PUP WEIGHTS[a] (g)		1,3-dichloro-5,5-dimethyl hydantoin 500 mg/kg/day	dilsufiram 4900 mg/kg/day	Tween 60 5200 mg/kg/day
Birth	MEAN	1.5	1.5	1.5
	S.D.	0.2	0.2	0.1
	N	24	19	33
Day 3 Postpartum	MEAN	1.9	1.9	1.8S-
	S.D.	0.3	0.3	0.3
	N	24	20	33
%Weight Change (Day 3 - Birth)	MEAN	26.3	29.5	21.7S-
	S.D.	13.5	14.8	10.8
	N	24	18	33
PUP COUNTS (per litter)				
Birth:				
Live	MEAN	9.0	8.9	10.5
	S.D.	2.8	4.1	2.9
	N	24	21	34
Dead	MEAN	0.4	0.4	0.3
	S.D.	1.1	0.9	1.2
	N	24	21	34
%Dead	MEAN	4.8	9.3	2.5
	S.D.	11.8	25.4	12.1
	N	24	21	34
Day 3 Postpartum:				
Live	MEAN	8.7	8.1	10.4
	S.D.	3.3	3.9	2.9
	N	24	22	34
Offspring Viability Ratio[b] (%)	MEAN	93.7	81.9	98.7
	S.D.	18.0	32.4	4.3
	N	24	20	34.0

[a]Mean Pup Weights = Litter weight/Number of live pups.

[b]Offspring Viability Ratio = (Number of live pups on Day 3/Number of live pups at birth) x 100.

S- Statistically significantly lower than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.

TABLE 5D

SUMMARY OF MEAN PUP WEIGHTS, PUP COUNTS,
AND OFFSPRING VIABILITY DATA

SCREENING OF PRIORITY CHEMICALS FOR REPRODUCTIVE HAZARDS - REPRODUCTIVE PHASE

		GROUP AND TREATMENT				
		1	2	3	4	5
MEAN PUP WEIGHTS[a] (g)		Vehicle Control Distilled Water	2-methoxyethylacrylate 650 mg/kg/day	2-methoxyethylacetate 1225 mg/kg/day	2-propoxyethanol 2000 mg/kg/day	3-ethoxy-1-propanol 3000 mg/kg/day
Birth	MEAN	1.5	No Litters Delivered	No Litters Delivered	1.5	1.4
	S.D.	0.3			0.2	0.3
	N	25			28	21
Day 3 Postpartum	MEAN	1.9			2.0	1.9
	S.D.	0.4			0.2	0.4
	N	25			26	21
%Weight Change (Day 3 - Birth)	MEAN	28.1			31.7	34.0
	S.D.	12.7			8.5	22.2
	N	25			26	21
PUP COUNTS (per litter)						
Birth:						
Live	MEAN	10.0			8.5	7.7[S-]
	S.D.	2.9			2.9	3.3
	N	25			28	21
Dead	MEAN	0.0			0.5[S+]	0.9[S+]
	S.D.	0.2			1.0	1.7
	N	25			28	21
%Dead	MEAN	0.4			6.0	11.0[S+]
	S.D.	2.2			13.5	20.5
	N	25			28	21
Day 3 Postpartum:						
Live	MEAN	9.7			7.3[S-]	7.0[S-]
	S.D.	3.1			3.4	3.5
	N	25			28	21
Offspring Viability Ratio[b] (%)	MEAN	96.1			83.6	88.8
	S.D.	10.4			27.8	20.4
	N	25			28	21

[a]Mean Pup Weights = Litter weight/Number of live pups.

[b]Offspring Viability Ratio = (Number of live pups on Day 3/Number of live pups at birth) x 100

S+ Statistically significantly higher than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.

S- Statistically significantly lower than control as determined by Student's t-test at $p \leq 0.05$; values were adjusted using Bonferroni correction.

