STUDY NO. 00-4208
SPONSOR STUDY NO. 211-MTBE-2G

GASOLINE MTBE VAPOR CONDENSATE

A TWO-GENERATION WHOLE-BODY INHALATION REPRODUCTION

TOXICITY STUDY IN RATS

Final Report

Volume I of IV

Submitted to: American Petroleum Institute (API)
1220 L Street, Northwest
Washington, D.C. 20005-4070

Attn: Thomas M. Gray, M.S., D.A.B.T.

Date: 14 June 2011

STATEMENT OF COMPLIANCE

This study was conducted in accordance with the United States Environmental Protection Agency's (EPA) Good Laboratory Practice Standards 79.60, CFR Vol. 59, No. 122, 27 June 1994 with the following exceptions which were not considered to have compromised the validity of the study:

1. It was the Sponsor's responsibility to maintain the method of synthesis, fabrication, or derivation of the test fuel, and this was not completed at the time of the study conduct but has been completed since and is on file with the Sponsor.

2. Some of the charcoal tube air samples were stored frozen before assay and freezer stability was not assessed.

3. GFAP Test:
   The study was conducted in the spirit of compliance with 79.60, CFR Vol. 59, No. 122, 27 June 1994. The study was performed according to protocol and Standard Operating Procedures.

14 Jun 11

Gary M. Hoffman, B.A., D.A.B.T. Date
Study Director

6/13/2011

Thomas M. Gray, M.S., D.A.B.T. Date
Sponsor Representative

SIGNATURE PAGE

SCIENTISTS

The following Scientists were responsible for the overall conduct of this study. Departmental supervisory personnel are listed on the personnel page of this report (Appendix GG).

Gary M. Hoffman, B.A., D.A.B.T. — 14 June 11
Study Director — Date

Kevin Keane, D.V.M., Ph.D. — 14 JUN 2011
Director of Pathology[1] — Date

SCIENTIFIC REVIEW

The following Scientists have reviewed and approved this report:

Robert M. Parker, Ph.D., D.A.B.T. — 14 JUNE 2011
Director, Developmental and Reproductive Toxicology — Date

Sylvie J. Gosselin, D.V.M., Ph.D., Diplomate A.C.V.P. — 14 June 2011
Vice President, Safety Assessment — Date

[1]Katharine M. Whitney was the Study Pathologist for this study and for submission of the draft report and is no longer employed at the Testing Facility. Kevin Keane is assuming responsibility for finalization of the pathology evaluation of this report.

QUALITY ASSURANCE STATEMENT

Listed below are the dates that this study was inspected by the Quality Assurance Unit of Huntingdon Life Sciences, East Millstone, New Jersey, and the dates that findings were reported to the Study Director and Management. This report reflects the raw data as far as can be reasonably established.

Type of Inspection	Date(s) of Inspection	Reported to Study Director and Management
Pathology Associates Facility Inspection	24 Apr 01	2 Nov 01
GLP Protocol Review	9 & 11 May 01	11 May 01
Exposure, Monitoring & Equipment Records	12 Jun 01	13 Jun 01
Estrous Determinations & Training Records	6 Aug 01	6 Aug 01
P_0 Mating Necropsy & Sperm Assessments	3 Oct 01	3 Oct 01
Neuropathology Necropsy & Dam/Pup Necropsy	9, 10 Oct 01	11 Oct 01
Vaginal Opening & Preputial Separation	16 Oct 01	16 Oct 01
Exposure & Monitoring	18 Dec 01	18 Dec 01
Litter Checks	25 Jan 02	25 Jan 02
F_1 Male Necropsy	14 Feb 02	14 Feb 02
Maternal Sacrifice & Pup Necropsy	20 Feb 02	20 Feb 02
Data Review	12-15, 27 Feb & 4-5 Mar 02	5 Mar 02
Histological Processing – Trimming	22 Apr 02	22 Apr 02
Final In-Life & Pathology Report & Study Data	1, 2, 5-9, 11-17, 19-21 Aug 02	21 Aug 02
Final Analytical Report & Study Data	26-28 Aug 02	28 Aug 02

QUALITY ASSURANCE STATEMENT

Type of Inspection	Date(s) of Inspection	Reported to Study Director and Management
Final Report Review and Protocol Amendments Nos. 1-3	19, 20, 23-24 Mar & 6-7 Apr 09	7 Apr 09
Protocol Amendment 4 and Report Review	01 Jun 11	01 Jun 11

Fran Jannone 14 JUN 11

Fran Jannone, B.A., R.Q.A.P.-GLP
Quality Assurance Group Leader

Date

SUMMARY

The mean (± standard deviation) analytical exposure concentrations of Gasoline MTBE Vapor Condensate were determined to be 0 ± 0, 2015 ± 121, 10240 ± 624 and 20120 ± 776 mg/m^3 for the Air Control and the exposure groups, respectively. The analytically measured exposure levels of the airborne test substance were acceptably close to the targeted exposure levels. The measured and nominal concentrations varied somewhat (less than 6%), but reasonably, from the expected 1:1 ratio for this type of vapor exposure. Chamber environmental conditions averaged 24ºC and 44% relative humidity. Particle sizing results indicated that the atmospheres were essentially vapor only, as expected, since there was no substantial difference between the particulate levels in the test substance chambers and the Air Control chamber. Analysis of the major components in the neat test substance and the test atmospheres showed a reasonably close comparison between the neat test substance and the vaporized test substance. This data demonstrated that the test animals were exposed, as expected, to all of the major components of the test substance in their reasonably proper proportion. The data was consistent from week-to-week during the study indicating stability of the test substance and the atmosphere generation techniques.

There was no effect of treatment on survival. The test animals were generally unremarkable in-chamber during the exposure periods and during the non-exposure periods (afternoon evaluations) during the premating period in both sexes, the mating/postmating period in the male rats, and the gestation and lactation periods in the female rats. There were exposure-related differences in body weights or weight changes in the test substance exposed animals compared to the Air Control animals. These differences were decreases in weight gain in the P_0 female rats in the 20000 mg/m^3 group during the latter 7 weeks of the premating period, in the F_1 male rats in the 20000 mg/m^3 group during the mating/postmating period and in the F_1 female rats in the 20000 mg/m^3 group during the latter 8 weeks of the premating period. There were no exposure-related differences in feed consumption in the test substance exposed P_0 animals compared to the Air Control animals. There were exposure-related decreases in feed consumption in the test substance exposed F_1 animals compared to the Air Control animals during the initial 7 weeks of the premating period. These differences were especially evident in the male animals during this period. There were no exposure-related differences in estrous cycle data (as measured by cycle length and number of estrous cycles) in the test substance exposed animals compared to the Air Control animals. Mating indices for the male rats treated with the test substance were comparable to the Air Control group. Mating, fertility and gestation indices for the female rats treated with the test substance were comparable to the Air Control group. Treatment with the test substance also resulted in no statistically significant differences in other reproductive parameters including the

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percent of females completing delivery and the duration of gestation, when compared to the Air Control group. There were no exposure-related differences in body weights or weight changes in the test substance exposed animals compared to the Air Control animals during the gestation and lactation periods. There were no exposure-related differences in feed consumption during the gestation and lactation periods in the test substance exposed animals compared to the Air Control animals. Treatment with the test substance resulted in no statistically significant differences in all parturition parameters including the total number of pups delivered, the number of pups dying, the viability (4 day survival) and lactation (28 day survival) indices, the number of implantation sites per litter, the sex ratio and the number of live pups/litter, when compared to the Air Control group. There were no exposure-related differences in the timing of sexual maturation for males showing preputial separation and females showing vaginal opening in the F_1 pups weaned from test substance exposed animals compared to the F_1 pups weaned from Air Control animals.

There were no exposure-related differences in macroscopic postmortem evaluations in the test substance exposed animals compared to the Air Control animals except P_0 and F_1 parental animals had increased incidence of grossly evident pulmonary foci of discoloration compared to control animals. Exposure-related effects on organ weights included statistically significant increases in kidney weights (absolute and relative to body and brain weight) at all exposure levels in the P_0 males and at the 2 highest exposure levels in the F_1 males. These differences were consistent with the microscopic findings discussed in the following section. Exposure-related effects on organ weights also included statistically significant increases in liver weights (relative to body weight) at the highest exposure level in the P_0 animals and in the F_1 males. These differences were not consistent with any corresponding histopathology findings but may represent a metabolic response. The percent sperm motility, caudal epididymal and homogenization-resistant testicular sperm counts, sperm morphology, caudal epididymis weight and primordial and growing follicle counts, as individual ovaries and total per animal, were not affected by exposure to test substance at an exposure level of 20,000 mg/m^3. Microscopically, animals of either sex exposed to test substance had minimal increase in incidence of aggregates of intraalveolar macrophages compared to control animals. The effect in the P_0 animals was most apparent among 20000 mg/m^3 males and 2000 mg/m^3 females. The effect in the F_1 animals was most apparent among 2000, 10000 and 20000 mg/m^3 females. Microscopic findings that were considered exposure-related were also found in the kidneys of male animals exposed to 20000 mg/m^3 of Gasoline MTBE Vapor Condensate and are consistent with hyaline droplet nephropathy, attributable to accumulation of alpha-2 microglobulin within renal tubular epithelial cells. This species-

SUMMARY

and gender-specific change has been well documented in male rats exposed to a variety of hydrocarbon compounds and is not considered relevant to humans. No test substance related microscopic changes were noted in male and female reproductive organs or other protocol-specified tissues in this study.

There were no exposure-related differences in body weights and weight changes in the pups feeding from test substance exposed animals compared to the pups feeding from Air Control animals. The pups were unremarkable during the lactation period. There were no exposure-related differences in macroscopic postmortem evaluations in the pups feeding from test substance exposed animals compared to the pups feeding from Air Control animals. There were no exposure-related effects on organ weights in the pups (of either generation) lactating from test substance exposed animals compared to the pups feeding from Air Control animals.

In conclusion, exposure of rats to 2000, 10000 and 20000 mg/m^3 of vapor of Gasoline MTBE Vapor Condensate resulted in decreased body weight gains in the P_0 females and F_1 animals in the 20000 mg/m^3 exposed group. There were also decreases in feed consumption at all exposure levels in the F_1 animals. There were also increases in kidney weights in the parental male animals at all exposure levels in the P_0 males and at the 2 highest exposure levels in the F_1 males. There were also increases in liver weights in the 20000 mg/m^3 exposed P_0 animals and F_1 males. An increased incidence of alveolar macrophages was seen at all exposure levels of both generations. Therefore, a no observed effect level (NOEL) was not determined. Increases in kidney weights in parental male animals exposed to all exposure levels of vapor were consistent with hydrocarbon nephropathy seen in the same animals. However, this finding has been generally accepted (US EPA 1991. Alpha 2 microglobulin: association with chemically induced renal toxicity and neoplasia in male rat. In Risk Assessment Forum, p.85. US Govt. Printing Office, Washington, DC.) not to be relevant to human risk assessment. There was no effect in either generation at any of the exposure levels on reproductive performance in the study, including mating, fertility, parturition, lactation and offspring survival. Therefore, with respect to reproductive performance, a no observed adverse effect level (NOAEL) of 20000 mg/m³ of Gasoline MTBE Vapor Condensate was concluded.

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1. INTRODUCTION

This reproductive study was designed to assess the effects of Gasoline MTBE Vapor Condensate on the integrity and performance of the male and female reproductive systems, including gonadal function, the estrous cycle, mating behavior, conception, gestation, parturition, lactation and weaning, and on the growth and development of the offspring. This study also provided information about the effects of the test substance on neurotoxicity, neonatal morbidity and mortality, and data on prenatal and postnatal developmental toxicity.

2. MATERIALS AND METHODS

2.1. STUDY MANAGEMENT

2.1.1. SPONSOR

American Petroleum Institute (API)
1220 L Street, Northwest
Washington, DC 20005-4070

2.1.2. SPONSOR REPRESENTATIVE

Thomas M. Gray, M.S., D.A.B.T.

2.1.3. TESTING FACILITY

Huntingdon Life Sciences
P.O. Box 2360
Mettlers Road
East Millstone, New Jersey 08875-2360

2.1.4. STUDY DIRECTOR

Gary M. Hoffman, B.A., D.A.B.T.

2.2. STUDY DATES

2.2.1. STUDY INITIATION

30 May 2001 (Date Study Director signed the Protocol)

2.2.2. DATE OF ANIMAL RECEIPT

29 May 2001

2.2.3. EXPOSURE INITIATION

12 June 2001 (Experimental Start Date)

2.2.4. MATING INITIATION

P_0 Generation: 20 August 2001
F_1 Generation: 31 December 2001

2.2.5. EXPOSURE TERMINATION

P_0 Generation: 20 October 2001
F_1 Generation: 4 March 2002

2.2.6. TERMINAL SACRIFICE

Males
P_0: 3 - 4 October 2001
F_1: 14 – 15 February 2002

Females
P_0: 18 September 2001 – 21 October 2001
F_1: 26 January 2002 – 5 March 2002

Pups
F_1: 9 – 21 October 2001
F_2: 19 February 2002 – 5 March 2002

2.2.7. EXPERIMENTAL TERMINATION DATE

14 June 2011 (Date of last data collection = Date final report is signed by the Pathologist)

2.2.8. STUDY COMPLETION

14 June 2011 (Date Study Director signed the Final Report)

2.3. EXPERIMENTAL OUTLINE

Group	Group Designation	Exposure Levels (mg/m^3)[a]	Number of Animals									
			Mated Adults				Microscopic Pathology Adult Generations[b]				Macroscopic Postmortem Examinations-Pups[c]	
			P_0		F_1		P_0		F_1		F_1	F_2
			M	F	M	F	M	F	M	F		
I	Control	0 (air only)	26	26	26	26	10	10	10	10	3/sex/litter	3/sex/litter
II	Low	2,000	26	26	26	26	10	10	10	10	3/sex/litter	3/sex/litter
III	Middle	10,000	26	26	26	26	10	10	10	10	3/sex/litter	3/sex/litter
IV	High	20,000	26	26	26	26	10	10	10	10	3/sex/litter	3/sex/litter

[a]Exposures daily (7 days/week) for 6 hours per day.

[b]Histologic examinations were performed on reproductive tissues, adrenal and pituitary glands and gross lesions for 10/sex/group of the control and high exposure animals. Histologic examinations were performed on lungs for all parental animals (except for non-pregnant females).

[c]F_1 pups (5/sex/group/assessment) not selected for F_1 mating were evaluated for standard Tier 2 Neuropathology (as per 40 CFR 79.66) and GFAP assessments (as per 40 CFR 79.67). The GFAP and Neuropathology assessments were conducted in F_1 pups on Postpartum Days 27 and 28, respectively.

M = Male; F = Female; The first day of exposure was Day 0.

2.4. TEST SUBSTANCE

Gasoline MTBE Vapor Condensate

2.4.1. SUPPLIER

Chevron Research and Technology Company
100 Chevron Way
Richmond, CA 94802

2.4.2. LOT NUMBER

API 00-02

2.4.3. PURITY/ANALYTICAL CONCENTRATION

100% API 211BG with MTBE Gasoline Vapor Condensate

2.4.4. DESCRIPTION

Colorless Liquid

2.4.5. DATES RECEIVED

11 December 2000
30 July 2001

2.4.6. EXPIRATION DATE

Not available, stable per MSDS. The test substance stability was tested concurrently with the study and the results (see Appendix B) showed it to be stable for the duration of the study.

2.4.7. ANALYSIS

Documentation of the identity, strength, purity, composition, stability, and method of synthesis, fabrication and/or derivation of each batch of the test substance and the maintenance of these records was the responsibility of the Sponsor. The Sponsor conducted a purity analysis on 12-13 December 2000 (EMBSI Study 1679490) of the test substance by GC prior to the start of this study.

2.4.8. STORAGE

Ambient conditions in an outdoor solvent shed or in an indoor laboratory.

2.4.9. DISPENSING

The test substance was received from Chevron Research and Technology Company in 100-gallon cylinders. Since only 5-gallon cylinders were practical to be used for exposure operations, the test substance was dispensed, as needed, at the Testing Facility from the 100-gallon cylinders into 5-gallon cylinders using nitrogen pressurization.

2.4.10. ARCHIVAL SAMPLE

An archival sample from the test substance was taken and stored in the Archives of the Testing Facility under conditions specified for test substance storage.

2.4.11. DISPOSITION

The unused portion of the test substance, as well as any empty test substance containers were returned to Chevron Research and Technology Company on 15 March 2002 following completion of the study. Empty test substance containers also were returned to the Sponsor on an as needed basis. The Sponsor was responsible for tracking their disposition.

2.5. TEST ANIMALS

Albino Rats (Outbred) VAF/Plus®

2.5.1. SPECIES

Crl:CD® (SD)IGS BR

2.5.2. SUPPLIER

Charles River Laboratories
Kingston, New York 12484

2.5.3. JUSTIFICATION FOR ANIMAL SELECTION

The rat is used as a surrogate to humans in the detection of reproductive effects and is a species in which known reproductive toxicants have been detected. The rat is a rodent animal model commonly utilized in reproduction studies and is recommended in the referenced guidelines. In addition, a historical control database with this strain of animal and supplier facility is available for comparative evaluation.

2.5.4. NUMBER OF ANIMALS

Received:
228 total (114 males, 114 females)

Placed on test:
208 total (104 males, 104 females)

Females were nulliparous and non-pregnant.

2.5.5. AGE AT RECEIPT

Approximately 30 days.

2.5.6. AGE AT INITIATION OF EXPOSURES

Approximately 43 days.

2.5.7. WEIGHT AT INITIATION OF EXPOSURES (GRAMS)

	Mean	**Range**
Male:	217	182-247
Female:	154	126-188

Although outside of the nominal weight ranges indicated in the protocol (150-200 grams for males and 125-175 grams for females), all animals were considered acceptable for use, as per protocol, at the discretion of the Study Director.

2.5.8. ACCLIMATION PERIOD

Animals were acclimated for 14 days. All animals were examined during the acclimation period to confirm suitability for study.

2.6. ANIMAL ASSIGNMENT

More animals than required for the study were purchased and acclimated. Animals considered suitable for the study on the basis of pretest body weight data, physical observations and other pretest evaluations were randomly assigned, by a computerized random sort program, by sex, to control or treated group, in an attempt to equalize mean group body weights. Disposition of all animals not utilized in the study is maintained in the study file.

2.7. ANIMAL IDENTIFICATION

Each animal was assigned a temporary identification number upon receipt. After selection for study (P_0 generation), each animal was identified with a metal ear-tag bearing its assigned animal number. The assigned animal number plus the study number comprised the unique animal number for each animal. The selected F_1 parental animals were ear-tagged with a unique number at the time of selection. If the tag was lost, it was replaced. In addition, each cage was provided with a cage card that was color-coded for exposure level identification and contained the study number and animal number information.

2.8. VETERINARY CARE

Animals were monitored by the technical staff for any conditions requiring possible veterinary care and treated as necessary. Miscellaneous, non-test substance-related veterinarian evaluations and treatments (as necessary) for individual animals were reviewed by the Study Director and are documented in the study file.

2.9. ANIMAL HUSBANDRY

2.9.1. FACILITIES MANAGEMENT/ANIMAL HUSBANDRY

Currently acceptable practices of good animal husbandry were followed e.g., *Guide for the Care and Use of Laboratory Animals*; National Academy Press, 1996. Huntingdon Life Sciences, East Millstone, New Jersey is fully accredited by the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC).

2.9.2. HOUSING

Animals were housed in suspended, stainless steel cages with wire mesh fronts and floors. Animals were doubly housed during initial week of acclimation and individually housed thereafter, except as follows:

Mating: One male and one female co-housed continuously (except during treatment) for 14 days, or until mating occurred.

Lactation: Dam and litter were housed together in a solid plastic "shoebox" cage until weaning.

2.9.3. FEED

Certified Rodent Diet, No. 5002; (Meal) (PMI Feeds, Inc., St Louis, Missouri) was available without restriction, except during exposures.

2.9.4. FEED ANALYSIS

Analysis of each feed lot used during this study was performed by the manufacturer. Results can be found in Appendix EE. There were no known contaminants in the feed, which were expected to interfere with the results of this study.

2.9.5. WATER

Water (Elizabethtown Water Company, Westfield, New Jersey) was available without restriction, except during exposures, via an automated watering system.

2.9.6. WATER ANALYSIS

Water analyses are conducted by Elizabethtown Water Company, Westfield, New Jersey (Raritan-East Millstone Plant) to ensure that water meets standards specified under the EPA Federal Safe Drinking Water Act Regulations (40 CFR Part 141). In addition, water samples are collected biannually from representative rooms in the Testing Facility; chemical and microbiological water analyses are conducted on these samples by a subcontract laboratory. Results of all water analyses can be found in Appendix EE. There were no known contaminants in the water that were expected to interfere with the results of this study.

2.9.7. BEDDING SUBSTANCE

Ground corncob bedding (Bed-O'-Cobs® ¼ inch irradiated, The Andersons, Maumee, OH) was provided for each mated female on Day 18 of gestation. Fresh bedding was provided at least weekly and as needed during the lactation period (litters were weaned on Day 28 of lactation).

2.9.8. BEDDING ANALYSIS

Analyses for each batch of bedding used on study can be found in Appendix DD. There were no known contaminants in the bedding that were expected to interfere with the results of this study.

2.9.9. ENVIRONMENTAL CONDITIONS

Light/Dark Cycle

A twelve-hour light/dark cycle controlled by an automatic timer was provided.

Temperature

Temperature was monitored in accordance with Testing Facility SOPs and maintained within the specified range to the maximum extent possible. Temperature was out of range for at least a brief period of time on 2% of the test days, however these excursions outside the specified range were considered not to have affected the integrity of the study.

Desired:	18 to 26 °C
Actual:	17.7 to 31.3 °C
Average:	18.7 to 23.2 °C

Relative Humidity

Relative humidity was monitored in accordance with Testing Facility SOPs and maintained within the specified range to the maximum extent possible. Humidity was out of range for at least a brief period of time on 70% of the test days, however these excursions outside the specified range were considered not to have affected the integrity of the study.

Desired: 30 to 70%
Actual: 2 to 98%
Average: 33 to 70%

Air Changes

Air Changes were monitored in accordance with Testing Facility SOPs and maintained within the specified range to the maximum extent possible.

Desired: 10 - 15 per hour
Actual: 13.8 – 14.4 per hour

2.10. TEST SUBSTANCE ADMINISTRATION AND CHAMBER OPERATION

Inhalation (whole-body exposures).

Details of test substance administration and chamber operation information are presented in the Inhalation Report (Appendix A).

2.11. MATING, GESTATION AND LACTATION PROCEDURES

2.11.1. ESTROUS CYCLING

Daily vaginal smears were taken at approximately the same time each day, and the stage of estrous was determined for each female three weeks prior to cohabitation for the P_0 and F_1 females. These evaluations continued until there was evidence of mating or until the 14-day mating period ended.

2.11.2. MATING PROCEDURE

Following a 10 week pre-mating treatment period, one male and one female from the same exposure group were caged together until evidence of mating was observed (a copulation plug in the vagina and/or microscopic observation of sperm in the vaginal smear) or 14 consecutive days had elapsed. During cohabitation period exposures, males and females were not paired together. The day evidence of mating was observed was defined as Day 0 of gestation. During mating of the F_1 generation, cohabitation of male and female littermates was prohibited.

2.11.3. PATURITION AND LACTATION

On Day 18 of gestation, several days prior to expected parturition, each female was transferred to a solid plastic "shoe-box" cage. Bedding substance was provided and changed at least weekly as needed. Examination for signs of parturition was made twice daily (morning and afternoon). The day on which parturition was first observed was defined as Day 0 of lactation. Females which exhibited no evidence of mating were transferred to plastic "shoe-box" cages when the first animals mated reached their Day 18 of gestation.

2.11.4. SELECTION OF F_1 PARENTAL GENERATION

At weaning of each F_1 litter on Lactation Day 28, one pup/sex/litter was chosen at random to continue on study as the F_1 parental generation. When less than 26 litters were available at weaning, additional pups were randomly selected to provide the 26 pups/sex. In the selection procedure, macroscopically abnormal animals within the litters were excluded from the pool of animals eligible for selection if, in the judgement of the Study Director, their condition might adversely have affected long-term survival. Runts, if otherwise normal, were not excluded from the selection procedure. The selected pups were housed one weanling/cage.

2.12. EXPERIMENTAL EVALUATIONS

2.12.1. VIABILITY EXAMINATION (CAGESIDE)

Observations for mortality and signs of severe toxic or pharmacological effects were made at least twice daily (morning and afternoon).

2.12.2. DETAILED PHYSICAL EXAMINATIONS

The animals were observed as a group at least once during each exposure.

In addition, each parental animal was removed from its cage and examined twice pretest (for the P_0 generation) or once on Postpartum Day 28 (for the F_1 generation), and weekly thereafter during the study period. Females were then continuously observed weekly until there was evidence of mating. Once mated, females

were observed on Gestation Days 0, 7, 14 and 20 and on Lactation Days 1, 4, 7, 14, 21 and 28. Females that showed evidence of mating but did not deliver were observed on Gestation Days 0, 7, 14 and 20 and were euthanized on presumed Gestation Day 25. Females without evidence of mating were observed weekly until euthanized. Examinations included, but were not limited to, observations of general condition, skin and fur, eyes, nose, oral cavity, abdomen and external genitalia as well as evaluations of respiration and palpation for tissue masses. During the exposure period, physical examinations were performed post-exposure.

2.12.3. BODY WEIGHT

Each parental animal was removed from its cage and weighed twice pretest (for the P_0 generation), and weekly thereafter (for the P_0 and F_1 parental animals) during the study period (including the mating period). Once mated, females were weighed on Gestation Days 0, 4, 7, 14 and 20 and Lactation Days 1, 4, 7, 14, 21 and 28. Females that did not show evidence of mating and/or did not deliver pups were weighed weekly until euthanasia.

2.12.4. FEED CONSUMPTION

Feed consumption was measured once pretest (for P_0 parental animals) and weekly thereafter (for the P_0 and F_1 parental animals) during the study period. Once mated, female feed consumption was measured on Gestation Days 0, 4, 7, 14 and 20 and on Lactation Days 1, 4, 7, 14, 21 and 28 until euthanasia. Females without evidence of mating and/or that did not deliver pups had feed consumption measured weekly until euthanasia. Feed consumption was not measured for any animal during the mating period when males and females were co-housed.

Calculation

Feed Consumption (g/kg/day) =

$$\frac{\text{grams of food consumed}}{\text{body weight (kg)}^{a}} \div \text{\# days}$$

[a]The average of the current and previous value was used except on Day 35 for F_1 parental animals when only the current body weight was used.

2.12.5. LITTER EVALUATIONS (F_1 AND F_2)

Observations

F_1 and F_2 litters were observed as soon as possible after delivery for the number of live and dead pups, sex of the pups and pup abnormalities. If delivery was completed the day following delivery initiation, observations were recorded as Day 0 (day delivery initiated). The anogenital distance was qualitatively determined on day 0 for all pups of the F_1 and F_2 generation (to determine the sex). All pups were uniquely identified within the litter by toe tattoo on the day of delivery completion. Thereafter, litters were observed twice daily (morning and afternoon) for the presence of dead pups. Dead pups were examined to the extent possible for defects and/or cause of death and preserved in neutral, phosphate-buffered 10% formalin. Litter size was recorded daily from Lactation Day 1 to 28.

Culling Pups

On Day 4 of lactation, each litter with more that 10 pups was culled to that number, with sex distribution equalized (five/sex) when possible. The pups were culled randomly; preferential culling of runts was not performed.

Physical Examinations

Each pup was given a macroscopic physical examination on the day of delivery completion and on Day 4, 7, 14, 21 and 28 of lactation (Day 27 of lactation for GFAP animals).

Body Weight

Individual pup weights were recorded on Day 1, 4 (precull intervals), 7, 14, 21 and 28 (Day 27 for GFAP animals) of lactation (postcull intervals).

Sexing

The sex of each individual pup was recorded on the day of delivery completion and reconfirmed on Lactation Day 4, 7, 14, 21, and at weaning on Lactation Day 28.

2.12.6. PHYSICAL MATURATION LANDMARKS-SELECTED F_1 ANIMALS

All F_1 pups selected to become the F_1 parental animals (26 sex/group) were observed daily for either vaginal opening (examinations begun on Postnatal Day 28) or preputial separation (examinations begun on Postnatal Day 35) and the body weight of each pup was recorded when the criterion was met.

2.13. POSTMORTEM

2.13.1. PARENTAL ANIMALS (P_0 AND F_1)

Necropsy Information

Necropsy was performed on up to 26 animals/sex/group. All parental males were euthanized proximate to the first day the litters were weaned. Parental females with litters were euthanized on Day 28 of lactation. Females with confirmed days of mating that did not deliver continued exposure and were euthanized 25 days after the cohabitation period ended.

Method of Euthanasia

Exsanguination following carbon dioxide inhalation.

Macroscopic Examination

Complete macroscopic postmortem examinations were performed on all adult animals, including animals euthanized in a moribund condition or found dead, and all abnormal observations were recorded. The necropsy of the parental animals included

examination of the external surface and all orifices; the external surfaces of the brain and spinal cord; the organs and tissues of the cranial, thoracic, abdominal and pelvic cavities and neck; and the remainder of the carcass. Examination of all parental females included a vaginal smear to determine the stage of the estrous cycle and a count of uterine implantation scars, if present.

2.13.2. ORGAN WEIGHTS

Organs indicated in Table I (Page 31) were weighed for all animals at the scheduled sacrifice intervals, except for females that did not produce a litter. Prior to weighing, all organs were carefully dissected and properly trimmed to remove adipose and other contiguous tissue in a uniform manner. Organs were weighed as soon as possible after dissection in order to avoid drying. Paired organs were weighed together (gonads were also weighed separately).

2.13.3. TISSUES PRESERVED AND EXAMINED HISTOPATHOLOGICALLY

The tissues listed in Table I (Page 31) were obtained at the scheduled sacrifice intervals and preserved for all animals, with the exception of non-pregnant females. Slides of the indicated tissues were prepared and examined microscopically for 10 randomly selected animals in the control and high exposure groups. In addition, the lungs were examined for all parental males and pregnant female animals. Any abnormalities not noted during macroscopic examinations, which were seen during histology processing, were recorded.

Histopathological examinations of the testes were conducted to identify potential treatment-related effects such as retained spermatids, missing germ cell layers or types, multinucleated giant cells, or sloughing of spermatogenic cells into the lumen. The examination of the intact epididymis was of a longitudinal section that permitted examination of the caput, corpus and cauda regions, that could identify such lesions as sperm granulomas, leukocytic infiltration (inflammation), aberrant cell types within the lumen, or the absence of clear cells in the cauda epididymal epithelium.

Histopathological examination of the ovary included evaluation of five sections taken at least 100 µm apart from the inner third of each ovary. These examinations could detect depletion of the primordial follicle population and enumerated the total number of primordial follicles for comparison with the ovaries from control animals. These examinations could also confirm the presence or absence of growing follicles and corpora lutea in comparison to control ovaries. Qualitative evaluations of the P_0 and F_1 animals were performed by HLS. Quantitative evaluations of the F_1 animals were performed by Pathology Associates International, Frederick, MD.

TABLE I

ORGAN NAME	WEIGHED	PRESERVED	EXAMINED MICROSCOPICALLY (Groups I and IV)
adrenal glands	X	X	X
brain (medulla, pons, cerebrum and cerebellum)	X	X	X
epididymides (total and caudal)	X	X[a]	X[a]
kidneys	X	X	X
liver	X	X	X
lungs (with mainstem bronchi)	X	X	X[b]
ovaries	X	X	X
pituitary gland	X	X	X
prostate gland	X	X	X
seminal vesicles with coagulating glands	X	X	X
spleen	X	X	X
testes	X	X[a]	X[a]
uterus (body/horns) with cervix and oviducts	X	X	X
vagina		X	X
tissues with macroscopic findings including tissue masses		X	X[b]

[a]Right testis and epididymis only (except F_1 Animal No. 2003, who had left testis and epididymis collected and examined).
[b]Groups II and III also examined.

Preservatives

All tissues - 10% neutral buffered formalin (NBF).

The right testes and epididymides, with the exception of one F_1 male that had the left testes and epididymides preserved, were placed in Modified Davidson's solution initially and then retained in 10% formalin. Lungs were infused with formalin prior to their immersion into a larger volume of the same fixative.

Processing

After fixation, the tissues and organs from all animals were routinely processed, embedded in paraffin, cut at a microtome setting of 4-7 microns, mounted on glass slides and stained with hematoxylin and eosin.

2.13.4. F_1 AND F_2 PUPS AND WEANLINGS

Method of Euthanasia

Pups and weanlings were euthanized by carbon dioxide asphyxiation.

Dead and Culled Pups

Pups found dead at birth were identified (lung floatation test) as stillborn or born alive but found dead. Pups found dead during the lactation period were examined to the extent possible for defects and/or the cause of death, and for the presence or absence of milk in the stomach. Partially cannibalized pups were humanely sacrificed via IP injection of sodium pentobarbital, examined to the maximum extent possible and discarded. Dead pups were preserved intact in 10% NBF. Culled pups were examined for external abnormalities. If unremarkable, these pups were then euthanized via intraperitoneal injection of sodium pentobarbital and discarded. Culled pups with external abnormalities were preserved intact in 10% NBF.

Macroscopic Examination and Tissues Preserved

Macroscopic examinations were performed on up to 3 randomly selected pups/sex/litter on Day 28 of lactation. Examinations included observations of any structural abnormalities or pathological

changes. Special attention was given to the organs of the reproductive system, brain, liver, kidneys, pituitary, adrenal gland, spleen, heart, and thymus gland.

All remaining pups were examined for external abnormalities and euthanized. Pups with external abnormalities were preserved intact in 10% NBF. Pups with no external abnormalities were discarded. No further macroscopic examinations were performed.

Organ Weights

The following organs were weighed from one randomly selected pup/sex/litter, when possible, sacrificed on Day 28 of lactation:

brain
spleen
thymus gland

Organ weight data is presented as absolute values and relative to terminal body weight and brain weight.

2.13.5. SPERM COUNT, MOTILITY AND MORPHOLOGY ASSESSMENTS

The following sperm evaluations were conducted for all control and high exposure parental males: 1) motility; 2) a count of homogenization-resistant testicular sperm; 3) a count of caudal epididymal sperm; and 4) sperm morphology (cauda epididymis). Evaluations were performed by Pathology Associates International, Frederick, MD (PAI) as follows:

The right testis and right epididymis from each animal were removed intact, weighed (testes weighed together and also separately) and preserved for histopathological evaluation.

The left epididymis was removed intact, weighed and frozen on dry ice for transport to PAI. The epididymides were stored frozen at -70° C until evaluation for caudal sperm count. Each epididymis was thawed and the caudal portion removed and weighed. A homogenized sample of the caudal epididymis was stained and then examined using the Hamilton Thorne IVOS sperm analyzer. For each stained preparation, 20 fields were counted. The total number

of sperm in the caudal epididymis was calculated and adjusted for the caudal epididymal weight. Additionally, for each male, two sperm morphology slides were prepared, stained with Eosin and evaluated for morphological development.

The left vas deferens were excised and placed in a prewarmed solution of phosphate buffered saline and 1% Bovine Serum Albumin. After a minimum three minute "swimout" period, a sample was placed in a Hamilton Thorne IVOS sperm analyzer. Five fields were selected and stored as digital images. These images were analyzed for percent motility and transferred to optical media for permanent storage.

The left testis was removed and frozen on dry ice for transport to PAI. The testes were stored frozen at -20°C until processed for counting of homogenization-resistant sperm.

When macroscopic abnormalities were noted on the left testis or left epididymis, then the right testis and right epididymis were transferred to PAI and left testis and left epididymis were preserved as indicated for possible histopathology.

See Appendix CC for PAI's details and methodology.

Tissues retained from these evaluations will be discarded following issuance of the final report following consultation with the Sponsor.

2.13.6. NEUROPATHOLOGY EVALUATIONS

F_1 pups (5/sex/group) not selected for mating were randomly selected by computer for Neuropathology evaluation. Selected pups were anesthetized with an intramuscular injection (~2.0 to 4.0 mL/kg) of ketamine/xylazine/acepromazine and transcardially perfused with phosphate buffered saline followed by 1% glutaraldehyde and 4% parafomaldehyde in the same buffer. After perfusion, the required tissues were dissected out. Measurements of the size (length and width) and weight of the whole brain (cerebrum, cerebellum and pons-medulla) were made. All tissues were then placed into a fresh solution of the same fixative prior to processing. The following tissues were preserved for all designated F_1 pups for neuropathology evaluation:

No.[a]	Tissue	Preserved (Groups)	Microscopic Examination (Groups)	
		All	I and IV	II and III
6	Brain (forebrain, central cerebrum, hippocampus, basal ganglia, midbrain, cerebellum and pons, medulla)	X	X	
2	Eye with optic nerve	X	X	
6	Spinal cord (cervical, thoracic, lumbar, cross and longitudinal sections)	X	X	
2	Sciatic nerve (cross and longitudinal sections)	X	X	
2	Tibial nerve (cross and longitudinal sections)	X	X	
2	Sural nerve (cross and longitudinal sections)	X	X	
2	Trigeminal ganglia	X	X	
4	Dorsal root ganglia (from C_3-C_6 and L_4-L_6)	X	X	
4	Dorsal root fibers (from C_3-C_6 and L_4-L_6)	X	X	
4	Ventral root fibers (from C_3-C_6 and L_4-L_6)	X	X	
6	Lungs and trachea	X	X	X
	Tissues with macroscopic findings	X	X	X

[a]Number of organs/sections that were preserved/examined per animal.

Peripheral nerves were stained (Toludine Blue), post-fixed in 1% osmium tetroxide, processed and embedded in epoxy resin and microtomed at approximately 2 microns. All other tissues, including the brain, eyes with optic nerve, spinal cord, trigeminal ganglia, dorsal root ganglia, dorsal and ventral root fibers, lungs and trachea were processed by standard techniques, embedded in paraffin and microtomed at approximately 6 microns.

The tissues listed above were examined microscopically for all animals as indicated. Tissues with macroscopic lesions were

examined in all animals. Any abnormalities not noted during macroscopic postmortem examinations that were seen during histological processing were recorded.

2.13.7. GFAP EVALUATION

F_1 pups (5/sex/group) not selected for mating were randomly selected by computer for GFAP evaluation. Selected pups were euthanized (by carbon dioxide asphyxiation) on Lactation Day 27 by US Center for Disease Control (CDC) Health Effects Laboratory personnel and the brains were removed, weighed and processed for GFAP evaluation. Huntingdon Life Sciences personnel shipped the samples on dry ice to the US Center for Disease Control Health Effects Laboratory, Morgantown, WV. Upon receipt, samples were further processed for determination of GFAP response as detailed in the referenced guidelines and procedures. The Sponsor was responsible for the spirit of GLP compliance of this subcontractor.

See the CDC report for materials & methods, results, discussion and conclusion.

2.14. STATISTICAL ANALYSIS

2.14.1. CONTINUOUS DATA

The following parameters were analyzed statistically:

Body weights
Body weight change
Feed consumption values
Organ weight data
Estrous Cycle
Gestation length
Pup body weights
Number of pups (live, dead, total)
Mean age-to-criteria for vaginal opening and preputial separation

Method of Analysis

Mean values of all exposure groups were compared to the mean value for the control group at each time interval.

Evaluation of equality of group means was made followed by a multiple comparison test if needed. The method was the standard one-way analysis of variance (ANOVA) using the F ratio to assess significance (Dunlap and Duffy, 1975). If significant differences among the means were indicated, Dunnett's test (Dunlap et al., 1981) was used to determine which means were significantly different from the control. All other statistical tests were conducted at the 5% and 1% significance levels.

Exceptions

Statistical evaluations were not performed when the standard deviation for the control group was 0 and/or N (number of animals) in the control group was less than or equal to two.

Exposure groups were eliminated from statistical analysis if their standard deviation was 0 and/or N (number of animals) in the group was less than or equal to two.

2.14.2. SPERM AND OVARY ANALYSIS

The following parameters were analyzed statistically:

Mean sperm count (homogenization-resistant testicular sperm count and caudal epididymal sperm count), morphology (cauda epididymis) and motility data and numbers of primordial and growing follicles by ovary and total.

If a significant difference occurred ($p<0.05$) between groups using the nonparametric Kruskal-Wallis test (Kruskal and Wallis, 1952, 1953), the Wilcoxon (Mann-Whitney U) test was used for pair-wise comparisons of each treated group to the vehicle control group. Statistical analyses were performed using an IBM compatible computer with SAS computer programs (SAS/STAT User's Guide, 1989).

2.14.3. INCIDENCE DATA

The following parameters were analyzed statistically:

Mortality rates
Mating indices (male and female)
Pregnancy rates

Male fertility indices
Live birth indices
Pup viability indices (Days 0-4) and lactation indices (Days 4-21)

Incidence Data Analysis

The Fisher Exact Test with Bonferonni correction (Seigel, 1956) was performed to identify differences between the control and exposure groups. Tests were conducted at the 5% and 1% two-sided risk levels.

2.15. DATA STORAGE

All raw data, preserved specimens, and retained samples, as well as the original study protocol and the original final report are to be maintained in the Archives of the Testing Facility upon completion of the study. The Sponsor will determine the final disposition of these materials.

All raw data and all reports generated at Pathology Associates International, Frederick, MD and the CDC Health Effects Laboratory were maintained. After submission of the final report, all of the above will be shipped to Huntingdon Life Sciences to be archived.

2.16. REGULATORY REFERENCES

2.16.1. TEST GUIDELINE

This study was designed to meet or exceed the pertinent requirements of:

US EPA (Environmental Protection Agency) Vehicle Emissions Inhalation Exposure Guideline 79.61, CFR Vol. 59, No. 122, 27 June 1994.

US EPA Health Effects Test Guidelines, OPPTS 870.3800, Reproduction and Fertility Effects (August 1998).

US EPA GFAP Assay 79.67, CFR Vol. 59, No. 122, 27 June 1994.

2.16.2. GOOD LABORATORY PRACTICES

This study was conducted in accordance with US EPA 79.60, CFR Vol. 59, No. 122, 27 June 1994 and was performed according to the

protocol and Huntingdon Life Sciences' Standard Operating Procedures.

2.16.3. ANIMAL WELFARE ACT COMPLIANCE

This study complied with all appropriate parts of the Animal Welfare Act regulations: 9 CFR Parts 1 and 2 Final Rules, Federal Register, Volume 54, No. 168, August 31, 1989, pp. 36112-36163 effective October 30, 1989 and 9 CFR Part 3 Animal Welfare Standards; Final Rule, Federal Register, Volume 56, No. 32, February 15, 1991, pp. 6426-6505 effective March 18, 1991.

2.17. PROTOCOL DEVIATIONS

The following protocol deviations occurred during the study but were not considered to have compromised the validity or integrity of the study:

1. Due to technician error, the following Group II P_0 Animal Nos. were transferred to the wrong cage after the six hour exposure period on 18 June 2001:

2051	2052	2053	2054	2059	2060	2061	2062	2067
2068	2069	2070	2559	2560	2561	2562	2563	2564
2565	2566	2567	2568	2569	2570			

   The oversight was corrected before the exposure on 19 June 2001, and feed consumption was not recorded for this interval.

2. Due to technician error, Group III P_0 Animal Nos. 3063, 3064, 3065 and 3066 were not exposed on 24 August 2001.

3. Due to technician error, organ weights were not collected from randomly selected F_1 Pup Nos.:

   1566-8 1566-9 2554-7 2554-11

   Instead, they were collected and recorded from the following F_1 Pup Nos.:

   1566-3 1566-13 2554-6 2554-12

4. Due to technician error, kidney and left ovary from Group II P_0 Animal No. 2556 were lost during necropsy. As a result, no weights were collected on these organs, and they were not preserved.

5. Due to technician error, Group III (mating pair) F_1 Animal Nos. 3012 and 3507 were separated on Gestation Day 1 instead of Gestation Day 0. As a result, feed consumption was not measured for Animal No. 3507 during the interval of Gestation Days 0 to 4.

6. Due to technician error, one of the adrenals was lost during necropsy and therefore not weighed and preserved for Group I F_1 Animal No. 1005.

7. Due to technician error, the left testis and epididymis were weighed, but not preserved, for Group II F_1 Animal No. 2017.

8. Due to technician error, the lungs were weighed, but not preserved, for Group II F_1 Animal No. 2019.

9. Due to technician error, the seminal vesicles with coagulating glands were fixed in Modified Davidson's solution then preserved in 10% NBF, instead of 10% NBF only, for Group II F_1 Animal No. 2023.

10. Due to technician error, necropsy was performed but data was not recorded for implantation site and gross observations on Group IV F_1 Animal No. 4522.

11. The brain, liver, spleen and kidneys were processed for the randomly selected animals in Groups I and IV. As per protocol, these tissues were not listed to be processed.

12. The lung floatation test was not performed for Group III F_1 Pup No. 3505-07.

13. Brain weight, length and width measurements were not collected immediately post-perfusion as specified in the protocol. Measurements were taken post-fixation.

14. An unscheduled necropsy was performed on Group I F_2 Pup No. 1510-03. Data will not be presented in the final report.

3. RESULTS AND DISCUSSION

3.1. CHAMBER MONITORING

(Appendices A and B)

Chamber distribution analyses (see Table IV in Appendix A) showed that the test substance was evenly distributed within each chamber. Chamber monitoring (see Table VI in Appendix A) showed that the chamber oxygen levels were 20%. Chamber room monitoring (see Table VI in Appendix A) showed that no test substance was present in the room and that the sound and light levels were acceptable.

The target and mean (± standard deviation) analytical (IR) and nominal concentrations are summarized as follows:

Group	Test Substance	Target Concentration (mg/m^3)	Analytical Concentration (mg/m^3)	Nominal Concentration (mg/m^3)
I	Air Control	0	0 ± 0	0 ± 0
II	Gasoline MTBE Vapor Condensate	2000	2015 ± 121	2038 ± 103
III	Gasoline MTBE Vapor Condensate	10000	10240 ± 624	9763 ± 360
IV	Gasoline MTBE Vapor Condensate	20000	20120 ± 776	20953 ± 512

The analytically measured exposure levels of the airborne test substance were acceptably close, in the opinion of the study director, to the targeted exposure levels. The measured and nominal concentrations varied somewhat (less than 6%), but acceptably, from the expected 1:1 ratio for this type of vapor exposure. Chamber environmental conditions averaged 24ºC temperature and 44% relative humidity.

Mean particle size distribution measurements for the exposures are summarized as follows:

Group	Test Substance	Mass Median Aerodynamic Diameter (µm)	Geometric Standard Deviation	Total Mass Concentration (mg/m^3)
I	Air Control	2.755	2.077	4.37×10^{-3}
II	Gasoline MTBE Vapor Condensate	2.736	2.121	4.41×10^{-3}
III	Gasoline MTBE Vapor Condensate	3.064	1.993	3.73×10^{-3}
IV	Gasoline MTBE Vapor Condensate	2.347	2.052	2.96×10^{-3}

These results indicated that the atmospheres were essentially vapor only, as expected, since there was no substantial difference between the test substance chambers and the Air Control chamber.

Analysis of the major components in the neat test substance and the test atmospheres (see Appendix B) showed an acceptably close comparison between the neat test substance and the vaporized test substance. This data demonstrated that the test animals were exposed, as expected, to all of the major components of the test substance in their reasonably proper proportion. The data was consistent from week-to-week during the study indicating stability of the test substance and the atmosphere generation techniques.

3.2. PARENTAL DATA (P_0 & F_1 GENERATIONS)

3.2.1. MORTALITY

(Table 1, Appendix C)

There was no effect of treatment on survival. One F_1 male rat (No. 4005) in the 20000 mg/m^3 group was found dead at the end of the daily exposure on Day 188. There were no pre-existing clinical signs or body weight effects. The gross necropsy revealed a substantial pool of blood in the thoracic cavity from an undetermined source and discolored lungs. The microscopic examination confirmed the pulmonary finding was multifocal and

moderate hemorrhages. One F_1 male rat (No. 1025) in the control group was found dead prior to the daily exposure on Day 197. There were no pre-existing clinical signs or body weight effects. The gross necropsy revealed a discolored thymus. The microscopic examination confirmed the thymus finding was congestion. One F_1 female rat (No. 4513) in the 20000 mg/m^3 group was euthanized prior to the daily exposure on Day 198 after external examination indicated hind limb paralysis. There were no pre-existing clinical signs or body weight effects. The gross necropsy revealed a subcutaneous hemorrhage in the dorsal sacral region and discolored lungs. The microscopic examination confirmed the pulmonary finding was slight hemorrhage. One F_1 male rat (No. 4002) in the 20000 mg/m^3 group was found dead during the daily exposure on Day 227. There were no pre-existing clinical signs or body weight effects. The gross necropsy revealed a dilated renal pelvis and a discolored eye. The microscopic examination confirmed the renal finding and the ocular finding.

3.2.2. PHYSICAL OBSERVATION DATA

(Tables 2, 3 and 4; Appendices A, D, E and F)

The test animals were unremarkable in-chamber during the exposure periods.

The test animals were generally unremarkable during the non-exposure periods (afternoon evaluations) during the premating periods in both sexes, the mating/postmating periods in the male rats, and the gestation and lactation periods in the female rats. Scattered observations such as chromodacryorrhea and lacrimation were noted but were not treatment-related. Three P_0 dams in the 20000 mg/m^3 group were observed with red exudate on the vagina on Lactation Day 1 associated with delivery. There were no other findings for these dams; the deliveries were normal as were the litter sizes and pup viability, therefore this finding was not considered adverse. One P_0 male rat (No. 3062) in the 10000 mg/m^3 group was found with a palpable mass during the 15th and 16th weeks of study and at the gross necropsy. The microscopic examination confirmed the finding was a keratoacanthoma. Also, during the P_0 lactation period and at the gross necropsy, one of the 10000 mg/m^3 group rats (No. 3556) was

noted with a palpable mass. The microscopic examination confirmed the finding was an adenocarcinoma and was of mammary gland in origin. Neither of these tissue masses was considered treatment-related.

3.2.3. BODY WEIGHTS – PREMATING PERIODS FOR BOTH SEXES AND MATING/POSTMATING PERIODS FOR MALES

(Tables 5 and 6; Appendices G and H)

There were exposure-related differences in body weights or weight changes in the test substance exposed animals compared to the Air Control animals. These differences were decreases in weight gain in the P_0 female rats in the 20000 mg/m^3 group during the latter 7 weeks of the premating period, in the F_1 male rats in the 20000 mg/m^3 group during the mating/postmating period and in the F_1 female rats in the 20000 mg/m^3 group during the latter 8 weeks of the premating period. A few other statistically significant differences in body weights or weight changes were noted at several intervals for some exposed groups. However, these were not in a treatment-related pattern and were not attributed to the test substance.

3.2.4. FEED CONSUMPTION – PREMATING PERIODS

(Table 11; Appendix M)

There were no exposure-related differences in feed consumption in the test substance exposed P_0 animals compared to the Air Control animals. A few statistically significant differences were noted at several intervals. However, these were not in a treatment-related pattern.

There were treatment-related decreases in feed consumption in the test substance exposed F_1 animals compared to the Air Control animals during the initial 7 weeks of the premating period. These differences were especially evident in the male animals during this period but were not in an exposure-level-related pattern.

3.2.5. ESTROUS CYCLE DATA – PREMATING PERIODS

(Table 14; Appendix P)

There were no exposure-related differences in estrous cycle data (as measured by mean cycle length and mean number of estrous cycles) in the test substance exposed animals (P_0 & F_1) compared to the Air Control animals. Several females in each test group had extended periods of diestrus indicative of pseudopregnancy, however the pseudopregnancies did not show an exposure-related pattern.

3.2.6. MATING, FERTILITY AND GESTATION INDICES

(Tables 15 and 16; Appendices Q and R)

Mating indices for the male rats treated with the test substance were comparable to the Air Control group. Mating, fertility and gestation indices for the female rats treated with the test substance were comparable to the Air Control group. Treatment with the test substance also resulted in no statistically significant differences in most other reproductive parameters including the percent of females completing delivery and the duration of gestation, when compared to the Air Control group.

3.2.7. MATERNAL BODY WEIGHTS - GESTATION AND LACTATION PERIODS

(Tables 7, 8, 9 and 10; Appendices I, J, K and L)

There were no exposure-related differences in body weights or weight changes in the test substance exposed animals compared to the Air Control animals during the gestation periods. Although the F_1 parental females in the 20000 mg/m^3 group were statistically significantly lighter (by 6%) than the Air Control females at the initiation (Gestation Day 0) of the gestation period, this difference abated as the gestation period proceeded and was considered a continuation of the pattern seen during the premating period as discussed previously. The F_1 parental females in the 20000 mg/m^3 group had a statistically significantly decrease in body weight when compared with the Air Control females on Days 21 and 28 of the lactation period but comparable body weight changes during the intervals Days 14-21 and Days 21-28. This slight change in F_1

maternal body weights in the 20000 mg/m^3 group was considered exposure-related but not adverse.

3.2.8. MATERNAL FEED CONSUMPTION - GESTATION AND LACTATION PERIODS

(Tables 12 and 13; Appendices N and O)

There were no exposure-related differences in feed consumption during the gestation and lactation periods in the test substance exposed animals compared to the Air Control animals.

3.2.9. PARTURITION AND LITTER DATA

(Table 16; Appendix R)

Parturition data for the female rats treated with the test substance were comparable to the Air Control group. Treatment with the test substance resulted in no statistically significant differences in all parturition parameters including the total number of pups delivered, the number of pups dying, the viability (4 day survival) and lactation (21 day survival) indices, the number of implantation sites per litter, the sex ratio and the number of live pups/litter, when compared to the Air Control group.

3.3. PUP DATA (F_1 & F_2 GENERATIONS)

3.3.1. OBSERVATION DATA

(Table 17; Appendix T)

The pups were unremarkable during the lactation periods. Scattered observations were noted but were not treatment-related.

3.3.2. BODY WEIGHT DATA

(Table 18; Appendix U)

There were no exposure-related differences in body weights and weight gains in the pups feeding from test substance exposed animals compared to the pups feeding from Air Control animals. There was a statistically significant increase in body weight gains in the 10000 mg/m^3 F_1 male pups noted during the 3rd week of

lactation. However, this increase was transient and was not considered treatment-related.

3.3.3. POSTWEANING DEVELOPMENTAL LANDMARKS

(Table 19; Appendix V)

There were no exposure-related differences in males showing preputial separation and females showing vaginal opening in the F_1 pups weaned from test substance exposed animals compared to the F_1 pups weaned from Air Control animals.

3.4. POSTMORTEM DATA

3.4.1. MACROSCOPIC POSTMORTEM EVALUATIONS - PARENTAL GENERATIONS

(Table 20; Appendix W)

P_0 and F_1 parental animals exposed to Gasoline MTBE Vapor Condensate had increased incidence of grossly evident pulmonary foci of discoloration compared to control animals. The effect was most notable among F_1 parental females exposed to 20000 mg/m^3, among which most were affected by multifocal tan, white, or red discoloration of lungs. In contrast, F_1 parental males exposed to test substance at all levels had incidences below that of control F_1 females. P_0 animals of both sexes exposed to 10000 or 20000 mg/m^3 had increased incidence of the lesion compared to controls.

The remaining macroscopic lesions noted were similar to those routinely encountered in animals of this age and species or were represented by individual animals and considered incidental findings.

Discoloration* in Lungs of Rats Exposed to Gasoline MTBE Vapor Condensate:

	Affected animals							
	Male				Female			
Exposure level (mg/m^3 $x10^3$)	0	2	10	20	0	2	10	20
n=	26	26	26	26	26	26	26	26
P_0 parental animals	0	0	5	3	1	1	4	5
F_1 parental animals	0	2	3	2	4	6	6	17

*Includes discoloration, discolored areas and discolored foci.

3.4.2. ORGAN WEIGHTS - PARENTAL GENERATIONS

(Table 22; Appendix Y)

Exposure-related effects on organ weights included statistically significant increases in kidney weights (absolute and relative to body and brain weight) at all exposure levels in the P_0 males and at the 2 highest exposure levels in the F_1 males. These differences were consistent with the microscopic findings discussed in the following section.

Exposure-related effects on organ weights also included statistically significant increases in liver weights (relative to body weight) at the highest exposure level in the P_0 animals and in the F_1 males. These differences were not consistent with any corresponding histopathology findings but may represent a metabolic response.

There were no other exposure-related differences in organ weights in the test substance exposed animals compared to the Air Control animals. A few other statistically significant differences were noted including decreased lung weights at all exposure levels in the F_1 males. However, these were considered exposure-related but not organ specific because the decreased lung weight paralleled the decreased body weight in this group. The microscopic findings discussed in the following section would have been expected to result in increased lung weights if any weight effect was an adverse finding.

3.4.3. SPERM AND OVARIAN FOLLICLE EVALUATIONS – PARENTAL GENERATIONS

(Appendix CC)

The percent sperm motility, caudal epididymal and homogenization-resistant testicular sperm counts, sperm morphology, caudal epididymis weight and primordial and growing follicle counts, as individual ovaries and total per animal, were not affected by exposure to test substance at an exposure level of 20000 mg/m^3. A statistically significant increase in the number of sperm/gram of epididymis was observed in the 20000 mg/m^3 exposure group of the P_0 generation (891.2 vs. 753.6 million in the control group). The apparent increase was attributed to a slightly lower P_0 control group value. The mean value was comparable to the control group in the F_1 generation (887.5 million) and to the mean reported in PAI's Historical Control (869.9). Additionally, a statistically significant increase in the percent of abnormal sperm was observed in the 20000 mg/m^3 exposure group of the P_0 generation (2.0% vs. 1.3% in the control group). The mean value of abnormal sperm is within the range of abnormal sperm reported by PAI's Historical control (0-6.7%). The increase was minimal and was not considered biologically meaningful. As a result, the increases in the number of sperm/gram of epididymis and in the percentage of abnormal sperm in the 20000 mg/m^3 exposure group of the P_0 generation were not considered exposure-related.

3.4.4. MACROSCOPIC POSTMORTEM EVALUATIONS - PUPS

(Table 21; Appendix X)

There were no exposure-related differences in macroscopic postmortem evaluations in the pups (of either generation) lactating from test substance exposed animals compared to the pups feeding from Air Control animals. Scattered observations were noted but were not treatment-related.

3.4.5. ORGAN WEIGHTS AND BRAIN MEASUREMENTS - PUPS

(Table 23; Appendix Z)

There were no exposure-related effects on organ weights in the pups (of either generation) lactating from test substance exposed animals compared to the pups feeding from Air Control animals. There were no exposure-related differences in brain measurements of the F_1 pups feeding from test substance exposed animals compared to the pups feeding from Air Control animals.

3.4.6. HISTOPATHOLOGICAL EVALUATIONS

(Tables 24 and 25; Appendices AA and BB)

P_0 parental animals

Microscopic findings that were considered exposure-related were found in the kidneys of male animals and in lungs of animals of either sex.

Kidneys: Male rats exposed to 20000 mg/m^3 of Gasoline MTBE Vapor Condensate had eosinophilic hyaline granules within the cytoplasm of renal proximal tubular epithelial cells. This lesion was not noted in control animals or females exposed to the test substance. Many high exposure males also had evidence of tubular regeneration (basophilic tubules). This lesion was less common among control males and was not observed in females. Additionally, one 20000 mg/m^3 male had corticomedullary tubular intralumenal granular casts.

These renal histopathologic changes were consistent with hyaline droplet nephropathy, attributable to accumulation of alpha-2 microglobulin within renal tubular epithelial cells. This species- and gender-specific change has been well documented in male rats exposed to a variety of hydrocarbon compounds (Alden, 1986) and is not considered relevant to humans.

Histologic Findings in Kidneys of P_0 Parental Rats* Exposed to Gasoline MTBE Vapor Condensate:

	Affected Animals			
	Males		Females	
Exposure level (mg/m^3 x10^3)	0	20	0	20
n=	10	10	10	10
Eosinophilic/hyaline granules, proximal tubular epithelium	0	10	0	0
Basophilic cortical tubules	2	9	0	0
Corticomedullary tubular granular casts	0	1	0	0

*only includes those rats randomly selected for microscopic examination

Lungs: Animals of either sex exposed to test substance had minimal increase in incidence of aggregates of intraalveolar macrophages compared to control animals. There was no exposure level dependent relationship in the frequency of the lesion. The effect was most apparent among 20000 mg/m^3 males and 2000 mg/m^3 females. Many instances of this histologic finding correlated with macroscopic observation of tan pulmonary foci. The finding was noted among control animals as well as animals exposed to test substance. Alveolar macrophages are a normal component of lung tissue that function as phagocytes to remove endogenous and exogenous material from the alveoli. The minimal increase in frequency of this background finding among exposed animals was plausibly related to test substance exposure, but was considered an adaptive response to clearance of the test material and of minor toxicological significance.

Alveolar Macrophage Aggregates in Lungs of P_0 Parental Rats Exposed to Gasoline MTBE Vapor Condensate:

	Affected animals							
	Males				Females			
Exposure level (mg/m^3 x10^3)	0	2	10	20	0	2	10	20
Lungs examined microscopically	26	26	26	26	23	24	25	26
Alveolar/intraalveolar macrophages	3	4	7	13	5	12	8	9

Reproductive organs: No test substance related microscopic changes were noted in male or female reproductive organs in this study.

Other tissues: No test substance related histopathologic changes were noted in other protocol-specified tissues. The remaining microscopic findings were similar to those routinely observed in animals of this age and species and were considered incidental.

F_1 parental animals

Microscopic findings that were considered exposure-related were found in the kidneys of male animals and in lungs of female animals.

Kidneys: All male F_1 parental rats exposed to 20000 mg/m^3 of Gasoline MTBE Vapor Condensate had eosinophilic hyaline granules within the cytoplasm of renal proximal tubular epithelial cells. This lesion was not noted in control animals or females exposed to the test substance. Many high exposure males also had evidence of tubular regeneration (basophilic tubules). Additionally, one 20000 mg/m^3 male had corticomedullary tubular intralumenal granular casts.

These renal histopathologic changes were consistent with hyaline droplet nephropathy, attributable to accumulation of alpha-2 microglobulin within renal tubular epithelial cells. This species- and gender-specific change has been well documented in male rats exposed to a variety of hydrocarbon compounds (Alden, 1986) and is not considered relevant to humans.

Histologic Findings in Kidneys of F_1 Parental Rats* Exposed to Gasoline MTBE Vapor Condensate:

	Affected Animals			
	Males		Females	
Exposure level (mg/m^3 x10^3)	0	20	0	20
n=	10	10	10	10
Eosinophilic/hyaline granules, proximal tubular epithelium	0	10	0	0
Basophilic cortical tubules	0	9	1	0
Corticomedullary tubular granular casts	0	1	0	0

*only includes those rats randomly selected for microscopic examination

Lungs: Females exposed to 2000, 10000, or 20000 mg/m^3 had increased incidence of aggregates of intraalveolar macrophages compared to control animals. Most instances of this histologic

finding correlated with macroscopic observation of tan pulmonary foci. The finding was noted among control females as well as animals of either sex exposed to test substance. The frequency of this finding among 2000, 10000, or 20000 mg/m^3 males was similar to that commonly observed among control rats. The two- to threefold increase in incidence in females exposed to test substance versus control females was considered consistent with significant enhancement of this background lesion attributable to test substance exposure. The histologic changes were minimal to slight and were considered of minor toxicological significance on the basis that they represent a normal adaptive clearance mechanism for the lung.

Alveolar Macrophage Aggregates in Lungs of F_1 Parental Rats Exposed to Gasoline MTBE Vapor Condensate:

	Affected animals							
	Males				Females			
Exposure level (mg/m^3 x10^3)	0	2	10	20	0	2	10	20
Lungs examined microscopically	26	25	26	26	21	21	23	24
Alveolar/intraalveolar macrophages	1	4	7	5	4	10	12	15

Reproductive organs: No test substance related microscopic changes were noted in male or female reproductive organs in this study.

Other tissues: No test substance related histopathologic changes were noted in other protocol-specified tissues. The remaining microscopic findings were similar to those routinely observed in animals of this age and species and were considered incidental.

F_1 pups (neurotoxicity animals)

Neurologic tissues: The protocol-specified neurologic tissues, including spinal cord, ganglia, and peripheral nerves, had no microscopic abnormalities noted.

Other tissues: No test substance related histopathologic changes were noted in other protocol-specified tissues. The remaining microscopic findings were similar to those routinely observed in animals of this age and species and were considered incidental.

4. CONCLUSION

Exposure of rats to 2000, 10000 and 20000 mg/m^3 of vapor of Gasoline MTBE Vapor Condensate resulted in decreased body weight gains in the P_0 females and F_1 animals in the 20000 mg/m^3 exposed group. There were also decreases in feed consumption at all exposure levels in the F_1 animals. There were also increases in kidney weights in the parental male animals at all exposure levels in the P_0 males and at the 2 highest exposure levels in the F_1 males. There were also increases in liver weights in the 20000 mg/m^3 exposed P_0 animals and F_1 males. An increased incidence of alveolar macrophages was seen at all exposure levels of both generations. Therefore, a no observed effect level (NOEL) was not determined. Increases in kidney weights in parental male animals exposed to all exposure levels of vapor were consistent with hydrocarbon nephropathy seen in the same animals. However, this finding has been generally accepted (US EPA 1991. Alpha 2 microglobulin: association with chemically induced renal toxicity and neoplasia in male rat. In Risk Assessment Forum, p.85. US Govt. Printing Office, Washington, DC.) not to be relevant to human risk assessment. There was no effect in either generation at any of the exposure levels on reproductive performance in the study, including mating, fertility, parturition, lactation and offspring survival. Therefore, with respect to reproductive performance, a no observed adverse effect level (NOAEL) of 20000 mg/m^3 of Gasoline MTBE Vapor Condensate was concluded.

REFERENCES

Alden, C.L. 1986. A review of unique rat hydrocarbon nephropathy. *Toxicol. Pathol.* 14(1): 109-11.

Dunlap, W.P. and Duffy, J.A. 1975. Fortran IV functions for calculating exact probabilities associated with z, chi-square, t and f values. *Behav. Res. Methods and Instrumentations* 7: 59-60.

Dunlap, W.P., Marx, M.S. and Agamy, G.G. 1981. Fortran IV functions for calculating probabilities associated with Dunnett's test. *Behav. Res. Methods and Instrumentation* 13: 363-366.

Dunnett, C.W. 1955. A multiple comparison procedure for comparing several treatments with a control. *Journal of the American Statistical Association* 50: 1096-1121.

Dunnett, C.W. 1964. New tables for multiple comparisons with a control. *Biometrics* 20-3: 482-491.

Games, P.A. and Howell, J.F. 1976. Pairwise multiple comparison procedures with unequal n's and/or variances: a monte-carlo study. *Journal of Educational Statistics* 1: 113-125.

Kruskal, W.H. and Wallis, W.A. 1952. Use of Ranks in One-Criterion Variance Analysis. *Journal of the American Statistical Association* 47: 583-621.

Kruskal, W.H. and Wallis, W.A. 1953. Errata for Kruskal-Wallis (1952). *Journal of the American Statistical Association* 48: 907-911.

Mantel, N. 1963. Chi-square test with one degree of freedom: extensions of the Mantel-Haenszel procedure. *Journal of the American Statistical Association* 58: 690-700.

Seigel, S. 1956. Nonparametric Statistics for the Behavioral Sciences. New York: McGraw-Hill.

	CALCULATIONS	

Female Mating Index:

no. of females with confirmed mating (sperm and/or vaginal plug) plus no. of pregnant females without evidence of mating (no sperm or vaginal plug)/no. of females placed with males

Female Fertility Index:

no. of females pregnant/no. of females confirmed mating or pregnancy for females without evidence of mating

Male Mating Index:

no. of males with confirmed mating with a female or pregnancy for females without evidence of mating/no. of males placed with females

Male Fertility Index:

no. of males mating and impregnating a female plus the no. of males with a pregnant female without evidence of mating/no. of males with confirmed mating plus no. of males with a pregnant female without evidence of mating

Gestation Index:

no. of females with liveborn/no. of females with confirmed pregnancy

Viability Index:

no. of pups alive Day 4 precull/no. of liveborn pups

Lactation Index:

no. of pups alive Day 21/no. of pups Day 4 postcull

Live Birth Index:

total no. of liveborn pups/total no. of pups born

	General Preface	

General Notes

Individual animal data values presented in this report may be rounded. Unrounded individual animal data values are used to calculate the reported mean and standard deviation values. Therefore, use of the reported individual values to reproduce means, standard deviations and/or to perform any subsequent calculations may produce minor discrepancies between the calculated values and those presented in this report.

Study Day for F_1 Adults is calculated from day of birth for Appendix C but is calculated from the first day of exposure for Appendix AA.

On tables and appendices, 00-4208 references the P_0 Generation and 00-4208B references the F_1 Generation. In addition, 00-4208N references neuropathology animals.

Key to Abbreviations

M = Male
F = Female
Gen. = General
PG = Pregnant

Group	Group Designation	Exposure Levels (mg/m^3)
I	Control	0 (air only)
II	Low	2,000
III	Middle	10,000
IV	High	20,000

TABLE 1 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF SURVIVAL AND PREGNANCY

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
No. of males at start	N	26	26	26	26
Premating					
- Died/sacrificed	N	0	0	0	0
Postmating					
- Died/sacrificed	N	0	0	0	0
No. of females at start	N	26	26	26	26
No. of females cohabitated	N	26	26	26	26
- Without evidence of mating	N	2	1	1	0
Pregnant	N	0	0	0	0
Nonpregnant	N	2	1	1	0
Pregnant	N	23	24	25	26
- Died/sacrificed	N	0	0	0	0
- Died delivering	N	0	0	0	0
- Died/sacrificed post partum	N	0	0	0	0
- Aborted died/sacrificed	N	0	0	0	0
Nonpregnant	N	3	2	1	0
- Died/sacrificed	N	0	0	0	0
Total females died/sacrificed	N	0	0	0	0
	%	0.0	0.0	0.0	0.0
Dams delivering	N	23	24	25	26
- With liveborn pups	N	23	24	25	26
	%	100.0	100.0	100.0	100.0
- With all pups stillborn	N	0	0	0	0
	%	0.0	0.0	0.0	0.0

No statistically significant differences

TABLE 1 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF SURVIVAL AND PREGNANCY

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
No. of males at start	N	26	26	26	26
Premating					
- Died/sacrificed	N	1	0	0	1
Postmating					
- Died/sacrificed	N	0	0	0	1
No. of females at start	N	26	26	26	26
Died/sacrificed premating	N	0	0	0	1
No. of females cohabitated	N	26	26	26	25
- Without evidence of mating	N	4	4	3	2
Pregnant	N	1	0	0	1
Nonpregnant	N	3	4	3	1
Pregnant	N	21	21	23	24
- Died/sacrificed	N	0	0	0	0
- Died delivering	N	0	0	0	0
- Died/sacrificed post partum	N	0	0	0	0
- Aborted died/sacrificed	N	0	0	0	0
Nonpregnant	N	5	5	3	1
- Died/sacrificed	N	0	0	0	0
Total females died/sacrificed	N	0	0	0	1
	%	0.0	0.0	0.0	3.8
Dams delivering	N	21	21	23	24
- With liveborn pups	N	21	21	23	24
	%	100.0	100.0	100.0	100.0
- With all pups stillborn	N	0	0	0	0
	%	0.0	0.0	0.0	0.0

No statistically significant differences

	Summary of Clinical Observations Preface	Table 2

Number of animals examined represents the total number of animals observed and animals, which were found dead, died accidentally or were killed in a moribund condition or at a scheduled sacrifice for a given interval. Deaths occurring between scheduled observation intervals are presented at the next scheduled interval.

For summarization purposes, descriptive comments [i.e., location of scab(s) and/or sore(s), etc.] are not presented in this table. These data are contained in the study raw data if needed.

Total represents a cumulative total of all animals with the indicated observation one or more times during the study.

Corresponding exposure levels for each group were as follows:

Group I - 0 mg/m^3
Group II - 2,000 mg/m^3
Group III - 10,000 mg/m^3
Group IV - 20,000 mg/m^3

Generation Intervals:

P_0 Animals
Premating: Weeks –1 to 10
Mating: Weeks 10 to 12
Postmating: Weeks 13 to 16

F_1 Animals
Premating: Days 35 to 105
Mating: Days 106 to 119
Postmating: 120 to 154

TABLE 2 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES — SUMMARY OF CLINICAL OBSERVATIONS

	GROUP#	WEEK OF STUDY -1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	TOTAL
# OF ANIMALS EXAMINED	I	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
	II	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
	III	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
	IV	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
Normal																				
WITHIN NORMAL LIMITS	I	26	26	23	25	22	21	21	20	22	20	18	18	18	18	19	19	17	18	26
	II	26	26	25	26	25	25	25	25	24	24	24	24	24	23	23	23	23	23	26
	III	26	26	24	23	21	21	21	20	20	20	21	21	22	22	23	20	20	20	26
	IV	26	26	26	24	24	22	23	23	24	24	23	23	23	22	22	22	21	21	26
Dead																				
TERMINAL SACRIFICE	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	26
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	26
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	26
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	26
Gen. Appearance																				
SWOLLEN PAW(S)	I	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
EARS SWOLLEN/RED - BILATERAL	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dermal-General																				
ALOPECIA - EXTREMITIES/SNOUT	I	0	0	2	0	3	4	3	4	2	4	6	6	6	6	5	5	5	5	8
	II	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	3
	III	0	0	1	1	4	4	4	4	4	4	3	3	3	3	2	4	3	3	6
	IV	0	0	0	0	0	2	1	1	0	0	1	1	2	2	3	3	3	3	3

TABLE 2 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES — SUMMARY OF CLINICAL OBSERVATIONS

	GROUP#	WEEK OF STUDY -1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	TOTAL
# OF ANIMALS EXAMINED	I	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
	II	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
	III	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
	IV	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
SCABS	I	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	III	0	0	1	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0	2
	IV	0	0	0	2	2	1	1	1	1	1	1	1	0	0	0	0	1	1	3
ALOPECIA - GENERAL	I	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	1
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YELLOW ANO-GENITAL STAINING	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ocular																				
CHROMODACRYORRHEA - UNILATERAL	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	II	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	III	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LACRIMATION - UNILATERAL	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	II	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oral/Buccal																				
INCISORS BROKEN/MISSING	I	0	0	0	0	0	0	0	0	0	0	1	1	1	2	1	0	1	1	2
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	2
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	1

TABLE 2 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES

SUMMARY OF CLINICAL OBSERVATIONS

	GROUP#	WEEK OF STUDY -1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	TOTAL
# OF ANIMALS EXAMINED	I	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
	II	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
	III	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
	IV	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
INCISORS MALOCCLUDED	I	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	1
	II	0	0	0	0	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Miscellaneous																				
MISSING DIGIT	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Palpable masses																				
MASS	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 2 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

FEMALES — SUMMARY OF CLINICAL OBSERVATIONS

	GROUP#	WEEK OF STUDY -1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	TOTAL
# OF ANIMALS EXAMINED	I	26	26	26	26	26	26	26	26	26	26	26	25	3	2	2	2	2	0	
	II	26	26	26	26	26	26	26	26	26	26	26	21	1	1	1	1	1	0	
	III	26	26	26	26	26	26	26	26	26	26	26	20	1	1	1	1	1	0	
	IV	26	26	26	26	26	26	26	26	26	26	26	21	1	0	0	0	0	0	
Normal																				
WITHIN NORMAL LIMITS	I	26	26	24	23	21	22	22	23	23	24	22	21	3	2	2	2	2	0	26
	II	26	26	26	26	26	25	25	25	25	23	22	20	1	1	1	1	1	0	26
	III	26	26	26	25	26	22	22	22	23	21	21	15	1	1	1	1	1	0	26
	IV	26	26	26	24	24	23	23	23	23	23	19	17	1	0	0	0	0	0	26
Dead																				
TERMINAL SACRIFICE	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gen. Appearance																				
SWOLLEN PAW(S)	I	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EARS SWOLLEN/RED - BILATERAL	I	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dermal-General																				
ALOPECIA - EXTREMITIES/SNOUT	I	0	0	2	2	2	3	3	3	2	2	2	2	0	0	0	0	0	0	3
	II	0	0	0	0	0	1	1	1	1	3	4	0	0	0	0	0	0	0	4
	III	0	0	0	1	0	4	4	4	3	3	4	3	0	0	0	0	0	0	4
	IV	0	0	0	2	2	3	3	3	3	2	6	3	0	0	0	0	0	0	7

TABLE 2 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

FEMALES

SUMMARY OF CLINICAL OBSERVATIONS

	GROUP#	WEEK OF STUDY -1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	TOTAL
# OF ANIMALS EXAMINED	I	26	26	26	26	26	26	26	26	26	26	26	25	3	2	2	2	2	0	
	II	26	26	26	26	26	26	26	26	26	26	26	21	1	1	1	1	1	0	
	III	26	26	26	26	26	26	26	26	26	26	26	20	1	1	1	1	1	0	
	IV	26	26	26	26	26	26	26	26	26	26	26	21	1	0	0	0	0	0	
SCABS	I	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	2
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ALOPECIA - GENERAL	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	3
	IV	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
Oral/Buccal																				
INCISORS BROKEN/MISSING	I	0	0	0	0	1	0	0	2	1	0	1	1	0	0	0	0	0	0	4
	II	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	III	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	3
	IV	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
INCISORS MALOCCLUDED	I	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Room Check																				
DECREASED FECAL VOLUME	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

TABLE 2 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES — SUMMARY OF CLINICAL OBSERVATIONS

	GROUP#	DAY OF STUDY 35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154	TOTAL
# OF ANIMALS EXAMINED	I	26	26	26	26	26	26	26	26	26	26	26	25	25	25	25	25	25	24	
	II	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
	III	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
	IV	26	26	26	26	26	26	26	26	26	26	25	25	25	25	25	25	24	23	
Normal																				
WITHIN NORMAL LIMITS	I	26	25	25	25	26	26	24	24	24	24	22	23	23	23	23	23	22	10	26
	II	26	25	25	24	22	22	22	20	21	21	20	20	19	21	20	19	19	16	26
	III	26	26	26	25	24	24	24	24	21	22	21	18	19	20	21	20	18	12	26
	IV	26	26	26	26	25	24	23	23	22	20	20	20	20	20	21	19	17	7	26
Dead																				
FOUND DEAD	I	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2
TERMINAL SACRIFICE	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	18
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	15	16
Gen. Appearance																				
SWOLLEN PAW(S)	I	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	1
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dermal-General																				
ALOPECIA - EXTREMITIES/SNOUT	I	0	0	0	0	0	0	2	2	2	2	2	1	1	1	1	1	1	0	2
	II	0	0	0	0	2	2	2	2	1	1	2	2	3	1	1	1	1	2	3
	III	0	0	0	1	2	2	2	2	2	1	2	2	2	2	1	1	1	0	3
	IV	0	0	0	0	0	1	2	2	2	2	2	2	2	2	1	2	3	2	4

TABLE 2 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES — SUMMARY OF CLINICAL OBSERVATIONS

	GROUP#	DAY OF STUDY 35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154	TOTAL
# OF ANIMALS EXAMINED	I	26	26	26	26	26	26	26	26	26	26	26	25	25	25	25	25	25	24	
	II	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
	III	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
	IV	26	26	26	26	26	26	26	26	26	26	25	25	25	25	25	25	24	23	
SCABS	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	II	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ocular																				
CHROMODACRYORRHEA - UNILATERAL	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	II	0	0	0	0	1	1	1	2	2	1	1	1	1	1	2	2	2	1	3
	III	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2	1	4
	IV	0	0	0	0	1	1	1	1	1	2	2	2	1	1	1	1	1	1	3
LACRIMATION - BILATERAL	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	1	1	1	0	1	1	1	1	1	1	2
CHROMODACRYORRHEA - BILATERAL	I	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	1	1	1	1	2	2	2	2	2	1	3
LACRIMATION - UNILATERAL	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	2
	III	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2
	IV	0	0	0	0	0	0	0	0	0	1	1	2	1	1	1	1	1	1	2
Oral/Buccal																				
INCISORS BROKEN/MISSING	I	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1
	II	0	0	0	1	0	0	0	2	2	2	3	2	1	1	1	3	3	0	4
	III	0	0	0	0	0	0	0	0	0	0	1	2	1	1	1	1	2	2	5
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1

TABLE 2 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES — SUMMARY OF CLINICAL OBSERVATIONS

	GROUP#	DAY OF STUDY 35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154	TOTAL
# OF ANIMALS EXAMINED	I	26	26	26	26	26	26	26	26	26	26	26	25	25	25	25	25	25	24	
	II	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
	III	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
	IV	26	26	26	26	26	26	26	26	26	26	25	25	25	25	25	25	24	23	
INCISORS MALOCCLUDED	I	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	2	3
	II	0	0	0	0	1	1	1	2	2	2	3	3	3	2	3	3	3	1	4
	III	0	0	0	0	0	0	0	0	2	2	2	3	3	3	3	4	6	4	7
	IV	0	0	0	0	1	1	0	0	1	2	2	2	3	3	3	3	3	2	3
ORAL SORE	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	II	0	0	0	0	1	1	1	0	1	1	1	0	0	0	1	1	1	0	3
	III	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
	IV	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Miscellaneous																				
TIP OF TAIL MISSING	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 2 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

FEMALES — SUMMARY OF CLINICAL OBSERVATIONS

	GROUP#	DAY OF STUDY 35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154	TOTAL
# OF ANIMALS EXAMINED	I	26	26	26	26	26	26	26	26	26	26	25	9	4	4	4	3	3	3	
	II	26	26	26	26	26	26	26	26	26	26	26	10	4	4	4	4	4	3	
	III	26	26	26	26	26	26	26	26	26	26	26	16	4	3	3	3	3	3	
	IV	26	26	26	26	26	26	26	26	26	26	25	8	3	2	2	1	1	1	
Normal																				
WITHIN NORMAL LIMITS	I	26	26	26	26	25	25	26	26	25	24	23	8	3	3	3	2	2	0	26
	II	26	26	26	25	25	25	26	25	25	25	25	10	4	4	4	3	3	0	26
	III	26	26	26	26	26	26	26	26	26	26	26	16	4	3	3	3	3	0	26
	IV	25	25	25	25	25	25	25	25	25	25	23	8	3	2	2	1	1	0	25
Dead																				
HUMANE SACRIFICE	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
TERMINAL SACRIFICE	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Dermal-General																				
ALOPECIA - EXTREMITIES/SNOUT	I	0	0	0	0	0	0	0	0	1	2	2	1	0	0	0	0	0	0	2
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
SCABS	I	0	0	0	0	1	1	0	0	0	0	0	0	1	1	1	1	1	0	1
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 2 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

FEMALES — SUMMARY OF CLINICAL OBSERVATIONS

	GROUP#	DAY OF STUDY 35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154	TOTAL
# OF ANIMALS EXAMINED	I	26	26	26	26	26	26	26	26	26	26	25	9	4	4	4	3	3	3	
	II	26	26	26	26	26	26	26	26	26	26	26	10	4	4	4	4	4	3	
	III	26	26	26	26	26	26	26	26	26	26	26	16	4	3	3	3	3	3	
	IV	26	26	26	26	26	26	26	26	26	26	25	8	3	2	2	1	1	1	
LACERATION SNOUT	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ocular																				
OPACITY - UNILATERAL	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	II	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ENOPHTHALMOS - UNILATERAL	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	II	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oral/Buccal																				
INCISORS MALOCCLUDED	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	II	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	1
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous																				
TIP OF TAIL MISSING	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IV	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1

TABLE 3 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF CLINICAL OBSERVATIONS DURING GESTATION - (frequency/animals)

GROUP	I	II	III	IV
DOSE LEVEL(MG/M3)	0	2000	10000	20000
DAY 0 to 20				
Normal				
WITHIN NORMAL LIMITS	83/21	84/23	79/21	86/22
Gen. Appearance				
EARS SWOLLEN/RED - BILATERAL	4/ 1	0/ 0	0/ 0	0/ 0
Dermal-General				
ALOPECIA - EXTREMITIES/SNOUT	8/ 2	12/ 4	14/ 4	18/ 5
ALOPECIA - GENERAL	0/ 0	4/ 2	5/ 2	0/ 0
Ocular				
CHROMODACRYORRHEA - UNILATERAL	0/ 0	0/ 0	3/ 1	0/ 0
CHROMODACRYORRHEA - BILATERAL	0/ 0	0/ 0	1/ 1	0/ 0
LACRIMATION - BILATERAL	0/ 0	0/ 0	1/ 1	0/ 0
Oral/Buccal				
INCISORS BROKEN/MISSING	2/ 2	2/ 1	1/ 1	0/ 0
INCISORS MALOCCLUDED	0/ 0	0/ 0	4/ 1	0/ 0

TABLE 3 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF CLINICAL OBSERVATIONS DURING GESTATION - (frequency/animals)

GROUP	I	II	III	IV
DOSE LEVEL (MG/M3)	0	2000	10000	20000
DAY 0 to 20				
Normal				
WITHIN NORMAL LIMITS	78/20	81/21	89/23	84/21
Dermal-General				
ALOPECIA - EXTREMITIES/SNOUT	8/ 2	0/ 0	0/ 0	4/ 1
SCABS	1/ 1	0/ 0	0/ 0	0/ 0
ALOPECIA - GENERAL	1/ 1	0/ 0	0/ 0	0/ 0
Ocular				
OPACITY - UNILATERAL	0/ 0	4/ 1	0/ 0	0/ 0
ENOPHTHALMOS - UNILATERAL	0/ 0	4/ 1	0/ 0	0/ 0
Oral/Buccal				
INCISORS BROKEN/MISSING	0/ 0	1/ 1	2/ 1	0/ 0
INCISORS MALOCCLUDED	0/ 0	2/ 2	0/ 0	0/ 0
Miscellaneous				
TIP OF TAIL MISSING	0/ 0	0/ 0	0/ 0	4/ 1

TABLE 4 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF MATERNAL CLINICAL OBSERVATIONS DURING LACTATION - (frequency/animals)

GROUP	I	II	III	IV
DOSE LEVEL(MG/M3)	0	2000	10000	20000
DAY 1 to 28				
Normal				
WITHIN NORMAL LIMITS	118/20	121/21	118/21	123/21
TERMINAL SACRIFICE	23/23	24/24	25/25	26/26
Gen. Appearance				
EARS SWOLLEN/RED - BILATERAL	6/ 1	0/ 0	0/ 0	0/ 0
RED EXUDATE FROM VAGINA	0/ 0	0/ 0	0/ 0	3/ 3
Dermal-General				
ALOPECIA - EXTREMITIES/SNOUT	12/ 2	23/ 4	23/ 4	30/ 5
ALOPECIA - GENERAL	6/ 1	8/ 2	8/ 2	0/ 0
BLACK/BROWN STAINS ON SNOUT	2/ 2	0/ 0	0/ 0	0/ 0
Ocular				
CHROMODACRYORRHEA - UNILATERAL	0/ 0	0/ 0	6/ 1	0/ 0
LACRIMATION - UNILATERAL	0/ 0	0/ 0	1/ 1	0/ 0
Oral/Buccal				
INCISORS BROKEN/MISSING	6/ 1	0/ 0	0/ 0	0/ 0
INCISORS MALOCCLUDED	0/ 0	0/ 0	6/ 1	0/ 0
Palpable masses				
MASS	0/ 0	0/ 0	3/ 1	0/ 0

TABLE 4 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF MATERNAL CLINICAL OBSERVATIONS DURING LACTATION - (frequency/animals)

GROUP	I	II	III	IV
DOSE LEVEL (MG/M3)	0	2000	10000	20000
DAY 1 to 28				
Normal				
WITHIN NORMAL LIMITS	112/20	111/19	133/23	124/21
TERMINAL SACRIFICE	21/21	21/21	23/23	24/24
Dermal-General				
ALOPECIA - EXTREMITIES/SNOUT	11/ 3	0/ 0	5/ 1	6/ 1
ALOPECIA - GENERAL	0/ 0	0/ 0	0/ 0	2/ 1
Ocular				
CHROMODACRYORRHEA - UNILATERAL	1/ 1	1/ 1	0/ 0	0/ 0
OPACITY - UNILATERAL	0/ 0	6/ 1	0/ 0	0/ 0
ENOPHTHALMOS - UNILATERAL	0/ 0	6/ 1	0/ 0	0/ 0
Oral/Buccal				
INCISORS BROKEN/MISSING	0/ 0	5/ 1	0/ 0	6/ 1
INCISORS MALOCCLUDED	3/ 1	9/ 2	0/ 0	0/ 0
Miscellaneous				
TIP OF TAIL MISSING	0/ 0	0/ 0	0/ 0	6/ 1

TABLE 5 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES — MEAN BODY WEIGHT VALUES (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
WEEK -1	MEAN	151	151	151	151
	S.D.	11.0	11.0	11.1	11.4
	N	26	26	26	26
WEEK 0	MEAN	216	218	218	217
	S.D.	13.0	13.8	14.1	13.4
	N	26	26	26	26
WEEK 1	MEAN	267	269	271	266
	S.D.	16.8	17.4	15.7	15.4
	N	26	26	26	26
WEEK 2	MEAN	316	321	323	316
	S.D.	19.3	21.6	16.6	18.7
	N	26	26	26	26
WEEK 3	MEAN	360	364	367	357
	S.D.	22.4	27.2	20.9	20.8
	N	26	26	26	26
WEEK 4	MEAN	383	393	394	385
	S.D.	25.9	29.1	27.3	22.7
	N	26	26	26	26
WEEK 5	MEAN	411	421	421	410
	S.D.	27.0	30.6	29.9	24.8
	N	26	26	26	26
WEEK 6	MEAN	433	443	443	432
	S.D.	31.1	32.9	32.8	29.1
	N	26	26	26	26
WEEK 7	MEAN	452	463	460	454
	S.D.	33.4	34.6	36.8	32.4
	N	26	26	26	26

No statistically significant differences

TABLE 5 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES — MEAN BODY WEIGHT VALUES (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
WEEK 8	MEAN	470	481	478	468
	S.D.	35.9	36.7	40.5	35.0
	N	26	26	26	26
WEEK 9	MEAN	481	495	492	482
	S.D.	37.3	40.0	42.4	36.2
	N	26	26	26	26
WEEK 10	MEAN	492	501	505	489
	S.D.	40.2	43.0	43.7	36.2
	N	26	26	26	26
WEEK 11	MEAN	498	505	508	497
	S.D.	39.7	41.0	42.9	36.1
	N	26	26	26	26
WEEK 12	MEAN	506	519	515	505
	S.D.	47.0	46.6	45.5	41.6
	N	26	26	26	26
WEEK 13	MEAN	520	527	527	515
	S.D.	42.0	45.4	48.4	41.6
	N	26	26	26	26
WEEK 14	MEAN	527	537	536	525
	S.D.	41.9	49.2	47.3	42.7
	N	26	26	26	26
WEEK 15	MEAN	540	549	551	539
	S.D.	43.7	48.8	48.5	44.5
	N	26	26	26	26
WEEK 16	MEAN	552	564	564	551
	S.D.	45.0	50.2	49.1	46.1
	N	26	26	26	26

No statistically significant differences

TABLE 5 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

FEMALES — MEAN BODY WEIGHT VALUES (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
WEEK -1	MEAN	106	106	106	106
	S.D.	8.7	8.7	8.5	9.0
	N	26	26	26	26
WEEK 0	MEAN	154	153	154	154
	S.D.	12.3	10.9	12.0	10.6
	N	26	26	26	26
WEEK 1	MEAN	181	176	179	175
	S.D.	11.8	10.8	12.8	12.7
	N	26	26	26	26
WEEK 2	MEAN	207	205	202	199
	S.D.	14.5	13.7	16.3	11.2
	N	26	26	26	26
WEEK 3	MEAN	233	233	225	222
	S.D.	16.4	17.3	17.9	15.0
	N	26	26	26	26
WEEK 4	MEAN	250	249	240	234**
	S.D.	18.1	17.8	19.1	14.9
	N	26	26	26	26
WEEK 5	MEAN	263	262	253	246**
	S.D.	18.3	17.9	19.1	15.4
	N	26	26	26	26
WEEK 6	MEAN	274	273	263	255**
	S.D.	18.6	19.7	19.8	14.1
	N	26	26	26	26
WEEK 7	MEAN	284	282	272	265**
	S.D.	24.3	21.0	20.3	17.8
	N	26	26	26	26

Statistical key: ** = p<0.01

TABLE 5 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

FEMALES — MEAN BODY WEIGHT VALUES (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
WEEK 8	MEAN	290	291	280	274*
	S.D.	20.8	22.3	19.9	16.3
	N	26	26	26	26
WEEK 9	MEAN	293	295	285	280*
	S.D.	21.3	20.2	22.3	16.4
	N	26	26	26	26
WEEK 10	MEAN	298	300	293	283*
	S.D.	22.3	23.4	24.0	18.2
	N	26	26	26	26
WEEK 11	MEAN	321	319	378	341
	S.D.	18.3	0.0	0.0	0.0
	N	3	1	1	1
WEEK 12	MEAN	334	339	362	
	S.D.	3.0	0.0	0.0	
	N	2	1	1	
WEEK 13	MEAN	335	333	353	
	S.D.	18.7	0.0	0.0	
	N	2	1	1	
WEEK 14	MEAN	342	337	361	
	S.D.	20.2	0.0	0.0	
	N	2	1	1	
WEEK 15	MEAN	345	347	352	
	S.D.	17.7	0.0	0.0	
	N	2	1	1	

Statistical key: * = $p<0.05$

TABLE 5 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES

MEAN BODY WEIGHT VALUES (GRAMS)

	GROUP	I	II	III	IV
	DOSE LEVEL (MG/M3)	0	2000	10000	20000
DAY 35	MEAN	127	129	133	129
	S.D.	11.7	13.1	10.6	11.3
	N	26	26	26	26
DAY 42	MEAN	187	189	193	187
	S.D.	13.2	15.7	13.8	14.7
	N	26	26	26	26
DAY 49	MEAN	239	247	251	242
	S.D.	16.5	18.7	18.2	20.1
	N	26	26	26	26
DAY 56	MEAN	302	301	307	294
	S.D.	19.2	24.9	21.8	20.8
	N	26	26	26	26
DAY 63	MEAN	344	342	347	332
	S.D.	23.6	31.5	24.3	25.5
	N	26	26	26	26
DAY 70	MEAN	377	374	376	362
	S.D.	27.9	36.6	28.4	30.4
	N	26	26	26	26
DAY 77	MEAN	405	403	406	388
	S.D.	30.9	38.5	31.2	32.8
	N	26	26	26	26
DAY 84	MEAN	426	420	428	409
	S.D.	32.4	40.5	34.1	33.1
	N	26	26	26	26
DAY 91	MEAN	444	439	442	422
	S.D.	32.7	40.3	39.2	33.8
	N	26	26	26	26

No statistically significant differences

TABLE 5 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES

MEAN BODY WEIGHT VALUES (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
DAY 98	MEAN	461	456	460	435
	S.D.	33.4	43.9	40.3	35.6
	N	26	26	26	25
DAY 105	MEAN	479	473	478	450*
	S.D.	32.0	46.7	42.4	37.1
	N	25	26	26	25
DAY 112	MEAN	493	487	486	463*
	S.D.	32.6	44.3	43.1	34.7
	N	25	26	26	25
DAY 119	MEAN	507	495	501	474*
	S.D.	34.4	48.7	44.3	35.8
	N	25	26	26	25
DAY 126	MEAN	519	511	513	487*
	S.D.	37.5	47.8	46.2	38.2
	N	25	26	26	25
DAY 133	MEAN	530	518	522	495
	S.D.	38.4	54.7	47.7	39.8
	N	25	26	26	25
DAY 140	MEAN	540	524	528	503
	S.D.	41.1	57.7	51.0	40.3
	N	25	26	26	24
DAY 147	MEAN	548	536	534	511
	S.D.	40.1	55.2	55.9	40.8
	N	25	26	26	23
DAY 154	MEAN	569	537	539	506
	S.D.	45.3	65.9	51.9	31.0
	N	12	19	18	11