APPENDIX 1
Screening of Priority Chemicals for Reproductive Hazard
Results of Chemical Analysis of Dosing Solutions

Compound	BRL No.	Analytical Results (mg/ml) Day	Top	Bottom	Theoretical	Method
2-methoxyethylacrylate	589	1	75.3	75.7	65	GC-FID[a]
		8	56.5	65.4	65	
2-methoxyethylacetate	581	1	150.5	150.3	122.5	GC-FID
		8	123.9	122.1	122.5	
3-ethoxy-1-propanol	551	1	323.7	317.7	300	GC-FID
		8	317.8	323.0	300	
2-propoxyethanol	603	1	211.6	213.7	200	GC-FID
		8	212.0	215.1	200	
2-ethylthioethanol	601	1	107	110	120	GC-FID
		8	105.9	101.2	120	
2-ethoxyethanethiol	602	1	14.3	14.5	17.5	GC-FID
		8	6.7	6.1	17.5	
2-(ethylthio)ethanethiol	608	1	11.2	11.3	12.5	GC-FID
		8	9.8	9.6	12.5	
decalin	550	1	577.5	567.3	540	GC-FID
		8	553.0	528.9	540	
trioctanoin	549	1	(96.96)[b]	(97.53)	(100)	GC-FID
		8	(97.42)	(97.66)	(100)	
Allyl chloride	552	1	93.3	94.5		GC-FID
		8	0[e]	0[e]		
Tergitol NP-10	580	1	54.4	57.0	60	HPLC-UV[c]
		8	58.5	54.5	60	
Triton X-100	578	1	69.7	71.0	80	HPLC-UV
		8	72.2	72.6	80	
Tween 60	579	1	511	513	520	Colorimetric
		8	483	478	520	
Tetraethylthiuram disulfide[d]	611					
1,3-dichloro-5, 5-dimethylhydantoin[d]	633					

[a]Gas chromatography - flame ionization detector.

[b]Purity analysis of neat compound.

[c]High performance liquid chromatography - ultraviolet detector.

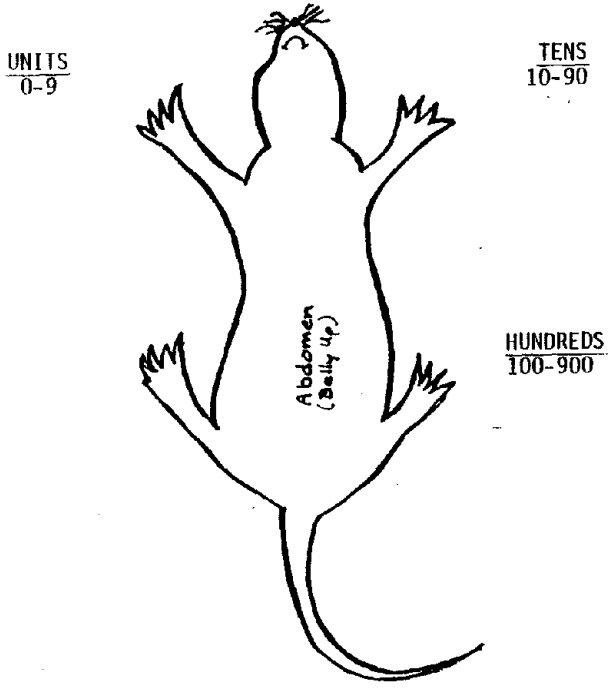
[d]Not analyzed due to lack of analytical method.

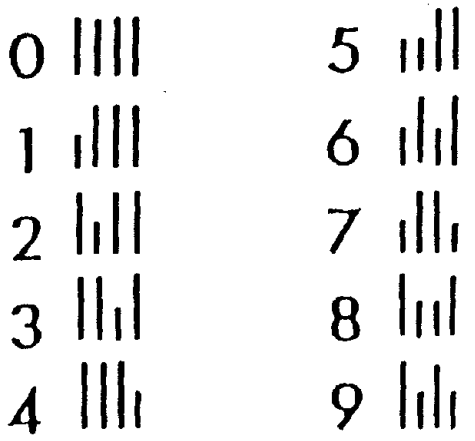
[e]Possible evaporation when warmed to room temperature, opened and dosed during the eight day period.

FIGURE 1

PERMANENT NUMBER IDENTIFICATION

BY TOE CLIPPING





Toe-clipping code for each foot (digit I excluded)