Statistical key: * = $p<0.05$

TABLE 5 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

FEMALES — MEAN BODY WEIGHT VALUES (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
DAY 35	MEAN	111	113	121**	112
	S.D.	10.8	11.4	8.0	10.0
	N	26	26	26	26
DAY 42	MEAN	150	155	159*	148
	S.D.	10.8	12.0	10.5	9.2
	N	26	26	26	26
DAY 49	MEAN	180	184	185	172*
	S.D.	10.7	15.1	11.7	12.0
	N	26	26	26	26
DAY 56	MEAN	205	209	209	196
	S.D.	12.8	15.9	13.3	14.2
	N	26	26	26	26
DAY 63	MEAN	225	229	225	213*
	S.D.	13.3	18.3	15.5	17.8
	N	26	26	26	26
DAY 70	MEAN	243	246	239	226**
	S.D.	13.9	21.9	18.3	17.9
	N	26	26	26	26
DAY 77	MEAN	255	257	251	239**
	S.D.	15.1	20.6	17.3	18.7
	N	26	26	26	26
DAY 84	MEAN	262	267	261	247*
	S.D.	14.9	21.3	17.3	19.9
	N	26	26	26	26
DAY 91	MEAN	271	275	268	255**
	S.D.	15.6	21.4	17.4	19.3
	N	26	26	26	26

Statistical key: * = $p<0.05$ ** = $p<0.01$

TABLE 5 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

FEMALES

MEAN BODY WEIGHT VALUES (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
DAY 98	MEAN	278	281	277	261**
	S.D.	15.9	21.2	19.1	19.2
	N	26	26	26	26
DAY 105	MEAN	286	287	286	266**
	S.D.	15.0	23.9	21.2	21.6
	N	25	26	26	24
DAY 112	MEAN	293	295	288	262*
	S.D.	17.1	22.6	20.0	26.6
	N	9	10	16	8
DAY 119	MEAN	299	326	308	257
	S.D.	12.5	10.0	35.8	22.9
	N	4	4	4	3
DAY 126	MEAN	301	341*	293	261
	S.D.	22.5	12.3	13.7	24.4
	N	4	4	3	2
DAY 133	MEAN	309	326	282	285
	S.D.	38.0	16.0	9.7	54.9
	N	4	4	3	2
DAY 140	MEAN	292	331**	286	246
	S.D.	6.5	15.5	4.7	0.0
	N	3	4	3	1
DAY 147	MEAN	307	335	296	242
	S.D.	11.0	20.2	8.8	0.0
	N	3	4	3	1

Statistical key: * = p<0.05 ** = p<0.01

TABLE 6 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES — MEAN BODY WEIGHT GAIN (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
WEEK -1 TO 0	MEAN	65	67	67	65
	S.D.	6.2	6.9	6.6	5.9
	N	26	26	26	26
WEEK 0 TO 1	MEAN	51	51	53	49
	S.D.	7.4	6.4	5.4	4.7
	N	26	26	26	26
WEEK 1 TO 2	MEAN	50	53	52	50
	S.D.	6.5	8.4	6.4	6.1
	N	26	26	26	26
WEEK 2 TO 3	MEAN	43	43	44	42
	S.D.	7.3	7.8	8.1	6.2
	N	26	26	26	26
WEEK 3 TO 4	MEAN	23	29	27	27
	S.D.	9.3	6.4	9.1	7.9
	N	26	26	26	26
WEEK 4 TO 5	MEAN	28	28	27	25
	S.D.	6.8	4.7	6.1	6.4
	N	26	26	26	26
WEEK 5 TO 6	MEAN	22	22	22	22
	S.D.	6.7	6.0	5.4	7.5
	N	26	26	26	26

No statistically significant differences

TABLE 6 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES — MEAN BODY WEIGHT GAIN (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
WEEK 6 TO 7	MEAN	19	20	17	22
	S.D.	5.9	7.5	6.9	7.2
	N	26	26	26	26
WEEK 7 TO 8	MEAN	18	18	18	15
	S.D.	7.1	6.6	6.9	11.9
	N	26	26	26	26
WEEK 8 TO 9	MEAN	11	15	14	14
	S.D.	6.5	8.0	7.4	7.8
	N	26	26	26	26
WEEK 9 TO 10	MEAN	11	6*	13	7
	S.D.	7.0	8.5	5.0	6.1
	N	26	26	26	26
WEEK 10 TO 11	MEAN	6	4	3	7
	S.D.	7.7	10.1	7.4	5.6
	N	26	26	26	26
WEEK 11 TO 12	MEAN	8	14	7	9
	S.D.	16.3	12.8	13.2	11.3
	N	26	26	26	26
WEEK 12 TO 13	MEAN	14	8	12	10
	S.D.	13.1	5.3	10.4	7.9
	N	26	26	26	26

Statistical key: * = $p<0.05$

TABLE 6 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES — MEAN BODY WEIGHT GAIN (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
WEEK 13 TO 14	MEAN	7	10	9	9
	S.D.	5.1	7.0	4.4	4.5
	N	26	26	26	26
WEEK 14 TO 15	MEAN	13	12	15	14
	S.D.	6.9	6.2	8.4	5.6
	N	26	26	26	26
WEEK 15 TO 16	MEAN	12	15	13	12
	S.D.	7.5	6.4	6.8	5.3
	N	26	26	26	26
WEEK 0 TO 10	MEAN	276	283	287	273
	S.D.	37.4	37.2	43.3	31.5
	N	26	26	26	26
WEEK 10 TO 13	MEAN	28	26	23	26
	S.D.	11.0	8.7	10.1	10.5
	N	26	26	26	26
WEEK 13 TO 16	MEAN	32	37	37	36
	S.D.	9.4	12.3	9.9	9.3
	N	26	26	26	26
WEEK 0 TO 16	MEAN	336	346	346	334
	S.D.	43.6	43.6	49.7	42.0
	N	26	26	26	26

No statistically significant differences

TABLE 6 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

FEMALES — MEAN BODY WEIGHT GAIN (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
WEEK -1 TO 0	MEAN	48	47	48	48
	S.D.	6.6	5.6	5.2	5.0
	N	26	26	26	26
WEEK 0 TO 1	MEAN	27	23*	25	21**
	S.D.	7.4	5.8	5.7	6.8
	N	26	26	26	26
WEEK 1 TO 2	MEAN	26	30	22*	24
	S.D.	5.5	5.3	6.1	5.9
	N	26	26	26	26
WEEK 2 TO 3	MEAN	25	28	23	23
	S.D.	5.8	6.9	5.9	6.8
	N	26	26	26	26
WEEK 3 TO 4	MEAN	17	16	15	12*
	S.D.	6.4	4.8	6.6	5.7
	N	26	26	26	26
WEEK 4 TO 5	MEAN	13	13	12	12
	S.D.	7.8	5.7	5.0	5.6
	N	26	26	26	26
WEEK 5 TO 6	MEAN	11	11	10	10
	S.D.	5.9	6.1	4.9	5.9
	N	26	26	26	26

Statistical key: * = $p<0.05$ ** = $p<0.01$

TABLE 6 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

FEMALES — MEAN BODY WEIGHT GAIN (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
WEEK 6 TO 7	MEAN	10	10	10	10
	S.D.	10.2	5.0	5.7	8.2
	N	26	26	26	26
WEEK 7 TO 8	MEAN	6	8	8	8
	S.D.	8.9	9.3	5.8	6.8
	N	26	26	26	26
WEEK 8 TO 9	MEAN	3	4	5	6
	S.D.	6.3	7.2	7.7	8.1
	N	26	26	26	26
WEEK 9 TO 10	MEAN	5	5	8	3
	S.D.	7.7	8.1	8.7	9.8
	N	26	26	26	26
WEEK 0 TO 10	MEAN	144	147	139	129**
	S.D.	18.8	17.8	22.1	12.6
	N	26	26	26	26

Statistical key: ** = p<0.01

TABLE 6 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES — MEAN BODY WEIGHT GAIN (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
DAY 35 TO 42	MEAN	60	60	61	58
	S.D.	8.2	5.0	5.2	5.8
	N	26	26	26	26
DAY 42 TO 49	MEAN	52	58	58	55
	S.D.	12.6	8.1	8.0	9.4
	N	26	26	26	26
DAY 49 TO 56	MEAN	62	54*	56	52**
	S.D.	13.3	10.9	9.7	10.0
	N	26	26	26	26
DAY 56 TO 63	MEAN	43	41	39	38
	S.D.	9.0	15.6	6.7	8.4
	N	26	26	26	26
DAY 63 TO 70	MEAN	33	32	29	30
	S.D.	7.6	7.9	7.2	7.2
	N	26	26	26	26
DAY 70 TO 77	MEAN	28	28	30	26
	S.D.	8.2	6.3	5.8	5.6
	N	26	26	26	26
DAY 77 TO 84	MEAN	21	18	22	20
	S.D.	7.4	9.4	5.8	5.8
	N	26	26	26	26

Statistical key: * = $p<0.05$ ** = $p<0.01$

TABLE 6 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES — MEAN BODY WEIGHT GAIN (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
DAY 84 TO 91	MEAN	17	18	14	14
	S.D.	5.3	8.5	15.1	19.0
	N	26	26	26	26
DAY 91 TO 98	MEAN	17	17	18	14
	S.D.	11.6	8.3	6.1	8.6
	N	26	26	26	25
DAY 98 TO 105	MEAN	15	17	18	15
	S.D.	10.8	8.7	8.9	11.3
	N	25	26	26	25
DAY 105 TO 112	MEAN	14	14	8*	13
	S.D.	7.2	8.6	10.4	10.0
	N	25	26	26	25
DAY 112 TO 119	MEAN	14	8	15	11
	S.D.	5.4	15.5	6.9	5.2
	N	25	26	26	25
DAY 119 TO 126	MEAN	12	16	12	12
	S.D.	8.5	12.7	5.6	9.2
	N	25	26	26	25
DAY 126 TO 133	MEAN	11	7	9	8
	S.D.	4.8	16.2	4.9	8.6
	N	25	26	26	25

Statistical key: * = $p<0.05$

TABLE 6 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES — MEAN BODY WEIGHT GAIN (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
DAY 133 TO 140	MEAN	10	6	7	6
	S.D.	7.0	7.6	8.8	6.6
	N	25	26	26	24
DAY 140 TO 147	MEAN	9	12	5	10
	S.D.	10.0	7.8	20.0	6.7
	N	25	26	26	23
DAY 147 TO 154	MEAN	5	-1	8	6
	S.D.	5.4	14.7	12.4	6.1
	N	12	19	18	11
DAY 35 TO 105	MEAN	350	344	346	321*
	S.D.	33.7	44.1	36.6	31.9
	N	25	26	26	25
DAY 105 TO 133	MEAN	51	44	43	45
	S.D.	12.8	20.5	10.0	18.4
	N	25	26	26	25
DAY 133 TO 154	MEAN	22	17	18	22
	S.D.	12.8	15.0	15.6	7.1
	N	12	19	18	11
DAY 35 TO 154	MEAN	439	408	407	380*
	S.D.	48.2	61.1	45.1	26.9
	N	12	19	18	11

Statistical key: * = $p<0.05$

TABLE 6 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

FEMALES — MEAN BODY WEIGHT GAIN (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
DAY 35 TO 42	MEAN	39	41	38	36
	S.D.	6.5	4.7	7.4	6.1
	N	26	26	26	26
DAY 42 TO 49	MEAN	30	29	26	23**
	S.D.	5.0	6.9	4.9	5.6
	N	26	26	26	26
DAY 49 TO 56	MEAN	25	25	24	24
	S.D.	5.6	5.0	4.1	4.4
	N	26	26	26	26
DAY 56 TO 63	MEAN	20	19	16	17
	S.D.	6.2	6.3	5.5	6.8
	N	26	26	26	26
DAY 63 TO 70	MEAN	18	17	13*	14
	S.D.	5.5	6.6	7.3	5.6
	N	26	26	26	26
DAY 70 TO 77	MEAN	13	11	13	13
	S.D.	6.7	7.6	6.5	6.6
	N	26	26	26	26
DAY 77 TO 84	MEAN	6	10	10	8
	S.D.	5.6	5.6	7.7	8.0
	N	26	26	26	26

Statistical key: * = $p<0.05$ ** = $p<0.01$

TABLE 6 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

FEMALES — MEAN BODY WEIGHT GAIN (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
DAY 84 TO 91	MEAN	9	8	7	8
	S.D.	6.0	8.3	5.0	7.0
	N	26	26	26	26
DAY 91 TO 98	MEAN	7	6	9	6
	S.D.	5.2	8.2	10.2	5.6
	N	26	26	26	26
DAY 98 TO 105	MEAN	7	6	9	6
	S.D.	5.2	6.0	7.2	8.6
	N	25	26	26	24
DAY 35 TO 105	MEAN	175	174	165	154**
	S.D.	14.4	20.5	20.6	19.3
	N	25	26	26	24

Statistical key: ** = p<0.01

TABLE 7 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF GESTATION BODY WEIGHTS (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
DAY 0	MEAN	295	295	287	282
	S.D.	17.7	21.3	17.0	19.5
	N	23	24	25	26
DAY 4	MEAN	315	317	308	305
	S.D.	20.9	23.0	22.8	19.0
	N	23	24	25	26
DAY 7	MEAN	328	327	321	316
	S.D.	21.8	24.0	21.5	21.2
	N	23	24	25	26
DAY 14	MEAN	357	355	351	344
	S.D.	22.8	24.2	26.1	22.4
	N	23	24	25	26
DAY 20	MEAN	424	417	417	406
	S.D.	30.2	27.7	31.1	32.7
	N	23	24	25	26

No statistically significant differences

TABLE 7 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF GESTATION BODY WEIGHTS (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
DAY 0	MEAN	286	281	288	268**
	S.D.	14.1	19.9	20.2	18.6
	N	20	21	23	23
DAY 4	MEAN	306	303	310	292
	S.D.	11.6	20.6	22.3	21.9
	N	20	21	23	23
DAY 7	MEAN	316	312	321	303
	S.D.	12.9	21.4	21.5	24.0
	N	20	21	23	23
DAY 14	MEAN	346	339	351	332
	S.D.	14.6	23.0	22.4	26.8
	N	20	21	23	23
DAY 20	MEAN	406	394	415	389
	S.D.	24.6	25.8	31.3	32.9
	N	20	21	23	23

Statistical key: ** = $p<0.01$

TABLE 8 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF GESTATION BODY WEIGHT GAIN (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
DAYS 0 TO 4	MEAN	20	22	21	23
	S.D.	12.0	6.2	14.6	5.7
	N	23	24	25	26
DAYS 4 TO 7	MEAN	13	10	13	11
	S.D.	8.7	5.4	11.8	4.0
	N	23	24	25	26
DAYS 7 TO 14	MEAN	29	28	30	27
	S.D.	5.7	5.6	7.7	6.0
	N	23	24	25	26
DAYS 14 TO 20	MEAN	67	62	67	62
	S.D.	11.9	12.6	12.7	15.8
	N	23	24	25	26
DAYS 0 TO 20	MEAN	129	122	130	123
	S.D.	18.0	17.5	18.8	20.1
	N	23	24	25	26

No statistically significant differences

TABLE 8 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF GESTATION BODY WEIGHT GAIN (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
DAYS 0 TO 4	MEAN	20	22	21	25
	S.D.	6.1	5.1	5.8	5.7
	N	20	21	23	23
DAYS 4 TO 7	MEAN	10	9	11	10
	S.D.	3.4	5.2	4.7	4.5
	N	20	21	23	23
DAYS 7 TO 14	MEAN	30	27	30	29
	S.D.	6.5	5.9	5.3	5.8
	N	20	21	23	23
DAYS 14 TO 20	MEAN	59	55	64	58
	S.D.	13.0	11.9	16.4	16.8
	N	20	21	23	23
DAYS 0 TO 20	MEAN	120	112	127	121
	S.D.	16.8	16.5	22.2	21.9
	N	20	21	23	23

No statistically significant differences

TABLE 9 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF MATERNAL LACTATION BODY WEIGHTS (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
DAY 1	MEAN	318	318	313	312
	S.D.	24.9	23.5	19.5	22.0
	N	23	24	25	26
DAY 4	MEAN	330	320	322	321
	S.D.	25.5	23.7	19.9	23.0
	N	23	24	25	26
DAY 7	MEAN	348	342	341	340
	S.D.	20.8	23.3	22.4	20.4
	N	23	24	25	26
DAY 14	MEAN	374	362	359	361
	S.D.	21.8	25.7	19.4	21.3
	N	23	24	25	26
DAY 21	MEAN	366	361	350	356
	S.D.	20.6	22.8	19.2	19.6
	N	23	24	25	26
DAY 28	MEAN	331	326	318	327
	S.D.	23.2	24.1	20.1	20.9
	N	23	24	25	26

No statistically significant differences

TABLE 9 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF MATERNAL LACTATION BODY WEIGHTS (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
DAY 1	MEAN	310	311	317	300
	S.D.	14.3	25.5	21.8	24.9
	N	21	21	23	24
DAY 4	MEAN	323	318	330	313
	S.D.	16.4	25.6	20.4	25.6
	N	21	21	23	24
DAY 7	MEAN	326	327	340	320
	S.D.	18.9	26.5	21.9	25.7
	N	21	21	23	24
DAY 14	MEAN	353	346	363	340
	S.D.	23.1	24.1	21.1	35.4
	N	21	21	23	24
DAY 21	MEAN	356	344	357	337*
	S.D.	24.4	23.8	19.7	25.5
	N	21	21	23	24
DAY 28	MEAN	325	318	325	309*
	S.D.	22.3	20.6	18.3	22.6
	N	21	21	23	24

Statistical key: * = $p<0.05$

TABLE 10 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF MATERNAL LACTATION BODY WEIGHT GAIN (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
DAYS 1 TO 4	MEAN	11	3	9	9
	S.D.	17.8	13.1	10.6	9.9
	N	23	24	25	26
DAYS 4 TO 7	MEAN	19	21	19	19
	S.D.	7.9	12.3	9.8	11.8
	N	23	24	25	26
DAYS 7 TO 14	MEAN	26	21	18	21
	S.D.	13.0	17.9	13.5	7.7
	N	23	24	25	26
DAYS 14 TO 21	MEAN	-9	-1	-10	-5
	S.D.	10.1	19.8	13.7	10.8
	N	23	24	25	26
DAYS 21 TO 28	MEAN	-34	-35	-31	-29
	S.D.	13.6	13.8	14.9	13.1
	N	23	24	25	26
DAYS 1 TO 28	MEAN	13	8	6	15
	S.D.	16.4	9.5	15.8	14.4
	N	23	24	25	26

No statistically significant differences

TABLE 10 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF MATERNAL LACTATION BODY WEIGHT GAIN (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
DAYS 1 TO 4	MEAN	12	7	13	13
	S.D.	8.3	8.0	8.2	8.0
	N	21	21	23	24
DAYS 4 TO 7	MEAN	3	9	10	6
	S.D.	16.6	6.7	6.3	7.5
	N	21	21	23	24
DAYS 7 TO 14	MEAN	27	18	22	21
	S.D.	21.5	10.9	8.9	17.2
	N	21	21	23	24
DAYS 14 TO 21	MEAN	3	-2	-6	-4
	S.D.	14.6	13.7	10.5	21.0
	N	21	21	23	24
DAYS 21 TO 28	MEAN	-31	-26	-32	-28
	S.D.	15.7	14.1	10.9	14.9
	N	21	21	23	24
DAYS 1 TO 28	MEAN	15	6	8	8
	S.D.	17.4	13.5	12.2	13.1
	N	21	21	23	24

No statistically significant differences

TABLE 11 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES — MEAN FEED CONSUMPTION (GRAMS/KG/DAY)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
WEEK 0	MEAN	117	118	119	117
	S.D.	6.5	5.6	5.3	5.8
	N	26	26	26	26
WEEK 1	MEAN	99	100	96	95*
	S.D.	4.5	4.5	4.5	5.6
	N	26	26	26	26
WEEK 2	MEAN	88	87	86	85**
	S.D.	3.8	4.0	4.0	3.6
	N	26	26	25	26
WEEK 3	MEAN	80	78	78	77
	S.D.	3.8	3.7	4.1	5.0
	N	26	26	26	26
WEEK 4	MEAN	70	71	70	69
	S.D.	4.0	3.3	4.2	4.2
	N	26	26	26	26
WEEK 5	MEAN	68	67	65*	66
	S.D.	4.0	3.3	2.6	3.3
	N	26	26	26	26
WEEK 6	MEAN	64	64	62	64
	S.D.	3.4	3.3	2.5	2.4
	N	26	26	26	26
WEEK 7	MEAN	62	62	59**	61
	S.D.	4.7	3.0	3.8	2.8
	N	26	26	26	26
WEEK 8	MEAN	59	59	57	58
	S.D.	4.9	2.9	2.7	3.8
	N	26	26	26	25
WEEK 9	MEAN	57	56	55	56
	S.D.	3.0	2.5	2.9	2.7
	N	26	26	26	26

Statistical key: * = $p<0.05$ ** = $p<0.01$

TABLE 11 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES — MEAN FEED CONSUMPTION (GRAMS/KG/DAY)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
WEEK 10	MEAN	57	54**	53**	54**
	S.D.	3.3	2.8	2.7	2.6
	N	26	26	26	26
WEEK 13	MEAN	54	51*	50**	52
	S.D.	4.7	3.2	2.6	2.7
	N	26	26	26	26
WEEK 14	MEAN	52	51	49*	52
	S.D.	3.6	2.7	2.9	2.7
	N	26	26	26	26
WEEK 15	MEAN	50	50	48*	51
	S.D.	3.6	2.2	2.6	2.6
	N	26	26	26	25
WEEK 16	MEAN	51	50	48**	49
	S.D.	3.7	2.6	2.4	2.7
	N	25	26	26	26

Statistical key: * = $p<0.05$ ** = $p<0.01$

TABLE 11 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

FEMALES MEAN FEED CONSUMPTION (GRAMS/KG/DAY)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
WEEK 0	MEAN	130	130	137	137
	S.D.	14.5	7.0	11.1	8.6
	N	26	26	26	26
WEEK 1	MEAN	103	106	105	103
	S.D.	6.4	9.7	7.3	8.3
	N	26	26	26	26
WEEK 2	MEAN	97	95	95	94
	S.D.	5.9	3.9	4.9	5.5
	N	26	23	26	21
WEEK 3	MEAN	93	93	92	92
	S.D.	5.2	5.1	6.2	7.0
	N	26	26	26	26
WEEK 4	MEAN	85	87	86	84
	S.D.	4.8	5.2	5.1	6.0
	N	26	26	26	26
WEEK 5	MEAN	82	82	83	83
	S.D.	5.3	5.0	5.7	5.8
	N	26	26	25	26
WEEK 6	MEAN	77	77	78	79
	S.D.	4.0	4.9	4.4	4.0
	N	26	26	26	24
WEEK 7	MEAN	75	75	75	75
	S.D.	5.8	4.8	5.0	3.9
	N	26	26	26	26
WEEK 8	MEAN	71	70	71	71
	S.D.	4.9	5.0	4.9	4.0
	N	26	26	26	25
WEEK 9	MEAN	68	67	68	70
	S.D.	5.6	4.0	4.0	5.6
	N	26	26	26	26

No statistically significant differences

TABLE 11 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

FEMALES MEAN FEED CONSUMPTION (GRAMS/KG/DAY)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
WEEK 10	MEAN	66	64	67	67
	S.D.	3.9	4.5	6.2	4.6
	N	26	26	26	26
WEEK 13	MEAN	62	58	53	
	S.D.	6.6	0.0	0.0	
	N	2	1	1	
WEEK 14	MEAN	55	46	54	
	S.D.	7.6	0.0	0.0	
	N	2	1	1	
WEEK 15	MEAN	51	55	45	
	S.D.	2.8	0.0	0.0	
	N	2	1	1	

No statistically significant differences

TABLE 11 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES — MEAN FEED CONSUMPTION (GRAMS/KG/DAY)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
DAY 35	MEAN	125	123	120*	121*
	S.D.	8.3	5.9	5.4	7.1
	N	26	26	26	26
DAY 42	MEAN	147	142*	138**	139**
	S.D.	8.1	5.9	7.1	6.4
	N	26	25	26	26
DAY 49	MEAN	127	122**	117**	118**
	S.D.	8.0	5.4	5.9	4.4
	N	26	26	26	26
DAY 56	MEAN	108	102**	99**	100**
	S.D.	7.0	4.7	5.6	4.4
	N	25	26	26	26
DAY 63	MEAN	91	89	86**	87*
	S.D.	5.5	5.4	6.4	4.8
	N	26	26	26	26
DAY 70	MEAN	82	80	75**	78**
	S.D.	4.0	4.3	5.2	5.1
	N	26	26	26	26
DAY 77	MEAN	75	73	71**	72*
	S.D.	4.0	3.7	4.2	4.0
	N	26	26	25	26
DAY 84	MEAN	67	66	67	68
	S.D.	10.1	5.7	3.9	3.9
	N	26	26	26	26
DAY 91	MEAN	65	63	62	63
	S.D.	4.0	3.6	4.3	6.2
	N	25	26	25	26
DAY 98	MEAN	63	61	59	60
	S.D.	6.6	4.8	4.7	6.9
	N	26	26	26	25

Statistical key: * = $p<0.05$ ** = $p<0.01$

TABLE 11 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

MALES — MEAN FEED CONSUMPTION (GRAMS/KG/DAY)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
DAY 105	MEAN	59	59	58	58
	S.D.	3.3	3.3	4.5	5.2
	N	24	26	26	24
DAY 126	MEAN	50	52	49	52
	S.D.	2.8	5.1	2.9	3.7
	N	21	22	22	22
DAY 133	MEAN	49	49	48	50
	S.D.	2.4	6.1	3.2	3.2
	N	25	26	24	24
DAY 140	MEAN	49	48	46**	48
	S.D.	2.3	2.9	2.7	2.3
	N	25	26	24	24
DAY 147	MEAN	49	49	46*	50
	S.D.	2.9	3.5	6.8	3.1
	N	25	26	26	23
DAY 154	MEAN	48	46	48	49
	S.D.	4.2	6.1	2.5	2.9
	N	12	19	18	11

Statistical key: * = $p<0.05$ ** = $p<0.01$

TABLE 11 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

FEMALES — MEAN FEED CONSUMPTION (GRAMS/KG/DAY)

	GROUP	I	II	III	IV
	DOSE LEVEL (MG/M3)	0	2000	10000	20000
DAY 35	MEAN	136	128	121**	124*
	S.D.	26.2	11.1	7.1	6.4
	N	26	26	26	26
DAY 42	MEAN	144	145	135	138
	S.D.	19.3	12.6	8.0	8.1
	N	25	26	26	26
DAY 49	MEAN	125	121	114**	117**
	S.D.	12.9	6.5	5.5	7.5
	N	26	26	26	26
DAY 56	MEAN	110	105	102**	105
	S.D.	10.2	7.1	6.1	7.8
	N	26	25	26	26
DAY 63	MEAN	98	95	91**	94
	S.D.	9.7	6.2	6.1	5.5
	N	26	26	26	26
DAY 70	MEAN	92	88	86**	88
	S.D.	7.7	4.9	5.1	5.4
	N	25	26	26	26
DAY 77	MEAN	85	81	79	82
	S.D.	12.2	6.0	5.4	5.3
	N	25	26	25	26
DAY 84	MEAN	80	78	78	78
	S.D.	6.4	3.5	6.0	6.0
	N	26	26	26	26
DAY 91	MEAN	75	76	73	75
	S.D.	5.2	5.8	4.4	4.5
	N	26	26	24	26
DAY 98	MEAN	70	72	71	71
	S.D.	10.2	4.0	6.4	3.7
	N	26	26	24	26

Statistical key: * = p<0.05 ** = p<0.01

TABLE 11 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

FEMALES MEAN FEED CONSUMPTION (GRAMS/KG/DAY)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
DAY 105	MEAN	73	69	71	68
	S.D.	12.6	4.1	5.4	6.7
	N	25	26	26	24
DAY 133	MEAN	56	54	46	58
	S.D.	6.2	2.8	0.9	7.6
	N	4	4	3	2
DAY 140	MEAN	55	53	56	60
	S.D.	7.1	3.1	3.2	0.0
	N	3	4	3	1
DAY 147	MEAN	59	56	58	60
	S.D.	12.7	8.7	2.8	0.0
	N	3	4	3	1

No statistically significant differences

TABLE 12 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF GESTATION FEED CONSUMPTION (GRAMS/KG/DAY)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
DAYS 0 TO 4	MEAN	75	75	73	75
	S.D.	5.9	6.9	13.4	6.5
	N	23	24	25	26
DAYS 4 TO 7	MEAN	78	77	77	77
	S.D.	5.8	6.4	3.7	5.7
	N	23	24	25	26
DAYS 7 TO 14	MEAN	74	72	72	72
	S.D.	4.5	4.8	4.4	5.2
	N	23	23	25	26
DAYS 14 TO 20	MEAN	64	61	61	63
	S.D.	4.5	4.3	3.8	3.5
	N	23	24	25	26
DAYS 0 TO 20	MEAN	73	71	71	72
	S.D.	3.9	4.5	4.5	4.5
	N	23	24	25	26

No statistically significant differences

TABLE 12 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF GESTATION FEED CONSUMPTION (GRAMS/KG/DAY)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
DAYS 0 TO 4	MEAN	71	71	70	74
	S.D.	7.1	6.1	4.8	6.6
	N	20	21	22	23
DAYS 4 TO 7	MEAN	73	74	74	76
	S.D.	10.2	6.2	5.2	7.1
	N	20	21	23	23
DAYS 7 TO 14	MEAN	72	69	68	70
	S.D.	9.9	4.3	4.0	5.3
	N	20	21	23	23
DAYS 14 TO 20	MEAN	64	64	64	64
	S.D.	3.4	2.5	4.0	4.8
	N	20	21	23	23
DAYS 0 TO 20	MEAN	70	69	69	71
	S.D.	4.2	3.8	3.3	5.2
	N	20	21	23	23

No statistically significant differences

TABLE 13 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF LACTATION FEED CONSUMPTION (GRAMS/KG/DAY)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
DAYS 1 TO 4	MEAN	100	94	102	111
	S.D.	25.4	23.4	16.4	27.5
	N	23	24	25	26
DAYS 4 TO 7	MEAN	119	111	113	114
	S.D.	23.6	13.7	10.1	13.8
	N	23	24	25	26
DAYS 7 TO 14	MEAN	145	136	139	143
	S.D.	6.1	18.3	12.1	16.0
	N	23	24	25	25
DAYS 14 TO 21	MEAN	178	171	175	177
	S.D.	12.2	12.8	14.9	21.7
	N	22	22	25	25
DAYS 21 TO 28	MEAN	305	302	314	307
	S.D.	22.9	32.9	34.4	42.9
	N	23	24	25	26
DAYS 1 TO 28	MEAN	169	163	169	170
	S.D.	14.3	15.6	14.1	20.6
	N	23	24	25	26

No statistically significant differences

TABLE 13 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF LACTATION FEED CONSUMPTION (GRAMS/KG/DAY)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
DAYS 1 TO 4	MEAN	99	95	100	104
	S.D.	16.5	23.6	20.7	17.2
	N	21	21	23	24
DAYS 4 TO 7	MEAN	111	109	109	112
	S.D.	17.5	17.8	12.2	18.9
	N	21	21	22	24
DAYS 7 TO 14	MEAN	146	140	142	148
	S.D.	14.0	16.0	13.4	15.0
	N	21	21	22	24
DAYS 14 TO 21	MEAN	177	175	171	179
	S.D.	20.4	21.4	15.4	24.2
	N	19	21	23	24
DAYS 21 TO 28	MEAN	284	287	297	297
	S.D.	50.8	50.8	33.0	61.1
	N	8	8	13	14
DAYS 1 TO 28	MEAN	143	142	150	155
	S.D.	23.6	24.4	20.3	25.9
	N	21	21	23	24

No statistically significant differences

	Summary of Estrous Stages Preface	Table 14

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F_1 Generation 115

Notes:

Estrous cycles were evaluated for at least 21 days (during the pre-mating period) and up to the day when successful mating occurred. Any periods of pseudopregnancy were excluded from these calculations.

	Summary of Estrous Stages P_0 Generation	Table 14

Group		1	2	3	4
Exposure Level (mg/m^3)		0	2000	10000	20000
Females Examined	N	26	26	26	26
Pre-Mating					
Cycle Length (days)	Mean	4.4	4.3	4.3	4.4
	S.D.	0.6	0.4	0.4	0.6
	N	25	25	26	23
Number With Irregular Cycles		5	4	3	6
Mating					
Number Passing ≥ 1 Estrus Without Mating		0	1	1	0
Number of Animals Pregnant		23	24	25	26

	Summary of Estrous Stages F_1 Generation	Table 14

Group		1	2	3	4
Exposure Level (mg/m^3)		0	2000	10000	20000
Females Examined	N	26	26	26	26
Pre-Mating					
Cycle Length (days)	Mean	4.3	4.3	4.3	4.3
	S.D.	0.4	0.6	0.6	0.4
	N	25	23	21	25
Number With Irregular Cycles		7	5	4	2
Mating					
Number Passing ≥ 1 Estrus Without Mating		4	4	3	4
Number of Animals Pregnant		21	21	23	24

TABLE 15 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF COHABITATION DATA

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
Females paired with males	N	26	26	26	26
Males placed with females	N	26	26	26	26
Total number mated	N	24	25	25	26
male mating index	%	92.3	96.2	96.2	100.0
with females pregnant	N	23	24	25	26
male fertility index	%	88.5	92.3	96.2	100.0
Females with defined day 0 of Gestation	N	24	25	25	26
No. of days until Mating	MEAN	3.4	2.5	2.5	3.2
	S.D.	1.61	1.16	1.26	2.34
Day 1 to 4	N	21	24	22	23
	%	87.5	96.0	88.0	88.5
Day 5 to 8	N	2	1	3	2
	%	8.3	4.0	12.0	7.7
Day 9 to 14	N	1	0	0	1
	%	4.2	0.0	0.0	3.8

No statistically significant differences

TABLE 15 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF COHABITATION DATA

GROUP DOSE LEVEL (MG/M3)		I 0	II 2000	III 10000	IV 20000
Females paired with males	N	26	26	26	25
Males placed with females	N	25	26	26	25
Total number mated	N	22	22	23	24
male mating index	%	88.0	84.6	88.5	96.0
with females pregnant	N	20	21	23	24
male fertility index	%	80.0	80.8	88.5	96.0
Females with defined day 0 of Gestation	N	22	22	23	23
No. of days until Mating	MEAN	3.0	2.8	3.8	3.3
	S.D.	2.13	1.30	2.81	2.70
Day 1 to 4	N	17	20	19	19
	%	77.3	90.9	82.6	82.6
Day 5 to 8	N	5	2	2	2
	%	22.7	9.1	8.7	8.7
Day 9 to 14	N	0	0	2	2
	%	0.0	0.0	8.7	8.7

No statistically significant differences

TABLE 16 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF DELIVERY AND LITTER DATA

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
Females on Study	N	26	26	26	26
Females Mated	N	24	25	25	26
Mating Index	%	92.3	96.2	96.2	100.0
Females Pregnant	N	23	24	25	26
Female Fertility Index	%	95.8	96.0	100.0	100.0
Females with Liveborn	N	23	24	25	26
Gestation Index	%	100.0	100.0	100.0	100.0
Females Completing Delivery	N	23	24	25	26
	%	100.0	100.0	100.0	100.0
with Stillborn Pups	N	1	1	7	5
	%	4.3	4.2	28.0	19.2
with all Stillborn	N	0	0	0	0
	%	0.0	0.0	0.0	0.0
Litters with Liveborn, but no Pups Alive					
day 4	N	0	0	0	0
	%	0.0	0.0	0.0	0.0
day 21	N	0	0	0	0
	%	0.0	0.0	0.0	0.0
Duration of Gestation	MEAN	21.7	21.7	21.8	22.0
	S.D.	0.45	0.46	0.41	0.20
	N	23	24	25	26

No statistically significant differences

TABLE 16 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF DELIVERY AND LITTER DATA

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
Litters with Liveborn Pups	N	23	24	25	26
Pups Delivered (total)	N	333	329	357	363
	MEAN	14.5	13.7	14.3	14.0
	S.D.	2.64	2.39	2.46	3.12
Liveborn	N	332	328	350	358
Live Birth Index	%	99.7	99.7	98.0	98.6
Stillborn	N	1	1	7	5
	%	0.3	0.3	2.0	1.4
Culled day 4		97	90	92	102
Liveborn, not culled prior to day 21	N	235	238	258	256
Pups Dying, Missing, and/or Cannibalized					
day 0	N	2	2	2	1
	%	0.6	0.6	0.6	0.3
days 1-4	N	6	1	10	3
	%	1.8	0.3	2.9	0.8
days 5-21	N	0	0	2	1
	%	0.0	0.0	0.6	0.3
days 0-4	N	8	3	12	4
	%	2.4	0.9	3.4	1.1
days 0-21	N	8	3	14	5
	%	2.4	0.9	4.0	1.4
Pups Surviving 4 days	N	324	325	338	354
Viability Index	%	97.6	99.1	96.6	98.9
Pups Surviving 21 days	N	227	235	244	251
Lactation Index	%	100.0	100.0	99.2	99.6

No statistically significant differences

TABLE 16 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF DELIVERY AND LITTER DATA

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
Implantation Sites	N	365	370	377	394
per Litter	MEAN	15.9	15.4	15.1	15.2
	S.D.	1.96	1.41	2.41	1.95
Sex Ratio - Male Pups:Total Pups					
day 0	N	185	162	178	183
	%	55.7	49.4	50.9	51.3
day 21	N	118	116	121	124
	%	52.0	49.4	49.6	49.4
Live Pups/Litter					
day 1	MEAN	14.3	13.5	13.6	13.7
	S.D.	2.51	2.43	2.63	3.06
	N	23	24	25	26
day 4 preculling	MEAN	14.1	13.5	13.5	13.6
	S.D.	2.48	2.43	2.68	2.98
	N	23	24	25	26
day 4 postculling	MEAN	9.9	9.8	9.8	9.7
	S.D.	0.46	0.72	0.80	1.38
	N	23	24	25	26
day 7	MEAN	9.9	9.8	9.8	9.7
	S.D.	0.46	0.72	0.82	1.38
	N	23	24	25	26
day 14	MEAN	9.9	9.8	9.8	9.7
	S.D.	0.46	0.72	0.83	1.38
	N	23	24	25	26
day 21	MEAN	9.9	9.8	9.8	9.7
	S.D.	0.46	0.72	0.83	1.38
	N	23	24	25	26
day 28	MEAN	9.4	9.4	9.4	9.3
	S.D.	0.90	1.01	1.08	1.51
	N	23	24	25	26

No statistically significant differences

TABLE 16 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF DELIVERY AND LITTER DATA

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
Pup Weight/Litter (grams)					
day 1	MEAN	6.9	7.0	7.1	7.2
	S.D.	0.67	0.64	0.70	0.60
	N	23	24	25	26
day 4	MEAN	9.7	9.9	10.3	10.1
	S.D.	0.98	1.26	1.22	1.13
	N	23	24	25	26
day 7	MEAN	13.5	13.8	14.4	13.8
	S.D.	1.13	1.44	1.49	1.42
	N	23	24	25	26
day 14	MEAN	23.7	23.6	24.7	24.2
	S.D.	1.78	2.50	1.96	2.19
	N	23	24	25	26
day 21	MEAN	38.7	38.3	41.2	40.6
	S.D.	3.47	4.67	4.10	4.54
	N	23	24	25	26
day 28	MEAN	72.6	72.7	75.8	74.8
	S.D.	5.60	7.44	6.18	5.88
	N	23	24	25	26

No statistically significant differences

TABLE 16 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF DELIVERY AND LITTER DATA

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
Females on Study	N	26	26	26	26
Females Mated	N	23	22	23	24
Mating Index	%	88.5	84.6	88.5	96.0
Females Pregnant	N	21	21	23	24
Female Fertility Index	%	91.3	95.5	100.0	100.0
Females with Liveborn	N	21	21	23	24
Gestation Index	%	100.0	100.0	100.0	100.0
Females Completing Delivery	N	21	21	23	24
	%	100.0	100.0	100.0	100.0
with Stillborn Pups	N	0	2	1	2
	%	0.0	9.5	4.3	8.3
with all Stillborn	N	0	0	0	0
	%	0.0	0.0	0.0	0.0
Litters with Liveborn, but no Pups Alive					
day 4	N	0	0	0	0
	%	0.0	0.0	0.0	0.0
day 21	N	0	0	0	0
	%	0.0	0.0	0.0	0.0
Duration of Gestation	MEAN	21.8	21.9	21.7	21.8
	S.D.	0.44	0.30	0.54	0.49
	N	20	21	23	23

No statistically significant differences

TABLE 16 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF DELIVERY AND LITTER DATA

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
Litters with Liveborn Pups	N	21	21	23	24
Pups Delivered (total)	N	280	238	313	312
	MEAN	13.3	11.3	13.6	13.0
	S.D.	2.83	3.01	3.17	3.28
Liveborn	N	280	236	312	309
Live Birth Index	%	100.0	99.2	99.7	99.0
Stillborn	N	0	2	1	3
	%	0.0	0.8	0.3	1.0
Culled day 4		72	40	78	71
Liveborn, not culled prior to day 21	N	208	196	234	238
Pups Dying, Missing, and/or Cannibalized					
day 0	N	0	1	3	0
	%	0.0	0.4	1.0	0.0
days 1-4	N	4	0	9	9
	%	1.4	0.0	2.9	2.9
days 5-21	N	2	0	4	1
	%	0.7	0.0	1.3	0.3
days 0-4	N	4	1	12	9
	%	1.4	0.4	3.8	2.9
days 0-21	N	6	1	16	10
	%	2.1	0.4	5.1	3.2
Pups Surviving 4 days	N	276	235	300	300
Viability Index	%	98.6	99.6	96.2	97.1
Pups Surviving 21 days	N	202	195	218	228
Lactation Index	%	99.0	100.0	98.2	99.6

No statistically significant differences

TABLE 16 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF DELIVERY AND LITTER DATA

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
Implantation Sites	N	305	285	359	334
per Litter	MEAN	14.5	13.6	15.6	14.5
	S.D.	2.73	2.29	2.15	2.11
Sex Ratio - Male Pups:Total Pups					
day 0	N	151	107	160	151
	%	53.9	45.3	51.3	48.9
day 21	N	102	90	112	107
	%	50.5	46.2	51.4	46.9
Live Pups/Litter					
day 1	MEAN	13.3	11.2	13.3	12.7
	S.D.	2.81	2.89	3.25	3.24
	N	21	21	23	24
day 4 preculling	MEAN	13.1	11.2	13.0	12.5
	S.D.	2.76	2.89	3.21	3.15
	N	21	21	23	24
day 4 postculling	MEAN	9.7	9.3	9.7	9.5
	S.D.	1.31	1.68	1.15	1.44
	N	21	21	23	24
day 7	MEAN	9.6	9.3	9.6	9.5
	S.D.	1.32	1.68	1.16	1.44
	N	21	21	23	24
day 14	MEAN	9.6	9.3	9.5	9.5
	S.D.	1.32	1.68	1.16	1.44
	N	21	21	23	24
day 21	MEAN	9.6	9.3	9.5	9.5
	S.D.	1.32	1.68	1.20	1.44
	N	21	21	23	24
day 28	MEAN	9.6	9.2	9.5	9.5
	S.D.	1.32	1.67	1.20	1.44
	N	21	21	23	24

No statistically significant differences

TABLE 16 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF DELIVERY AND LITTER DATA

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
Pup Weight/Litter (grams)					
day 1	MEAN	6.8	7.1	7.0	6.9
	S.D.	0.64	0.57	0.81	0.77
	N	21	21	23	24
day 4	MEAN	9.9	10.6	10.1	10.1
	S.D.	1.30	1.13	1.60	1.32
	N	21	21	23	24
day 7	MEAN	14.2	14.9	14.2	14.0
	S.D.	1.79	1.65	1.87	1.58
	N	21	21	23	24
day 14	MEAN	25.4	25.6	24.8	24.3
	S.D.	2.24	3.16	1.85	2.27
	N	21	21	23	24
day 21	MEAN	39.1	39.7	38.8	38.5
	S.D.	3.27	4.77	3.10	4.29
	N	21	21	23	24
day 28	MEAN	73.4	75.7	74.6	72.1
	S.D.	4.85	7.67	5.34	6.58
	N	21	21	23	24

No statistically significant differences

TABLE 17 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP CLINICAL OBSERVATIONS DURING LACTATION - (frequency/animals)

GROUP	I	II	III	IV
DOSE LEVEL(MG/M3)	0	2000	10000	20000
DAY 0 to 28				
Normal				
WITHIN NORMAL LIMITS	1552/23	1576/24	1651/25	1706/26
Gen. Appearance				
RED EXUDATE (GENERAL)	0/ 0	1/ 1	0/ 0	0/ 0
SOFT PROTRUSION-MID ABDOMEN	0/ 0	0/ 0	1/ 1	0/ 0
Dermal-General				
SCABS	0/ 0	3/ 1	1/ 1	0/ 0
ULCERATION	0/ 0	1/ 1	0/ 0	0/ 0
Miscellaneous				
HYPOTHERMIA	0/ 0	0/ 0	0/ 0	1/ 1

TABLE 17 F2 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP CLINICAL OBSERVATIONS DURING LACTATION - (frequency/animals)

GROUP	I	II	III	IV
DOSE LEVEL (MG/M3)	0	2000	10000	20000
DAY 0 to 28				
Normal				
WITHIN NORMAL LIMITS	1363/21	1243/21	1484/23	1524/24
Miscellaneous				
TIP OF TAIL MISSING	1/ 1	0/ 0	0/ 0	0/ 0
TAIL MISSING	0/ 0	6/ 1	0/ 0	0/ 0

TABLE 18 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF MEAN PUP BODY WEIGHTS (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
day 1 males	MEAN	7.0	7.2	7.3	7.4
	S.D.	0.73	0.65	0.70	0.63
	N	22	24	25	26
1 females	MEAN	6.7	6.7	6.8	6.9
	S.D.	0.58	0.67	0.71	0.59
	N	23	24	25	26
1 males+females	MEAN	6.9	7.0	7.1	7.2
	S.D.	0.67	0.64	0.70	0.60
	N	23	24	25	26
day 4 males preculling	MEAN	9.8	10.1	10.5	10.4
	S.D.	1.03	1.30	1.22	1.14
	N	22	24	25	26
4 females preculling	MEAN	9.4	9.7	10.0	9.8
	S.D.	0.96	1.28	1.26	1.17
	N	23	24	25	26
4 males+females preculling	MEAN	9.7	9.9	10.3	10.1
	S.D.	0.98	1.26	1.22	1.13
	N	23	24	25	26
day 4 males postculling	MEAN	9.8	10.1	10.5	10.5
	S.D.	1.05	1.30	1.25	1.14
	N	22	24	25	26
4 females postculling	MEAN	9.4	9.7	10.0	9.8
	S.D.	0.96	1.30	1.26	1.17
	N	23	24	25	26
4 males+females postculling	MEAN	9.7	9.9	10.3	10.1
	S.D.	0.97	1.28	1.24	1.15
	N	23	24	25	26

No statistically significant differences

TABLE 18 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF MEAN PUP BODY WEIGHTS (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
day 7 males	MEAN	13.7	14.1	14.7	14.3
	S.D.	1.21	1.50	1.49	1.47
	N	22	24	25	26
7 females	MEAN	13.2	13.5	14.1	13.4
	S.D.	1.18	1.45	1.55	1.40
	N	23	24	25	26
7 males+females	MEAN	13.5	13.8	14.4	13.8
	S.D.	1.13	1.44	1.49	1.42
	N	23	24	25	26
day 14 males	MEAN	24.0	24.0	25.3	24.8
	S.D.	1.95	2.51	1.86	2.42
	N	22	24	25	26
14 females	MEAN	23.4	23.1	24.2	23.6
	S.D.	1.78	2.67	2.16	2.09
	N	23	24	25	26
14 males+females	MEAN	23.7	23.6	24.7	24.2
	S.D.	1.78	2.50	1.96	2.19
	N	23	24	25	26
day 21 males	MEAN	39.0	39.0	42.0	41.5
	S.D.	3.93	4.63	4.02	4.84
	N	22	24	25	26
21 females	MEAN	38.2	37.5	40.5	39.7
	S.D.	3.37	4.96	4.38	4.41
	N	23	24	25	26
21 males+females	MEAN	38.7	38.3	41.2	40.6
	S.D.	3.47	4.67	4.10	4.54
	N	23	24	25	26

No statistically significant differences

TABLE 18 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF MEAN PUP BODY WEIGHTS (GRAMS)

GROUP			I	II	III	IV
DOSE LEVEL(MG/M3)			0	2000	10000	20000
day 28	males	MEAN	74.7	75.0	78.7	77.9
		S.D.	6.51	7.62	6.40	6.48
		N	22	24	25	26
28	females	MEAN	69.9	70.0	73.0	71.7
		S.D.	5.12	7.65	6.38	5.86
		N	23	24	25	26
28	males+females	MEAN	72.6	72.7	75.8	74.8
		S.D.	5.60	7.44	6.18	5.88
		N	23	24	25	26

No statistically significant differences

TABLE 18 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP BODY WEIGHT GAIN -- GRAMS

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
day 1- 4 males	MEAN	2.8	3.0	3.3	3.1
	S.D.	0.50	0.85	0.79	0.70
	N	22	24	25	26
females	MEAN	2.7	2.9	3.2	2.9
	S.D.	0.58	0.79	0.79	0.73
	N	23	24	25	26
males+females	MEAN	2.8	3.0	3.2	3.0
	S.D.	0.51	0.82	0.78	0.69
	N	23	24	25	26
day 4- 7 males	MEAN	3.8	4.0	4.2	3.8
	S.D.	0.85	0.64	0.55	0.77
	N	22	24	25	26
females	MEAN	3.8	3.9	4.1	3.6
	S.D.	0.79	0.61	0.53	0.72
	N	23	24	25	26
males+females	MEAN	3.8	3.9	4.1	3.7
	S.D.	0.78	0.62	0.53	0.72
	N	23	24	25	26
day 4-21 males	MEAN	29.2	28.9	31.5	31.0
	S.D.	3.65	4.09	3.41	4.53
	N	22	24	25	26
females	MEAN	28.8	27.8	30.5	29.9
	S.D.	3.13	4.34	3.73	4.05
	N	23	24	25	26
males+females	MEAN	29.0	28.4	31.0	30.4
	S.D.	3.21	4.10	3.49	4.20
	N	23	24	25	26

No statistically significant differences

TABLE 18 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP BODY WEIGHT GAIN -- GRAMS

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
day 4-28 males	MEAN	64.9	64.9	68.2	67.5
	S.D.	6.20	7.08	5.60	6.10
	N	22	24	25	26
females	MEAN	60.5	60.4	63.0	61.9
	S.D.	4.95	7.05	5.65	5.49
	N	23	24	25	26
males+females	MEAN	62.9	62.7	65.5	64.7
	S.D.	5.37	6.88	5.44	5.48
	N	23	24	25	26
day 7-14 males	MEAN	10.4	9.9	10.5	10.6
	S.D.	1.35	2.14	1.31	1.82
	N	22	24	25	26
females	MEAN	10.2	9.6	10.1	10.2
	S.D.	1.35	2.16	1.46	1.61
	N	23	24	25	26
males+females	MEAN	10.3	9.8	10.3	10.4
	S.D.	1.27	2.09	1.36	1.65
	N	23	24	25	26
day 7-28 males	MEAN	61.0	60.9	63.9	63.7
	S.D.	5.78	6.86	5.28	5.53
	N	22	24	25	26
females	MEAN	56.7	56.5	58.9	58.3
	S.D.	4.53	6.89	5.33	5.05
	N	23	24	25	26
males+females	MEAN	59.1	58.8	61.4	61.0
	S.D.	4.96	6.69	5.12	4.99
	N	23	24	25	26

No statistically significant differences

TABLE 18 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP BODY WEIGHT GAIN -- GRAMS

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
day 14-21 males	MEAN	14.9	15.0	16.7*	16.6
	S.D.	2.38	2.55	2.44	2.69
	N	22	24	25	26
females	MEAN	14.8	14.4	16.3	16.1
	S.D.	2.15	2.62	2.48	2.62
	N	23	24	25	26
males+females	MEAN	15.0	14.7	16.5	16.3
	S.D.	2.19	2.52	2.39	2.61
	N	23	24	25	26
day 14-28 males	MEAN	50.6	51.0	53.4	53.1
	S.D.	4.97	5.53	4.95	4.32
	N	22	24	25	26
females	MEAN	46.5	46.9	48.8	48.1
	S.D.	3.95	5.38	4.66	4.01
	N	23	24	25	26
males+females	MEAN	48.8	49.1	51.0	50.6
	S.D.	4.29	5.32	4.62	3.90
	N	23	24	25	26
day 21-28 males	MEAN	35.7	36.0	36.7	36.5
	S.D.	3.48	3.57	3.02	2.38
	N	22	24	25	26
females	MEAN	31.7	32.5	32.5	32.1
	S.D.	3.02	3.26	2.77	2.27
	N	23	24	25	26
males+females	MEAN	33.8	34.3	34.5	34.3
	S.D.	3.29	3.34	2.79	2.04
	N	23	24	25	26

Statistical key: * = $p<0.05$

TABLE 18 F2 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF MEAN PUP BODY WEIGHTS (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
day 1 males	MEAN	7.0	7.4	7.1	7.1
	S.D.	0.70	0.62	0.86	0.76
	N	21	21	23	24
1 females	MEAN	6.6	7.0	6.7	6.7
	S.D.	0.62	0.57	0.78	0.79
	N	21	21	23	24
1 males+females	MEAN	6.8	7.1	7.0	6.9
	S.D.	0.64	0.57	0.81	0.77
	N	21	21	23	24
day 4 males preculling	MEAN	10.0	10.9	10.3	10.4
	S.D.	1.36	1.22	1.59	1.35
	N	21	21	23	24
4 females preculling	MEAN	9.7	10.4	9.7	9.9
	S.D.	1.31	1.12	1.58	1.30
	N	21	21	23	24
4 males+females preculling	MEAN	9.9	10.6	10.1	10.1
	S.D.	1.30	1.13	1.60	1.32
	N	21	21	23	24
day 4 males postculling	MEAN	10.0	10.9	10.3	10.4
	S.D.	1.37	1.21	1.58	1.36
	N	21	21	23	24
4 females postculling	MEAN	9.6	10.4	9.7	9.9
	S.D.	1.29	1.13	1.59	1.32
	N	21	21	23	24
4 males+females postculling	MEAN	9.8	10.6	10.1	10.1
	S.D.	1.30	1.14	1.59	1.33
	N	21	21	23	24

No statistically significant differences

TABLE 18 F2 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF MEAN PUP BODY WEIGHTS (GRAMS)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
day 7 males	MEAN	14.5	15.2	14.5	14.3
	S.D.	1.82	1.74	1.93	1.64
	N	21	21	23	24
7 females	MEAN	14.0	14.6	13.9	13.7
	S.D.	1.81	1.63	1.83	1.50
	N	21	21	23	24
7 males+females	MEAN	14.2	14.9	14.2	14.0
	S.D.	1.79	1.65	1.87	1.58
	N	21	21	23	24
day 14 males	MEAN	25.6	26.0	25.3	24.8
	S.D.	2.33	3.39	2.01	2.37
	N	21	21	23	24
14 females	MEAN	25.1	25.2	24.2	23.9
	S.D.	2.18	3.09	1.86	2.19
	N	21	21	23	24
14 males+females	MEAN	25.4	25.6	24.8	24.3
	S.D.	2.24	3.16	1.85	2.27
	N	21	21	23	24
day 21 males	MEAN	39.4	40.2	39.6	39.2
	S.D.	3.45	5.28	3.53	4.71
	N	21	21	23	24
21 females	MEAN	38.7	39.4	37.8	37.8
	S.D.	3.19	4.61	3.07	4.03
	N	21	21	23	24
21 males+females	MEAN	39.1	39.7	38.8	38.5
	S.D.	3.27	4.77	3.10	4.29
	N	21	21	23	24

No statistically significant differences

TABLE 18 F2 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF MEAN PUP BODY WEIGHTS (GRAMS)

GROUP			I	II	III	IV
DOSE LEVEL (MG/M3)			0	2000	10000	20000
day 28	males	MEAN	75.6	78.2	77.6	74.8
		S.D.	5.56	9.27	6.05	7.09
		N	21	21	23	24
28	females	MEAN	71.3	73.7	71.1	69.7
		S.D.	4.72	6.99	5.91	5.94
		N	21	21	23	24
28	males+females	MEAN	73.4	75.7	74.6	72.1
		S.D.	4.85	7.67	5.34	6.58
		N	21	21	23	24

No statistically significant differences

TABLE 18 F2 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP BODY WEIGHT GAIN -- GRAMS

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
day 1- 4 males	MEAN	3.1	3.5	3.2	3.3
	S.D.	0.95	0.75	0.92	0.70
	N	21	21	23	24
females	MEAN	3.0	3.4	3.0	3.2
	S.D.	0.90	0.73	0.93	0.68
	N	21	21	23	24
males+females	MEAN	3.0	3.5	3.1	3.2
	S.D.	0.91	0.72	0.93	0.69
	N	21	21	23	24
day 4- 7 males	MEAN	4.5	4.3	4.2	4.0
	S.D.	0.83	0.85	0.83	0.65
	N	21	21	23	24
females	MEAN	4.3	4.2	4.1	3.8
	S.D.	0.79	0.86	0.69	0.67
	N	21	21	23	24
males+females	MEAN	4.4	4.2	4.2	3.9
	S.D.	0.81	0.84	0.74	0.66
	N	21	21	23	24
day 4-21 males	MEAN	29.4	29.3	29.3	28.9
	S.D.	2.60	4.49	3.11	3.81
	N	21	21	23	24
females	MEAN	29.0	29.0	28.1	28.0
	S.D.	2.34	4.09	2.43	3.37
	N	21	21	23	24
males+females	MEAN	29.2	29.1	28.8	28.4
	S.D.	2.45	4.13	2.57	3.50
	N	21	21	23	24

No statistically significant differences

TABLE 18 F2 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP BODY WEIGHT GAIN -- GRAMS

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
day 4-28 males	MEAN	65.6	67.3	67.2	64.4
	S.D.	4.42	8.42	5.64	6.21
	N	21	21	23	24
females	MEAN	61.7	63.3	61.4	59.8
	S.D.	3.69	6.38	5.33	5.27
	N	21	21	23	24
males+females	MEAN	63.6	65.1	64.5	62.0
	S.D.	3.82	6.98	4.82	5.78
	N	21	21	23	24
day 7-14 males	MEAN	11.1	10.9	10.8	10.4
	S.D.	1.15	1.79	1.25	1.33
	N	21	21	23	24
females	MEAN	11.1	10.6	10.3	10.2
	S.D.	0.96	1.70	1.05	1.34
	N	21	21	23	24
males+females	MEAN	11.2	10.7	10.6	10.3
	S.D.	1.04	1.71	1.12	1.30
	N	21	21	23	24
day 7-28 males	MEAN	61.1	63.0	63.1	60.4
	S.D.	4.04	7.79	5.26	5.87
	N	21	21	23	24
females	MEAN	57.4	59.1	57.2	56.0
	S.D.	3.37	5.77	5.09	4.87
	N	21	21	23	24
males+females	MEAN	59.2	60.9	60.3	58.1
	S.D.	3.44	6.37	4.47	5.39
	N	21	21	23	24

No statistically significant differences

TABLE 18 F2 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP BODY WEIGHT GAIN -- GRAMS

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
day 14-21 males	MEAN	13.8	14.1	14.3	14.5
	S.D.	1.94	2.63	2.26	2.83
	N	21	21	23	24
females	MEAN	13.6	14.2	13.6	13.9
	S.D.	1.88	2.40	1.78	2.31
	N	21	21	23	24
males+females	MEAN	13.7	14.1	14.0	14.2
	S.D.	1.87	2.41	1.84	2.50
	N	21	21	23	24
day 14-28 males	MEAN	50.0	52.1	52.2	50.0
	S.D.	3.93	6.68	4.57	5.21
	N	21	21	23	24
females	MEAN	46.2	48.4	46.9	45.8
	S.D.	3.26	4.94	4.57	4.12
	N	21	21	23	24
males+females	MEAN	48.0	50.1	49.7	47.8
	S.D.	3.28	5.47	3.94	4.69
	N	21	21	23	24
day 21-28 males	MEAN	36.2	38.0	37.9	35.6
	S.D.	3.26	4.49	3.06	3.56
	N	21	21	23	24
females	MEAN	32.7	34.3	33.3	31.9
	S.D.	2.38	3.00	3.33	2.99
	N	21	21	23	24
males+females	MEAN	34.4	36.0	35.7	33.6
	S.D.	2.54	3.44	2.75	3.39
	N	21	21	23	24

No statistically significant differences

TABLE 19 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF POSTWEANING DEVELOPMENTAL LANDMARKS

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
Males showing preputial separation					
MEAN AGE (DAYS)		46.2	46.6	45.7	46.8
	S.D.	2.22	3.36	2.15	2.41
	N	26	26	26	26
BODY WEIGHT ON COMPLETION (G)		222	227	225	225
	S.D.	17.2	26.7	16.8	23.6
	N	26	26	26	26
Females showing vaginal opening					
MEAN AGE (DAYS)		37.5	36.8	36.6	36.3
	S.D.	2.76	2.73	2.53	1.72
	N	26	26	26	26
BODY WEIGHT ON COMPLETION (G)		126	125	131	120
	S.D.	13.5	17.9	15.8	10.0
	N	26	26	26	26

No statistically significant differences

TABLE 20 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PARENTAL NECROPSY OBSERVATIONS

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
MALES	N	26	26	26	26
GROSS EXAM	N	1	0	0	0
DISCOLORED LYMPH NODE(S)	N	1	0	0	0
	%	3.8	0.0	0.0	0.0
LUNGS	N	0	0	5	3
DISCOLORED FOCI	N	0	0	5	3
	%	0.0	0.0	19.2	11.5
LIVER	N	0	1	0	0
DISCOLORED LIVER	N	0	1	0	0
	%	0.0	3.8	0.0	0.0
KIDNEY	N	4	2	3	1
DILATED RENAL PELVIS	N	4	2	3	1
	%	15.4	7.7	11.5	3.8

No statistically significant differences

TABLE 20 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PARENTAL NECROPSY OBSERVATIONS

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
MALES	N	26	26	26	26
GONADS	N	0	1	0	0
TESTE (S) SMALL	N	0	1	0	0
	%	0.0	3.8	0.0	0.0
EPIDIDYMIDE(S) SMALL	N	0	1	0	0
	%	0.0	3.8	0.0	0.0
PROSTATE	N	1	0	0	0
DISCOLORED	N	1	0	0	0
	%	3.8	0.0	0.0	0.0

No statistically significant differences

TABLE 20 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PARENTAL NECROPSY OBSERVATIONS

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
FEMALES	N	26	26	26	26
LUNGS	N	1	1	4	5
DISCOLORED FOCI	N	1	1	4	5
	%	3.8	3.8	15.4	19.2
KIDNEY	N	2	0	0	0
DILATED RENAL PELVIS	N	2	0	0	0
	%	7.7	0.0	0.0	0.0
UTERUS	N	0	0	1	0
OVIDUCT NODULE	N	0	0	1	0
	%	0.0	0.0	3.8	0.0

No statistically significant differences

TABLE 20 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PARENTAL NECROPSY OBSERVATIONS

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
MALES	N	26	26	26	26
EYES	N	0	0	0	1
DISCOLORED	N	0	0	0	1
	%	0.0	0.0	0.0	3.8
THYMUS	N	1	2	0	0
DISCOLORED FOCI	N	1	2	0	0
	%	3.8	7.7	0.0	0.0
THORACIC CAVITY	N	0	0	0	1
ABNORMAL CONTENTS	N	0	0	0	1
	%	0.0	0.0	0.0	3.8
LUNGS	N	0	2	3	2
DISCOLORED	N	0	0	0	1
	%	0.0	0.0	0.0	3.8
DISCOLORED FOCI	N	0	2	3	1
	%	0.0	7.7	11.5	3.8

No statistically significant differences

TABLE 20 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PARENTAL NECROPSY OBSERVATIONS

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
MALES	N	26	26	26	26
LIVER	N	1	1	1	0
HERNIATED LOBE(S)	N	0	1	0	0
	%	0.0	3.8	0.0	0.0
ADHESION	N	1	0	1	0
	%	3.8	0.0	3.8	0.0
KIDNEY	N	0	1	2	1
DILATED RENAL PELVIS	N	0	1	0	1
	%	0.0	3.8	0.0	3.8
CYST(S)	N	0	0	2	0
	%	0.0	0.0	7.7	0.0
ADRENALS	N	1	0	2	0
AGENESIS	N	1	0	1	0
	%	3.8	0.0	3.8	0.0
DISCOLORED	N	0	0	1	0
	%	0.0	0.0	3.8	0.0

No statistically significant differences

TABLE 20 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PARENTAL NECROPSY OBSERVATIONS

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
MALES	N	26	26	26	26
GONADS	N	0	1	1	0
TESTE (S) SMALL	N	0	1	1	0
	%	0.0	3.8	3.8	0.0
SMALL EPIDIDYMIDE(S)	N	0	1	1	0
	%	0.0	3.8	3.8	0.0

No statistically significant differences

TABLE 20 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PARENTAL NECROPSY OBSERVATIONS

GROUP DOSE LEVEL (MG/M3)		I 0	II 2000	III 10000	IV 20000
FEMALES	N	26	26	26	26
GROSS EXAM	N	0	0	0	2
HEMORRHAGE	N	0	0	0	1
	%	0.0	0.0	0.0	3.8
BONE MISSHAPEN	N	0	0	0	1
	%	0.0	0.0	0.0	3.8
THYMUS	N	1	2	3	0
DISCOLORED FOCI	N	1	2	3	0
	%	3.8	7.7	11.5	0.0
LUNGS	N	4	6	6	17
DISCOLORED	N	0	0	1	2
	%	0.0	0.0	3.8	7.7
DISCOLORED FOCI	N	4	6	5	15*
	%	15.4	23.1	19.2	57.7
LIVER	N	1	0	0	1
DISCOLORED FOCUS/FOCI	N	1	0	0	1
	%	3.8	0.0	0.0	3.8

Statistical key: * = p<0.05

TABLE 20 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PARENTAL NECROPSY OBSERVATIONS

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
FEMALES	N	26	26	26	26
KIDNEY	N	1	0	2	0
DILATED RENAL PELVIS	N	1	0	0	0
	%	3.8	0.0	0.0	0.0
CYST(S)	N	0	0	2	0
	%	0.0	0.0	7.7	0.0

No statistically significant differences

TABLE 21 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP NECROPSY OBSERVATIONS

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
Litters Evaluated	N	23	24	25	26
Pups Evaluated	N	237	238	260	268
Live	N	236	237	253	263
Stillborn	N	1	1	7	5
GROSS EXAM					
Litter Incidence	N	1	2	3	2
Pup Incidence	N	1	2	3	2
AUTOLYSIS					
Pup Incidence	N	1	1	1	1
	%	0.4	0.4	0.4	0.4
Litter Incidence	N	1	1	1	1
	%	4.3	4.2	4.0	3.8
CANNIBALIZED					
Pup Incidence	N	0	1	2	1
	%	0.0	0.4	0.8	0.4
Litter Incidence	N	0	1	2	1
	%	0.0	4.2	8.0	3.8
INTERNAL SEX UNDETERMINED					
Pup Incidence	N	0	0	2	1
	%	0.0	0.0	0.8	0.4
Litter Incidence	N	0	0	2	1
	%	0.0	0.0	8.0	3.8
THYMUS					
Litter Incidence	N	0	0	0	1
Pup Incidence	N	0	0	0	1

No statistically significant differences

TABLE 21 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP NECROPSY OBSERVATIONS

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
Litters Evaluated	N	23	24	25	26
Pups Evaluated	N	237	238	260	268
Live	N	236	237	253	263
Stillborn	N	1	1	7	5
ENLARGED THYMUS					
Pup Incidence	N	0	0	0	1
	%	0.0	0.0	0.0	0.4
Litter Incidence	N	0	0	0	1
	%	0.0	0.0	0.0	3.8
LUNGS					
Litter Incidence	N	2	3	9	6
Pup Incidence	N	3	4	11	7
LUNG FLOATATION TEST-FOUND DEAD					
Pup Incidence	N	2	3	5	1
	%	0.8	1.3	1.9	0.4
Litter Incidence	N	2	2	5	1
	%	8.7	8.3	20.0	3.8
LUNG FLOATATION TEST-STILLBORN					
Pup Incidence	N	1	1	6	5
	%	0.4	0.4	2.3	1.9
Litter Incidence	N	1	1	6	5
	%	4.3	4.2	24.0	19.2
DISCOLORED FOCI					
Pup Incidence	N	0	0	0	1
	%	0.0	0.0	0.0	0.4
Litter Incidence	N	0	0	0	1
	%	0.0	0.0	0.0	3.8

No statistically significant differences

TABLE 21 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP NECROPSY OBSERVATIONS

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
Litters Evaluated	N	23	24	25	26
Pups Evaluated	N	237	238	260	268
Live	N	236	237	253	263
Stillborn	N	1	1	7	5
LIVER					
Litter Incidence	N	0	0	1	0
Pup Incidence	N	0	0	1	0
DISCOLORED FOCI					
Pup Incidence	N	0	0	1	0
	%	0.0	0.0	0.4	0.0
Litter Incidence	N	0	0	1	0
	%	0.0	0.0	4.0	0.0
STOMACH					
Litter Incidence	N	5	3	11	7
Pup Incidence	N	6	4	15	8
MILK IN STOMACH					
Pup Incidence	N	4	0	3	0
	%	1.7	0.0	1.2	0.0
Litter Incidence	N	4	0	3	0
	%	17.4	0.0	12.0	0.0
NO MILK IN STOMACH					
Pup Incidence	N	2	4	10	8
	%	0.8	1.7	3.8	3.0
Litter Incidence	N	1	3	8	7
	%	4.3	12.5	32.0	26.9

No statistically significant differences

TABLE 21 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP NECROPSY OBSERVATIONS

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
Litters Evaluated	N	23	24	25	26
Pups Evaluated	N	237	238	260	268
Live	N	236	237	253	263
Stillborn	N	1	1	7	5
MILK UNDETERMINED					
Pup Incidence	N	0	0	2	0
	%	0.0	0.0	0.8	0.0
Litter Incidence	N	0	0	2	0
	%	0.0	0.0	8.0	0.0
KIDNEY					
Litter Incidence	N	3	2	4	3
Pup Incidence	N	7	2	6	4
CYST(S)					
Pup Incidence	N	6	1	6	3
	%	2.5	0.4	2.3	1.1
Litter Incidence	N	2	1	4	2
	%	8.7	4.2	16.0	7.7
DILATED RENAL PELVIS (PAPILLA REDUCED)					
Pup Incidence	N	1	1	0	1
	%	0.4	0.4	0.0	0.4
Litter Incidence	N	1	1	0	1
	%	4.3	4.2	0.0	3.8
GONADS					
Litter Incidence	N	1	0	1	0
Pup Incidence	N	1	0	1	0

No statistically significant differences

TABLE 21 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP NECROPSY OBSERVATIONS

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
Litters Evaluated	N	23	24	25	26
Pups Evaluated	N	237	238	260	268
Live	N	236	237	253	263
Stillborn	N	1	1	7	5
OVARY(IES) CYSTIC					
Pup Incidence	N	0	0	1	0
	%	0.0	0.0	0.4	0.0
Litter Incidence	N	0	0	1	0
	%	0.0	0.0	4.0	0.0
SMALL TESTE(S)					
Pup Incidence	N	1	0	0	0
	%	0.4	0.0	0.0	0.0
Litter Incidence	N	1	0	0	0
	%	4.3	0.0	0.0	0.0
SMALL EPIDIDYMIDE(S)					
Pup Incidence	N	1	0	0	0
	%	0.4	0.0	0.0	0.0
Litter Incidence	N	1	0	0	0
	%	4.3	0.0	0.0	0.0

No statistically significant differences

TABLE 21 F2 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP NECROPSY OBSERVATIONS

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
Litters Evaluated	N	21	21	23	24
Pups Evaluated	N	198	166	226	217
Live	N	198	164	225	214
Stillborn	N	0	2	1	3
GROSS EXAM					
Litter Incidence	N	0	0	6	0
Pup Incidence	N	0	0	9	0
CANNIBALIZED					
Pup Incidence	N	0	0	3	0
	%	0.0	0.0	1.3	0.0
Litter Incidence	N	0	0	2	0
	%	0.0	0.0	8.7	0.0
AUTOLYSIS					
Pup Incidence	N	0	0	5	0
	%	0.0	0.0	2.2	0.0
Litter Incidence	N	0	0	3	0
	%	0.0	0.0	13.0	0.0
DECREASED SIZE					
Pup Incidence	N	0	0	1	0
	%	0.0	0.0	0.4	0.0
Litter Incidence	N	0	0	1	0
	%	0.0	0.0	4.3	0.0
INTERNAL SEX UNDETERMINED					
Pup Incidence	N	0	0	4	0
	%	0.0	0.0	1.8	0.0
Litter Incidence	N	0	0	4	0
	%	0.0	0.0	17.4	0.0

No statistically significant differences

TABLE 21 F2 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP NECROPSY OBSERVATIONS

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
Litters Evaluated	N	21	21	23	24
Pups Evaluated	N	198	166	226	217
Live	N	198	164	225	214
Stillborn	N	0	2	1	3
THYMUS					
Litter Incidence	N	0	1	2	2
Pup Incidence	N	0	1	2	3
DISCOLORED FOCUS/FOCI					
Pup Incidence	N	0	1	2	3
	%	0.0	0.6	0.9	1.4
Litter Incidence	N	0	1	2	2
	%	0.0	4.8	8.7	8.3
LUNGS					
Litter Incidence	N	1	3	3	4
Pup Incidence	N	1	3	5	5
LUNG FLOATATION TEST-FOUND DEAD					
Pup Incidence	N	0	1	3	0
	%	0.0	0.6	1.3	0.0
Litter Incidence	N	0	1	3	0
	%	0.0	4.8	13.0	0.0
LUNG FLOATATION TEST-STILLBORN					
Pup Incidence	N	0	2	1	3
	%	0.0	1.2	0.4	1.4
Litter Incidence	N	0	2	1	2
	%	0.0	9.5	4.3	8.3

No statistically significant differences

TABLE 21 F2 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP NECROPSY OBSERVATIONS

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
Litters Evaluated	N	21	21	23	24
Pups Evaluated	N	198	166	226	217
Live	N	198	164	225	214
Stillborn	N	0	2	1	3
DISCOLORED FOCI					
Pup Incidence	N	1	0	1	2
	%	0.5	0.0	0.4	0.9
Litter Incidence	N	1	0	1	2
	%	4.8	0.0	4.3	8.3
STOMACH					
Litter Incidence	N	2	4	8	5
Pup Incidence	N	2	4	12	6
MILK IN STOMACH					
Pup Incidence	N	0	0	1	1
	%	0.0	0.0	0.4	0.5
Litter Incidence	N	0	0	1	1
	%	0.0	0.0	4.3	4.2
NO MILK IN STOMACH					
Pup Incidence	N	2	4	5	5
	%	1.0	2.4	2.2	2.3
Litter Incidence	N	2	4	4	4
	%	9.5	19.0	17.4	16.7
MILK UNDETERMINED					
Pup Incidence	N	0	0	6	0
	%	0.0	0.0	2.7	0.0
Litter Incidence	N	0	0	4	0
	%	0.0	0.0	17.4	0.0

No statistically significant differences

TABLE 21 F2 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP NECROPSY OBSERVATIONS

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
Litters Evaluated	N	21	21	23	24
Pups Evaluated	N	198	166	226	217
Live	N	198	164	225	214
Stillborn	N	0	2	1	3
KIDNEY					
Litter Incidence	N	3	3	3	1
Pup Incidence	N	5	4	3	1
DILATED RENAL PELVIS (PAPILLA REDUCED)					
Pup Incidence	N	2	0	1	1
	%	1.0	0.0	0.4	0.5
Litter Incidence	N	2	0	1	1
	%	9.5	0.0	4.3	4.2
CYST(S)					
Pup Incidence	N	3	4	3	0
	%	1.5	2.4	1.3	0.0
Litter Incidence	N	1	3	3	0
	%	4.8	14.3	13.0	0.0
GONADS					
Litter Incidence	N	1	0	0	0
Pup Incidence	N	1	0	0	0
AGENESIS OF TESTE(S)					
Pup Incidence	N	1	0	0	0
	%	0.5	0.0	0.0	0.0
Litter Incidence	N	1	0	0	0
	%	4.8	0.0	0.0	0.0

No statistically significant differences

TABLE 21 F2 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP NECROPSY OBSERVATIONS

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
Litters Evaluated	N	21	21	23	24
Pups Evaluated	N	198	166	226	217
Live	N	198	164	225	214
Stillborn	N	0	2	1	3
EPIDIDYMIDES-SMALL					
Pup Incidence	N	1	0	0	0
	%	0.5	0.0	0.0	0.0
Litter Incidence	N	1	0	0	0
	%	4.8	0.0	0.0	0.0
HEAD					
Litter Incidence	N	0	0	0	1
Pup Incidence	N	0	0	0	1
DISCOLORED BRAIN					
Pup Incidence	N	0	0	0	1
	%	0.0	0.0	0.0	0.5
Litter Incidence	N	0	0	0	1
	%	0.0	0.0	0.0	4.2

No statistically significant differences

	Summary of Parental Organ Weights Preface	Table 22

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Key to Abbreviations:

g	=	Grams
Sem.Ves & Co.GL.	=	Seminal Vesicles and Coagulating Glands
w/	=	with

Corresponding exposure levels for each group were as follows:

Group I - 0 mg/m^3
Group II - 2,000 mg/m^3
Group III - 10,000 mg/m^3
Group IV - 20,000 mg/m^3

TABLE 22 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ABSOLUTE ORGAN WEIGHTS

MALES

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
FINAL BODY WEIGHT g	MEAN	553	566	564	553
	S.D.	46.0	52.2	51.4	44.7
	N	26	26	26	26
EPIDIDYMIDES g	MEAN	1.4973	1.4481	1.4314	1.4839
	S.D.	.14622	.20640	.12973	.15868
	N	26	26	26	26
PROSTATE g	MEAN	1.1235	1.1353	1.1503	1.1912
	S.D.	.23325	.21350	.29046	.23255
	N	26	26	26	26
SEM.VES & CO.GL. g	MEAN	1.9495	2.1348	1.8320	1.9917
	S.D.	.31997	.26304	.36029	.46783
	N	26	26	26	26
TESTES g	MEAN	3.5500	3.4493	3.4226	3.5635
	S.D.	.25358	.63875	.24754	.35068
	N	26	26	26	26
ADRENALS g	MEAN	0.0601	0.0591	0.0605	0.0647
	S.D.	.00860	.00982	.00888	.00949
	N	26	26	26	26
BRAIN g	MEAN	2.2104	2.2041	2.2237	2.1909
	S.D.	.09884	.12046	.11697	.09568
	N	26	26	26	26
KIDNEYS g	MEAN	4.2834	4.6719*	4.7838**	5.0806**
	S.D.	.49465	.59740	.48281	.44429
	N	26	26	26	26

Statistical key: * = p<0.05 ** = p<0.01

TABLE 22 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ABSOLUTE ORGAN WEIGHTS

MALES

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
LIVER g	MEAN	19.205	20.122	19.648	20.547
	S.D.	2.4175	2.5995	2.5176	2.6724
	N	26	26	26	26
LUNGS g	MEAN	1.8363	1.8635	1.8734	1.8709
	S.D.	.20668	.18082	.18570	.19775
	N	26	26	26	26
PITUITARY g	MEAN	0.0150	0.0131	0.0133	0.0138
	S.D.	.00980	.00184	.00244	.00181
	N	26	26	26	26
SPLEEN g	MEAN	0.8471	0.8681	0.8069	0.8232
	S.D.	.12938	.13536	.13488	.10591
	N	26	26	26	26
EPIDIDYMIS LEFT g	MEAN	0.7219	0.7099	0.7129	0.7229
	S.D.	.06764	.11321	.07802	.07567
	N	26	26	26	26
EPIDIDYMIS RIGHT g	MEAN	0.7511	0.7287	0.7164	0.7497
	S.D.	.08307	.10016	.06135	.08387
	N	26	26	26	26
TESTIS - LEFT g	MEAN	1.7574	1.7184	1.7172	1.7843
	S.D.	.11565	.32145	.13797	.14834
	N	26	26	26	26
TESTIS - RIGHT g	MEAN	1.7739	1.7231	1.7119	1.8124
	S.D.	.14689	.32002	.12477	.13530
	N	26	26	26	26

No statistically significant differences

TABLE 22 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ABSOLUTE ORGAN WEIGHTS

FEMALES

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
FINAL BODY WEIGHT g	MEAN	331	326	318	327
	S.D.	23.2	24.1	20.1	20.9
	N	23	24	25	26
OVARIES g	MEAN	0.1284	0.1177	0.1160	0.1203
	S.D.	.02130	.01779	.01667	.01947
	N	23	23	25	26
UTERUS/OVIDUCTS g	MEAN	0.7175	0.7588	0.6834	0.6649
	S.D.	.18479	.20650	.17583	.15623
	N	23	24	25	26
ADRENALS g	MEAN	0.1013	0.0781	0.0751	0.0758
	S.D.	.11330	.00852	.01172	.01183
	N	23	24	25	26
BRAIN g	MEAN	2.0684	2.0478	2.0494	2.0676
	S.D.	.11739	.07399	.09559	.11071
	N	23	24	25	26
KIDNEYS g	MEAN	3.0926	3.0136	3.0249	3.2033
	S.D.	.60890	.19848	.26853	.26024
	N	23	23	25	26
LIVER g	MEAN	16.138	15.882	15.376	17.063
	S.D.	2.3567	1.6333	1.6073	2.2443
	N	23	24	25	26
LUNGS g	MEAN	1.7614	1.6021	1.5765	1.5913
	S.D.	.77687	.14693	.12210	.13363
	N	23	24	25	26

No statistically significant differences

TABLE 22 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ABSOLUTE ORGAN WEIGHTS

FEMALES

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
PITUITARY g	MEAN	0.0161	0.0161	0.0156	0.0148
	S.D.	.00261	.00250	.00280	.00231
	N	23	24	25	26
SPLEEN g	MEAN	0.6330	0.6395	0.6420	0.6434
	S.D.	.07430	.07213	.05410	.08274
	N	23	24	25	26
OVARY RIGHT g	MEAN	0.0614	0.0562	0.0582	0.0561
	S.D.	.01336	.00999	.01086	.01171
	N	23	24	25	26
OVARY LEFT g	MEAN	0.0583	0.0574	0.0564	0.0579
	S.D.	.00995	.01513	.01341	.01043
	N	23	23	25	26

No statistically significant differences

TABLE 22 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ORGAN WEIGHT TO BODY WEIGHT RATIO

MALES

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
FINAL BODY WEIGHT g	MEAN	553	566	564	553
	S.D.	46.0	52.2	51.4	44.7
	N	26	26	26	26
EPIDIDYMIDES Ratio	MEAN	0.0027	0.0026	0.0026	0.0027
	S.D.	.00035	.00040	.00027	.00036
	N	26	26	26	26
PROSTATE Ratio	MEAN	0.0020	0.0020	0.0021	0.0022
	S.D.	.00044	.00044	.00054	.00048
	N	26	26	26	26
SEM.VES & CO.GL. Ratio	MEAN	0.0036	0.0038	0.0033	0.0036
	S.D.	.00069	.00056	.00070	.00095
	N	26	26	26	26
TESTES Ratio	MEAN	0.0065	0.0061	0.0061	0.0065
	S.D.	.00072	.00122	.00069	.00093
	N	26	26	26	26
ADRENALS Ratio	MEAN	0.0001	0.0001	0.0001	0.0001
	S.D.	.00002	.00002	.00001	.00002
	N	26	26	26	26
BRAIN Ratio	MEAN	0.0040	0.0039	0.0040	0.0040
	S.D.	.00031	.00029	.00032	.00037
	N	26	26	26	26
KIDNEYS Ratio	MEAN	0.0077	0.0082*	0.0085**	0.0092**
	S.D.	.00072	.00065	.00081	.00065
	N	26	26	26	26

Statistical key: * = p<0.05 ** = p<0.01

TABLE 22 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ORGAN WEIGHT TO BODY WEIGHT RATIO

MALES

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
LIVER Ratio	MEAN	0.0346	0.0355	0.0348	0.0371**
	S.D.	.00268	.00223	.00308	.00350
	N	26	26	26	26
LUNGS Ratio	MEAN	0.0033	0.0033	0.0033	0.0034
	S.D.	.00025	.00025	.00031	.00037
	N	26	26	26	26
PITUITARY Ratio	MEAN	0.0000	0.0000	0.0000	0.0000
	S.D.	.00002	.00000	.00000	.00000
	N	26	26	26	26
SPLEEN Ratio	MEAN	0.0015	0.0015	0.0014	0.0015
	S.D.	.00017	.00019	.00021	.00019
	N	26	26	26	26
EPIDIDYMIS LEFT Ratio	MEAN	0.0013	0.0013	0.0013	0.0013
	S.D.	.00016	.00022	.00012	.00018
	N	26	26	26	26
EPIDIDYMIS RIGHT Ratio	MEAN	0.0014	0.0013	0.0013	0.0014
	S.D.	.00019	.00019	.00012	.00019
	N	26	26	26	26
TESTIS - LEFT Ratio	MEAN	0.0032	0.0031	0.0031	0.0033
	S.D.	.00033	.00061	.00035	.00046
	N	26	26	26	26
TESTIS - RIGHT Ratio	MEAN	0.0032	0.0031	0.0031	0.0033
	S.D.	.00039	.00061	.00031	.00041
	N	26	26	26	26

Statistical key: ** = p<0.01

TABLE 22 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ORGAN WEIGHT TO BODY WEIGHT RATIO

FEMALES

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
FINAL BODY WEIGHT g	MEAN	331	326	318	327
	S.D.	23.2	24.1	20.1	20.9
	N	23	24	25	26
OVARIES Ratio	MEAN	0.0004	0.0004	0.0004	0.0004
	S.D.	.00006	.00006	.00006	.00007
	N	23	23	25	26
UTERUS/OVIDUCTS Ratio	MEAN	0.0022	0.0023	0.0022	0.0020
	S.D.	.00059	.00065	.00061	.00049
	N	23	24	25	26
ADRENALS Ratio	MEAN	0.0003	0.0002	0.0002	0.0002
	S.D.	.00029	.00003	.00004	.00004
	N	23	24	25	26
BRAIN Ratio	MEAN	0.0063	0.0063	0.0065	0.0063
	S.D.	.00048	.00045	.00054	.00049
	N	23	24	25	26
KIDNEYS Ratio	MEAN	0.0093	0.0093	0.0095	0.0098
	S.D.	.00135	.00066	.00075	.00059
	N	23	23	25	26
LIVER Ratio	MEAN	0.0485	0.0487	0.0483	0.0520**
	S.D.	.00426	.00277	.00374	.00487
	N	23	24	25	26
LUNGS Ratio	MEAN	0.0053	0.0049	0.0050	0.0049
	S.D.	.00235	.00039	.00045	.00040
	N	23	24	25	26

Statistical key: ** = p<0.01

TABLE 22 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ORGAN WEIGHT TO BODY WEIGHT RATIO

FEMALES

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
PITUITARY Ratio	MEAN	0.0000	0.0000	0.0000	0.0000
	S.D.	.00001	.00001	.00001	.00001
	N	23	24	25	26
SPLEEN Ratio	MEAN	0.0019	0.0020	0.0020	0.0020
	S.D.	.00026	.00023	.00018	.00023
	N	23	24	25	26
OVARY RIGHT Ratio	MEAN	0.0002	0.0002	0.0002	0.0002
	S.D.	.00004	.00003	.00004	.00004
	N	23	24	25	26
OVARY LEFT Ratio	MEAN	0.0002	0.0002	0.0002	0.0002
	S.D.	.00003	.00005	.00005	.00004
	N	23	23	25	26

No statistically significant differences

TABLE 22 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ORGAN WEIGHT TO BRAIN WEIGHT RATIO

MALES

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
EPIDIDYMIDES Ratio	MEAN	0.6779	0.6575	0.6451	0.6774
	S.D.	.06370	.08901	.06389	.06841
	N	26	26	26	26
PROSTATE Ratio	MEAN	0.5078	0.5152	0.5174	0.5451
	S.D.	.09961	.09378	.12592	.11310
	N	26	26	26	26
SEM.VES & CO.GL. Ratio	MEAN	0.8843	0.9711	0.8259	0.9109
	S.D.	.15046	.13060	.16766	.21779
	N	26	26	26	26
TESTES Ratio	MEAN	1.6086	1.5673	1.5421	1.6272
	S.D.	.12947	.28412	.12243	.15540
	N	26	26	26	26
ADRENALS Ratio	MEAN	0.0272	0.0268	0.0272	0.0296
	S.D.	.00395	.00430	.00380	.00444
	N	26	26	26	26
KIDNEYS Ratio	MEAN	1.9367	2.1176**	2.1509**	2.3226**
	S.D.	.19508	.21884	.18224	.22366
	N	26	26	26	26
LIVER Ratio	MEAN	8.6786	9.1282	8.8372	9.4002
	S.D.	.94899	1.0373	1.0644	1.3306
	N	26	26	26	26
LUNGS Ratio	MEAN	0.8307	0.8450	0.8423	0.8546
	S.D.	.08498	.05809	.07075	.08984
	N	26	26	26	26

Statistical key: ** = p<0.01

TABLE 22 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ORGAN WEIGHT TO BRAIN WEIGHT RATIO

MALES

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
PITUITARY Ratio	MEAN	0.0068	0.0060	0.0060	0.0063
	S.D.	.00438	.00077	.00104	.00086
	N	26	26	26	26
SPLEEN Ratio	MEAN	0.3831	0.3935	0.3631	0.3762
	S.D.	.05521	.05420	.05897	.04948
	N	26	26	26	26
EPIDIDYMIS LEFT Ratio	MEAN	0.3270	0.3223	0.3209	0.3301
	S.D.	.03140	.04939	.03398	.03276
	N	26	26	26	26
EPIDIDYMIS RIGHT Ratio	MEAN	0.3399	0.3308	0.3227	0.3424
	S.D.	.03555	.04217	.02813	.03751
	N	26	26	26	26
TESTIS - LEFT Ratio	MEAN	0.7964	0.7809	0.7734	0.8151
	S.D.	.06116	.14327	.06325	.06781
	N	26	26	26	26
TESTIS - RIGHT Ratio	MEAN	0.8038	0.7829	0.7710	0.8280
	S.D.	.07306	.14184	.05707	.06321
	N	26	26	26	26

No statistically significant differences

TABLE 22 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ORGAN WEIGHT TO BRAIN WEIGHT RATIO

FEMALES

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
OVARIES Ratio	MEAN	0.0621	0.0574	0.0568	0.0583
	S.D.	.00956	.00825	.00912	.00959
	N	23	23	25	26
UTERUS/OVIDUCTS Ratio	MEAN	0.3483	0.3704	0.3335	0.3215
	S.D.	.09277	.09860	.08590	.07195
	N	23	24	25	26
ADRENALS Ratio	MEAN	0.0483	0.0381	0.0367	0.0368
	S.D.	.05088	.00405	.00571	.00624
	N	23	24	25	26
KIDNEYS Ratio	MEAN	1.4953	1.4723	1.4765	1.5517
	S.D.	.26674	.09224	.11969	.13067
	N	23	23	25	26
LIVER Ratio	MEAN	7.8121	7.7558	7.5196	8.2829
	S.D.	1.1064	.74808	.87418	1.2348
	N	23	24	25	26
LUNGS Ratio	MEAN	0.8515	0.7829	0.7706	0.7721
	S.D.	.36640	.07239	.06679	.08076
	N	23	24	25	26
PITUITARY Ratio	MEAN	0.0078	0.0079	0.0076	0.0072
	S.D.	.00129	.00124	.00131	.00118
	N	23	24	25	26
SPLEEN Ratio	MEAN	0.3059	0.3126	0.3139	0.3121
	S.D.	.02998	.03605	.03012	.04389
	N	23	24	25	26

No statistically significant differences

TABLE 22 P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ORGAN WEIGHT TO BRAIN WEIGHT RATIO

FEMALES

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
OVARY RIGHT Ratio	MEAN	0.0297	0.0274	0.0284	0.0272
	S.D.	.00639	.00492	.00527	.00589
	N	23	24	25	26
OVARY LEFT Ratio	MEAN	0.0282	0.0280	0.0277	0.0281
	S.D.	.00474	.00715	.00731	.00527
	N	23	23	25	26

No statistically significant differences

TABLE 22 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ABSOLUTE ORGAN WEIGHTS

MALES

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
FINAL BODY WEIGHT g	MEAN	553	539	541	519
	S.D.	41.5	59.9	53.4	41.0
	N	25	26	26	24
BRAIN g	MEAN	2.1772	2.1595	2.1738	2.1709
	S.D.	.09249	.08676	.09199	.12234
	N	25	26	26	24
KIDNEYS g	MEAN	4.1621	4.2632	4.6462**	4.7508**
	S.D.	.37010	.49135	.45540	.38108
	N	25	26	26	24
LIVER g	MEAN	20.724	19.068	20.248	20.668
	S.D.	2.6542	3.1278	3.1337	2.6738
	N	25	26	26	24
LUNGS g	MEAN	1.9361	1.8029*	1.7496**	1.7327**
	S.D.	.19306	.18544	.17920	.17986
	N	25	26	26	24
SPLEEN g	MEAN	0.8237	0.8088	0.7528	0.7661
	S.D.	.14344	.13851	.09824	.10421
	N	25	26	26	24
ADRENALS g	MEAN	0.0631	0.0595	0.0558	0.0640
	S.D.	.00904	.01420	.01250	.01191
	N	22	26	25	24
PITUITARY g	MEAN	0.0134	0.0117	0.0119	0.0114
	S.D.	.00286	.00386	.00340	.00301
	N	25	26	26	24

Statistical key: * = p<0.05 ** = p<0.01

TABLE 22 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ABSOLUTE ORGAN WEIGHTS

MALES

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
TESTES g	MEAN	3.4914	3.3066	3.2600	3.3682
	S.D.	.25759	.38580	.31493	.29921
	N	25	26	26	24
TESTIS - LEFT g	MEAN	1.7478	1.6280	1.6380	1.6825
	S.D.	.12378	.25547	.14841	.16266
	N	25	26	26	24
TESTIS - RIGHT g	MEAN	1.7387	1.6711	1.6150	1.6791
	S.D.	.13929	.15716	.19523	.14276
	N	25	26	26	24
EPIDIDYMIDES g	MEAN	1.4616	1.4583	1.3894	1.4293
	S.D.	.12423	.43703	.15052	.12812
	N	25	26	26	24
EPIDIDYMIS LEFT g	MEAN	0.7336	0.7427	0.6898	0.7162
	S.D.	.06214	.40199	.07039	.07973
	N	25	26	26	24
EPIDIDYMIS RIGHT g	MEAN	0.7207	0.7098	0.6904	0.7081
	S.D.	.07018	.05995	.09346	.06334
	N	25	26	26	24
PROSTATE g	MEAN	1.0859	1.0466	1.0939	1.0623
	S.D.	.19699	.26328	.24933	.23272
	N	25	26	26	24
SEM.VES & CO.GL. g	MEAN	1.6575	1.5173	1.8826	1.8187
	S.D.	.42620	.35850	.39723	.51299
	N	25	26	26	24

No statistically significant differences

TABLE 22 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ABSOLUTE ORGAN WEIGHTS

FEMALES

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
FINAL BODY WEIGHT g	MEAN	325	318	325	309*
	S.D.	22.3	20.6	18.3	22.6
	N	21	21	23	24
BRAIN g	MEAN	2.0145	2.0150	2.0723	1.9915
	S.D.	.09588	.07141	.10086	.09800
	N	21	21	23	24
KIDNEYS g	MEAN	2.8425	2.8313	3.0048	2.9327
	S.D.	.23850	.29544	.23484	.29898
	N	21	21	23	24
LIVER g	MEAN	15.710	15.303	15.567	15.550
	S.D.	1.4586	1.7797	1.6063	1.8278
	N	21	21	23	24
LUNGS g	MEAN	1.5274	1.5620	1.5382	1.5136
	S.D.	.12496	.09960	.11227	.15107
	N	21	21	23	24
SPLEEN g	MEAN	0.6192	0.6296	0.6504	0.6151
	S.D.	.08446	.08462	.05199	.07373
	N	21	21	23	24
ADRENALS g	MEAN	0.0824	0.0795	0.0848	0.0805
	S.D.	.01001	.00968	.00949	.01390
	N	21	21	23	24
PITUITARY g	MEAN	0.0164	0.0173	0.0213	0.0157
	S.D.	.00209	.00295	.01775	.00271
	N	21	21	23	24

Statistical key: * = p<0.05

TABLE 22 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ABSOLUTE ORGAN WEIGHTS

FEMALES

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
OVARIES g	MEAN	0.1125	0.1102	0.1559	0.1153
	S.D.	.01536	.01522	.17399	.01521
	N	21	21	23	24
OVARY LEFT g	MEAN	0.0551	0.0529	0.0600	0.0561
	S.D.	.00905	.01100	.01040	.00762
	N	21	21	23	24
OVARY RIGHT g	MEAN	0.0539	0.0541	0.0586	0.0554
	S.D.	.00883	.01021	.01156	.01159
	N	21	21	23	24
UTERUS/OVIDUCTS g	MEAN	0.5924	0.6772	0.6440	0.5867
	S.D.	.13599	.21234	.20563	.15246
	N	21	21	23	24

No statistically significant differences

TABLE 22 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ORGAN WEIGHT TO BODY WEIGHT RATIO

MALES

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
FINAL BODY WEIGHT g	MEAN	553	539	541	519
	S.D.	41.5	59.9	53.4	41.0
	N	25	26	26	24
BRAIN Ratio	MEAN	0.0040	0.0041	0.0040	0.0042
	S.D.	.00027	.00045	.00036	.00026
	N	25	26	26	24
KIDNEYS Ratio	MEAN	0.0075	0.0079	0.0086**	0.0092**
	S.D.	.00054	.00071	.00093	.00073
	N	25	26	26	24
LIVER Ratio	MEAN	0.0374	0.0353	0.0373	0.0398*
	S.D.	.00291	.00325	.00362	.00317
	N	25	26	26	24
LUNGS Ratio	MEAN	0.0035	0.0034	0.0032**	0.0033
	S.D.	.00028	.00025	.00027	.00030
	N	25	26	26	24
SPLEEN Ratio	MEAN	0.0015	0.0015	0.0014	0.0015
	S.D.	.00024	.00031	.00014	.00017
	N	25	26	26	24
ADRENALS Ratio	MEAN	0.0001	0.0001	0.0001	0.0001
	S.D.	.00002	.00003	.00002	.00002
	N	22	26	25	24
PITUITARY Ratio	MEAN	0.0000	0.0000	0.0000	0.0000
	S.D.	.00000	.00001	.00001	.00001
	N	25	26	26	24

Statistical key: * = p<0.05 ** = p<0.01

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TABLE 22 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ORGAN WEIGHT TO BODY WEIGHT RATIO

MALES

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
TESTES Ratio	MEAN	0.0063	0.0062	0.0061	0.0065
	S.D.	.00055	.00090	.00066	.00059
	N	25	26	26	24
TESTIS - LEFT Ratio	MEAN	0.0032	0.0031	0.0030	0.0033
	S.D.	.00027	.00054	.00029	.00034
	N	25	26	26	24
TESTIS - RIGHT Ratio	MEAN	0.0032	0.0031	0.0030	0.0032
	S.D.	.00029	.00040	.00041	.00027
	N	25	26	26	24
EPIDIDYMIDES Ratio	MEAN	0.0026	0.0027	0.0026	0.0028
	S.D.	.00022	.00098	.00028	.00026
	N	25	26	26	24
EPIDIDYMIS LEFT Ratio	MEAN	0.0013	0.0014	0.0013	0.0014
	S.D.	.00012	.00087	.00012	.00015
	N	25	26	26	24
EPIDIDYMIS RIGHT Ratio	MEAN	0.0013	0.0013	0.0013	0.0014
	S.D.	.00011	.00016	.00018	.00013
	N	25	26	26	24
PROSTATE Ratio	MEAN	0.0020	0.0020	0.0020	0.0021
	S.D.	.00038	.00050	.00043	.00044
	N	25	26	26	24
SEM.VES & CO.GL. Ratio	MEAN	0.0030	0.0028	0.0035	0.0035
	S.D.	.00083	.00069	.00078	.00106
	N	25	26	26	24

No statistically significant differences

TABLE 22 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ORGAN WEIGHT TO BODY WEIGHT RATIO

FEMALES

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
FINAL BODY WEIGHT g	MEAN	325	318	325	309*
	S.D.	22.3	20.6	18.3	22.6
	N	21	21	23	24
BRAIN Ratio	MEAN	0.0062	0.0064	0.0064	0.0065
	S.D.	.00053	.00041	.00053	.00047
	N	21	21	23	24
KIDNEYS Ratio	MEAN	0.0088	0.0089	0.0093	0.0095*
	S.D.	.00099	.00066	.00072	.00093
	N	21	21	23	24
LIVER Ratio	MEAN	0.0483	0.0482	0.0479	0.0504
	S.D.	.00301	.00431	.00400	.00464
	N	21	21	23	24
LUNGS Ratio	MEAN	0.0047	0.0049	0.0047	0.0049
	S.D.	.00043	.00027	.00040	.00048
	N	21	21	23	24
SPLEEN Ratio	MEAN	0.0019	0.0020	0.0020	0.0020
	S.D.	.00026	.00027	.00017	.00022
	N	21	21	23	24
ADRENALS Ratio	MEAN	0.0003	0.0002	0.0003	0.0003
	S.D.	.00004	.00002	.00003	.00005
	N	21	21	23	24
PITUITARY Ratio	MEAN	0.0001	0.0001	0.0001	0.0001
	S.D.	.00001	.00001	.00005	.00001
	N	21	21	23	24

Statistical key: * = $p<0.05$

TABLE 22 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ORGAN WEIGHT TO BODY WEIGHT RATIO

FEMALES

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
OVARIES Ratio	MEAN	0.0003	0.0003	0.0005	0.0004
	S.D.	.00006	.00004	.00056	.00006
	N	21	21	23	24
OVARY LEFT Ratio	MEAN	0.0002	0.0002	0.0002	0.0002
	S.D.	.00003	.00003	.00004	.00003
	N	21	21	23	24
OVARY RIGHT Ratio	MEAN	0.0002	0.0002	0.0002	0.0002
	S.D.	.00003	.00003	.00004	.00004
	N	21	21	23	24
UTERUS/OVIDUCTS Ratio	MEAN	0.0018	0.0021	0.0020	0.0019
	S.D.	.00049	.00066	.00066	.00059
	N	21	21	23	24

No statistically significant differences

TABLE 22 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ORGAN WEIGHT TO BRAIN WEIGHT RATIO

MALES

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
KIDNEYS Ratio	MEAN	1.9120	1.9744	2.1379**	2.1910**
	S.D.	.15190	.21488	.20144	.16323
	N	25	26	26	24
LIVER Ratio	MEAN	9.5110	8.8244	9.3028	9.5104
	S.D.	1.0969	1.3771	1.3157	.97829
	N	25	26	26	24
LUNGS Ratio	MEAN	0.8891	0.8350*	0.8047**	0.7985**
	S.D.	.07961	.08086	.07493	.07291
	N	25	26	26	24
SPLEEN Ratio	MEAN	0.3778	0.3752	0.3461	0.3528
	S.D.	.06189	.06707	.04154	.04206
	N	25	26	26	24
ADRENALS Ratio	MEAN	0.0291	0.0276	0.0256	0.0295
	S.D.	.00426	.00659	.00574	.00529
	N	22	26	25	24
PITUITARY Ratio	MEAN	0.0061	0.0055	0.0055	0.0053
	S.D.	.00124	.00190	.00154	.00138
	N	25	26	26	24
TESTES Ratio	MEAN	1.6044	1.5338	1.5012	1.5527
	S.D.	.10932	.19171	.14717	.12578
	N	25	26	26	24
TESTIS - LEFT Ratio	MEAN	0.8033	0.7552	0.7542	0.7757
	S.D.	.05474	.12357	.06870	.07163
	N	25	26	26	24

Statistical key: * = p<0.05 ** = p<0.01

TABLE 22 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ORGAN WEIGHT TO BRAIN WEIGHT RATIO

MALES

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
TESTIS - RIGHT Ratio	MEAN	0.7989	0.7751	0.7438	0.7739
	S.D.	.05782	.08006	.09153	.05714
	N	25	26	26	24
EPIDIDYMIDES Ratio	MEAN	0.6719	0.6748	0.6394	0.6589
	S.D.	.05613	.19460	.06608	.05413
	N	25	26	26	24
EPIDIDYMIS LEFT Ratio	MEAN	0.3372	0.3432	0.3175	0.3300
	S.D.	.02788	.18003	.03102	.03309
	N	25	26	26	24
EPIDIDYMIS RIGHT Ratio	MEAN	0.3313	0.3289	0.3177	0.3265
	S.D.	.03130	.02787	.04157	.02781
	N	25	26	26	24
PROSTATE Ratio	MEAN	0.4995	0.4858	0.5029	0.4896
	S.D.	.09239	.12667	.10978	.10537
	N	25	26	26	24
SEM.VES & CO.GL. Ratio	MEAN	0.7640	0.7045	0.8686	0.8401
	S.D.	.20797	.17190	.19401	.24632
	N	25	26	26	24

No statistically significant differences

TABLE 22 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ORGAN WEIGHT TO BRAIN WEIGHT RATIO

FEMALES

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
KIDNEYS Ratio	MEAN	1.4109	1.4048	1.4513	1.4715
	S.D.	.09735	.13471	.10946	.11772
	N	21	21	23	24
LIVER Ratio	MEAN	7.8139	7.5986	7.5251	7.8189
	S.D.	.77531	.89074	.82740	.93897
	N	21	21	23	24
LUNGS Ratio	MEAN	0.7585	0.7754	0.7434	0.7594
	S.D.	.05488	.04672	.05953	.05895
	N	21	21	23	24
SPLEEN Ratio	MEAN	0.3074	0.3130	0.3146	0.3088
	S.D.	.03930	.04488	.02946	.03308
	N	21	21	23	24
ADRENALS Ratio	MEAN	0.0411	0.0395	0.0410	0.0404
	S.D.	.00590	.00466	.00483	.00619
	N	21	21	23	24
PITUITARY Ratio	MEAN	0.0081	0.0086	0.0102	0.0079
	S.D.	.00103	.00145	.00837	.00122
	N	21	21	23	24
OVARIES Ratio	MEAN	0.0560	0.0547	0.0751	0.0579
	S.D.	.00840	.00721	.08251	.00691
	N	21	21	23	24
OVARY LEFT Ratio	MEAN	0.0274	0.0262	0.0290	0.0282
	S.D.	.00456	.00532	.00521	.00396
	N	21	21	23	24

No statistically significant differences

TABLE 22 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF ORGAN WEIGHT TO BRAIN WEIGHT RATIO

FEMALES

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
OVARY RIGHT Ratio	MEAN	0.0268	0.0269	0.0284	0.0278
	S.D.	.00488	.00500	.00579	.00547
	N	21	21	23	24
UTERUS/OVIDUCTS Ratio	MEAN	0.2942	0.3374	0.3101	0.2952
	S.D.	.06529	.11082	.09408	.07759
	N	21	21	23	24

No statistically significant differences

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Measurements

Weight measured in grams.

Length and Width measured in centimeters

Key to Abbreviations:

g	=	Grams
wt.	=	Weight
observ.	=	Observed
Thyroid/Para	=	Thyroid/parathyroids

Corresponding exposure levels for each group were as follows:

Group I/1 - 0 mg/m^3
Group II/2 - 2,000 mg/m^3
Group III/3 - 10,000 mg/m^3
Group IV/4 - 20,000 mg/m^3

TABLE 23 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP ORGAN WEIGHT DATA
PUP ORGAN WEIGHTS IN GRAMS

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
BRAIN	MEAN	1.5450	1.5354	1.5521	1.5469
	S.D.	.05031	.05127	.05996	.05665
	N	23	24	25	26
of Male Pups	MEAN	1.5634	1.5679	1.5694	1.5638
	S.D.	.05912	.06509	.07023	.06413
	N	22	24	25	26
of Female Pups	MEAN	1.5284	1.5029	1.5348	1.5312
	S.D.	.06883	.05588	.07042	.05852
	N	22	24	25	25
SPLEEN	MEAN	0.3039	0.3069	0.3172	0.3123
	S.D.	.04038	.04243	.03960	.04544
	N	23	24	25	26
of Male Pups	MEAN	0.3218	0.3196	0.3278	0.3388
	S.D.	.04836	.05033	.05224	.05915
	N	22	24	25	26
of Female Pups	MEAN	0.2831	0.2942	0.3067	0.2868
	S.D.	.04278	.04526	.05003	.04170
	N	22	24	25	25
THYMUS	MEAN	0.3383	0.3307	0.3454	0.3550
	S.D.	.04914	.04264	.04269	.06012
	N	23	24	25	26
of Male Pups	MEAN	0.3322	0.3247	0.3390	0.3606
	S.D.	.06004	.04912	.05341	.07253
	N	22	24	25	26
of Female Pups	MEAN	0.3419	0.3367	0.3518	0.3538
	S.D.	.06068	.05037	.04797	.05706
	N	22	24	25	25

No statistically significant differences

TABLE 23 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP ORGAN WEIGHT DATA
PUP ORGAN WEIGHT TO BODY WEIGHT RATIO

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
BRAIN	MEAN	3.9803	4.0736	3.7963	3.8220
	S.D.	.32672	.60496	.33494	.47121
	N	23	24	25	26
of Male Pups	MEAN	3.9826	4.1244	3.7689	3.8058
	S.D.	.33774	.62894	.41272	.48599
	N	22	24	25	26
of Female Pups	MEAN	3.9834	4.0229	3.8238	3.8294
	S.D.	.42275	.60929	.31238	.51914
	N	22	24	25	25
SPLEEN	MEAN	0.7823	0.8082	0.7730	0.7623
	S.D.	.12827	.12868	.09925	.09108
	N	23	24	25	26
of Male Pups	MEAN	0.8198	0.8334	0.7848	0.8155
	S.D.	.14232	.14097	.14013	.12149
	N	22	24	25	26
of Female Pups	MEAN	0.7369	0.7829	0.7612	0.7096
	S.D.	.12486	.13876	.11294	.08647
	N	22	24	25	25
THYMUS	MEAN	0.8675	0.8655	0.8414	0.8660
	S.D.	.13448	.08174	.10363	.11559
	N	23	24	25	26
of Male Pups	MEAN	0.8419	0.8404	0.8089	0.8647
	S.D.	.14317	.08060	.11536	.12329
	N	22	24	25	26
of Female Pups	MEAN	0.8864	0.8905	0.8739	0.8763
	S.D.	.15920	.11335	.11882	.12866
	N	22	24	25	25

No statistically significant differences

TABLE 23 F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP ORGAN WEIGHTS (GRAMS)
PUP ORGAN WEIGHT TO BRAIN WEIGHT RATIO (DAY 21 P.P.)

GROUP		I	II	III	IV
DOSE LEVEL(MG/M3)		0	2000	10000	20000
SPLEEN	MEAN	19.657	19.997	20.431	20.190
	S.D.	2.5110	2.8237	2.4407	3.0100
	N	23	24	25	26
of Male Pups	MEAN	20.582	20.410	20.870	21.684
	S.D.	3.0308	3.2583	3.1067	3.8195
	N	22	24	25	26
of Female Pups	MEAN	18.507	19.584	19.992	18.755
	S.D.	2.5414	2.9537	3.1799	2.7978
	N	22	24	25	25
THYMUS	MEAN	21.886	21.523	22.216	22.911
	S.D.	3.0743	2.4448	2.2540	3.5620
	N	23	24	25	26
of Male Pups	MEAN	21.234	20.676	21.537	22.996
	S.D.	3.6867	2.7235	2.7375	4.0832
	N	22	24	25	26
of Female Pups	MEAN	22.349	22.371	22.895	23.108
	S.D.	3.7034	2.9341	2.7692	3.6756
	N	22	24	25	25

No statistically significant differences

Summary statistics for absolute organ weights (g)
Study number: 004208N

Group	Terminal Body wt. (g)	Brain	Brain length	Brain width
			Male	Animals
1				
Mean:		1.4160	1.8	1.5
Standard deviation:		0.0716	0.1	0.0
Number of observ. :		(5)	(5)	(5)
2				
Mean:		1.4545	1.8	1.4
Standard deviation:		0.0572	0.1	0.1
Number of observ. :		(5)	(5)	(5)
3				
Mean:		1.4474	1.8	1.5
Standard deviation:		0.0522	0.1	0.0
Number of observ. :		(5)	(5)	(5)
4				
Mean:		1.3520	1.8	1.4
Standard deviation:		0.1141	0.0	0.1
Number of observ. :		(5)	(5)	(5)

*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance
%($) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary statistics for absolute organ weights (g)
Study number: 004208N

Group	Terminal Body wt. (g)	Brain	Brain length	Brain width
		Female Animals		
1				
Mean:		1.3746	1.9	1.4
Standard deviation:		0.0233	0.1	0.1
Number of observ. :		(5)	(5)	(5)
2				
Mean:		1.3541	1.9	1.5
Standard deviation:		0.0994	0.1	0.0
Number of observ. :		(5)	(5)	(5)
3				
Mean:		1.3855	1.9	1.4
Standard deviation:		0.0846	0.1	0.0
Number of observ. :		(5)	(5)	(5)
4				
Mean:		1.4011	1.9	1.5
Standard deviation:		0.0405	0.1	0.0
Number of observ. :		(5)	(5)	(5)

*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance
%($) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

TABLE 23 F2 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP ORGAN WEIGHT DATA
PUP ORGAN WEIGHTS IN GRAMS

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
BRAIN	MEAN	1.5979	1.5891	1.5604	1.5587
	S.D.	.07750	.08949	.08481	.05848
	N	21	21	23	24
of Male Pups	MEAN	1.6100	1.6027	1.5608	1.5751
	S.D.	.09541	.09717	.10899	.06429
	N	21	21	23	24
of Female Pups	MEAN	1.5857	1.5756	1.5599	1.5424
	S.D.	.07797	.10471	.08099	.07587
	N	21	21	23	24
SPLEEN	MEAN	0.3224	0.3329	0.3377	0.3111
	S.D.	.04742	.04660	.04013	.03821
	N	21	21	23	24
of Male Pups	MEAN	0.3325	0.3474	0.3544	0.3232
	S.D.	.05751	.06135	.05478	.04291
	N	21	21	23	24
of Female Pups	MEAN	0.3122	0.3184	0.3211	0.2991
	S.D.	.05867	.04580	.05149	.04474
	N	21	21	23	24
THYMUS	MEAN	0.3351	0.3441	0.3453	0.3314
	S.D.	.04303	.06041	.03356	.04319
	N	21	21	23	24
of Male Pups	MEAN	0.3327	0.3426	0.3478	0.3262
	S.D.	.05243	.07645	.05218	.04190
	N	21	21	23	24
of Female Pups	MEAN	0.3375	0.3456	0.3429	0.3367
	S.D.	.04926	.05774	.04193	.05713
	N	21	21	23	24

No statistically significant differences

TABLE 23 F2 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP ORGAN WEIGHT DATA
PUP ORGAN WEIGHT TO BODY WEIGHT RATIO

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
BRAIN	MEAN	4.0320	4.1096	4.0653	4.0627
	S.D.	.32325	.46462	.41791	.43080
	N	21	21	23	24
of Male Pups	MEAN	4.0100	4.0825	4.0044	4.0799
	S.D.	.39508	.54559	.51767	.48639
	N	21	21	23	24
of Female Pups	MEAN	4.0541	4.1367	4.1263	4.0455
	S.D.	.34140	.40292	.43997	.46450
	N	21	21	23	24
SPLEEN	MEAN	0.8116	0.8538	0.8773	0.8053
	S.D.	.11770	.11167	.13114	.08594
	N	21	21	23	24
of Male Pups	MEAN	0.8279	0.8738	0.9050	0.8320
	S.D.	.15316	.12967	.14978	.10928
	N	21	21	23	24
of Female Pups	MEAN	0.7953	0.8338	0.8497	0.7786
	S.D.	.14400	.11799	.16336	.10420
	N	21	21	23	24
THYMUS	MEAN	0.8405	0.8781	0.8957	0.8572
	S.D.	.08911	.10653	.11260	.10234
	N	21	21	23	24
of Male Pups	MEAN	0.8221	0.8559	0.8882	0.8409
	S.D.	.10254	.12928	.14184	.11325
	N	21	21	23	24
of Female Pups	MEAN	0.8589	0.9004	0.9033	0.8735
	S.D.	.10480	.12945	.11457	.11740
	N	21	21	23	24

No statistically significant differences

TABLE 23 F2 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

SUMMARY OF PUP ORGAN WEIGHTS (GRAMS)
PUP ORGAN WEIGHT TO BRAIN WEIGHT RATIO (DAY 21 P.P.)

GROUP		I	II	III	IV
DOSE LEVEL (MG/M3)		0	2000	10000	20000
SPLEEN	MEAN	20.143	20.993	21.674	19.961
	S.D.	2.6184	3.1077	2.7140	2.3434
	N	21	21	23	24
of Male Pups	MEAN	20.664	21.684	22.741	20.531
	S.D.	3.4913	3.7134	3.4732	2.7156
	N	21	21	23	24
of Female Pups	MEAN	19.622	20.303	20.607	19.390
	S.D.	3.1374	3.2362	3.3022	2.7734
	N	21	21	23	24
THYMUS	MEAN	20.958	21.602	22.192	21.260
	S.D.	2.3618	3.1794	2.5276	2.5086
	N	21	21	23	24
of Male Pups	MEAN	20.662	21.269	22.376	20.717
	S.D.	3.0891	4.0551	3.7485	2.5842
	N	21	21	23	24
of Female Pups	MEAN	21.255	21.935	22.009	21.804
	S.D.	2.6275	3.3602	2.6949	3.4134
	N	21	21	23	24

No statistically significant differences

	Lesion Incidence Summary with Expanded Severity Levels Preface	Table 24

Key to Abbreviations

Gl	=	Gland
NAD	=	No abnormal diagnoses
Ctls	=	Controls (Group 1)
Oviducts/Fallop	=	Oviducts and Fallopian Tubes

Corresponding exposure levels for each group were as follows:

Group 1 - 0 mg/m^3
Group 2 - 2,000 mg/m^3
Group 3 - 10,000 mg/m^3
Group 4 - 20,000 mg/m^3

Gasoline MTBE Vapor Condensate: A Two-Generation Whole-Body
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P0 Parental Animals
Incidence Summary of Microscopic Findings with Severity Levels

Controls from group(s): 1	Animal sex:	-- Animals Affected -- Males --				-- Females --			
	Dosage group:	Ctls	2	3	4	Ctls	2	3	4
Tissues With Diagnoses	No. in group:	26	26	26	26	26	26	26	26
Adrenal Glands ....Number examined:		10	0	0	10	10	0	0	10
Brain ....Number examined:		10	0	0	10	10	0	0	10
Coagulating Gl ....Number examined:		10	0	0	10				
Ear(s) ....Number examined:		1	0	0	0	0	0	0	0
AURICULAR CHONDROPATHY									
	Marked>	1	0	0	0	0	0	0	0
....Total Incidence of Finding Observed:		1	0	0	0	0	0	0	0
Extremity ....Number examined:		0	0	1	0	0	0	0	0
Kidneys ....Number examined:		13	2	3	11	12	0	0	10
PELVIS: DILATED									
	Nad>	9	0	0	10	10	0	0	10
	Minimal>	2	0	1	1	0	0	0	0
	Slight>	0	2	1	0	1	0	0	0
	Moderate>	2	0	1	0	1	0	0	0
....Total Incidence of Finding Observed:		4	2	3	1	2	0	0	0
CORTEX: PROXIMAL CONVOLUTED TUBULAR -EPITHELIUM-EOSINOPHILIC/HYALINE GRANULES									
	Nad>	13	2	2	0	12	0	0	10
	Slight>	0	0	1	11	0	0	0	0
....Total Incidence of Finding Observed:		0	0	1	11	0	0	0	0
CORTEX: CONVOLUTED TUBULAR EPITHELIUM-BASOPHILIC									
	Nad>	11	2	2	1	12	0	0	10
	Minimal>	2	0	0	3	0	0	0	0
	Slight>	0	0	1	7	0	0	0	0
....Total Incidence of Finding Observed:		2	0	1	10	0	0	0	0

All Diagnoses; Phases: P2; Death types: All; Date of death range: 18-Sep-01 To 21-Oct-01

Gasoline MTBE Vapor Condensate: A Two-Generation Whole-Body
Inhalation Reproduction Toxicity Study in Rats
P0 Parental Animals
Incidence Summary of Microscopic Findings with Severity Levels

Controls from group(s): 1	Animal sex:	-- Animals Affected -- Males --				-- Females --			
	Dosage group:	Ctls	2	3	4	Ctls	2	3	4
Tissues With Diagnoses	No. in group:	26	26	26	26	26	26	26	26
Kidneys .....Number examined:		13	2	3	11	12	0	0	10
CORTEX/CORTICO-MEDULLARY JUNCTION: TUBULAR LUMENS- GRANULAR -CASTS									
	Nad>	13	2	2	10	12	0	0	10
	Minimal>	0	0	1	1	0	0	0	0
.....Total Incidence of Finding Observed:		0	0	1	1	0	0	0	0
MEDULLA: TUBULAR LUMEN(S)-EOSINOPHILIC MATERIAL									
	Nad>	12	2	2	9	12	0	0	10
	Minimal>	1	0	1	2	0	0	0	0
.....Total Incidence of Finding Observed:		1	0	1	2	0	0	0	0
CORTEX: INTERSTITIAL MONONUCLEAR CELL INFILTRATE									
	Nad>	8	2	3	6	12	0	0	9
	Minimal>	5	0	0	5	0	0	0	1
.....Total Incidence of Finding Observed:		5	0	0	5	0	0	0	1
CORTEX/CORTICO-MEDULLARY JUNCTION: MINERAL DEPOSIT(S)									
	Nad>	13	2	3	11	9	0	0	7
	Minimal>	0	0	0	0	3	0	0	3
.....Total Incidence of Finding Observed:		0	0	0	0	3	0	0	3
CORTEX: DILATED TUBULE(S) WITH LUMENAL EOSINOPHILIC -MATERIAL									
	Nad>	11	2	3	11	12	0	0	10
	Minimal>	2	0	0	0	0	0	0	0
.....Total Incidence of Finding Observed:		2	0	0	0	0	0	0	0
Liver .....Number examined:		10	1	0	10	10	0	0	10
HEPATOCELLULAR NECROSIS									
	Nad>	10	0	0	9	10	0	0	10
	Moderate>	0	1	0	1	0	0	0	0
.....Total Incidence of Finding Observed:		0	1	0	1	0	0	0	0

All Diagnoses; Phases: P2; Death types: All; Date of death range: 18-Sep-01 To 21-Oct-01

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Incidence Summary of Microscopic Findings with Severity Levels

Controls from group(s): 1	Animal sex:	-- Animals Affected -- Males --				-- Females --			
	Dosage group:	Ctls	2	3	4	Ctls	2	3	4
Tissues With Diagnoses	No. in group:	26	26	26	26	26	26	26	26
Liver .....Number examined:		10	1	0	10	10	0	0	10
MONONUCLEAR CELL AGGREGATES									
	Nad>	2	1	0	4	9	0	0	7
	Minimal>	8	0	0	6	1	0	0	3
.....Total Incidence of Finding Observed:		8	0	0	6	1	0	0	3
Lungs .....Number examined:		26	26	26	26	23	24	25	26
CONGESTION									
	Nad>	26	26	26	26	22	24	25	26
	Minimal>	0	0	0	0	1	0	0	0
.....Total Incidence of Finding Observed:		0	0	0	0	1	0	0	0
ALVEOLAR/INTRAALVEOLAR MACROPHAGES									
	Nad>	23	22	19	13	18	12	17	17
	Minimal>	3	3	6	12	4	12	8	9
	Slight>	0	1	1	1	1	0	0	0
.....Total Incidence of Finding Observed:		3	4	7	13	5	12	8	9
VISCERAL PLEURA/CAPSULE: SUBACUTE (CHRONIC ACTIVE)/ CHRONIC -INFLAMMATION									
	Nad>	26	26	26	25	23	24	25	26
	Slight>	0	0	0	1	0	0	0	0
.....Total Incidence of Finding Observed:		0	0	0	1	0	0	0	0
INTERSTITIUM: SUBACUTE/CHRONIC INFLAMMATION									
	Nad>	24	26	26	23	23	24	24	24
	Minimal>	2	0	0	3	0	0	1	2
.....Total Incidence of Finding Observed:		2	0	0	3	0	0	1	2
RETICULOENDOTHELIAL CELLS: BROWN PIGMENT									
	Nad>	26	25	25	25	23	24	25	26
	Slight>	0	1	1	1	0	0	0	0
.....Total Incidence of Finding Observed:		0	1	1	1	0	0	0	0

All Diagnoses; Phases: P2; Death types: All; Date of death range: 18-Sep-01 To 21-Oct-01

Gasoline MTBE Vapor Condensate: A Two-Generation Whole-Body
Inhalation Reproduction Toxicity Study in Rats
P0 Parental Animals
Incidence Summary of Microscopic Findings with Severity Levels

Controls from group(s): 1	Animal sex:	-- Animals Affected -- Males --				-- Females --			
	Dosage group:	Ctls	2	3	4	Ctls	2	3	4
Tissues With Diagnoses	No. in group:	26	26	26	26	26	26	26	26
Lungs .....Number examined:		26	26	26	26	23	24	25	26
PERIVASCULAR GRANULOCYTIC INFILTRATE									
	Nad>	26	26	26	26	21	22	23	25
	Minimal>	0	0	0	0	1	2	2	0
	Slight>	0	0	0	0	1	0	0	1
.....Total Incidence of Finding Observed:		0	0	0	0	2	2	2	1
OSSEOUS METAPLASIA									
	Nad>	25	26	26	26	22	24	25	23
	Minimal>	1	0	0	0	1	0	0	3
.....Total Incidence of Finding Observed:		1	0	0	0	1	0	0	3
HEMORRHAGE									
	Nad>	25	26	26	26	22	24	25	26
	Minimal>	1	0	0	0	1	0	0	0
.....Total Incidence of Finding Observed:		1	0	0	0	1	0	0	0
BRONCHIOLAR HYPERPLASIA									
	Nad>	25	26	26	26	23	24	25	26
	Slight>	1	0	0	0	0	0	0	0
.....Total Incidence of Finding Observed:		1	0	0	0	0	0	0	0
Lymph Nodes .....Number examined:		1	0	0	0	0	0	0	0
CONGESTION									
	Minimal>	1	0	0	0	0	0	0	0
.....Total Incidence of Finding Observed:		1	0	0	0	0	0	0	0
SINUSES: FREE ERYTHROCYTES									
	Minimal>	1	0	0	0	0	0	0	0
.....Total Incidence of Finding Observed:		1	0	0	0	0	0	0	0

All Diagnoses; Phases: P2; Death types: All; Date of death range: 18-Sep-01 To 21-Oct-01

Gasoline MTBE Vapor Condensate: A Two-Generation Whole-Body
Inhalation Reproduction Toxicity Study in Rats
P0 Parental Animals
Incidence Summary of Microscopic Findings with Severity Levels

Controls from group(s): 1	Animal sex:	-- Animals Affected -- Males --				-- Females --			
	Dosage group:	Ctls	2	3	4	Ctls	2	3	4
Tissues With Diagnoses	No. in group:	26	26	26	26	26	26	26	26
Mammary gland .....Number examined:		0	0	0	0	0	0	1	0
M-ADENOCARCINOMA									
	Tumor present>	0	0	0	0	0	0	1	0
.....Total Incidence of Finding Observed:		0	0	0	0	0	0	1	0
Ovaries .....Number examined:						10	0	0	10
RETICULOENDOTHELIAL CELLS: BROWN PIGMENT									
	Nad>					10	0	0	9
	Minimal>					0	0	0	1
.....Total Incidence of Finding Observed:						0	0	0	1
Oviducts/Fallop .....Number examined:						10	0	1	10
LUMEN: DILATED									
	Nad>					10	0	0	10
	Slight>					0	0	1	0
.....Total Incidence of Finding Observed:						0	0	1	0
LUMEN: CELLULAR DEBRIS									
	Nad>					10	0	0	10
	Minimal>					0	0	1	0
.....Total Incidence of Finding Observed:						0	0	1	0
Pituitary gland .....Number examined:		10	0	0	10	10	0	0	10
PARS DISTALIS: CYST(S)									
	Nad>	10	0	0	10	9	0	0	10
	Present>	0	0	0	0	1	0	0	0
.....Total Incidence of Finding Observed:		0	0	0	0	1	0	0	0
Prostate .....Number examined:		11	0	0	10				
ACINAR LUMENS: CORPORA AMYLACIA/MINERALIZED GRANULES									
	Nad>	10	0	0	10				
	Minimal>	1	0	0	0				
.....Total Incidence of Finding Observed:		1	0	0	0				

All Diagnoses; Phases: P2; Death types: All; Date of death range: 18-Sep-01 To 21-Oct-01

Gasoline MTBE Vapor Condensate: A Two-Generation Whole-Body
Inhalation Reproduction Toxicity Study in Rats
P0 Parental Animals
Incidence Summary of Microscopic Findings with Severity Levels

Controls from group(s): 1	Animal sex:	-- Males --				-- Females --			
	Dosage group:	Ctls	2	3	4	Ctls	2	3	4
Tissues With Diagnoses	No. in group:	26	26	26	26	26	26	26	26
Prostate .....Number examined:		11	0	0	10				
PURULENT/CHRONIC PURULENT INFLAMMATION/ ABSCESS(ES)/CHRONIC -ABSCESS(ES)									
	Nad>	10	0	0	10				
	Slight>	1	0	0	0				
.....Total Incidence of Finding Observed:		1	0	0	0				
Right Epididymis .....Number examined:		10	1	0	10				
ASPERMIA									
	Nad>	10	0	0	10				
	Present>	0	1	0	0				
.....Total Incidence of Finding Observed:		0	1	0	0				
Right Testis .....Number examined:		10	1	0	10				
GERMINAL EPITHELIUM: DEGENERATION/ATROPHY									
	Nad>	10	0	0	10				
	Marked>	0	1	0	0				
.....Total Incidence of Finding Observed:		0	1	0	0				
Seminal vesicles .....Number examined:		10	0	0	10				
SECRETORY PRODUCT: DECREASED									
	Nad>	9	0	0	9				
	Minimal>	0	0	0	1				
	Moderate>	1	0	0	0				
.....Total Incidence of Finding Observed:		1	0	0	1				
Skin .....Number examined:		0	0	1	1	0	0	1	0
B-KERATOACANTHOMA									
	Nad>	0	0	0	1	0	0	1	0
	Tumor present>	0	0	1	0	0	0	0	0
.....Total Incidence of Finding Observed:		0	0	1	0	0	0	0	0

All Diagnoses; Phases: P2; Death types: All; Date of death range: 18-Sep-01 To 21-Oct-01

Gasoline MTBE Vapor Condensate: A Two-Generation Whole-Body
Inhalation Reproduction Toxicity Study in Rats
P0 Parental Animals
Incidence Summary of Microscopic Findings with Severity Levels

Controls from group(s): 1	Animal sex:	-- Animals Affected -- Males --				-- Females --			
	Dosage group:	Ctls	2	3	4	Ctls	2	3	4
Tissues With Diagnoses	No. in group:	26	26	26	26	26	26	26	26
Skin .....Number examined:		0	0	1	1	0	0	1	0
EPITHELIUM: SQUAMOUS CELL HYPERPLASIA									
	Nad>	0	0	1	0	0	0	1	0
	Slight>	0	0	0	1	0	0	0	0
.....Total Incidence of Finding Observed:		0	0	0	1	0	0	0	0
EPITHELIUM: ULCER(S)									
	Nad>	0	0	1	0	0	0	1	0
	Moderate>	0	0	0	1	0	0	0	0
.....Total Incidence of Finding Observed:		0	0	0	1	0	0	0	0
SUBACUTE (CHRONIC ACTIVE)/CHRONIC INFLAMMATION									
	Nad>	0	0	1	0	0	0	1	0
	Slight>	0	0	0	1	0	0	0	0
.....Total Incidence of Finding Observed:		0	0	0	1	0	0	0	0
Spleen .....Number examined:		10	0	0	10	10	0	0	10
Uterus .....Number examined:						10	0	0	10
MURAL HISTIOCYTIC INFILTRATE WITH BROWN PIGMENT									
	Nad>					6	0	0	3
	Minimal>					3	0	0	4
	Slight>					1	0	0	3
.....Total Incidence of Finding Observed:						4	0	0	7
Vagina .....Number examined:						10	0	0	10

All Diagnoses; Phases: P2; Death types: All; Date of death range: 18-Sep-01 To 21-Oct-01

Gasoline MTBE Vapor Condensate: A Two-Generation Whole-Body
Inhalation Reproduction Toxicity Study in Rats
F1 Parental Animals
Incidence Summary of Microscopic Findings with Severity Levels

Controls from group(s): 1	Animal sex:	-- Males --				-- Females --			
	Dosage group:	Ctls	2	3	4	Ctls	2	3	4
Tissues With Diagnoses	No. in group:	26	26	26	26	26	26	26	26
Adrenal Glands	Number examined:	11	0	2	10	10	0	0	10
ABSENT RIGHT ADRENAL GLAND									
	Nad>	10	0	1	10	10	0	0	10
	Present>	1	0	1	0	0	0	0	0
Total Incidence of Finding	Observed:	1	0	1	0	0	0	0	0
CORTEX: ATROPHY									
	Nad>	11	0	1	10	10	0	0	10
	Slight>	0	0	1	0	0	0	0	0
Total Incidence of Finding	Observed:	0	0	1	0	0	0	0	0
Brain	Number examined:	10	0	0	10	10	0	0	10
Cavity	Number examined:	0	0	0	1	0	0	0	0
TISSUE FOR HISTOPATHOLOGY: INAPPLICABLE									
	Present>	0	0	0	1	0	0	0	0
Total Incidence of Finding	Observed:	0	0	0	1	0	0	0	0
Eyes	Number examined:	0	0	0	1	0	1	0	0
LENS: MINERALIZATION									
	Nad>	0	0	0	1	0	0	0	0
	Moderate>	0	0	0	0	0	1	0	0
Total Incidence of Finding	Observed:	0	0	0	0	0	1	0	0
PHTHYSIS BULBI									
	Nad>	0	0	0	1	0	0	0	0
	Present>	0	0	0	0	0	1	0	0
Total Incidence of Finding	Observed:	0	0	0	0	0	1	0	0
CHOROID: CONGESTION									
	Nad>	0	0	0	0	0	1	0	0
	Moderate>	0	0	0	1	0	0	0	0
Total Incidence of Finding	Observed:	0	0	0	1	0	0	0	0

All Diagnoses; Phases: P2; Death types: All; Date of death range: 17-Dec-01 To 05-Jul-02

Gasoline MTBE Vapor Condensate: A Two-Generation Whole-Body
Inhalation Reproduction Toxicity Study in Rats
F1 Parental Animals
Incidence Summary of Microscopic Findings with Severity Levels

Controls from group(s): 1	Animal sex:	-- Males --				-- Females --			
	Dosage group:	Ctls	2	3	4	Ctls	2	3	4
Tissues With Diagnoses	No. in group:	26	26	26	26	26	26	26	26
Eyes	Number examined:	0	0	0	1	0	1	0	0
LENS: CATARACTOUS CHANGE									
	Nad>	0	0	0	0	0	1	0	0
	Slight>	0	0	0	1	0	0	0	0
	Total Incidence of Finding Observed:	0	0	0	1	0	0	0	0
Kidneys	Number examined:	10	1	1	11	10	0	2	10
MEDULLA: TUBULE(S) DILATED									
	Nad>	10	1	1	11	9	0	2	10
	Minimal>	0	0	0	0	1	0	0	0
	Total Incidence of Finding Observed:	0	0	0	0	1	0	0	0
MEDULLA: TUBULAR LUMEN(S)-EOSINOPHILIC MATERIAL									
	Nad>	10	1	1	11	9	0	2	10
	Minimal>	0	0	0	0	1	0	0	0
	Total Incidence of Finding Observed:	0	0	0	0	1	0	0	0
PELVIS: DILATED									
	Nad>	10	0	1	10	9	0	2	10
	Minimal>	0	0	0	1	0	0	0	0
	Slight>	0	1	0	0	1	0	0	0
	Total Incidence of Finding Observed:	0	1	0	1	1	0	0	0
CORTEX/CORTICO-MEDULLARY JUNCTION: MINERAL DEPOSIT(S)									
	Nad>	10	1	1	11	9	0	2	9
	Minimal>	0	0	0	0	1	0	0	1
	Total Incidence of Finding Observed:	0	0	0	0	1	0	0	1
CORTICAL SCAR									
	Nad>	10	1	1	11	10	0	2	9
	Minimal>	0	0	0	0	0	0	0	1
	Total Incidence of Finding Observed:	0	0	0	0	0	0	0	1

All Diagnoses; Phases: P2; Death types: All; Date of death range: 17-Dec-01 To 05-Jul-02

Gasoline MTBE Vapor Condensate: A Two-Generation Whole-Body
Inhalation Reproduction Toxicity Study in Rats
F1 Parental Animals
Incidence Summary of Microscopic Findings with Severity Levels

Controls from group(s): 1	Animal sex:	-- Animals Affected -- Males --				-- Females --			
	Dosage group:	Ctls	2	3	4	Ctls	2	3	4
Tissues With Diagnoses	No. in group:	26	26	26	26	26	26	26	26
Kidneys .....Number examined:		10	1	1	11	10	0	2	10
CORTEX: MONONUCLEAR CELL INFILTRATE									
	Nad>	9	0	1	8	9	0	2	9
	Minimal>	1	1	0	3	1	0	0	1
.....Total Incidence of Finding Observed:		1	1	0	3	1	0	0	1
CORTEX: CONVOLUTED TUBULAR EPITHELIUM-BASOPHILIC									
	Nad>	10	0	1	2	9	0	2	10
	Minimal>	0	1	0	7	1	0	0	0
	Slight>	0	0	0	2	0	0	0	0
.....Total Incidence of Finding Observed:		0	1	0	9	1	0	0	0
CORTEX: PROXIMAL CONVOLUTED TUBULAR -EPITHELIUM-EOSINOPHILIC/HYALINE DROPLETS									
	Nad>	10	1	1	1	10	0	2	10
	Slight>	0	0	0	9	0	0	0	0
	Moderate>	0	0	0	1	0	0	0	0
.....Total Incidence of Finding Observed:		0	0	0	10	0	0	0	0
CORTEX/CORTICO-MEDULLARY JUNCTION: TUBULAR LUMENS- GRANULAR -CASTS									
	Nad>	10	1	1	10	10	0	2	10
	Slight>	0	0	0	1	0	0	0	0
.....Total Incidence of Finding Observed:		0	0	0	1	0	0	0	0
SUBCAPSULAR PARENCHYMAL LOSS									
	Nad>	10	1	0	11	10	0	2	10
	Present>	0	0	1	0	0	0	0	0
.....Total Incidence of Finding Observed:		0	0	1	0	0	0	0	0
CONGESTION									
	Nad>	10	1	1	10	10	0	2	10
	Slight>	0	0	0	1	0	0	0	0
.....Total Incidence of Finding Observed:		0	0	0	1	0	0	0	0

All Diagnoses; Phases: P2; Death types: All; Date of death range: 17-Dec-01 To 05-Jul-02

Gasoline MTBE Vapor Condensate: A Two-Generation Whole-Body
Inhalation Reproduction Toxicity Study in Rats
F1 Parental Animals
Incidence Summary of Microscopic Findings with Severity Levels

Controls from group(s): 1	Animal sex:	-- Animals Affected -- Males --				-- Females --			
	Dosage group:	Ctls	2	3	4	Ctls	2	3	4
Tissues With Diagnoses	No. in group:	26	26	26	26	26	26	26	26
Left Epididymis .....Number examined:		0	1	0	0				
ASPERMIA									
	Present>	0	1	0	0				
.....Total Incidence of Finding Observed:		0	1	0	0				
Left Testis .....Number examined:		0	1	0	0				
GERMINAL EPITHELIUM: DEGENERATION/ATROPHY									
	Marked>	0	1	0	0				
.....Total Incidence of Finding Observed:		0	1	0	0				
Liver .....Number examined:		11	1	1	10	10	0	0	11
ANGIECTASIA									
	Nad>	9	0	1	10	9	0	0	11
	Minimal>	1	1	0	0	1	0	0	0
	Slight>	1	0	0	0	0	0	0	0
.....Total Incidence of Finding Observed:		2	1	0	0	1	0	0	0
MONONUCLEAR CELL AGGREGATE(S)									
	Nad>	11	1	1	7	10	0	0	11
	Minimal>	0	0	0	3	0	0	0	0
.....Total Incidence of Finding Observed:		0	0	0	3	0	0	0	0
COAGULATIVE NECROSIS									
	Nad>	10	1	0	10	10	0	0	11
	Slight>	1	0	1	0	0	0	0	0
.....Total Incidence of Finding Observed:		1	0	1	0	0	0	0	0
FIBROSIS									
	Nad>	10	0	0	10	10	0	0	11
	Slight>	1	1	1	0	0	0	0	0
.....Total Incidence of Finding Observed:		1	1	1	0	0	0	0	0

All Diagnoses; Phases: P2; Death types: All; Date of death range: 17-Dec-01 To 05-Jul-02

Gasoline MTBE Vapor Condensate: A Two-Generation Whole-Body
Inhalation Reproduction Toxicity Study in Rats
F1 Parental Animals
Incidence Summary of Microscopic Findings with Severity Levels

Controls from group(s): 1	Animal sex:	-- Animals Affected -- Males --				-- Females --			
	Dosage group:	Ctls	2	3	4	Ctls	2	3	4
Tissues With Diagnoses	No. in group:	26	26	26	26	26	26	26	26
Liver .....Number examined:		11	1	1	10	10	0	0	11
MINERALIZATION									
	Nad>	10	1	0	10	10	0	0	11
	Minimal>	1	0	1	0	0	0	0	0
.....Total Incidence of Finding Observed:		1	0	1	0	0	0	0	0
RETICULOENDOTHELIAL CELLS: BROWN PIGMENT									
	Nad>	10	1	0	10	10	0	0	10
	Minimal>	0	0	0	0	0	0	0	1
	Slight>	1	0	1	0	0	0	0	0
.....Total Incidence of Finding Observed:		1	0	1	0	0	0	0	1
DIAPHRAGMATIC ADHESION									
	Nad>	10	1	1	10	10	0	0	11
	Present>	1	0	0	0	0	0	0	0
.....Total Incidence of Finding Observed:		1	0	0	0	0	0	0	0
CAPSULAR PARENCHYMAL NODULE									
	Nad>	11	0	0	10	10	0	0	11
	Present>	0	1	1	0	0	0	0	0
.....Total Incidence of Finding Observed:		0	1	1	0	0	0	0	0
PERIVENULAR BRIDGING HISTIOCYTIC INFILTRATE									
	Nad>	11	1	1	10	10	0	0	10
	Slight>	0	0	0	0	0	0	0	1
.....Total Incidence of Finding Observed:		0	0	0	0	0	0	0	1
Lungs .....Number examined:		26	25	26	26	21	21	23	25
ALVEOLAR/INTRAALVEOLAR MACROPHAGES									
	Nad>	25	21	19	21	17	11	11	10
	Minimal>	1	4	6	5	4	9	12	14
	Slight>	0	0	1	0	0	1	0	1
.....Total Incidence of Finding Observed:		1	4	7	5	4	10	12	15

All Diagnoses; Phases: P2; Death types: All; Date of death range: 17-Dec-01 To 05-Jul-02

Gasoline MTBE Vapor Condensate: A Two-Generation Whole-Body
Inhalation Reproduction Toxicity Study in Rats
F1 Parental Animals
Incidence Summary of Microscopic Findings with Severity Levels

Controls from group(s): 1	Animal sex:	-- Animals Affected -- Males --				-- Females --			
	Dosage group:	Ctls	2	3	4	Ctls	2	3	4
Tissues With Diagnoses	No. in group:	26	26	26	26	26	26	26	26
Lungs .....Number examined:		26	25	26	26	21	21	23	25
RETICULOENDOTHELIAL CELLS: BROWN PIGMENT									
	Nad>	26	25	25	25	21	21	23	24
	Minimal>	0	0	0	0	0	0	0	1
	Slight>	0	0	1	1	0	0	0	0
.....Total Incidence of Finding Observed:		0	0	1	1	0	0	0	1
INTERSTITIUM: SUBACUTE/CHRONIC INFLAMMATION									
	Nad>	26	24	26	25	21	20	23	25
	Minimal>	0	1	0	0	0	1	0	0
	Slight>	0	0	0	1	0	0	0	0
.....Total Incidence of Finding Observed:		0	1	0	1	0	1	0	0
HEMORRHAGE(S)									
	Nad>	26	25	26	24	21	21	23	24
	Slight>	0	0	0	0	0	0	0	1
	Moderate>	0	0	0	2	0	0	0	0
.....Total Incidence of Finding Observed:		0	0	0	2	0	0	0	1
CONGESTION									
	Nad>	26	25	26	25	21	21	23	25
	Moderate>	0	0	0	1	0	0	0	0
.....Total Incidence of Finding Observed:		0	0	0	1	0	0	0	0
Ovaries .....Number examined:						10	0	0	10
Oviducts/Fallop .....Number examined:						10	0	0	10
DILATED LUMEN									
	Nad>					9	0	0	9
	Minimal>					0	0	0	1
	Moderate>					1	0	0	0
.....Total Incidence of Finding Observed:						1	0	0	1

All Diagnoses; Phases: P2; Death types: All; Date of death range: 17-Dec-01 To 05-Jul-02

Gasoline MTBE Vapor Condensate: A Two-Generation Whole-Body
Inhalation Reproduction Toxicity Study in Rats
F1 Parental Animals
Incidence Summary of Microscopic Findings with Severity Levels

Controls from group(s): 1	Animal sex:	-- Males --				-- Females --			
	Dosage group:	Ctls	2	3	4	Ctls	2	3	4
Tissues With Diagnoses	No. in group:	26	26	26	26	26	26	26	26
Oviducts/Fallop .....Number examined:						10	0	0	10
LUMENAL NEUTROPHILS, MACROPHAGES									
	Nad>					9	0	0	9
	Minimal>					0	0	0	1
	Moderate>					1	0	0	0
.....Total Incidence of Finding Observed:						1	0	0	1
Pituitary gland .....Number examined:		10	0	0	10	10	0	0	10
Prostate .....Number examined:		10	0	0	10				
Right Epididymis .....Number examined:		10	0	1	10				
OLIGOSPERMIA									
	Nad>	10	0	0	10				
	Present>	0	0	1	0				
.....Total Incidence of Finding Observed:		0	0	1	0				
Right Testis .....Number examined:		10	0	1	10				
GERMINAL EPITHELIUM: DEGENERATION/ATROPHY									
	Nad>	10	0	0	10				
	Moderate>	0	0	1	0				
.....Total Incidence of Finding Observed:		0	0	1	0				
Seminal vesicles .....Number examined:		10	0	0	10				
Skin .....Number examined:		0	1	0	0	0	0	0	0
SURFACE: INFLAMMATORY CELLS/CELL DEBRIS									
	Moderate>	0	1	0	0	0	0	0	0
.....Total Incidence of Finding Observed:		0	1	0	0	0	0	0	0
EPITHELIUM: SQUAMOUS CELL HYPERPLASIA									
	Moderate>	0	1	0	0	0	0	0	0
.....Total Incidence of Finding Observed:		0	1	0	0	0	0	0	0

All Diagnoses; Phases: P2; Death types: All; Date of death range: 17-Dec-01 To 05-Jul-02

Gasoline MTBE Vapor Condensate: A Two-Generation Whole-Body
Inhalation Reproduction Toxicity Study in Rats
F1 Parental Animals
Incidence Summary of Microscopic Findings with Severity Levels

Controls from group(s): 1	Animal sex:	-- Animals Affected -- Males --				-- Females --			
	Dosage group:	Ctls	2	3	4	Ctls	2	3	4
Tissues With Diagnoses	No. in group:	26	26	26	26	26	26	26	26
Skin .....Number examined:		0	1	0	0	0	0	0	0
EPITHELIUM: ULCER(S)									
	Slight>	0	1	0	0	0	0	0	0
.....Total Incidence of Finding Observed:		0	1	0	0	0	0	0	0
DERMAL FIBROSIS									
	Slight>	0	1	0	0	0	0	0	0
.....Total Incidence of Finding Observed:		0	1	0	0	0	0	0	0
DERMAL MONONUCLEAR CELL INFIILTRATE									
	Slight>	0	1	0	0	0	0	0	0
.....Total Incidence of Finding Observed:		0	1	0	0	0	0	0	0
Spleen .....Number examined:		10	0	0	10	10	0	0	10
Sternum .....Number examined:		0	0	0	0	0	0	0	1
STERNAL BIFURCATION									
	Present>	0	0	0	0	0	0	0	1
.....Total Incidence of Finding Observed:		0	0	0	0	0	0	0	1
Tail .....Number examined:		0	0	0	0	0	0	0	1
FOLLICULITIS									
	Minimal>	0	0	0	0	0	0	0	1
.....Total Incidence of Finding Observed:		0	0	0	0	0	0	0	1
Thymus .....Number examined:		1	2	0	0	1	2	3	0
CONGESTION									
	Minimal>	0	2	0	0	1	1	3	0
	Slight>	1	0	0	0	0	1	0	0
.....Total Incidence of Finding Observed:		1	2	0	0	1	2	3	0

All Diagnoses; Phases: P2; Death types: All; Date of death range: 17-Dec-01 To 05-Jul-02

Gasoline MTBE Vapor Condensate: A Two-Generation Whole-Body
Inhalation Reproduction Toxicity Study in Rats
F1 Parental Animals
Incidence Summary of Microscopic Findings with Severity Levels

Controls from group(s): 1	Animal sex:	-- Animals Affected -- Males --				-- Females --			
	Dosage group:	Ctls	2	3	4	Ctls	2	3	4
Tissues With Diagnoses	No. in group:	26	26	26	26	26	26	26	26
Uterus .....Number examined:						10	0	0	10
INTRAMURAL HISTIOCYTES, BROWN PIGMENT									
	Nad>					7	0	0	8
	Minimal>					1	0	0	1
	Slight>					2	0	0	1
.....Total Incidence of Finding Observed:						3	0	0	2
Vagina .....Number examined:						10	0	0	10

All Diagnoses; Phases: P2; Death types: All; Date of death range: 17-Dec-01 To 05-Jul-02

	Lesion Incidence Summary with Expanded Severity Levels/Neuropathology Evaluations Preface	Table 25

Key to Abbreviations

NAD	=	No abnormal diagnoses
Ctls	=	Controls (Group 1)
SC	=	Spinal Cord
Fibr	=	Fiber
Gang	=	Ganglia
Ventrl	=	Ventral

Corresponding exposure levels for each group were as follows:

Group 1 - 0 mg/m^3
Group 2 - 2000 mg/m^3
Group 3 - 10000 mg/m^3
Group 4 - 20000 mg/m^3

Gasoline MTBE Vapor Condensate: A Two-Generation Whole-Body
Inhalation Reproduction Toxicity Study in Rats
F1 Neurotoxicity Animals
Incidence Summary of Microscopic Findings with Severity Levels

Controls from group(s): 1	Animal sex:	-- Males --				-- Females --			
	Dosage group:	Ctls	2	3	4	Ctls	2	3	4
Tissues With Diagnoses	No. in group:	5	5	5	5	5	5	5	5
Brain .....Number examined:		5	0	0	5	5	0	0	5
Cervical SC .....Number examined:		5	0	0	5	5	0	0	5
Dorsal Root Fibr .....Number examined:		5	0	0	5	5	0	0	5
Dorsal Root Gang .....Number examined:		5	0	0	5	5	0	0	5
Eyes .....Number examined:		5	0	0	5	5	0	0	5
Lumbar SC .....Number examined:		5	0	0	5	5	0	0	5
Lungs .....Number examined:		5	5	5	5	5	5	5	5
BRONCHIECTASIS									
	Nad>	5	5	5	5	5	4	5	5
	Moderate>	0	0	0	0	0	1	0	0
.....Total Incidence of Finding Observed:		0	0	0	0	0	1	0	0
Optic nerve .....Number examined:		5	0	0	5	5	0	0	5
Sciatic Nerve .....Number examined:		5	0	0	5	5	0	0	5
Sural Nerve .....Number examined:		5	0	0	5	5	0	0	5
Thoracic SC .....Number examined:		5	0	0	5	5	0	0	5
Tibial Nerve .....Number examined:		5	0	0	5	4	0	0	5
Trachea .....Number examined:		5	5	5	5	5	5	5	5
Trigeminal Gang .....Number examined:		5	0	0	5	5	0	0	5
Ventrl Root Fibr .....Number examined:		5	0	0	5	5	0	0	5

All Diagnoses; Phases: P2; Death types: All; Date of death range: 09-Oct-01 To 12-Oct-01

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	Inhalation Report	Appendix A

1. INTRODUCTION

This appendix presents the methodology for exposure atmosphere generation, monitoring and results (see Table II).

2. MATERIALS AND METHODS

2.1. HUSBANDRY DURING EXPOSURE PERIODS

2.1.1. HOUSING

Animals were individually housed in stainless steel, wire mesh cages within a 1.5 m^3 glass and stainless steel whole-body exposure chamber. The placement of the animal in the whole-body exposure chamber was rotated weekly to ensure uniform exposure of the animals. A description of the animal rotation is included in the raw data.

2.1.2. FEED

None was provided during exposure.

2.1.3. WATER

None was provided during exposure.

2.1.4. ENVIRONMENTAL CONDITIONS

Chamber temperature and relative humidity were recorded every half-hour during exposure and maintained, to the maximum extent possible, within the ranges presented below. Excursions outside the specified range did not affect the integrity of the study.

Temperature

Desired: 20 to 24°C
Actual: 21 to 27°C

The daily average temperature within the chamber was outside the desired range on 28/260 days, 138/258 days, 148/266 days and 126/264 days for Groups I, II, III and IV, respectively.

Relative Humidity

Desired: 40 to 60%
Actual: 31 to 71%

The daily average relative humidity within the chamber was outside the desired range on 27/260 days, 64/258 days, 57/266 days and 51/264 days for Groups 1, 2, 3 and 4, respectively.

2.2. TEST SUBSTANCE ADMINISTRATION AND CHAMBER OPERATIONS

2.2.1. ROUTE OF ADMINISTRATION

Inhalation via whole-body exposures

2.2.2. TEST SUBSTANCE ADMINISTRATION

The test substance was administered as a vapor in the breathing air of the animals. The test atmosphere was generated by an appropriate procedure determined during the pre-study trials. The trials were performed to evaluate the optimal set of conditions and equipment to generate a stable atmosphere at the target exposure levels and maintain uniform conditions throughout the exposure chambers.

2.2.3. JUSTIFICATION FOR ROUTE OF ADMINISTRATION

The inhalation route is one of the potential routes of human exposure to this test substance and is the route specified in the referenced US EPA 79.61 guidelines and US OPPTS 870.3800 guidelines.

2.2.4. TARGET EXPOSURE LEVELS

Group I - 0 mg/m^3
Group II - 2000 mg/m^3
Group III - 10000 mg/m^3
Group IV - 20000 mg/m^3

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2.2.5. JUSTIFICATION FOR EXPOSURE LEVEL SELECTION

Exposure levels were selected by the Sponsor, based on results from a 13-week inhalation study conducted at the Testing Facility that utilized this test substance in rats (00-6126). The exposure levels were also selected based on the lower flammable limits of the test substance.

2.2.6. FREQUENCY OF ADMINISTRATION

Frequency

P_0 males and females received 70 consecutive days (ten weeks) of exposure prior to mating for six hours/day. P_0 males and females continued to be exposed daily throughout a 14-day cohabitation period. The mated females continued to be exposed daily from Day 0 through 19 of gestation. Beginning on Day 5 of lactation, nursing P_0 females were exposed daily until weaning of the F_1 offspring on Day 28. P_0 females with no confirmed day of mating continued exposure for 25 days following completion of the mating period. P_0 females with a confirmed day of mating that did not deliver were euthanized on presumed Day 25 of gestation.

P_0 males were exposed daily until euthanasia, which occurred proximate to the date that the last F_1 litters were weaned.

Selected F_1 males and females started treatment at weaning on Day 28 of lactation and continued treatment for at least 70 consecutive days (ten weeks), six hours/day, prior to pairing to produce the F_2 generation. The F_1 males and females continued exposure throughout a 14-day cohabitation period. The mated females continued to be exposed daily from Day 0 through 19 of gestation. Beginning on Day 5 of lactation, nursing F_1 females were exposed daily until weaning of the F_2 offspring on Day 28 of lactation. The F_1 females with no confirmed day of mating continued exposure until presumed Gestation Day 19 if pregnancy was suspected by increased body weight or for 25 days following completion of the mating period if pregnancy was not suspected.

F_1 females with a confirmed day of mating that did not deliver were euthanized on presumed Day 25 of gestation.

F_1 males were exposed daily until euthanasia, which occurred proximate to the date that the last F_2 litters were weaned.

2.2.7. DURATION

The test substance was administered for 6 hours/day during all segments of the study.

2.2.8. EXPOSURE PROCEDURE AND CHAMBER OPERATIONS

Group I

Houseline nitrogen was delivered from a regulator with a backpressure gauge via ¼" tubing to a flowmeter regulated by a metering valve. This nitrogen flow (~ 20 Lpm) was then directed into the turret of the 1.5 m^3 glass and stainless steel exposure chamber where it was mixed with room air as it was drawn into the chamber. This nitrogen flow simulated the generation nitrogen flow for Groups II, III, and IV.

Groups II, III and IV

Houseline nitrogen was delivered from a regulator with a backpressure gauge through a stainless steel fitting to create three flow systems: the test substance pressurization flow, the purge flow and the volatilization flow.

The nitrogen for the test substance pressurization flow was directed via ¼" tubing through a metering valve, attached to a backpressure gauge, into the vapor inlet valve of the test substance cylinder. The metering valve was used to adjust and maintain the pressure within the cylinder. From the pressurized cylinder, the test substance flowed from the liquid outlet valve through a quick-disconnect fitting and through a filter to prevent equipment contamination. From the filter, the test substance flowed to a liquid flowmeter via $^1/_8$" tubing. The outlet of the flowmeter was regulated by a built-in metering valve. From this metering valve,

the test substance flowed via $^{1}/_{8}$" tubing onto the glass helix of a counter current volatilization chamber. The glass helix was heated by a nichrome wire, which was controlled by an autotransformer and was inserted in the center of the glass tube that supported the helix.

The nitrogen for the purge flow system was directed, via ¼" tubing to a flowmeter regulated by a metering valve. The purge nitrogen was delivered via $^{1}/_{8}$" tubing to the bottom of the tube containing the nichrome wire. This nitrogen flow continuously purged the area surrounding the nichrome wire within the tube, thereby protecting the wire from oxidation.

The nitrogen for the volatilization system was directed via ¼" tubing to a flowmeter regulated by a built-in metering valve. From the flowmeter, the volatilization nitrogen (~ 20 Lpm) flowed via ¼" tubing to a ball and socket joint at the bottom of the volatilization chamber. This nitrogen flowed up through the volatilization chamber passing over the coil and volatilizing the test substance. The pressure within the counter-current volatilization chamber was maintained slightly negative to the room and was monitored with a pressure gauge.

This test substance laden nitrogen exited the top of the volatilization chamber through a glass elbow, which directed the flow, via ½" tubing, to the turret of 1.5 m^3 glass and stainless steel exposure chamber. As the test substance laden nitrogen was drawn into the chamber, it was mixed with room air.

The whole-body exposure chambers each had a volume of approximately 1500 Liters (1.5 m^3). Each chamber was operated at a minimum flow rate of 300 Liters per minute. The final airflow was set to provide at least one air change (calculated by dividing the chamber volume by the airflow rate) in 5.0 minutes (12 air changes/hour) and a T_{99} equilibrium time (calculated by multiplying the air change by the exponential factor 4.6) of at most 23 minutes:

Group	Airflow Rate (Lpm)	Air Change (min)	T_{99} (min)
I	306	4.9	23
II	306	4.9	23
III	317	4.7	22
IV	317	4.7	22

This chamber size and airflow rate was considered adequate to maintain the oxygen level at least 19% and the animal-loading factor below 5%. Chamber temperature, humidity, airflow rate and static pressure were monitored continuously and recorded every 30 minutes during exposure. At the end of the 6-hour exposure, all animals remained in the chamber for a minimum of 30 minutes. During this time the chamber was operated at approximately the same flow rate using clean air only. The chambers were exhausted through the in-housed filtering system, which consisted of a coarse filter, a HEPA filter, activated charcoal and fume incinerator.

See Chamber Figures I and II and Table III for equipment details.

2.3. EXPOSURE CONCENTRATION DETERMINATION

2.3.1. NOMINAL CONCENTRATION

A nominal exposure concentration was calculated. The flow of air through the chamber was monitored using appropriate calibrated equipment. The test substance consumed (weight difference of the test substance cylinder) during the exposure (mg) was divided by the total volume of air (m^3) passing through the chamber (volumetric flow rate times total exposure time) to give the nominal concentration (mg/m^3).

2.3.2. CHAMBER SAMPLING

During each exposure, measurements of airborne concentrations were performed in the animals' breathing zone at least 4 times using an appropriate sampling procedure and Infra-Red Spectrophotometric (IR) analytical method. Also, one charcoal

tube sample per chamber per week was analyzed by gas chromatography (GC) to characterize at least 10 major components (comprising at least 80% by weight of the test substance) to show test substance stability and comparison between the neat liquid test substance and the vaporized test atmospheres.

See Table III for equipment details. See Appendix B for Analytical Report.

2.3.3. PARTICLE SIZE DISTRIBUTION

During each week of exposure, particle size determinations were performed using a TSI Aerodynamic Particle Sizer to characterize the aerodynamic particle size distribution of any aerosol present. The samples were drawn for 20 seconds at a flow rate of 5.00 Lpm. The mass median aerodynamic diameter, geometric standard deviation and total mass concentration were calculated based on the amount of particles collected.

See Table III for equipment details.

2.3.4. CHAMBER AND EXPOSURE ROOM ENVIRONMENT

Chamber oxygen levels (maintained at least 19%) were measured pretest and at the beginning, middle and end of the study.

Air samples were taken in the vapor generation area pretest and at the beginning, middle and end of the study. Light (maintained approximately 30 foot-candles at 1.0 meters above the floor) and noise levels (maintained below 85 decibels) in the exposure room were measured pretest and at the beginning, middle and end of the study.

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Table I
Summary of In-Chamber Observations

Exposure Day	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Group I – 0 mg/m^3																	
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group II – 2000 mg/m^3																	
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group III – 10000 mg/m^3																	
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group IV – 20000 mg/m^3																	
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All

All = 100% of the animals exhibiting a given observation.

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Table I
Summary of In-Chamber Observations

Exposure Day	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**
Group I – 0 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group II – 2000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group III – 10000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group IV – 20000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All

All = 100% of the animals exhibiting a given observation.

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Table I
Summary of In-Chamber Observations

Exposure Day	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**
Group I – 0 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group II – 2000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group III – 10000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group IV – 20000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All

All = 100% of the animals exhibiting a given observation.

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Table I
Summary of In-Chamber Observations

Exposure Day	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**
Group I – 0 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group II – 2000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group III – 10000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group IV – 20000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All

All = 100% of the animals exhibiting a given observation.

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Table I
Summary of In-Chamber Observations

Exposure Day	**65**	**66**	**67**	**68**	**69**	**70**	**71**	**72**	**73**	**74**	**75**	**76**	**77**	**78**	**79**	**80**
Group I – 0 mg/m^3																
Normal																
Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group II – 2000 mg/m^3																
Normal																
Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group III – 10000 mg/m^3																
Normal																
Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group IV – 20000 mg/m^3																
Normal																
Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All

All = 100% of the animals exhibiting a given observation.

	Inhalation Report	Appendix A

Table I
Summary of In-Chamber Observations

Exposure Day	**81**	**82**	**83**	**84**	**85**	**86**	**87**	**88**	**89**	**90**	**91**	**92**	**93**	**94**	**95**	**96**
Group I – 0 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group II – 2000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group III – 10000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group IV – 20000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All

All = 100% of the animals exhibiting a given observation.

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Table I
Summary of In-Chamber Observations

Exposure Day	**97**	**98**	**99**	**100**	**101**	**102**	**103**	**104**	**105**	**106**	**107**	**108**	**109**	**110**	**111**	**112**
Group I – 0 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group II – 2000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group III – 10000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group IV – 20000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All

All = 100% of the animals exhibiting a given observation.

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Table I
Summary of In-Chamber Observations

Exposure Day	**113**	**114**	**115**	**116**	**117**	**118**	**119**	**120**	**121**	**122**	**123**	**124**	**125**	**126**	**127**	**128**
Group I – 0 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group II – 2000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group III – 10000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group IV – 20000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All

All = 100% of the animals exhibiting a given observation.

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Table I
Summary of In-Chamber Observations

Exposure Day	**129**	**130**	**131**	**132**	**133**	**134**	**135**	**136**	**137**	**138**	**139**	**140**	**141**	**142**	**143**	**144**
Group I – 0 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group II – 2000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group III – 10000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group IV – 20000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All

All = 100% of the animals exhibiting a given observation.

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Table I
Summary of In-Chamber Observations

Exposure Day	**145**	**146**	**147**	**148**	**149**	**150**	**151**	**152**	**153**	**154**	**155**	**156**	**157**	**158**	**159**	**160**
Group I – 0 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group II – 2000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group III – 10000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group IV – 20000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All

All = 100% of the animals exhibiting a given observation.

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Table I
Summary of In-Chamber Observations

Exposure Day	**161**	**162**	**163**	**164**	**165**	**166**	**167**	**168**	**169**	**170**	**171**	**172**	**173**	**174**	**175**	**176**
Group I – 0 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group II – 2000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group III – 10000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group IV – 20000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All

All = 100% of the animals exhibiting a given observation.

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Table I
Summary of In-Chamber Observations

Exposure Day	**177**	**178**	**179**	**180**	**181**	**182**	**183**	**184**	**185**	**186**	**187**	**188**	**189**	**190**	**191**	**192**
Group I – 0 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group II – 2000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group III – 10000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group IV – 20000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All

All = 100% of the animals exhibiting a given observation.

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Table I
Summary of In-Chamber Observations

Exposure Day	**193**	**194**	**195**	**196**	**197**	**198**	**199**	**200**	**201**	**202**	**203**	**204**	**205**	**206**	**207**	**208**
Group I – 0 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group II – 2000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group III – 10000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group IV – 20000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All

All = 100% of the animals exhibiting a given observation.

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Table I
Summary of In-Chamber Observations

Exposure Day	**209**	**210**	**211**	**212**	**213**	**214**	**215**	**216**	**217**	**218**	**219**	**220**	**221**	**222**	**223**	**224**
Group I – 0 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group II – 2000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group III – 10000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group IV – 20000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All

All = 100% of the animals exhibiting a given observation.

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Table I
Summary of In-Chamber Observations

Exposure Day	**225**	**226**	**227**	**228**	**229**	**230**	**231**	**232**	**233**	**234**	**235**	**236**	**237**	**238**	**239**	**240**
Group I – 0 mg/m^3																
Normal																
Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group II – 2000 mg/m^3																
Normal																
Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group III – 10000 mg/m^3																
Normal																
Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group IV – 20000 mg/m^3																
Normal																
Within Normal Limits	All	All	Most	All	All	All	All	All	All	All	All	All	All	All	All	All
Found Dead			Few[a]													

All = 100% of the animals exhibiting a given observation. Most = 51-99% of the animals exhibiting a given observation. Few = < 20% of the animals exhibiting a given observation.
[a]Animal Number 4002.

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Table I
Summary of In-Chamber Observations

Exposure Day	**241**	**242**	**243**	**244**	**245**	**246**	**247**	**248**	**249**	**250**	**251**	**252**	**253**	**254**	**255**	**256**
Group I – 0 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group II – 2000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group III – 10000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All
Group IV – 20000 mg/m^3																
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All

All = 100% of the animals exhibiting a given observation.

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Table I
Summary of In-Chamber Observations

Exposure Day	**257**	**258**	**259**	**260**	**261**	**262**	**263**	**264**	**265**
Group I – 0 mg/m^3									
Normal Within Normal Limits	All	All	All	-	-	-	-	-	-
Group II – 2000 mg/m^3									
Normal Within Normal Limits	All	-	-	-	-	-	-	-	-
Group III – 10000 mg/m^3									
Normal Within Normal Limits	All	All	All	All	All	All	All	All	All
Group IV – 20000 mg/m^3									
Normal Within Normal Limits	All	All	All	All	All	All	All	-	-

All = 100% of the animals exhibiting a given observation.

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Table II
Chamber Monitoring Results
Preface

Key to Abbreviations

MMAD	=	Mass Median Aerodynamic Diameter
GSD	=	Geometric Standard Deviation
TMC	=	Total Mass Concentration

Chamber Monitoring Results
Cumulative Exposure Record
Group I - 0 mg/m^3 (Air Control)

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
0	12-Jun-01	1	0	0	0	0	0	0				25	49
1	13-Jun-01	2	0	0	0	0	0	0				25	46
2	14-Jun-01	3	0	0	0	0	0	0				25	48
3	15-Jun-01	4	0	0	0	0	0	0	0.9966	2.056	5.81E-03	25	50
4	16-Jun-01	5	0	0	0	0	0	0				25	50
5	17-Jun-01	6	0	0	0	0	0	0				24	51
6	18-Jun-01	7	0	0	0	0	0	0				24	47
7	19-Jun-01	8	0	0	0	0	0	0				24	47
8	20-Jun-01	9	0	0	0	0	0	0	0.9361	2.174	3.48E-03	24	48
9	21-Jun-01	10	0	0	0	0	0	0				25	50
10	22-Jun-01	11	0	0	0	0	0	0				24	50
11	23-Jun-01	12	0	0	0	0	0	0				24	49
12	24-Jun-01	13	0	0	0	0	0	0				24	55
13	25-Jun-01	14	0	0	0	0	0	0				23	55
14	26-Jun-01	15	0	0	0	0	0	0				24	50
15	27-Jun-01	16	0	0	0	0	0	0	0.8129	1.455	7.22E-03	24	42
16	28-Jun-01	17	0	0	0	0	0	0				24	41
17	29-Jun-01	18	0	0	0	0	0	0				24	39
18	30-Jun-01	19	0	0	0	0	0	0				24	44
19	1-Jul-01	20	0	0	0	0	0	0				24	43
20	2-Jul-01	21	0	0	0	0	0	0				24	39

Chamber Monitoring Results
Cumulative Exposure Record
Group I - 0 mg/m^3 (Air Control)

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
21	3-Jul-01	22	0	0	0	0	0	0				24	44
22	4-Jul-01	23	0	0	0	0	0	0	1.1900	1.821	2.40E-03	24	45
23	5-Jul-01	24	0	0	0	0	0	0				24	42
24	6-Jul-01	25	0	0	0	0	0	0				24	43
25	7-Jul-01	26	0	0	0	0	0	0				24	43
26	8-Jul-01	27	0	0	0	0	0	0				24	48
27	9-Jul-01	28	0	0	0	0	0	0				24	43
28	10-Jul-01	29	0	0	0	0	0	0				24	39
29	11-Jul-01	30	0	0	0	0	0	0	2.5240	2.031	2.80E-03	24	48
30	12-Jul-01	31	0	0	0	0	0	0				24	43
31	13-Jul-01	32	0	0	0	0	0	0				24	43
32	14-Jul-01	33	0	0	0	0	0	0				24	43
33	15-Jul-01	34	0	0	0	0	0	0				24	42
34	16-Jul-01	35	0	0	0	0	0	0				24	43
35	17-Jul-01	36	0	0	0	0	0	0				24	43
36	18-Jul-01	37	0	0	0	0	0	0	0.8037	2.146	1.34E-02	24	45
37	19-Jul-01	38	0	0	0	0	0	0				24	50
38	20-Jul-01	39	0	0	0	0	0	0				23	56
39	21-Jul-01	40	0	0	0	0	0	0				24	47
40	22-Jul-01	41	0	0	0	0	0	0				23	51
41	23-Jul-01	42	0	0	0	0	0	0				24	51

Chamber Monitoring Results
Cumulative Exposure Record
Group I - 0 mg/m^3 (Air Control)

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
42	24-Jul-01	43	0	0	0	0	0	0				24	45
43	25-Jul-01	44	0	0	0	0	0	0	0.8554	2.205	9.19E-03	24	51
44	26-Jul-01	45	0	0	0	0	0	0				24	46
45	27-Jul-01	46	0	0	0	0	0	0				24	45
46	28-Jul-01	47	0	0	0	0	0	0				24	42
47	29-Jul-01	48	0	0	0	0	0	0				24	44
48	30-Jul-01	49	0	0	0	0	0	0				24	43
49	31-Jul-01	50	0	0	0	0	0	0				24	42
50	1-Aug-01	51	0	0	0	0	0	0	0.8555	1.824	2.60E-03	24	50
51	2-Aug-01	52	0	0	0	0	0	0				24	52
52	3-Aug-01	53	0	0	0	0	0	0				24	66
53	4-Aug-01	54	0	0	0	0	0	0				23	69
54	5-Aug-01	55	0	0	0	0	0	0				24	43
55	6-Aug-01	56	0	0	0	0	0	0				24	45
56	7-Aug-01	57	0	0	0	0	0	0				24	50
57	8-Aug-01	58	0	0	0	0	0	0	0.8470	1.920	1.09E-02	24	46
58	9-Aug-01	59	0	0	0	0	0	0				25	48
59	10-Aug-01	60	0	0	0	0	0	0				24	52
60	11-Aug-01	61	0	0	0	0	0	0				23	47
61	12-Aug-01	62	0	0	0	0	0	0				24	40
62	13-Aug-01	63	0	0	0	0	0	0				24	42

Chamber Monitoring Results
Cumulative Exposure Record
Group I - 0 mg/m^3 (Air Control)

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
63	14-Aug-01	64	0	0	0	0	0	0				23	54
64	15-Aug-01	65	0	0	0	0	0	0	0.8321	1.444	2.82E-03	24	41
65	16-Aug-01	66	0	0	0	0	0	0				23	51
66	17-Aug-01	67	0	0	0	0	0	0				24	42
67	18-Aug-01	68	0	0	0	0	0	0				23	47
68	19-Aug-01	69	0	0	0	0	0	0				24	41
69	20-Aug-01	70	0	0	0	0	0	0				24	45
70	21-Aug-01	71	0	0	0	0	0	0				24	42
71	22-Aug-01	72	0	0	0	0	0	0	11.3600	3.068	5.34E-03	24	48
72	23-Aug-01	73	0	0	0	0	0	0				24	50
73	24-Aug-01	74	0	0	0	0	0	0				22	71
74	25-Aug-01	75	0	0	0	0	0	0				23	50
75	26-Aug-01	76	0	0	0	0	0	0				24	48
76	27-Aug-01	77	0	0	0	0	0	0				24	43
77	28-Aug-01	78	0	0	0	0	0	0				24	42
78	29-Aug-01	79	0	0	0	0	0	0	0.7382	1.655	2.24E-03	24	48
79	30-Aug-01	80	0	0	0	0	0	0				24	44
80	31-Aug-01	81	0	0	0	0	0	0				24	44
81	1-Sep-01	82	0	0	0	0	0	0				24	44
82	2-Sep-01	83	0	0	0	0	0	0				24	47
83	3-Sep-01	84	0	0	0	0	0	0				24	47

Chamber Monitoring Results
Cumulative Exposure Record
Group I - 0 mg/m^3 (Air Control)

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
84	4-Sep-01	85	0	0	0	0	0	0				24	46
85	5-Sep-01	86	0	0	0	0	0	0	2.2630	1.858	7.16E-04	24	49
86	6-Sep-01	87	0	0	0	0	0	0				24	46
87	7-Sep-01	88	0	0	0	0	0	0				24	45
88	8-Sep-01	89	0	0	0	0	0	0				24	47
89	9-Sep-01	90	0	0	0	0	0	0				24	47
90	10-Sep-01	91	0	0	0	0	0	0				24	45
91	11-Sep-01	92	0	0	0	0	0	0				23	46
92	12-Sep-01	93	0	0	0	0	0	0	7.4940	1.969	5.21E-03	23	43
93	13-Sep-01	94	0	0	0	0	0	0				22	43
94	14-Sep-01	95	0	0	0	0	0	0				22	41
95	15-Sep-01	96	0	0	0	0	0	0				22	38
96	16-Sep-01	97	0	0	0	0	0	0				23	41
97	17-Sep-01	98	0	0	0	0	0	0				22	43
98	18-Sep-01	99	0	0	0	0	0	0				23	45
99	19-Sep-01	100	0	0	0	0	0	0	0.9028	2.126	1.81E-03	23	46
100	20-Sep-01	101	0	0	0	0	0	0				24	54
101	21-Sep-01	102	0	0	0	0	0	0				24	52
102	22-Sep-01	103	0	0	0	0	0	0				24	50
103	23-Sep-01	104	0	0	0	0	0	0				24	52
104	24-Sep-01	105	0	0	0	0	0	0				24	44

Chamber Monitoring Results
Cumulative Exposure Record
Group I - 0 mg/m^3 (Air Control)

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
105	25-Sep-01	106	0	0	0	0	0	0				24	57
106	26-Sep-01	107	0	0	0	0	0	0	12.2200	2.397	1.42E-02	24	43
107	27-Sep-01	108	0	0	0	0	0	0				24	44
108	28-Sep-01	109	0	0	0	0	0	0				24	43
109	29-Sep-01	110	0	0	0	0	0	0				24	45
110	30-Sep-01	111	0	0	0	0	0	0				24	40
111	1-Oct-01	112	0	0	0	0	0	0				24	42
112	2-Oct-01	113	0	0	0	0	0	0				24	45
113	3-Oct-01	114	0	0	0	0	0	0	8.7440	3.118	6.78E-03	23	45
114	4-Oct-01	115	0	0	0	0	0	0				21	46
115	5-Oct-01	116	0	0	0	0	0	0				21	46
116	6-Oct-01	117	0	0	0	0	0	0				21	48
117	7-Oct-01	118	0	0	0	0	0	0				21	35
118	8-Oct-01	119	0	0	0	0	0	0				21	35
119	9-Oct-01	120	0	0	0	0	0	0				21	35
120	10-Oct-01	121	0	0	0	0	0	0	5.7590	2.022	3.93E-03	21	42
121	11-Oct-01	122	0	0	0	0	0	0				21	45
122	12-Oct-01	123	0	0	0	0	0	0				21	45
123	13-Oct-01	124	0	0	0	0	0	0				21	45
124	14-Oct-01	125	0	0	0	0	0	0				22	45
125	15-Oct-01	126	0	0	0	0	0	0				22	43

Chamber Monitoring Results
Cumulative Exposure Record
Group I - 0 mg/m^3 (Air Control)

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
126	16-Oct-01	127	0	0	0	0	0	0				22	39
127	17-Oct-01	128	0	0	0	0	0	0	3.8940	1.806	1.16E-03	22	37
128	18-Oct-01	129	0	0	0	0	0	0				22	37
129	19-Oct-01	130	0	0	0	0	0	0				22	34
130	20-Oct-01	131	0	0	0	0	0	0				23	40
131	21-Oct-01	132	0	0	0	0	0	0				23	41
132	22-Oct-01	133	0	0	0	0	0	0				23	44
133	23-Oct-01	134	0	0	0	0	0	0				23	43
134	24-Oct-01	135	0	0	0	0	0	0	1.3570	2.021	2.70E-03	23	46
135	25-Oct-01	136	0	0	0	0	0	0				23	47
136	26-Oct-01	137	0	0	0	0	0	0				24	34
137	27-Oct-01	138	0	0	0	0	0	0				23	39
138	28-Oct-01	139	0	0	0	0	0	0				23	37
139	29-Oct-01	140	0	0	0	0	0	0				23	39
140	30-Oct-01	141	0	0	0	0	0	0				23	44
141	31-Oct-01	142	0	0	0	0	0	0	3.1970	2.314	1.30E-03	23	46
142	1-Nov-01	143	0	0	0	0	0	0				21	43
143	2-Nov-01	144	0	0	0	0	0	0				23	61
144	3-Nov-01	145	0	0	0	0	0	0				24	56
145	4-Nov-01	146	0	0	0	0	0	0				23	46
146	5-Nov-01	147	0	0	0	0	0	0				23	44

Chamber Monitoring Results
Cumulative Exposure Record
Group I - 0 mg/m^3 (Air Control)

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
147	6-Nov-01	148	0	0	0	0	0	0				23	41
148	7-Nov-01	149	0	0	0	0	0	0	0.7352	1.552	5.72E-04	23	43
149	8-Nov-01	150	0	0	0	0	0	0				23	45
150	9-Nov-01	151	0	0	0	0	0	0				23	42
151	10-Nov-01	152	0	0	0	0	0	0				23	41
152	11-Nov-01	153	0	0	0	0	0	0				23	43
153	12-Nov-01	154	0	0	0	0	0	0				23	40
154	13-Nov-01	155	0	0	0	0	0	0				23	41
155	14-Nov-01	156	0	0	0	0	0	0	0.7203	1.481	1.24E-03	23	43
156	15-Nov-01	157	0	0	0	0	0	0				24	49
157	16-Nov-01	158	0	0	0	0	0	0				24	50
158	17-Nov-01	159	0	0	0	0	0	0				23	43
159	18-Nov-01	160	0	0	0	0	0	0				23	49
160	19-Nov-01	161	0	0	0	0	0	0				24	48
161	20-Nov-01	162	0	0	0	0	0	0				24	44
162	21-Nov-01	163	0	0	0	0	0	0	1.0000	1.719	4.21E-04	24	40
163	22-Nov-01	164	0	0	0	0	0	0				23	40
164	23-Nov-01	165	0	0	0	0	0	0				24	45
165	24-Nov-01	166	0	0	0	0	0	0				24	50
166	25-Nov-01	167	0	0	0	0	0	0				24	57
167	26-Nov-01	168	0	0	0	0	0	0				24	49

Chamber Monitoring Results
Cumulative Exposure Record
Group I - 0 mg/m^3 (Air Control)

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
168	27-Nov-01	169	0	0	0	0	0	0				24	43
169	28-Nov-01	170	0	0	0	0	0	0	0.7742	2.049	4.76E-03	24	51
170	29-Nov-01	171	0	0	0	0	0	0				24	50
171	30-Nov-01	172	0	0	0	0	0	0				23	55
172	1-Dec-01	173	0	0	0	0	0	0				24	51
173	2-Dec-01	174	0	0	0	0	0	0				23	48
174	3-Dec-01	175	0	0	0	0	0	0				23	47
175	4-Dec-01	176	0	0	0	0	0	0				23	45
176	5-Dec-01	177	0	0	0	0	0	0	1.1530	2.007	1.21E-03	23	47
177	6-Dec-01	178	0	0	0	0	0	0				23	48
178	7-Dec-01	179	0	0	0	0	0	0				24	47
179	8-Dec-01	180	0	0	0	0	0	0				23	39
180	9-Dec-01	181	0	0	0	0	0	0				23	46
181	10-Dec-01	182	0	0	0	0	0	0				23	41
182	11-Dec-01	183	0	0	0	0	0	0				23	45
183	12-Dec-01	184	0	0	0	0	0	0	0.8130	1.904	4.05E-03	23	45
184	13-Dec-01	185	0	0	0	0	0	0				23	46
185	14-Dec-01	186	0	0	0	0	0	0				23	48
186	15-Dec-01	187	0	0	0	0	0	0				23	40
187	16-Dec-01	188	0	0	0	0	0	0				23	39
188	17-Dec-01	189	0	0	0	0	0	0				23	40

Chamber Monitoring Results
Cumulative Exposure Record
Group I - 0 mg/m^3 (Air Control)

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
189	18-Dec-01	190	0	0	0	0	0	0				24	46
190	19-Dec-01	191	0	0	0	0	0	0	0.7249	1.844	1.57E-03	24	41
191	20-Dec-01	192	0	0	0	0	0	0				23	41
192	21-Dec-01	193	0	0	0	0	0	0				23	43
193	22-Dec-01	194	0	0	0	0	0	0				23	40
194	23-Dec-01	195	0	0	0	0	0	0				23	40
195	24-Dec-01	196	0	0	0	0	0	0				23	41
196	25-Dec-01	197	0	0	0	0	0	0				23	41
197	26-Dec-01	198	0	0	0	0	0	0	4.0440	2.492	4.11E-03	23	41
198	27-Dec-01	199	0	0	0	0	0	0				23	41
199	28-Dec-01	200	0	0	0	0	0	0				22	49
200	29-Dec-01	201	0	0	0	0	0	0				24	45
201	30-Dec-01	202	0	0	0	0	0	0				23	43
202	31-Dec-01	203	0	0	0	0	0	0				23	42
203	1-Jan-02	204	0	0	0	0	0	0				22	43
204	2-Jan-02	205	0	0	0	0	0	0	1.5050	2.127	3.46E-03	23	44
205	3-Jan-02	206	0	0	0	0	0	0				23	43
206	4-Jan-02	207	0	0	0	0	0	0				25	51
207	5-Jan-02	208	0	0	0	0	0	0				25	51
208	6-Jan-02	209	0	0	0	0	0	0				25	50
209	7-Jan-02	210	0	0	0	0	0	0				25	43

Chamber Monitoring Results
Cumulative Exposure Record
Group I - 0 mg/m^3 (Air Control)

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
210	8-Jan-02	211	0	0	0	0	0	0				25	43
211	9-Jan-02	212	0	0	0	0	0	0	1.8470	2.271	5.55E-03	25	38
212	10-Jan-02	213	0	0	0	0	0	0				25	43
213	11-Jan-02	214	0	0	0	0	0	0				26	50
214	12-Jan-02	215	0	0	0	0	0	0				25	52
215	13-Jan-02	216	0	0	0	0	0	0				25	45
216	14-Jan-02	217	0	0	0	0	0	0				25	52
217	15-Jan-02	218	0	0	0	0	0	0				25	45
218	16-Jan-02	219	0	0	0	0	0	0	1.4100	1.940	1.37E-03	25	51
219	17-Jan-02	220	0	0	0	0	0	0				25	50
220	18-Jan-02	221	0	0	0	0	0	0				25	51
221	19-Jan-02	222	0	0	0	0	0	0				25	47
222	20-Jan-02	223	0	0	0	0	0	0				25	38
223	21-Jan-02	224	0	0	0	0	0	0				25	38
224	22-Jan-02	225	0	0	0	0	0	0				25	49
225	23-Jan-02	226	0	0	0	0	0	0	5.2980	2.474	5.47E-03	24	49
226	24-Jan-02	227	0	0	0	0	0	0				24	50
227	25-Jan-02	228	0	0	0	0	0	0				24	48
228	26-Jan-02	229	0	0	0	0	0	0				24	47
229	27-Jan-02	230	0	0	0	0	0	0				24	44
230	28-Jan-02	231	0	0	0	0	0	0				24	43

Chamber Monitoring Results
Cumulative Exposure Record
Group I - 0 mg/m³ (Air Control)

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
231	29-Jan-02	232	0	0	0	0	0	0				24	44
232	30-Jan-02	233	0	0	0	0	0	0	0.8618	2.065	6.66E-03	25	51
233	31-Jan-02	234	0	0	0	0	0	0				23	49
234	1-Feb-02	235	0	0	0	0	0	0				23	52
235	2-Feb-02	236	0	0	0	0	0	0				23	56
236	3-Feb-02	237	0	0	0	0	0	0				23	49
237	4-Feb-02	238	0	0	0	0	0	0				23	48
238	5-Feb-02	239	0	0	0	0	0	0				23	61
239	6-Feb-02	240	0	0	0	0	0	0	2.7570	2.474	6.10E-03	23	51
240	7-Feb-02	241	0	0	0	0	0	0				23	62
241	8-Feb-02	242	0	0	0	0	0	0				23	49
242	9-Feb-02	243	0	0	0	0	0	0				24	44
243	10-Feb-02	244	0	0	0	0	0	0				24	55
244	11-Feb-02	245	0	0	0	0	0	0				25	51
245	12-Feb-02	246	0	0	0	0	0	0				24	48
246	13-Feb-02	247	0	0	0	0	0	0	7.1600	2.338	3.07E-03	24	46
247	14-Feb-02	248	0	0	0	0	0	0				23	41
248	15-Feb-02	249	0	0	0	0	0	0				22	47
249	16-Feb-02	250	0	0	0	0	0	0				22	53
250	17-Feb-02	251	0	0	0	0	0	0				22	36
251	18-Feb-02	252	0	0	0	0	0	0				22	47

Chamber Monitoring Results
Cumulative Exposure Record
Group I - 0 mg/m^3 (Air Control)

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
252	19-Feb-02	253	0	0	0	0	0	0				22	45
253	20-Feb-02	254	0	0	0	0	0	0	2.5520	2.681	6.19E-03	21	47
254	21-Feb-02	255	0	0	0	0	0	0				21	56
255	22-Feb-02	256	0	0	0	0	0	0				21	42
256	23-Feb-02	257	0	0	0	0	0	0				21	44
257	24-Feb-02	258	0	0	0	0	0	0				21	42
258	25-Feb-02	259	0	0	0	0	0	0				21	42
259	26-Feb-02	260	0	0	0	0	0	0				21	45
		Mean	**0**			**0**			**2.7551**	**2.077**	**4.37E-03**	**23.5**	**45.8**
		S.D.	**0**			**0**			**3.0471**	**0.385**	**3.35E-03**	**1.0**	**5.4**

Chamber Monitoring Results
Cumulative Exposure Record
Group II - 2000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
0	12-Jun-01	1	2190	2170	2440	2120	1980	2140				26	45
1	13-Jun-01	2	2100	2080	2020	1950	2250	2100				26	43
2	14-Jun-01	3	2010	2015	2050	1990	2020	2000				26	45
3	15-Jun-01	4	2010	2048	2160	1970	1940	2120	1.3470	2.488	6.10E-03	25	47
4	16-Jun-01	5	2040	1955	1880	1890	1880	2170				25	47
5	17-Jun-01	6	2020	2045	1900	1970	2020	2290				25	48
6	18-Jun-01	7	2050	2173	2120	1950	2680	1940				25	45
7	19-Jun-01	8	2030	2025	2030	2070	2000	2000				25	45
8	20-Jun-01	9	2000	2040	2010	2060	2090	2000	2.0430	2.164	4.73E-03	25	45
9	21-Jun-01	10	1970	2020	2000	2000	2080	2000				25	46
10	22-Jun-01	11	1880	2000	2000	1980	2010	2010				25	46
11	23-Jun-01	12	1880	1933	1810	1930	2050	1940				24	47
12	24-Jun-01	13	2060	2155	2120	2050	2220	2230				25	50
13	25-Jun-01	14	2070	2023	2010	2070	2010	2000				24	51
14	26-Jun-01	15	2330	1978	1970	2000	2000	1940				25	47
15	27-Jun-01	16	1760	1995	2000	2000	2000	1980	0.8354	1.964	6.95E-03	25	40
16	28-Jun-01	17	2100	2000	2000	2000	2000	2000				25	39
17	29-Jun-01	18	2110	2015	1940	1980	2090	2050				25	37
18	30-Jun-01	19	2060	2063	2000	2210	2010	2030				25	41
19	1-Jul-01	20	2000	2038	2030	2010	2100	2010				25	42
20	2-Jul-01	21	1990	2015	2040	2010	2010	2000				25	37

Chamber Monitoring Results
Cumulative Exposure Record
Group II - 2000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
21	3-Jul-01	22	2050	2013	2000	2060	1980	2010				25	40
22	4-Jul-01	23	1920	1995	2000	1990	2010	1980	2.1240	2.090	3.27E-03	25	42
23	5-Jul-01	24	1720	1590	1210	1560	1640	1950				25	39
24	6-Jul-01	25	1900	2006	1660	2170	2160	2040				25	41
25	7-Jul-01	26	2140	2095	1990	2210	2150	2030				25	41
26	8-Jul-01	27	2120	2198	2320	2170	2110	2190				25	44
27	9-Jul-01	28	2090	2105	2190	2140	2080	2010				25	41
28	10-Jul-01	29	2150	2070	2010	2060	2090	2120				25	38
29	11-Jul-01	30	2170	2118	2380	2010	2040	2040	1.8280	2.223	1.69E-03	25	44
30	12-Jul-01	31	2020	2025	2100	1960	2010	2030				25	42
31	13-Jul-01	32	1990	2190	2040	2100	2080	2540				25	44
32	14-Jul-01	33	2020	1988	1910	2000	2000	2040				25	42
33	15-Jul-01	34	2070	1935	2060	1630	2100	1950				25	40
34	16-Jul-01	35	1960	2043	2160	1940	2060	2010				25	41
35	17-Jul-01	36	2020	2005	2020	1950	2000	2050				25	39
36	18-Jul-01	37	2010	1988	2000	2000	1940	2010	0.7991	2.157	9.60E-03	25	41
37	19-Jul-01	38	2000	2008	2030	1960	2010	2030				25	47
38	20-Jul-01	39	1930	1995	2070	2040	1950	1920				24	50
39	21-Jul-01	40	1950	2000	1920	2010	2010	2060				25	49
40	22-Jul-01	41	2010	2053	2070	2060	2130	1950				25	45
41	23-Jul-01	42	2040	2048	2150	2010	2000	2030				24	50

Chamber Monitoring Results
Cumulative Exposure Record
Group II - 2000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
42	24-Jul-01	43	2020	2000	1960	2000	1980	2060				25	42
43	25-Jul-01	44	2030	2053	2180	2050	2000	1980	0.8462	2.134	6.87E-03	25	48
44	26-Jul-01	45	2050	2023	2030	2020	2020	2020				24	53
45	27-Jul-01	46	2000	2030	2110	2010	1950	2050				24	51
46	28-Jul-01	47	2070	1998	1830	2050	2100	2010				25	40
47	29-Jul-01	48	2100	2090	2200	2080	2070	2010				25	42
48	30-Jul-01	49	2090	2048	1870	2070	2130	2120				25	41
49	31-Jul-01	50	2010	2005	2000	2000	2000	2020				25	38
50	1-Aug-01	51	2030	2015	2020	2010	2000	2030	0.9033	1.922	1.78E-03	24	54
51	2-Aug-01	52	2130	2038	2070	2040	2010	2030				24	56
52	3-Aug-01	53	2110	2023	2100	1820	2190	1980				25	63
53	4-Aug-01	54	1940	2013	2060	2010	2000	1980				25	61
54	5-Aug-01	55	1960	2070	2250	2030	2010	1990				24	40
55	6-Aug-01	56	1950	2013	1920	1990	2080	2060				25	44
56	7-Aug-01	57	2070	2023	1900	2130	2060	2000				24	50
57	8-Aug-01	58	2050	2023	1970	2120	2020	1980	0.8136	1.374	6.71E-03	25	44
58	9-Aug-01	59	2020	2000	1950	2000	2000	2050				25	48
59	10-Aug-01	60	2030	2000	1930	1900	2060	2110				25	53
60	11-Aug-01	61	2060	2035	2170	1980	2020	1970				24	43
61	12-Aug-01	62	1720	1718	1620	1680	1880	1690				24	37
62	13-Aug-01	63	2090	2095	2030	2000	2150	2200				25	40

Chamber Monitoring Results
Cumulative Exposure Record
Group II - 2000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
63	14-Aug-01	64	2140	2053	2060	2010	2090	2050				24	48
64	15-Aug-01	65	2050	2045	2060	2080	2000	2040	1.1560	2.940	8.00E-03	25	39
65	16-Aug-01	66	1930	2000	2000	1810	2240	1950				24	45
66	17-Aug-01	67	2020	2045	2000	2000	2050	2130				25	39
67	18-Aug-01	68	2040	2008	2040	1920	2060	2010				24	42
68	19-Aug-01	69	2070	2028	2150	1930	2060	1970				24	41
69	20-Aug-01	70	2200	1990	2070	1720	2140	2030				25	43
70	21-Aug-01	71	2060	2020	2020	2030	2030	2000				25	38
71	22-Aug-01	72	2020	2050	2000	2130	2010	2060	0.9097	1.693	1.67E-03	25	44
72	23-Aug-01	73	2060	1978	2040	2000	1950	1920				24	50
73	24-Aug-01	74	2270	1985	2010	2000	2000	1930				24	62
74	25-Aug-01	75	2040	1940	2000	1810	1900	2050				24	47
75	26-Aug-01	76	1980	2013	2110	2000	2000	1940				24	44
76	27-Aug-01	77	2070	2155	2030	2130	2450	2010				25	39
77	28-Aug-01	78	2050	2028	2060	2000	2120	1930				25	38
78	29-Aug-01	79	2000	1950	1970	1800	2030	2000	0.7264	1.453	1.43E-03	25	45
79	30-Aug-01	80	1930	1928	1830	1860	1920	2100				25	39
80	31-Aug-01	81	1990	1910	2060	1940	2010	1630				25	39
81	1-Sep-01	82	2120	2035	2040	2080	1920	2100				25	41
82	2-Sep-01	83	2050	2013	2030	2000	2020	2000				24	44
83	3-Sep-01	84	2110	2025	2000	2100	2000	2000				25	44

Chamber Monitoring Results
Cumulative Exposure Record
Group II - 2000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
84	4-Sep-01	85	1800	1925	1600	2260	1860	1980				25	43
85	5-Sep-01	86	1720	1723	1620	1600	1720	1950	1.0760	1.460	2.17E-04	25	47
86	6-Sep-01	87	2030	1915	1740	1950	1980	1990				25	43
87	7-Sep-01	88	1960	1985	1980	1940	2010	2010				25	41
88	8-Sep-01	89	2060	2005	2010	2000	1960	2050				25	43
89	9-Sep-01	90	2090	2000	2000	1990	2010	2000				25	43
90	10-Sep-01	91	1960	1905	1630	2010	1980	2000				24	43
91	11-Sep-01	92	2030	1958	1900	1920	2010	2000				24	43
92	12-Sep-01	93	1970	1988	2040	2000	1970	1940	6.2710	1.815	4.80E-03	23	42
93	13-Sep-01	94	2060	1975	1860	2040	1950	2050				23	40
94	14-Sep-01	95	2000	2028	2060	2040	2020	1990				23	39
95	15-Sep-01	96	2160	2130	2090	1870	2160	2400				23	37
96	16-Sep-01	97	2000	1915	1920	2110	1780	1850				23	39
97	17-Sep-01	98	1930	1995	2000	2000	1990	1990				24	39
98	18-Sep-01	99	2010	1983	1960	2030	1970	1970				24	43
99	19-Sep-01	100	2060	2043	2070	2000	2070	2030	6.8640	2.551	8.05E-03	24	44
100	20-Sep-01	101	2010	2023	2140	1940	2010	2000				25	47
101	21-Sep-01	102	2060	2023	2120	1990	1960	2020				25	48
102	22-Sep-01	103	2220	2220	2290	1990	2370	2230				25	47
103	23-Sep-01	104	2000	2248	2540	2400	2060	1990				25	47
104	24-Sep-01	105	2160	2168	2380	2110	2100	2080				25	41

Chamber Monitoring Results
Cumulative Exposure Record
Group II - 2000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
105	25-Sep-01	106	1990	2048	2110	2000	2070	2010				25	50
106	26-Sep-01	107	1970	2023	2000	1930	2160	2000	0.9297	1.815	8.95E-04	25	40
107	27-Sep-01	108	1910	1998	1980	2010	1990	2010				25	41
108	28-Sep-01	109	2090	2000	1990	1970	2000	2040				25	41
109	29-Sep-01	110	2010	2000	1980	2010	2010	2000				25	41
110	30-Sep-01	111	2080	2060	2070	1670	2310	2190				25	38
111	1-Oct-01	112	2000	1900	2010	2070	1750	1770				25	40
112	2-Oct-01	113	2010	2038	2090	2050	1970	2040				25	42
113	3-Oct-01	114	2080	2028	2050	2060	2000	2000	2.8000	2.869	5.13E-03	24	42
114	4-Oct-01	115	2070	2060	2110	2020	2000	2110				23	43
115	5-Oct-01	116	2040	2020	2040	2010	2000	2030				23	43
116	6-Oct-01	117	2090	2025	2030	2020	2010	2040				23	46
117	7-Oct-01	118	2150	2010	1860	1870	2150	2160				22	34
118	8-Oct-01	119	2150	2215	2320	2250	2170	2120				22	34
119	9-Oct-01	120	2120	2058	2110	1910	2100	2110				22	33
120	10-Oct-01	121	2090	2063	1990	2090	2080	2090	5.5660	2.157	3.23E-03	22	38
121	11-Oct-01	122	2010	2010	1920	2050	2020	2050				22	41
122	12-Oct-01	123	2100	1990	1870	1950	2020	2120				23	41
123	13-Oct-01	124	2110	2035	1940	2060	2070	2070				22	43
124	14-Oct-01	125	2010	2010	2010	2010	2020	2000				23	42
125	15-Oct-01	126	1960	1998	2000	2000	2000	1990				23	40

Chamber Monitoring Results
Cumulative Exposure Record
Group II - 2000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
126	16-Oct-01	127	1940	2013	2000	2010	2040	2000				23	37
127	17-Oct-01	128	2050	2023	2000	2000	2090	2000	11.6600	1.994	5.78E-03	23	35
128	18-Oct-01	129	2000	2003	1900	2050	2040	2020				23	35
129	19-Oct-01	130	1960	1988	2020	2030	1990	1910				23	33
130	20-Oct-01	131	2070	2038	2020	2130	2000	2000				23	38
131	21-Oct-01	132	2020	2098	2060	2000	2170	2160				23	38
132	22-Oct-01	133	2000	2008	2010	2010	2000	2010				24	42
133	23-Oct-01	134	1980	1998	2000	2000	2000	1990				24	41
134	24-Oct-01	135	2010	2018	2000	2000	2070	2000	2.7520	2.462	5.11E-03	24	44
135	25-Oct-01	136	1950	2008	1990	1930	2070	2040				24	45
136	26-Oct-01	137	2150	2018	1920	1720	2240	2190				24	31
137	27-Oct-01	138	1950	1880	1980	1680	1900	1960				24	37
138	28-Oct-01	139	2040	2073	2150	2170	2120	1850				24	36
139	29-Oct-01	140	1940	1990	1930	2010	2040	1980				24	38
140	30-Oct-01	141	1990	2023	1980	2070	2050	1990				24	42
141	31-Oct-01	142	2040	2015	1990	2010	2000	2060	1.3750	1.670	6.28E-04	24	44
142	1-Nov-01	143	2270	2018	2140	1610	2320	2000				24	50
143	2-Nov-01	144	2030	1975	2000	1990	2000	1910				24	55
144	3-Nov-01	145	2220	1893	1750	1880	1850	2090				25	51
145	4-Nov-01	146	2020	2115	2270	2150	2120	1920				24	42
146	5-Nov-01	147	2020	2005	2000	1960	2110	1950				24	42

Chamber Monitoring Results
Cumulative Exposure Record
Group II - 2000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
147	6-Nov-01	148	1960	2008	2080	2000	1950	2000				24	39
148	7-Nov-01	149	2000	2050	2080	2070	2040	2010	1.4610	1.899	9.99E-04	25	41
149	8-Nov-01	150	2000	2005	2100	1930	2010	1980				24	42
150	9-Nov-01	151	2020	2075	2000	2100	2200	2000				24	39
151	10-Nov-01	152	2160	1965	1890	1870	2070	2030				24	39
152	11-Nov-01	153	1940	2018	2090	2000	2000	1980				24	41
153	12-Nov-01	154	2000	2033	2000	1940	2100	2090				24	38
154	13-Nov-01	155	1810	1768	1680	1630	1790	1970				24	39
155	14-Nov-01	156	1880	1953	1840	1920	2000	2050	0.7649	2.102	1.65E-03	25	41
156	15-Nov-01	157	2060	2003	1960	1950	2050	2050				24	46
157	16-Nov-01	158	2150	2170	1950	2400	2150	2180				25	46
158	17-Nov-01	159	2120	2170	2140	2170	2140	2230				25	39
159	18-Nov-01	160	2160	2088	2030	2060	2140	2120				24	43
160	19-Nov-01	161	1870	2083	2240	2070	2020	2000				25	46
161	20-Nov-01	162	1990	2038	2070	2080	2000	2000				25	42
162	21-Nov-01	163	2020	2020	2030	2030	2050	1970	6.5690	2.352	1.21E-03	24	38
163	22-Nov-01	164	1960	2010	2000	2010	2030	2000				24	38
164	23-Nov-01	165	1980	2000	1900	2070	2030	2000				24	42
165	24-Nov-01	166	2020	2028	2070	1990	2060	1990				25	47
166	25-Nov-01	167	1830	1810	1940	1520	1820	1960				25	51
167	26-Nov-01	168	2010	2053	2190	2020	2000	2000				25	46

Chamber Monitoring Results
Cumulative Exposure Record
Group II - 2000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
168	27-Nov-01	169	2070	2013	2060	1920	2070	2000				25	42
169	28-Nov-01	170	2000	2085	2050	1990	2040	2260	0.7917	2.085	4.92E-03	25	47
170	29-Nov-01	171	2020	1995	2000	2010	2000	1970				25	45
171	30-Nov-01	172	2010	1993	1940	1950	2040	2040				25	50
172	1-Dec-01	173	2090	1925	1830	1940	1970	1960				24	48
173	2-Dec-01	174	2060	1925	1840	2080	1810	1970				24	41
174	3-Dec-01	175	1980	2005	2030	1950	2040	2000				25	44
175	4-Dec-01	176	2030	2000	2010	1930	1990	2070				25	41
176	5-Dec-01	177	2090	2013	2080	1910	2060	2000	1.5290	2.532	2.00E-03	24	45
177	6-Dec-01	178	2660	2073	2190	2000	2020	2080				24	45
178	7-Dec-01	179	2070	1978	2090	1960	1850	2010				24	45
179	8-Dec-01	180	2020	1918	2020	1810	1750	2090				24	36
180	9-Dec-01	181	2100	2008	1850	2030	1920	2230				24	43
181	10-Dec-01	182	2030	2033	2030	2040	2030	2030				24	38
182	11-Dec-01	183	2200	2018	2000	2010	2050	2010				24	41
183	12-Dec-01	184	1980	1973	2030	2000	1850	2010	0.8236	1.770	3.78E-03	24	41
184	13-Dec-01	185	2050	2008	2070	1950	2000	2010				24	42
185	14-Dec-01	186	2050	2030	2000	2070	2040	2010				24	45
186	15-Dec-01	187	2130	2020	2010	1980	2080	2010				24	36
187	16-Dec-01	188	1980	1993	2010	2000	1980	1980				24	36
188	17-Dec-01	189	2000	1950	1920	1880	2050	1950				24	38

Chamber Monitoring Results
Cumulative Exposure Record
Group II - 2000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
189	18-Dec-01	190	1920	1703	1500	1600	1800	1910				25	42
190	19-Dec-01	191	2090	2035	1920	2190	2030	2000	0.7819	1.548	1.91E-03	25	39
191	20-Dec-01	192	2000	2003	2190	1890	2030	1900				25	38
192	21-Dec-01	193	2070	2060	2170	2010	2000	2060				25	41
193	22-Dec-01	194	1840	1793	1770	1620	1930	1850				24	38
194	23-Dec-01	195	2070	1990	2010	1990	1920	2040				24	39
195	24-Dec-01	196	2010	2003	2020	2010	2000	1980				24	39
196	25-Dec-01	197	2100	1978	1780	1970	2040	2120				24	39
197	26-Dec-01	198	2320	2345	2580	2560	2120	2120	1.0100	1.703	1.25E-03	24	38
198	27-Dec-01	199	2640	2118	2270	2010	2060	2130				24	38
199	28-Dec-01	200	2060	2018	2080	1950	2000	2040				23	44
200	29-Dec-01	201	2000	1973	2010	1950	1980	1950				24	41
201	30-Dec-01	202	1980	2003	1970	1990	2000	2050				23	40
202	31-Dec-01	203	1870	2018	2050	2000	2010	2010				24	38
203	1-Jan-02	204	2030	1973	1970	1910	1930	2080				23	40
204	2-Jan-02	205	2000	1973	2030	2030	1740	2090	1.4130	2.037	2.52E-03	24	42
205	3-Jan-02	206	2120	2053	2030	2160	2020	2000				24	41
206	4-Jan-02	207	2160	2058	2170	2000	2020	2040				26	48
207	5-Jan-02	208	2100	1975	1970	1900	1940	2090				26	47
208	6-Jan-02	209	2080	2063	2150	1940	2070	2090				26	46
209	7-Jan-02	210	2020	1988	2010	2020	2000	1920				26	40

Chamber Monitoring Results
Cumulative Exposure Record
Group II - 2000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
210	8-Jan-02	211	2080	1998	2010	2000	2000	1980				26	40
211	9-Jan-02	212	2040	2010	2010	2010	2020	2000	1.4020	2.233	3.91E-03	26	36
212	10-Jan-02	213	2260	2008	2000	1870	2070	2090				27	39
213	11-Jan-02	214	1960	2080	2270	1960	1990	2100				27	46
214	12-Jan-02	215	1930	1943	2060	1960	1830	1920				25	52
215	13-Jan-02	216	2010	1955	1730	1900	2100	2090				26	42
216	14-Jan-02	217	2010	2060	2270	2070	1900	2000				27	49
217	15-Jan-02	218	2140	1988	2040	2010	2010	1890				26	43
218	16-Jan-02	219	2070	2073	2270	2000	1920	2100	2.1910	2.056	1.82E-03	26	49
219	17-Jan-02	220	2040	2053	2220	2040	2010	1940				26	47
220	18-Jan-02	221	2000	2088	2150	2000	2060	2140				26	48
221	19-Jan-02	222	2040	2020	2060	2040	2000	1980				26	45
222	20-Jan-02	223	1980	1993	2000	2000	1900	2070				26	36
223	21-Jan-02	224	2060	2020	2000	2000	2040	2040				26	37
224	22-Jan-02	225	2070	2028	2060	2040	2000	2010				26	46
225	23-Jan-02	226	1980	1993	2000	2030	2000	1940	1.8280	2.125	2.20E-03	26	45
226	24-Jan-02	227	2060	1995	2000	1890	1890	2200				25	47
227	25-Jan-02	228	2060	2050	2060	2040	2050	2050				25	44
228	26-Jan-02	229	1940	1930	2070	2010	1920	1720				25	44
229	27-Jan-02	230	2080	1950	2130	1790	1980	1900				25	41
230	28-Jan-02	231	2090	2095	1950	2040	2250	2140				24	40

Chamber Monitoring Results
Cumulative Exposure Record
Group II - 2000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
231	29-Jan-02	232	2090	2043	2080	2050	2040	2000				25	41
232	30-Jan-02	233	2090	2038	2160	2010	1940	2040	1.2410	2.863	9.57E-03	26	48
233	31-Jan-02	234	1970	2015	2050	1960	1950	2100				25	44
234	1-Feb-02	235	1970	2023	2120	1980	2010	1980				25	46
235	2-Feb-02	236	2020	1923	1770	2170	2030	1720				24	51
236	3-Feb-02	237	1980	2035	2180	1800	1930	2230				24	44
237	4-Feb-02	238	2100	2050	2040	2080	2080	2000				24	43
238	5-Feb-02	239	1990	2060	2090	2100	1980	2070				24	50
239	6-Feb-02	240	1970	2023	2040	1980	2030	2040	9.5990	3.071	1.22E-02	25	43
240	7-Feb-02	241	2140	2003	1970	1940	2060	2040				25	56
241	8-Feb-02	242	1980	2048	2070	2050	2070	2000				25	45
242	9-Feb-02	243	1950	2030	2170	2000	1950	2000				25	40
243	10-Feb-02	244	2060	2008	1950	2080	1990	2010				25	46
244	11-Feb-02	245	2020	1995	2080	1880	2030	1990				25	46
245	12-Feb-02	246	2020	1993	1920	1910	2120	2020				25	43
246	13-Feb-02	247	2160	1990	2020	2030	2010	1900	9.4580	1.824	1.13E-02	25	41
247	14-Feb-02	248	2010	1998	2040	1980	1860	2110				24	37
248	15-Feb-02	249	2000	1925	2030	1850	2030	1790				23	43
249	16-Feb-02	250	2110	1935	1910	1850	2190	1790				23	45
250	17-Feb-02	251	2070	2055	2210	2050	2210	1750				23	33
251	18-Feb-02	252	2070	2073	2170	2110	1990	2020				23	43

Chamber Monitoring Results
Cumulative Exposure Record
Group II - 2000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
252	19-Feb-02	253	2070	2065	1890	1990	2190	2190				22	40
253	20-Feb-02	254	2010	1980	2090	1860	1900	2070	6.7380	2.877	9.34E-03	22	43
254	21-Feb-02	255	2150	2060	2070	2080	2070	2020				22	49
255	22-Feb-02	256	2130	2103	2080	2090	2030	2210				22	38
256	23-Feb-02	257	2030	2025	2080	2000	2040	1980				21	40
257	24-Feb-02	258	2090	2048	2130	2000	2060	2000				21	40
		Mean	**2038**		**2015**				**2.7359**	**2.121**	**4.41E-03**	**24.4**	**42.9**
		S.D.	**103**		**121**				**2.9231**	**0.435**	**3.25E-03**	**1.0**	**4.8**

Chamber Monitoring Results
Cumulative Exposure Record
Group III - 10000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
0	12-Jun-01	1	10100	9975	10000	9700	10100	10100				26	47
1	13-Jun-01	2	9900	9828	9560	9870	10100	9780				26	44
2	14-Jun-01	3	10000	10380	10600	10600	10000	10300				26	45
3	15-Jun-01	4	9640	9928	10300	10100	10000	9310	0.8548	1.427	3.04E-03	25	47
4	16-Jun-01	5	9310	9925	10500	10200	10100	8900				26	46
5	17-Jun-01	6	8810	9105	8230	9740	9380	9070				25	49
6	18-Jun-01	7	9730	9923	10200	9800	9860	9830				25	46
7	19-Jun-01	8	9540	10320	9740	9950	11100	10500				25	45
8	20-Jun-01	9	9420	10200	10500	10600	9490	10200	2.0770	2.370	4.54E-03	26	46
9	21-Jun-01	10	9680	10380	10700	10400	10200	10200				26	47
10	22-Jun-01	11	9730	10200	10200	10400	10000	10200				25	47
11	23-Jun-01	12	8920	9483	9330	8870	10100	9630				25	46
12	24-Jun-01	13	9070	9468	10500	8930	8900	9540				25	51
13	25-Jun-01	14	9540	9933	10000	10300	10000	9430				24	52
14	26-Jun-01	15	9510	10110	10100	10700	9770	9870				25	47
15	27-Jun-01	16	9520	10060	9930	10500	9790	10000	0.8431	1.883	7.28E-03	25	40
16	28-Jun-01	17	9570	10120	10100	10100	10300	9980				25	39
17	29-Jun-01	18	9790	10040	10000	9970	10200	10000				25	37
18	30-Jun-01	19	9920	9980	10300	9650	9670	10300				25	41
19	1-Jul-01	20	9520	10040	10300	9740	10100	10000				25	42
20	2-Jul-01	21	9200	10350	10400	10000	10400	10600				25	37

Chamber Monitoring Results
Cumulative Exposure Record
Group III - 10000 mg/m³

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
21	3-Jul-01	22	9180	10400	10200	10800	10000	10600				25	40
22	4-Jul-01	23	9750	10010	10400	9860	9590	10200	1.6130	1.991	2.32E-03	25	42
23	5-Jul-01	24	9620	9995	10400	10400	9800	9380				25	39
24	6-Jul-01	25	9790	10030	9940	10600	9600	9970				25	41
25	7-Jul-01	26	9230	9483	8900	9720	10300	9010				25	40
26	8-Jul-01	27	10400	10160	10200	9610	9610	11200				25	44
27	9-Jul-01	28	9870	10200	10600	10300	10400	9510				25	40
28	10-Jul-01	29	9390	10020	9770	10000	10300	10000				25	38
29	11-Jul-01	30	9750	10320	9890	10600	10500	10300	1.5900	1.992	1.19E-03	25	44
30	12-Jul-01	31	10000	10450	10600	10500	10300	10400				25	41
31	13-Jul-01	32	10200	10480	10600	10800	10400	10100				25	41
32	14-Jul-01	33	10400	9998	10100	9440	9950	10500				25	41
33	15-Jul-01	34	9910	10270	11400	9470	10100	10100				25	39
34	16-Jul-01	35	10100	10140	10300	9920	9750	10600				25	40
35	17-Jul-01	36	9770	9985	9790	10500	9450	10200				25	39
36	18-Jul-01	37	10200	10210	10000	9720	10600	10500	0.7897	1.745	8.30E-03	25	42
37	19-Jul-01	38	10100	10020	9160	10400	10000	10500				25	46
38	20-Jul-01	39	9990	10550	10500	10700	10400	10600				25	46
39	21-Jul-01	40	9820	10130	10500	9940	9180	10900				25	42
40	22-Jul-01	41	9960	10230	10800	10700	10200	9210				25	44
41	23-Jul-01	42	9880	10230	10100	9830	10800	10200				25	44

Chamber Monitoring Results
Cumulative Exposure Record
Group III - 10000 mg/m³

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
42	24-Jul-01	43	9900	9835	9750	10100	9530	9960				25	42
43	25-Jul-01	44	9980	10290	10500	10600	10200	9870	0.8192	1.396	2.60E-03	25	46
44	26-Jul-01	45	10300	10230	10000	10400	10200	10300				25	42
45	27-Jul-01	46	10100	10350	10000	10000	10600	10800				24	48
46	28-Jul-01	47	10800	10150	10000	9690	10500	10400				25	40
47	29-Jul-01	48	9340	10430	12000	8750	9860	11100				25	42
48	30-Jul-01	49	9990	10800	10300	11500	10800	10600				25	41
49	31-Jul-01	50	9860	10380	10200	10400	10300	10600				25	39
50	1-Aug-01	51	10000	10430	10500	10000	10800	10400	1.0000	1.643	1.19E-03	24	54
51	2-Aug-01	52	10200	10430	10100	10300	10200	11100				24	58
52	3-Aug-01	53	10000	10360	10100	10900	10500	9920				25	64
53	4-Aug-01	54	10200	10250	10700	10200	10100	10000				25	55
54	5-Aug-01	55	10100	10330	10200	10500	10100	10500				25	40
55	6-Aug-01	56	9950	10300	11100	10100	10000	10000				25	43
56	7-Aug-01	57	9990	10400	9900	10600	10900	10200				25	45
57	8-Aug-01	58	10300	10180	10100	9800	10100	10700	0.8254	1.462	7.14E-03	25	44
58	9-Aug-01	59	10000	10220	9770	10700	10000	10400				25	46
59	10-Aug-01	60	9650	10130	10000	10000	10800	9700				25	54
60	11-Aug-01	61	10000	10170	10000	9770	10200	10700				24	43
61	12-Aug-01	62	9050	9703	10200	9280	9500	9830				25	37
62	13-Aug-01	63	10100	10380	10300	10400	10400	10400				25	40

Chamber Monitoring Results
Cumulative Exposure Record
Group III - 10000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
63	14-Aug-01	64	9660	10230	10000	10000	10400	10500				25	42
64	15-Aug-01	65	9550	10280	9920	10100	10000	11100	0.8412	1.913	3.74E-03	25	39
65	16-Aug-01	66	9600	9953	10200	10600	10000	9010				24	49
66	17-Aug-01	67	9870	10340	10000	10800	9940	10600				25	39
67	18-Aug-01	68	10200	10380	10900	10300	10300	10000				24	42
68	19-Aug-01	69	10200	10230	10200	10600	10000	10100				25	39
69	20-Aug-01	70	10300	10180	10000	10300	10100	10300				24	49
70	21-Aug-01	71	10400	10310	9230	10600	11000	10400				26	38
71	22-Aug-01	72	9480	10150	10100	10000	9910	10600	0.9458	2.321	1.83E-03	25	42
72	23-Aug-01	73	10000	10330	10500	10500	10000	10300				25	48
73	24-Aug-01	74	10100	10180	11100	9420	9390	10800				24	55
74	25-Aug-01	75	10200	10600	10700	10500	10400	10800				24	48
75	26-Aug-01	76	9550	9908	10600	9280	10200	9550				24	46
76	27-Aug-01	77	10400	10880	10400	10600	11300	11200				26	40
77	28-Aug-01	78	10000	10260	10200	9950	10300	10600				26	39
78	29-Aug-01	79	9530	10230	10400	9620	10400	10500	0.8542	2.111	2.00E-03	25	44
79	30-Aug-01	80	9720	10320	10900	10400	10000	9980				25	38
80	31-Aug-01	81	9790	10180	10000	10200	10500	10000				25	41
81	1-Sep-01	82	9890	10150	10100	10400	10100	10000				24	42
82	2-Sep-01	83	10200	10190	9960	9990	10300	10500				24	44
83	3-Sep-01	84	10000	10280	10200	10600	10000	10300				24	44

Chamber Monitoring Results
Cumulative Exposure Record
Group III - 10000 mg/m³

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
84	4-Sep-01	85	9380	10490	11400	9050	10700	10800				25	45
85	5-Sep-01	86	9640	10200	10500	9970	9930	10400	1.4630	1.700	2.90E-04	25	47
86	6-Sep-01	87	9690	10710	10800	11900	10200	9940				25	44
87	7-Sep-01	88	9940	10150	10100	10400	10000	10100				25	42
88	8-Sep-01	89	9440	9860	10400	9190	9750	10100				25	46
89	9-Sep-01	90	9710	10200	10500	10500	9900	9900				25	43
90	10-Sep-01	91	9640	10130	9990	10300	9710	10500				24	43
91	11-Sep-01	92	10600	10580	9900	10800	10900	10700				24	43
92	12-Sep-01	93	9370	9543	8630	10200	10300	9040	1.8470	1.726	9.91E-04	24	43
93	13-Sep-01	94	10000	10040	9530	10500	9730	10400				24	41
94	14-Sep-01	95	10200	10140	10500	9930	9930	10200				23	39
95	15-Sep-01	96	9480	9835	10000	8950	9890	10500				23	37
96	16-Sep-01	97	9350	9100	8930	8900	8270	10300				23	39
97	17-Sep-01	98	9880	10290	10900	10500	10200	9550				24	40
98	18-Sep-01	99	9950	10450	10400	10300	11100	9990				24	43
99	19-Sep-01	100	9860	9723	9330	8560	10700	10300	1.1260	1.795	2.28E-03	25	45
100	20-Sep-01	101	9550	10200	10900	9770	10200	9930				24	50
101	21-Sep-01	102	10800	10570	10900	9990	10600	10800				25	49
102	22-Sep-01	103	9950	9975	9330	9570	10500	10500				25	48
103	23-Sep-01	104	10000	10600	10300	10900	10700	10500				25	50
104	24-Sep-01	105	10100	10450	10500	10900	10400	10000				25	43

Chamber Monitoring Results
Cumulative Exposure Record
Group III - 10000 mg/m³

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
105	25-Sep-01	106	9740	9940	10500	9280	10300	9680				25	54
106	26-Sep-01	107	9590	10080	9690	9860	10900	9880	2.5570	2.270	2.13E-03	26	43
107	27-Sep-01	108	9720	10140	9840	10100	10500	10100				26	43
108	28-Sep-01	109	9700	9755	10000	9350	9900	9770				25	42
109	29-Sep-01	110	9160	10160	9960	10800	10300	9570				25	43
110	30-Sep-01	111	9940	10350	11100	10200	10200	9890				25	38
111	1-Oct-01	112	9330	9793	10500	7570	10500	10600				25	42
112	2-Oct-01	113	9970	10070	10000	9670	10300	10300				25	43
113	3-Oct-01	114	9380	10130	10900	9960	9940	9730	4.4020	3.187	6.06E-03	24	43
114	4-Oct-01	115	9600	10140	11000	9820	9440	10300				23	44
115	5-Oct-01	116	9690	9835	10900	11100	9330	8010				23	44
116	6-Oct-01	117	9380	10220	11300	9590	10300	9680				23	46
117	7-Oct-01	118	9730	9935	8940	10500	10100	10200				22	34
118	8-Oct-01	119	9010	9813	11200	8930	9170	9950				22	34
119	9-Oct-01	120	9860	10680	10900	11100	10800	9920				22	33
120	10-Oct-01	121	9180	10110	9220	11100	10900	9200	9.3140	1.972	6.87E-03	23	39
121	11-Oct-01	122	10100	9583	9980	8780	8470	11100				23	42
122	12-Oct-01	123	9370	10050	10100	10300	9920	9870				23	42
123	13-Oct-01	124	9340	10040	11500	8170	10200	10300				23	43
124	14-Oct-01	125	9980	10650	10800	10600	10500	10700				23	43
125	15-Oct-01	126	9660	10260	10800	10600	10400	9250				23	41

Chamber Monitoring Results
Cumulative Exposure Record
Group III - 10000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Mean Humidity (%)
126	16-Oct-01	127	9610	10550	10600	10500	10700	10400				23	38
127	17-Oct-01	128	9270	10120	10600	10000	9270	10600	1.8070	1.826	3.80E-04	23	35
128	18-Oct-01	129	9880	10280	10000	10100	10600	10400				23	34
129	19-Oct-01	130	9480	10210	10000	9730	10500	10600				23	33
130	20-Oct-01	131	9950	10450	10400	11000	10400	10000				24	38
131	21-Oct-01	132	9830	10400	10300	10300	10700	10300				24	38
132	22-Oct-01	133	9870	10550	10600	10900	10200	10500				24	42
133	23-Oct-01	134	9610	9948	10600	10000	9580	9610				24	41
134	24-Oct-01	135	10120	9900	10000	9080	10900	9620	0.9138	1.842	2.40E-03	24	45
135	25-Oct-01	136	9650	10200	10300	10500	10100	9910				24	44
136	26-Oct-01	137	9760	9563	8490	10800	10200	8760				24	31
137	27-Oct-01	138	9990	10250	9590	10300	10300	10800				24	41
138	28-Oct-01	139	9720	10530	11700	10200	10300	9930				24	35
139	29-Oct-01	140	10000	10100	10200	9780	10200	10200				24	37
140	30-Oct-01	141	9780	10130	10000	9810	10200	10500				24	41
141	31-Oct-01	142	9990	10130	10000	10400	10100	10000	1.2510	1.723	4.78E-04	24	45
142	1-Nov-01	143	10200	9925	9740	9930	10100	9930				24	52
143	2-Nov-01	144	9960	10450	10800	10000	10200	10800				24	57
144	3-Nov-01	145	10000	10480	10700	10700	10100	10400				25	52
145	4-Nov-01	146	9350	10080	8210	10800	10600	10700				24	43
146	5-Nov-01	147	10100	10250	10400	10300	10100	10200				25	42

Chamber Monitoring Results
Cumulative Exposure Record
Group III - 10000 mg/m³

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
147	6-Nov-01	148	10100	10380	10300	10100	10300	10800				24	40
148	7-Nov-01	149	9700	10330	10600	10100	10500	10100	7.1180	2.236	4.75E-03	24	43
149	8-Nov-01	150	9720	10090	10000	9480	9970	10900				24	43
150	9-Nov-01	151	9790	10190	10100	11200	9340	10100				24	41
151	10-Nov-01	152	10300	10440	9740	10500	10500	11000				24	40
152	11-Nov-01	153	9830	10280	10300	10200	10600	10000				24	41
153	12-Nov-01	154	9850	10480	10700	10400	10300	10500				24	38
154	13-Nov-01	155	10300	10220	9790	10000	10200	10900				24	39
155	14-Nov-01	156	10100	10480	10200	10600	10500	10600	0.9971	2.059	1.81E-03	24	41
156	15-Nov-01	157	9750	10490	9260	11600	10200	10900				25	46
157	16-Nov-01	158	9570	10160	9150	11400	10000	10100				25	46
158	17-Nov-01	159	9880	10250	10500	10300	10100	10100				25	40
159	18-Nov-01	160	9560	9693	10100	10200	9510	8960				24	41
160	19-Nov-01	161	9700	9990	10000	10000	9760	10200				25	45
161	20-Nov-01	162	10200	10320	10800	9970	10200	10300				25	41
162	21-Nov-01	163	9560	10070	10200	10500	9260	10300	3.2250	2.190	7.70E-04	24	36
163	22-Nov-01	164	9590	10080	9210	10500	10700	9890				24	38
164	23-Nov-01	165	9770	10400	10300	10600	10500	10200				24	43
165	24-Nov-01	166	9580	10650	10800	10600	10100	11100				25	60
166	25-Nov-01	167	9720	10400	10500	10500	10300	10300				24	51
167	26-Nov-01	168	9700	10110	10600	10900	10100	8850				25	45

Chamber Monitoring Results
Cumulative Exposure Record
Group III - 10000 mg/m³

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
168	27-Nov-01	169	10100	10420	10600	9970	10900	10200				24	42
169	28-Nov-01	170	9770	9935	11100	10200	10600	7840	0.7561	1.656	4.00E-03	25	48
170	29-Nov-01	171	9750	10220	9360	10600	10000	10900				25	44
171	30-Nov-01	172	10100	10200	10400	10200	10200	10000				25	49
172	1-Dec-01	173	9330	9865	9820	8940	10400	10300				25	49
173	2-Dec-01	174	9390	10210	11800	9360	9260	10400				24	41
174	3-Dec-01	175	9900	10410	10100	9940	11300	10300				25	44
175	4-Dec-01	176	9950	10280	10600	9830	10400	10300				24	42
176	5-Dec-01	177	9800	10280	9920	10400	10000	10800	15.9100	2.420	8.76E-03	24	45
177	6-Dec-01	178	9210	9885	9410	9530	10600	10000				25	45
178	7-Dec-01	179	9940	10300	10100	10000	10700	10400				24	45
179	8-Dec-01	180	9900	10340	10000	10800	10600	9950				24	35
180	9-Dec-01	181	9500	9470	9950	8900	9730	9300				24	43
181	10-Dec-01	182	9890	10380	10600	10500	10400	10000				23	39
182	11-Dec-01	183	9870	10430	10100	10300	10400	10900				25	42
183	12-Dec-01	184	9210	10220	10600	10400	9470	10400	0.8145	1.554	2.74E-03	25	42
184	13-Dec-01	185	9700	11600	11000	15500	9910	9990				24	43
185	14-Dec-01	186	9910	10410	10000	9950	11100	10800				24	46
186	15-Dec-01	187	9720	10390	9950	10900	10400	10300				24	38
187	16-Dec-01	188	9430	10280	10000	9810	11000	10300				24	35
188	17-Dec-01	189	9680	10240	10600	11000	9050	10300				25	39

Chamber Monitoring Results
Cumulative Exposure Record
Group III - 10000 mg/m³

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
189	18-Dec-01	190	9770	10230	10000	10400	10200	10300				25	44
190	19-Dec-01	191	9480	9438	10000	8320	10200	9230	0.8475	2.061	1.82E-03	25	39
191	20-Dec-01	192	9600	9768	9170	9500	10400	10000				25	39
192	21-Dec-01	193	9340	10080	8230	11000	11100	10000				25	41
193	22-Dec-01	194	9560	9763	9880	11200	9970	8000				24	38
194	23-Dec-01	195	10500	10880	10600	11200	10800	10900				24	39
195	24-Dec-01	196	10200	10880	10800	10600	11100	11000				24	40
196	25-Dec-01	197	9970	10450	11000	10700	9800	10300				24	39
197	26-Dec-01	198	9630	10520	9740	12000	9930	10400	1.0860	1.720	1.20E-03	25	38
198	27-Dec-01	199	9110	9835	10200	10200	10300	8640				24	39
199	28-Dec-01	200	9920	10480	11100	10000	10000	10800				23	41
200	29-Dec-01	201	9820	10430	10200	10200	11000	10300				24	44
201	30-Dec-01	202	9560	10160	10100	10800	11000	8750				24	41
202	31-Dec-01	203	9550	10170	9960	10000	10400	10300				24	39
203	1-Jan-02	204	7770	9958	10600	9580	9690	9960				23	42
204	2-Jan-02	205	10100	10390	9750	10400	10400	11000	1.0450	1.409	1.46E-03	24	41
205	3-Jan-02	206	9660	10400	10000	10400	10400	10800				24	42
206	4-Jan-02	207	9530	10650	11200	11000	10500	9890				26	49
207	5-Jan-02	208	9000	9988	11300	8790	11000	8860				26	48
208	6-Jan-02	209	9530	10830	10700	10400	10600	11600				26	48
209	7-Jan-02	210	9530	10160	9840	8810	11500	10500				26	43

Chamber Monitoring Results
Cumulative Exposure Record
Group III - 10000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
210	8-Jan-02	211	9920	10410	10900	9830	10500	10400				26	41
211	9-Jan-02	212	9810	10460	9920	10500	10900	10500	8.5910	2.927	9.73E-03	27	36
212	10-Jan-02	213	9920	10650	7510	11900	11600	11600				27	41
213	11-Jan-02	214	8970	10760	12600	10100	9440	10900				27	47
214	12-Jan-02	215	10300	10600	10900	10100	10200	11200				26	50
215	13-Jan-02	216	9800	10150	9950	10300	9540	10800				27	43
216	14-Jan-02	217	10100	10500	9800	10400	10400	11400				27	49
217	15-Jan-02	218	9300	9668	10600	9120	9730	9220				26	43
218	16-Jan-02	219	9410	10260	9830	10500	10400	10300	4.6190	2.133	2.61E-03	26	49
219	17-Jan-02	220	9820	10580	10700	10700	10200	10700				26	48
220	18-Jan-02	221	9550	10550	10800	10400	10100	10900				26	49
221	19-Jan-02	222	9710	10100	10400	10300	9610	10100				26	45
222	20-Jan-02	223	9650	10260	10600	9820	10300	10300				26	37
223	21-Jan-02	224	10200	10980	10600	11900	10700	10700				26	37
224	22-Jan-02	225	10200	10550	10600	10400	10100	11100				26	47
225	23-Jan-02	226	9860	10570	9480	11000	10900	10900	14.4500	2.418	1.12E-02	26	48
226	24-Jan-02	227	10100	10750	10300	10600	10800	11300				25	47
227	25-Jan-02	228	9950	9893	10400	9910	10000	9260				26	45
228	26-Jan-02	229	9310	10250	9680	11300	10500	9500				25	45
229	27-Jan-02	230	9950	10490	9870	11000	10600	10500				25	41
230	28-Jan-02	231	10100	10580	10800	10300	10500	10700				25	41

Chamber Monitoring Results
Cumulative Exposure Record
Group III - 10000 mg/m³

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
231	29-Jan-02	232	9820	10070	10600	10300	10400	8990				25	41
232	30-Jan-02	233	9900	10030	10200	9640	9470	10800	0.8082	1.769	7.01E-03	26	49
233	31-Jan-02	234	9950	10330	10500	10400	10200	10200				25	48
234	1-Feb-02	235	10200	10780	11300	10300	10600	10900				25	49
235	2-Feb-02	236	8920	9690	11300	9530	8400	9530				24	52
236	3-Feb-02	237	9970	10700	10600	10600	11000	10600				24	46
237	4-Feb-02	238	9840	10440	11100	9970	10300	10400				24	44
238	5-Feb-02	239	9510	10650	10500	11100	10500	10500				24	50
239	6-Feb-02	240	9570	10380	10300	10000	10500	10700	2.0850	2.128	4.83E-03	24	46
240	7-Feb-02	241	9950	10180	9620	10700	10100	10300				25	58
241	8-Feb-02	242	9910	10500	11300	10300	10400	10000				25	46
242	9-Feb-02	243	9670	10450	11000	10100	10500	10200				25	41
243	10-Feb-02	244	9780	10530	10700	10500	10500	10400				25	51
244	11-Feb-02	245	9630	10030	10300	9030	10200	10600				25	48
245	12-Feb-02	246	9710	10230	10500	10400	9800	10200				25	45
246	13-Feb-02	247	9920	10630	11500	10300	10400	10300	1.7730	1.801	8.32E-04	26	45
247	14-Feb-02	248	9550	10150	9970	10400	10300	9910				24	39
248	15-Feb-02	249	9570	10510	10600	10900	9940	10600				23	43
249	16-Feb-02	250	9470	9893	10200	9830	10100	9440				23	45
250	17-Feb-02	251	8950	9713	10500	10100	8930	9320				23	34
251	18-Feb-02	252	9650	10140	10600	10400	9440	10100				23	45

Chamber Monitoring Results
Cumulative Exposure Record
Group III - 10000 mg/m³

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
252	19-Feb-02	253	10100	10600	10100	10900	10900	10500				23	41
253	20-Feb-02	254	9900	10210	9750	10600	10300	10200	1.9770	2.574	5.68E-03	23	43
254	21-Feb-02	255	10300	11100	11200	11400	10700	11100				22	50
255	22-Feb-02	256	10100	10900	10800	11000	11300	10500				22	39
256	23-Feb-02	257	9900	10480	11100	10400	10400	10000				22	41
257	24-Feb-02	258	9790	10600	10600	10900	10500	10400				21	41
258	25-Feb-02	259	9630	10600	10200	11000	10500	10700				21	40
259	26-Feb-02	260	9060	10780	14000	9250	9560	10300				21	43
260	27-Feb-02	261	10000	10450	11000	10000	10600	10200	12.5800	2.388	5.50E-03	21	42
261	28-Feb-02	262	9620	10430	10900	10500	10300	10000				21	42
262	1-Mar-02	263	9380	10130	11100	10800	9280	9320				21	40
263	2-Mar-02	264	8880	10360	11000	10700	10100	9640				21	37
264	3-Mar-02	265	9320	10450	11100	10900	9680	10100				21	53
265	4-Mar-02	266	9890	10700	10400	11000	10800	10600				21	41
		Mean	**9763**			**10240**			**3.0636**	**1.993**	**3.73E-03**	**24.5**	**43.2**
		S.D.	**360**			**624**			**3.9536**	**0.400**	**2.88E-03**	**1.1**	**4.9**

Chamber Monitoring Results
Cumulative Exposure Record
Group IV - 20000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
0	12-Jun-01	1	21000	20100	20700	20600	20500	18400				26	47
1	13-Jun-01	2	20600	19230	19500	18000	18300	22300				26	45
2	14-Jun-01	3	21300	21550	23300	21800	21200	19900				26	46
3	15-Jun-01	4	21600	20730	20000	21100	21000	20800	11.5900	3.634	6.31E-03	25	49
4	16-Jun-01	5	19900	18650	20100	19000	17000	18500				26	47
5	17-Jun-01	6	21100	19480	20100	19100	20700	18000				25	50
6	18-Jun-01	7	21400	20750	21700	20600	19700	21000				25	47
7	19-Jun-01	8	21500	20950	21600	21300	20300	20600				25	46
8	20-Jun-01	9	20600	20230	20000	20900	20000	20000	0.7778	1.799	1.90E-03	25	46
9	21-Jun-01	10	20900	20230	20900	20000	20000	20000				25	49
10	22-Jun-01	11	20800	20100	20300	20400	19800	19900				25	48
11	23-Jun-01	12	20800	19800	19600	20600	19500	19500				24	47
12	24-Jun-01	13	19100	18680	17900	18200	17500	21100				25	52
13	25-Jun-01	14	20400	19980	21000	19500	19500	19900				25	53
14	26-Jun-01	15	20900	20130	19700	19800	20900	20100				25	50
15	27-Jun-01	16	20600	20000	20500	19500	20000	20000	0.8653	2.145	8.39E-03	25	41
16	28-Jun-01	17	20800	20080	20200	20100	20500	19500				25	41
17	29-Jun-01	18	20900	19950	19300	20600	20100	19800				25	38
18	30-Jun-01	19	20600	20130	20500	19500	20500	20000				25	42
19	1-Jul-01	20	20700	19980	20000	19300	19900	20700				25	42
20	2-Jul-01	21	21000	19900	19200	20000	19700	20700				25	37

Chamber Monitoring Results
Cumulative Exposure Record
Group IV - 20000 mg/m³

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
21	3-Jul-01	22	20300	20050	19800	20200	20100	20100				25	42
22	4-Jul-01	23	20500	20200	20000	20000	20800	20000	1.5480	2.164	2.44E-03	25	44
23	5-Jul-01	24	20200	20080	20000	20100	20400	19800				25	42
24	6-Jul-01	25	20500	19980	20000	20000	20000	19900				25	42
25	7-Jul-01	26	20300	19880	21400	20900	17200	20000				25	42
26	8-Jul-01	27	21400	20600	21500	20800	20600	19500				25	44
27	9-Jul-01	28	20700	20200	19900	20900	20200	19800				25	42
28	10-Jul-01	29	20900	20080	20000	19900	20100	20300				25	38
29	11-Jul-01	30	20500	20330	19300	20100	21400	20500	3.1900	2.347	2.77E-03	25	45
30	12-Jul-01	31	21400	19880	20000	19500	20400	19600				25	42
31	13-Jul-01	32	21100	19980	20300	20300	20100	19200				25	42
32	14-Jul-01	33	20900	20200	20700	19700	20400	20000				25	42
33	15-Jul-01	34	22500	20200	20800	19600	20300	20100				25	40
34	16-Jul-01	35	20700	20030	20500	20100	20000	19500				25	41
35	17-Jul-01	36	20900	19950	20600	20400	19700	19100				25	40
36	18-Jul-01	37	19500	20050	20000	20400	20100	19700	0.7960	1.657	7.03E-03	25	43
37	19-Jul-01	38	21100	20030	19800	20300	20000	20000				25	47
38	20-Jul-01	39	20500	20000	19900	20000	20000	20100				25	44
39	21-Jul-01	40	20400	19830	20000	20000	20000	19300				25	48
40	22-Jul-01	41	21600	20030	18600	20100	20700	20700				25	43
41	23-Jul-01	42	21100	20000	20000	20000	20000	20000				25	44

Chamber Monitoring Results
Cumulative Exposure Record
Group IV - 20000 mg/m³

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
42	24-Jul-01	43	21700	20100	19400	19400	21600	20000				25	43
43	25-Jul-01	44	20400	20000	19500	20500	20000	20000	0.8184	1.458	2.28E-03	25	47
44	26-Jul-01	45	21100	20030	20100	20000	20000	20000				25	44
45	27-Jul-01	46	20900	20180	20400	20200	20000	20100				24	47
46	28-Jul-01	47	24300	19680	17300	18700	20700	22000				25	39
47	29-Jul-01	48	21700	20880	18400	23600	18900	22600				25	42
48	30-Jul-01	49	21100	20250	20500	20700	20400	19400				25	40
49	31-Jul-01	50	21700	20000	18200	20000	21100	20700				25	38
50	1-Aug-01	51	21000	20380	20500	20200	20300	20500	0.9140	1.532	1.05E-03	24	57
51	2-Aug-01	52	21300	20280	20000	20400	20600	20100				24	60
52	3-Aug-01	53	21300	20400	20100	19300	21400	20800				25	55
53	4-Aug-01	54	21000	20030	19500	20400	20000	20200				25	56
54	5-Aug-01	55	21100	19700	20800	18400	19800	19800				25	39
55	6-Aug-01	56	21000	20300	20400	20000	20200	20600				25	42
56	7-Aug-01	57	20000	20230	20300	20400	20200	20000				25	44
57	8-Aug-01	58	20800	20000	20000	20500	20000	19500	0.8341	1.354	7.83E-03	25	44
58	9-Aug-01	59	21100	20180	19800	20700	20000	20200				25	46
59	10-Aug-01	60	21200	20450	19900	20500	21000	20400				25	50
60	11-Aug-01	61	19900	18530	19200	18500	20300	16100				25	41
61	12-Aug-01	62	20300	19630	19900	19200	20100	19300				25	37
62	13-Aug-01	63	21300	20030	20000	19600	20400	20100				25	41

Chamber Monitoring Results
Cumulative Exposure Record
Group IV - 20000 mg/m³

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
63	14-Aug-01	64	21500	20050	20100	20000	20100	20000				24	40
64	15-Aug-01	65	21500	20450	20000	20800	20600	20400	0.8905	2.023	3.28E-03	25	39
65	16-Aug-01	66	21000	20200	20200	20000	20400	20200				25	41
66	17-Aug-01	67	21400	20200	20000	20100	20000	20700				25	38
67	18-Aug-01	68	20900	20050	19900	20000	19600	20700				24	43
68	19-Aug-01	69	21100	20000	19800	20400	20000	19800				25	37
69	20-Aug-01	70	21400	20000	19600	20400	20000	20000				24	46
70	21-Aug-01	71	21300	20180	19700	20300	20700	20000				25	37
71	22-Aug-01	72	21000	20350	19800	20800	20000	20800	0.8982	1.811	1.60E-03	25	41
72	23-Aug-01	73	21300	20030	19800	20400	19700	20200				25	44
73	24-Aug-01	74	21700	20180	19800	20200	20200	20500				24	52
74	25-Aug-01	75	20200	20300	20200	22200	19300	19500				24	47
75	26-Aug-01	76	20700	20380	21700	20000	19800	20000				24	45
76	27-Aug-01	77	22000	20630	19900	21100	20800	20700				25	39
77	28-Aug-01	78	21200	20000	20000	20000	20000	20000				25	38
78	29-Aug-01	79	21000	20430	21000	17800	22800	20100	0.8124	2.205	1.59E-03	25	44
79	30-Aug-01	80	20900	20050	19600	20400	20100	20100				25	38
80	31-Aug-01	81	22100	20230	19500	19900	20800	20700				25	40
81	1-Sep-01	82	21100	20430	20200	20700	20000	20800				25	40
82	2-Sep-01	83	21400	20030	20300	19700	20600	19500				24	45
83	3-Sep-01	84	21400	20380	20400	20000	20600	20500				24	46

Chamber Monitoring Results
Cumulative Exposure Record
Group IV - 20000 mg/m³

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
84	4-Sep-01	85	20500	20425	21300	20500	18500	21400				25	43
85	5-Sep-01	86	20800	20030	21200	18400	20400	20100	1.2900	1.423	4.04E-04	25	46
86	6-Sep-01	87	21200	20280	20000	20800	20000	20300				24	44
87	7-Sep-01	88	21900	20430	20600	20800	20800	19500				25	43
88	8-Sep-01	89	21100	20280	20600	20000	20000	20500				25	44
89	9-Sep-01	90	20800	20200	20400	20400	20000	20000				25	43
90	10-Sep-01	91	20900	20000	20000	20000	20000	20000				25	43
91	11-Sep-01	92	21400	20050	18800	20500	20900	20000				24	44
92	12-Sep-01	93	21800	20580	20300	21200	20000	20800	3.8490	1.866	2.67E-03	24	41
93	13-Sep-01	94	21300	20680	20800	20000	21500	20400				23	41
94	14-Sep-01	95	21300	20500	20900	20000	20800	20300				23	39
95	15-Sep-01	96	21300	20100	18300	19700	21000	21400				23	37
96	16-Sep-01	97	20800	20100	20700	20300	19900	19500				23	39
97	17-Sep-01	98	20800	19980	20100	20000	19900	19900				23	41
98	18-Sep-01	99	21000	19980	20600	20000	19700	19600				24	42
99	19-Sep-01	100	21400	20300	20400	20200	20400	20200	1.9580	2.994	2.96E-03	24	45
100	20-Sep-01	101	20700	19230	20000	20000	19400	17500				25	48
101	21-Sep-01	102	21400	20330	21400	19700	20000	20200				25	49
102	22-Sep-01	103	20500	19630	20500	18700	18500	20800				24	49
103	23-Sep-01	104	21100	19830	18600	18900	19800	22000				24	48
104	24-Sep-01	105	20900	20100	20700	20000	20000	19700				25	41

Chamber Monitoring Results
Cumulative Exposure Record
Group IV - 20000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
105	25-Sep-01	106	21700	20350	20000	20000	20600	20800				25	52
106	26-Sep-01	107	21100	20300	20000	20000	20900	20300	2.3270	1.932	3.01E-03	25	40
107	27-Sep-01	108	20800	20000	20100	19600	20100	20200				25	41
108	28-Sep-01	109	21500	20000	18900	20500	20500	20100				25	42
109	29-Sep-01	110	21100	20080	19400	20500	20400	20000				25	43
110	30-Sep-01	111	21100	20030	20700	19400	20000	20000				25	37
111	1-Oct-01	112	20300	18750	17200	18800	19700	19300				26	41
112	2-Oct-01	113	20900	20050	20200	20000	20000	20000				25	42
113	3-Oct-01	114	20500	20150	20300	19900	20400	20000	1.8950	2.401	4.39E-03	24	44
114	4-Oct-01	115	20500	20050	20700	20300	20200	19000				23	45
115	5-Oct-01	116	20700	20330	20000	20100	21300	19900				23	46
116	6-Oct-01	117	19800	19600	19500	19600	18200	21100				23	47
117	7-Oct-01	118	21200	21000	21100	20700	20400	21800				22	34
118	8-Oct-01	119	20900	19700	18200	20300	19800	20500				22	34
119	9-Oct-01	120	20700	20130	20100	20000	20300	20100				22	33
120	10-Oct-01	121	20900	20300	19900	20800	20200	20300	3.3590	2.134	2.21E-03	22	41
121	11-Oct-01	122	19800	20130	20000	20400	20000	20100				23	43
122	12-Oct-01	123	20500	20030	20500	20100	19700	19800				23	42
123	13-Oct-01	124	20700	20130	20200	20100	20300	19900				23	43
124	14-Oct-01	125	20600	20180	20400	20300	20000	20000				23	43
125	15-Oct-01	126	20600	20180	20400	20000	20500	19800				23	40

Chamber Monitoring Results
Cumulative Exposure Record
Group IV - 20000 mg/m³

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
126	16-Oct-01	127	20900	20030	19900	20300	20000	19900				24	38
127	17-Oct-01	128	21000	20000	20300	19800	20000	19900	7.3410	2.361	1.27E-03	23	35
128	18-Oct-01	129	21000	20030	20000	20000	20100	20000				23	34
129	19-Oct-01	130	20800	20080	20000	20000	20200	20100				23	33
130	20-Oct-01	131	20000	20000	20000	20000	20000	20000				24	38
131	21-Oct-01	132	21200	20230	20100	20200	20300	20300				23	39
132	22-Oct-01	133	20500	19850	19600	19800	20000	20000				23	44
133	23-Oct-01	134	20800	20100	20000	20000	20300	20100				24	42
134	24-Oct-01	135	20600	20550	20700	20200	20500	20800	5.7780	2.857	3.87E-03	24	47
135	25-Oct-01	136	20900	19950	19000	20000	20600	20200				24	47
136	26-Oct-01	137	22200	20100	18400	19000	21600	21400				24	31
137	27-Oct-01	138	19800	19530	18400	20300	18400	21000				23	39
138	28-Oct-01	139	20200	19730	20200	19100	19500	20100				23	35
139	29-Oct-01	140	20800	20100	20000	20200	20200	20000				24	38
140	30-Oct-01	141	20600	20200	20800	20000	20000	20000				24	43
141	31-Oct-01	142	20700	20230	20500	20400	20100	19900	2.3350	2.035	9.34E-04	24	46
142	1-Nov-01	143	21100	19930	20000	19800	19900	20000				24	53
143	2-Nov-01	144	20700	20250	20700	20300	20000	20000				24	58
144	3-Nov-01	145	20000	19850	17700	19200	19100	23400				24	53
145	4-Nov-01	146	20900	20250	20800	20100	19900	20200				24	45
146	5-Nov-01	147	21300	20100	20000	20400	20000	20000				24	42

Chamber Monitoring Results
Cumulative Exposure Record
Group IV - 20000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
147	6-Nov-01	148	20800	19750	19200	20000	19800	20000				24	38
148	7-Nov-01	149	20800	20180	20800	20500	19400	20000	8.6830	2.529	2.71E-03	24	42
149	8-Nov-01	150	21100	19900	20200	20500	20500	18400				24	43
150	9-Nov-01	151	20300	19880	20000	20000	20000	19500				24	40
151	10-Nov-01	152	20700	20230	20000	20500	20600	19800				23	39
152	11-Nov-01	153	20600	20180	19700	20400	19900	20700				24	40
153	12-Nov-01	154	20000	20800	20000	21000	22700	19500				23	38
154	13-Nov-01	155	20800	19950	19200	20000	20000	20600				23	38
155	14-Nov-01	156	20800	20200	20100	20300	20400	20000	0.7896	2.297	1.52E-03	24	40
156	15-Nov-01	157	20900	20280	19600	20500	20400	20600				24	48
157	16-Nov-01	158	20500	20150	20100	19300	21400	19800				24	46
158	17-Nov-01	159	20700	20030	20600	20500	20400	18600				24	40
159	18-Nov-01	160	20000	18980	20000	19700	18000	18200				24	43
160	19-Nov-01	161	21100	20450	20400	19300	20200	21900				25	46
161	20-Nov-01	162	21300	20130	19800	19600	20600	20500				25	42
162	21-Nov-01	163	20600	20080	20000	20000	20000	20300	1.3530	1.513	3.30E-04	24	38
163	22-Nov-01	164	20700	20130	20400	20100	20000	20000				24	37
164	23-Nov-01	165	20900	20350	20700	20100	20400	20200				24	44
165	24-Nov-01	166	20800	20050	18700	20000	21000	20500				24	48
166	25-Nov-01	167	20700	20180	20300	20300	20100	20000				24	51
167	26-Nov-01	168	20600	20130	20000	19600	20300	20600				25	46

Chamber Monitoring Results
Cumulative Exposure Record
Group IV - 20000 mg/m³

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment Mean: Temperature (°C)	Humidity (%)
168	27-Nov-01	169	21000	20080	20400	20000	20000	19900				25	42
169	28-Nov-01	170	21100	20000	20000	20000	20000	20000	0.7609	1.630	3.66E-03	24	49
170	29-Nov-01	171	21000	20130	20700	19000	20500	20300				24	45
171	30-Nov-01	172	21000	20200	20700	20100	20000	20000				24	49
172	1-Dec-01	173	20200	20930	21200	20900	20800	20800				24	50
173	2-Dec-01	174	20500	20180	20600	21600	19800	18700				24	42
174	3-Dec-01	175	20800	20250	20000	20400	20600	20000				24	44
175	4-Dec-01	176	21300	20300	19700	20000	20800	20700				24	42
176	5-Dec-01	177	20700	20100	19800	20300	20300	20000	0.9514	1.602	1.22E-03	24	46
177	6-Dec-01	178	21000	20000	20000	20000	20200	19800				24	46
178	7-Dec-01	179	20700	19800	20000	19500	19700	20000				24	46
179	8-Dec-01	180	21600	20180	19600	19800	21600	19700				24	36
180	9-Dec-01	181	21100	20030	19500	20500	20100	20000				24	43
181	10-Dec-01	182	20700	20130	20400	20000	20100	20000				23	40
182	11-Dec-01	183	21100	20130	20500	20000	20000	20000				24	44
183	12-Dec-01	184	20800	19980	20400	20200	18800	20500	0.9570	1.676	2.94E-03	24	42
184	13-Dec-01	185	20800	20100	20400	20000	20000	20000				24	44
185	14-Dec-01	186	20200	19930	20000	20000	20000	19700				24	47
186	15-Dec-01	187	20800	20100	20000	20000	20000	20400				24	38
187	16-Dec-01	188	20200	19450	17100	19700	20000	21000				24	36
188	17-Dec-01	189	20300	19100	17100	20500	21000	17800				24	38

Chamber Monitoring Results
Cumulative Exposure Record
Group IV - 20000 mg/m^3

Day	Date	Exposure Number	Nominal (mg/m^3)	Analytical Chamber Concentration: Mean (mg/m^3)	Individual (mg/m^3)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m^3)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
189	18-Dec-01	190	21200	20130	20000	20000	20500	20000				25	44
190	19-Dec-01	191	21000	20080	18900	20700	20000	20700	0.8041	1.611	1.34E-03	24	37
191	20-Dec-01	192	21300	20230	20200	19500	20500	20700				24	40
192	21-Dec-01	193	20900	20130	20000	19900	20500	20100				24	41
193	22-Dec-01	194	20900	19030	18900	18500	19800	18900				24	39
194	23-Dec-01	195	20700	19250	17000	20800	17600	21600				24	40
195	24-Dec-01	196	21300	20250	20000	20300	20500	20200				24	39
196	25-Dec-01	197	20500	19330	20100	19700	19500	18000				24	40
197	26-Dec-01	198	21000	19350	18600	19800	19300	19700	0.8565	1.476	8.43E-04	24	39
198	27-Dec-01	199	21200	20450	20500	20500	20400	20400				24	39
199	28-Dec-01	200	20000	19730	19400	19700	19900	19900				22	52
200	29-Dec-01	201	20900	19900	20000	20000	20000	19600				24	42
201	30-Dec-01	202	21800	20280	20000	19700	21000	20400				23	40
202	31-Dec-01	203	20500	20030	20500	20200	19600	19800				23	40
203	1-Jan-02	204	21100	20330	21000	20100	20200	20000				23	42
204	2-Jan-02	205	21000	20200	20400	20100	20000	20300	1.2130	1.649	1.87E-03	23	41
205	3-Jan-02	206	20900	19900	19000	20000	20700	19900				23	42
206	4-Jan-02	207	21200	20080	20000	20000	20000	20300				26	50
207	5-Jan-02	208	21100	19530	19500	19500	19200	19900				26	48
208	6-Jan-02	209	21100	19900	18900	20500	19300	20900				25	47
209	7-Jan-02	210	21400	20130	19400	20300	20300	20500				26	42

Chamber Monitoring Results
Cumulative Exposure Record
Group IV - 20000 mg/m³

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
210	8-Jan-02	211	21400	20400	20700	20300	20400	20200				26	42
211	9-Jan-02	212	20500	20030	20000	19800	20300	20000	6.2180	3.018	6.42E-03	26	36
212	10-Jan-02	213	21800	21180	22000	20900	21000	20800				26	41
213	11-Jan-02	214	20700	23230	24700	22200	23300	22700				27	47
214	12-Jan-02	215	20700	19730	19800	19900	19800	19400				26	50
215	13-Jan-02	216	20300	19780	20800	17800	20500	20000				26	43
216	14-Jan-02	217	21200	20250	20000	20000	20400	20600				26	49
217	15-Jan-02	218	21200	20000	20400	19800	19800	20000				26	45
218	16-Jan-02	219	21100	20250	20700	20000	20300	20000	1.5730	1.796	1.06E-03	26	48
219	17-Jan-02	220	21200	20600	20800	20700	20700	20200				26	48
220	18-Jan-02	221	20900	20050	20300	19500	20500	19900				26	48
221	19-Jan-02	222	21000	20150	20000	19900	20600	20100				25	45
222	20-Jan-02	223	20900	19980	20000	20100	19900	19900				25	36
223	21-Jan-02	224	21400	19830	19300	19700	20200	20100				26	36
224	22-Jan-02	225	21300	20430	20300	20300	20400	20700				26	47
225	23-Jan-02	226	21300	20100	20100	20000	20500	19800	1.5140	1.918	1.59E-03	25	46
226	24-Jan-02	227	21200	20050	19100	20300	20800	20000				25	48
227	25-Jan-02	228	21000	20000	20000	19900	20100	20000				25	46
228	26-Jan-02	229	21100	20180	18500	21300	20400	20500				25	45
229	27-Jan-02	230	21400	20230	20400	20000	20300	20200				25	41
230	28-Jan-02	231	21300	20300	20700	20400	20000	20100				24	43

Chamber Monitoring Results
Cumulative Exposure Record
Group IV - 20000 mg/m³

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
231	29-Jan-02	232	20500	20030	20300	20400	20800	18600				25	43
232	30-Jan-02	233	20900	20750	21900	20300	20800	20000	0.7845	1.635	7.10E-03	26	49
233	31-Jan-02	234	20700	20180	20700	20000	20000	20000				25	47
234	1-Feb-02	235	20800	20330	20400	20000	20500	20400				24	49
235	2-Feb-02	236	21600	20280	19100	21100	19900	21000				24	52
236	3-Feb-02	237	21800	21530	22500	21300	21300	21000				24	46
237	4-Feb-02	238	21100	20550	20000	23200	19500	19500				24	43
238	5-Feb-02	239	20600	20080	20000	20000	20300	20000				24	52
239	6-Feb-02	240	20800	20050	20300	19900	20000	20000	1.1280	2.478	2.50E-03	24	46
240	7-Feb-02	241	21200	19930	19200	20800	19700	20000				24	59
241	8-Feb-02	242	21000	20230	20500	20300	20100	20000				24	46
242	9-Feb-02	243	20800	20050	20000	20400	20500	19300				25	41
243	10-Feb-02	244	20900	19900	19300	20300	20000	20000				25	49
244	11-Feb-02	245	21000	20030	19700	20000	20400	20000				25	52
245	12-Feb-02	246	21200	20150	20500	20100	20000	20000				25	47
246	13-Feb-02	247	20800	20050	20400	20000	19800	20000	2.3430	1.989	1.10E-03	25	44
247	14-Feb-02	248	21100	19680	19600	19400	20000	19700				24	40
248	15-Feb-02	249	21100	20800	21100	20900	20700	20500				23	45
249	16-Feb-02	250	21000	21280	20300	20200	23700	20900				23	47
250	17-Feb-02	251	20700	19650	21300	17400	20000	19900				23	34
251	18-Feb-02	252	21100	20030	20100	20100	19500	20400				23	45

Chamber Monitoring Results
Cumulative Exposure Record
Group IV - 20000 mg/m³

Day	Date	Exposure Number	Nominal (mg/m³)	Analytical Chamber Concentration: Mean (mg/m³)	Individual (mg/m³)				Particle Size Determinations: MMAD (µm)	GSD	TMC (mg/m³)	Chamber Environment: Mean Temperature (°C)	Humidity (%)
252	19-Feb-02	253	21900	20800	19800	20800	21100	21500				23	40
253	20-Feb-02	254	21300	21000	22900	20400	20400	20300	1.8890	2.430	6.34E-03	22	44
254	21-Feb-02	255	22300	21080	20100	22200	20100	21900				22	50
255	22-Feb-02	256	21700	20800	20500	21200	21300	20200				22	40
256	23-Feb-02	257	21000	20000	20000	20000	20000	20000				22	42
257	24-Feb-02	258	21000	20030	20000	20000	20100	20000				21	41
258	25-Feb-02	259	21100	20130	20000	20000	20300	20200				21	41
259	26-Feb-02	260	21000	20530	20200	20500	20500	20900				21	45
260	27-Feb-02	261	21100	19500	19600	20500	18600	19300	3.2890	2.613	1.85E-03	21	43
261	28-Feb-02	262	21600	20580	20900	20700	20400	20300				21	42
262	1-Mar-02	263	21400	20530	20800	21100	20100	20100				21	40
263	2-Mar-02	264	21400	20430	20200	20700	20800	20000				21	38
		Mean	**20953**			**20120**			**2.3467**	**2.052**	**2.96E-03**	**24.3**	**43.4**
		S.D.	**512**			**776**			**2.4699**	**0.516**	**2.20E-03**	**1.1**	**4.8**

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Table III
Equipment List

Exposure Chamber
1500 Liter glass and stainless steel chamber (Unifab Cages).

Chamber Air-flow Gauges
Dwyer® Magnehelic® gauge (Dwyer® Instruments Inc.), calibrated prestudy with a Side Trak™ III, equipped with a Digital Meter, Model 831-N2 (Sierra Instruments, Inc.).

Chamber Static Pressure
Dwyer® Magnehelic® gauge (Dwyer® Instruments Inc.); calibrated prestudy with a Dwyer® Mark II Manometer, Model 25 (Dwyer® Instruments Inc.).

Compound Generator
Counter-Current Volatilization Unit, coiled glass rod insert with nichrome wire (Crown Glass Co., Inc.).
Flowmeter with built-in valve, size 0-65 mm, tube #'s 6G02R3, 6G03R3, 6G04R3 (Key Instruments).
Variable Autotransformer, Type 3PN 1010 (Staco Energy Products Company).
T° Sentry Digital Alarm Module, Model 110 (Hampshire Controls Corp.).
Balston® Microfibre™ Disposable Filter Units, No. L9933-05 (Grade DQ).
Quick-disconnect fitting with toggle valve (Rego®).

Compound Reservoir
5-gallon cylinder (Manchester Tank).

Balance
Mettler PM30000K (Mettler Instrument Corporation).
Pelooze, Model No. 4010.

Flowmeters
Flowmeter, size 0-4, 0-10, 0-20, 0-40 Lpm, (Dwyer® Instruments Inc.).
Top Trak™ Mass Flow Meter size 0-1 Lpm, Model 821-1, (Sierra Instruments), calibrated prestudy with a Gilibrator®Bubble Generator, P/N D800286, S/N 569-S, flow cell assembly P/N D800268, BD #1860).

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Table III
Equipment List

Pressure/Vacuum Gauges
Matheson® backpressure gauge, P/N 63-3161.
Norgreen backpressure gauge, P/N 9892K23.
Dwyer® Magnehelic® gauge (Dwyer® Instruments Inc.).
Gast® vacuum gauge, Model 169-01
Ashcroft backpressure gauge, P/N 733-47

Regulator
Norgreen, P/N 9892K23.

Valves
Metering Valve, Model SS-4L Series (Nupro® Co.).

Tubing
Plastic Size 1/2”, 1/4” (Norton).
Teflon®, size 1/8”, 1/4”, 1/2”.
Stainless steel 1/2”.
T-Tube, stainless steel.
Glass elbow tube (Crown Glass Co.).
Stainless steel cross (Swage).

Filter
Glass microfibre filter paper, Type A/E Lot No. 241702, Size 2.5 cm (Gelman®).

Filter Holder
Open-faced filter holder (Gelman Sciences Inc.).

Air Analyzer
MIRAN® 1A-CVF Ambient Air Analyzer (Wilks) with a Cole Parmer strip recorder Model 201 and a Radio Shack® Laptop Digital Multimeter No. 22-175B.
Oxygen/Gas Analyzer, Model 12145 (Gastech).
Digital Sound Level Meter, Model 840029 (Speer Scientific).
Photometer/Light Meter (Quantum Instruments).

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Table III
Equipment List

Particle Sizer/Analyzer

TSI Aerodynamic Particle Sizer, Model 331001 and a DELL computer, Model 486P/25, equipped with an Epson LQ-570+ Dot matrix printer, Model P630B.

Absorbent Tube Sampling

Charcoal Tubes, ORBO-32, Lot #2000 (Supelco).

Vacuum Pumps

Thomas Industries Inc., Model 707CM50, 107CA18 3.

Timer

Gralab Universal Timer, Model 171.

Environmental Monitoring

VWR Big Digit Temperature and Humidity Gauge, tested prestudy with a VWR NIST Traceable Digital Hygrometer/Thermometer.

Miscellaneous

Ball and Socket Joint.
Fume Incinerator (MOCO).

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Table IV
Chamber Distribution Results

Group (target)	Date	Port	IR Conc (mg/m^3)	Ratio to H-3
II (2000 mg/m^3)	4-June-01	H-3	2050	1.00
		H-9	2040	1.00
		H-7	1980	0.97
		H-8	1960	0.96
		H-2	1940	0.95
		H-3	2090	1.00
		H-1	2070	0.99
	6-June-01	H-3	1990	1.00
		H-14	1950	0.98
		H-13	1880	0.94
		H-3	2200	1.00
		H-12	2230	1.01
		H-11	2210	1.00
III (10000 mg/m^3)	6-June-01	H-3	9610	1.00
		H-9	9960	1.04
		H-8	10800	1.12
		H-7	11000	1.14
		H-3	11200	1.00
		H-1	11100	0.99
		H-2	10800	0.96
		H-3	9380	1.00
		H-14	9740	1.04
		H-13	9870	1.05
		H-3	9870	1.00
		H-12	9620	0.97
		H-11	9420	0.95

	Inhalation Report	Appendix A

Table IV
Chamber Distribution Results

Group (target)	Date	Port	IR Conc (mg/m^3)	Ratio to H-3
IV (20000 mg/m^3)	4-June-01	H-3	19500	1.00
		H-2	19400	0.99
		H-1	19300	0.99
		H-9	19000	0.97
		H-3	19700	1.00
		H-8	19400	0.98
		H-7	19400	0.98
		H-11	19700	1.00
		H-3	19900	1.00
		H-13	19800	0.99
		H-14	19800	0.99
		H-12	19700	0.99

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Table V
Miran Calibration

Methodology for Gasoline MTBE Vapor Condensate

Settings: The instrument settings for the unit are summarized below:

wavelength, microns	10.3
pathlength, dial setting	7.22
slit width, mm	1
range, absorbance	1A
response, seconds	1
gain	High
chart speed, cm/min	1
chart volts	1

Calibrations: The Miran® was turned on and allowed to warm up for approximately 10 minutes. The cell was flushed with room air for approximately one minute. The loop was closed, the unit was zeroed and the calibration series was performed as shown below. The resultant data were plotted to obtain a calibration curve. Each observer used a separate syringe for calibration.

Injection Volume (µL)	Calculated Concentration[1] (mg/m^3)	Absorbance[2] Operator 1 (volts)	Operator 2 (volts)	Average (volts)
8.4	998	0.0405	0.0407	0.0406
17	2020	0.0744	0.0747	0.0746
85	10098	0.3174	0.3609	0.3392
170	20195	0.720	0.680	0.7000
210	24947	0.861	0.821	0.8410

[1]Calculated Conc. (mg/m^3) = $\frac{\text{Injection volume (µL) x Density (mg/µL) x 1000 L/m}^3}{\text{5.64 L}}$

Where: density = 0.67 mg/µL
5.64 L = volume of Miran cell

[2]Instrument calibration was performed prior to start of Study No. 00-6126 in June 2001 and was checked daily during this study as per the following page.

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Table V
Miran Calibration

Calibration Checks: A three-point calibration check of the Miran® was performed for each exposure prior to sampling the chambers. The parameters are shown below:

Injection Volume (µL)	Calculated Concentration (mg/m^3)	Expected Absorbance Reading (volts)	Acceptable Absorbance Range (volts)
17	2020	0.0746	0.0634 – 0.0858
85	10098	0.3392	0.2883 – 0.3901
170	20195	0.700	0.595 – 0.805

The absorbance was recorded after each injection. The absorbance was considered satisfactory if it was within 15% of the original calibration series. If any of the absorbance values fell outside the 15% range, the injection was rechecked as follows. The volume for the value that was out of range was reinjected twice. The closer pair of the three injections were averaged and the results were compared to the original curve. If the average of the pair was within the 15% range, the original was accepted. If the value of the average was outside the 15% range, the Study Director decided if a new graph was to be prepared.

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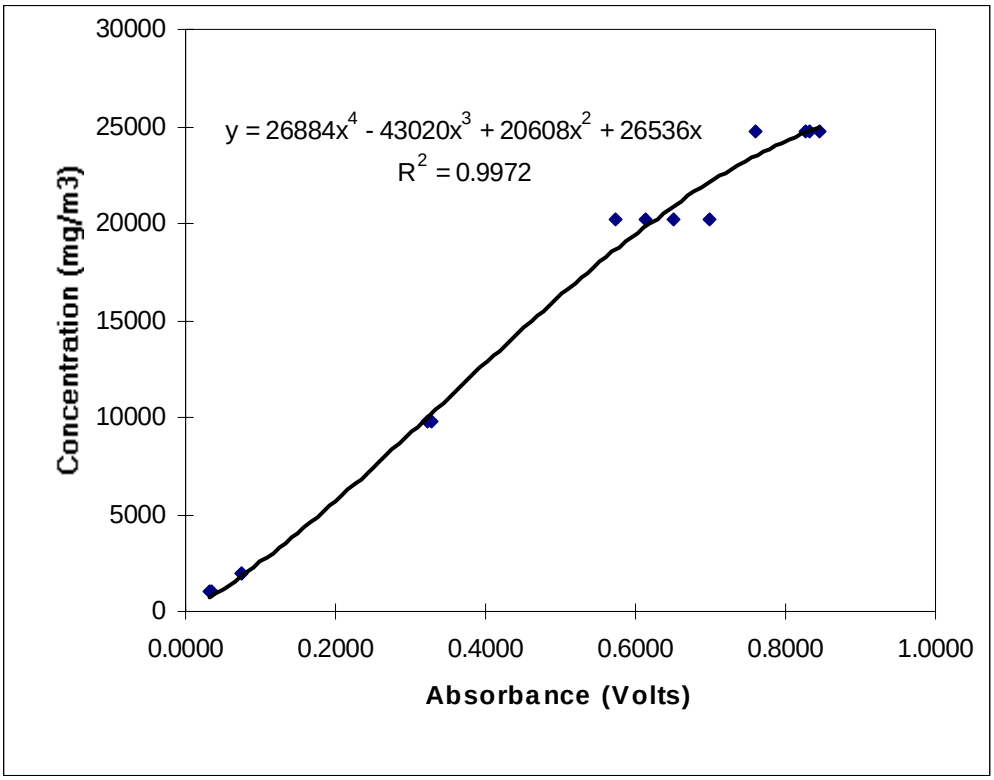
Table V
Miran Calibration

Calibration Curve for Gasoline MTBE Vapor Condensate



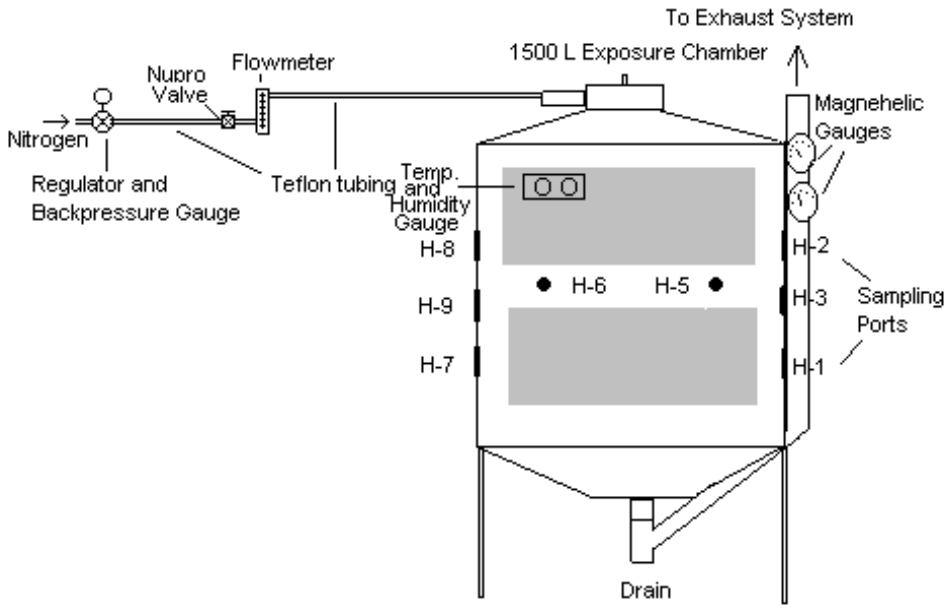
		Appendix A

Table VI
Testing Room Environmental Monitoring

Interval	Location	Test Substance (mg/m^3)	Light (Ft Candles)	Noise (dB)	Oxygen (%)
Pretest	Room 808	0	35.6	66.6	-
	Group I	-	-	-	20
	Group II	-	-	-	20
	Group III	-	-	-	20
	Group IV	-	-	-	20
Week 0	Room 808	0	37.4	62.0	-
	Group I	-	-	-	20
	Group II	-	-	-	20
	Group III	-	-	-	20
	Group IV	-	-	-	20
Week 17	Room 808	0	37.0	61.2	-
	Group I	-	-	-	20
	Group II	-	-	-	20
	Group III	-	-	-	20
	Group IV	-	-	-	20
Week 36	Room 808	0	32.9	58.7	-
	Group I	-	-	-	20
	Group II	-	-	-	20
	Group III	-	-	-	20
	Group IV	-	-	-	20

Group I	Inhalation Report	Appendix A

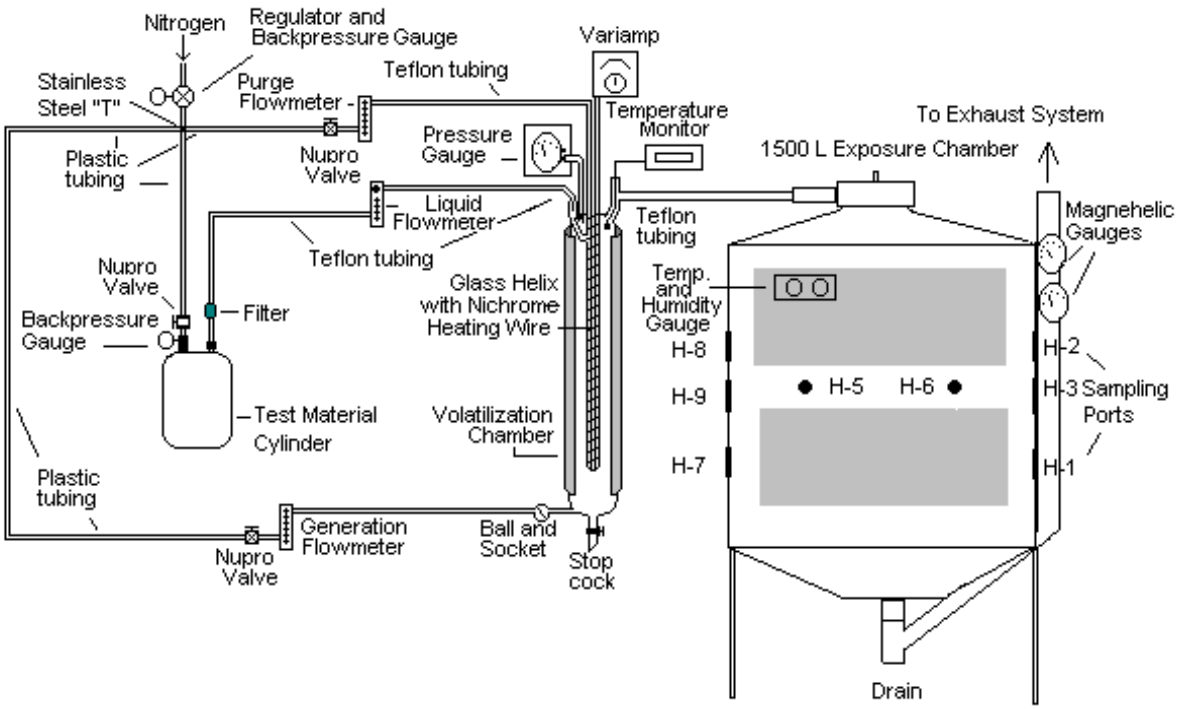
Figure I
Chamber Generation System
and Whole-Body Exposure Chamber



Notes:
1. Sampling Ports H-11 (left-bottom), H-12 (left-top), H-13 (right-bottom) and H-14 (right-top), used for pretest distribution sampling, were located on the back wall of the chambers.
2. Animals were individually housed on three levels within the exposure chamber.

Groups II, III and IV	Inhalation Report	Appendix A

Figure II
Chamber Generation System
and Whole-Body Exposure Chamber



Notes:

1. Sampling Ports H-11 (left-bottom), H-12 (left-top), H-13 (right-bottom) and H-14 (right-top), used for pretest distribution sampling, were located on the back wall of the chambers.
2. Animals were individually housed on three levels within the exposure chamber.

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STUDY TITLE

Analytical Report For:

Gasoline MTBE Vapor Condensate:
A Two Generation Whole-Body Inhalation Reproduction Study in Rats

AUTHOR

Cindy Rao

REPORT DATE

9 June 2011

STUDY NUMBER

00-4208

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1. Summary

Samples of the test substance (Gasoline MTBE Vapor Condensate) exposures to rats were analyzed to confirm that the relative concentrations of the test substance's major components were appropriate under the study conditions. The analytical method was validated at Huntingdon Life Sciences (HLS). The method involved the extraction of Gasoline MTBE Vapor Condensate from charcoal tubes with Carbon Disulfide (CS_2). The test substance's major components were then quantified (relative area percent) utilizing Gas Chromatography with a Flame Ionization Detection (FID).

2. Experimental Procedures

The analytical method (HLS-001-01R1) was validated by the Analytical Toxicology Support Department at HLS. Details of the analytical methods and their validation are maintained in the study files for Study No. 00-6126.

The charcoal tube samples containing the test substance were received from the Inhalation Department at HLS. Samples analyzed to determine the relative concentration of the major components of Gasoline MTBE Vapor Condensate were extracted from the charcoal tubes with Carbon Disulfide (CS_2). The extracted solutions were analyzed by Gas Chromatography equipped with a Supelco Petrocol™ DH 150 (150m x 0.25mm, 1.0 µm) column and Flame Ionization Detector (FID). PE Nelson Turbochrom installed on a personal computer was used for data collection and processing.

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Date of sample receipt and analysis is listed as follows:

Interval	Date of Exposures	Date Received	Date Analyzed
Pretest	05 June 01	05 June 01	07, 08 June 01
Exposure-1	13 June 01	13 June 01	14, 15 June 01
Exposure-7	19 June 01	19 June 01	21, 22 June 01
Exposure-14	26 June 01	26 June 01	26, 27 June 01
Exposure-21	03 July 01	03 July 01	03, 05 July 01
Exposure-28	10 July 01	10 July 01	10, 11 July 01
Exposure-35	17 July 01	17 July 01	18 - 20 July 01
Exposure-42	24 July 01	24 July 01	25, 26 July 01
Exposure-49	31 July 01	31 July 01	01, 02 August 01
Exposure-56	07 August 01	07 August 01	08 - 10 August 01
Exposure-63	14 August 01	14 August 01	15, 16 August 01
Exposure-70	21 August 01	21 August 01	22, 23 August 01
Exposure-77	28 August 01	28 August 01	29, 30 August 01
Exposure-84	04 September 01	04 September 01	05, 06 September 01
Exposure-91	11 September 01	11 September 01	13, 14 September 01

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Date of sample receipt and analysis is listed as follows (continued):

Interval	Date of Exposures	Date Received	Date Analyzed
Exposure-98	18 September 01	18 September 01	19, 20 September 01
Exposure-105	25 September 01	25 September 01	26, 27 September 01
Exposure-112	02 October 01	02 October 01	02, 03 October 01
Exposure-119	09 October 01	09 October 01	09, 10 October 01
Exposure-126	16 October 01	16 October 01	16, 17 October 01
Exposure-133	23 October 01	23 October 01	23, 24 October 01
Exposure-140	30 October 01	30 October 01	31 Oct-01 Nov 01
Exposure-147	06 November 01	06 November 01	06, 07 November 01
Exposure-154	13 November 01	13 November 01	13,14 November 01
Exposure-161	20 November 01	20 November 01	21, 22 November 01
Exposure-168	27 November 01	27 November 01	27, 28 November 01
Exposure-175	04 December 01	04 December 01	04, 05 December 01
Exposures-177&186	06 & 15 December 01	06 &17 December 01	19 - 21 December 01
Exposure-189	18 December 01	18 December 01	19 - 21 December 01

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Date of sample receipt and analysis is listed as follows (continued):

Interval	Date of Exposures	Date Received	Date Analyzed
Exposure-196	25 December 01	25 December 01	25, 26 December 01
Exposure-203	01 January 02	01 January 02	01, 02 January 02
Exposure-210	08 January 02	08 January 02	08, 09 January 02
Exposure-217	15 January 02	15 January 02	15,16 January 02
Exposure-224	22 January 02	06 February 02	07, 08 February 02
Exposure-231	29 January 02	06 February 02	07, 08 February 02
Exposure-238	05 February 02	06 February 02	12, 13 February 02
Exposure-245	12 February 02	12 February 02	12, 13 February 02
Exposure-252	19 February 02	19 February 02	19, 20 February 02
Exposure-259	26 February 02	26 February 02	26, 27 February 02

3. Results and Discussion

During the trials and exposures, Gasoline MTBE Vapor Condensate was analyzed to determine the area percent of the test substance's major components in the chamber. The results of the trial and animal exposures are presented in Tables I, II and III. Typical chromatograms of groups I, II, III and IV are presented in Figures I to IV.

Note that MTBE co-elutes with 2,3-dimethylbutane for all exposure analyses during the analyses and there is no estimated relative contribution of MTBE versus 2,3-dimethylbutane found in the peak.

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Table I. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Pretest

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 101	Sample 201	Sample 301	Sample 401	Spiked Control 2	TM Standard-2
Compound	001_002	001_003	001_004	001_005	001_006	001_007	001_008	001_009	001_010
Isobutane	ND	1.78	1.50	ND	2.13	1.90	2.00	1.77	1.61
N-Butane	ND	9.27	8.36	ND	10.15	10.16	10.08	9.21	8.79
3-Methyl-1-butene	ND	0.35	0.44	ND	0.36	0.38	0.22	0.35	0.34
Isopentane	ND	31.30	30.50	ND	31.72	31.97	31.41	31.07	30.63
N-Pentane	ND	6.74	6.91	ND	6.78	5.66	6.87	6.58	6.82
Trans-2-pentene	ND	1.80	1.66	ND	1.73	1.14	1.75	1.83	1.74
MTBE + 2,3-Dimethylbutane	ND	24.65	24.84	ND	24.01	24.41	24.04	24.43	24.89
2-Methylpentane	ND	5.20	5.18	ND	4.94	5.02	4.96	5.39	5.06
3-Methylpentane	ND	2.99	3.04	ND	2.92	2.85	2.88	2.99	3.04
N-Hexane	ND	2.66	2.60	ND	2.71	2.35	2.49	2.71	2.65
Methylcyclopentane	ND	1.40	1.36	ND	1.30	1.25	1.26	1.37	1.41
2,4-Dimethylpentane	ND	0.99	1.16	ND	0.92	0.91	0.92	1.16	1.07
Benzene	ND	2.02	2.73	ND	1.97	2.42	1.95	2.01	2.09
2-Methylhexane	ND	1.32	1.26	ND	1.15	1.16	1.18	1.32	1.02
2,3-Dimethylpentane	ND	1.25	1.33	ND	1.27	1.21	1.26	1.31	1.67
3-Methylhexane	ND	1.50	1.39	ND	1.38	1.27	1.34	1.46	1.31
Isooctane	ND	1.57	1.44	ND	2.21	1.17	1.47	1.65	2.34
Toluene	ND	2.83	2.89	ND	2.00	2.40	3.43	2.84	3.13
Total	0.00	99.62	98.59	0.00	99.65	97.63	99.51	99.45	99.61

ND = none detected.

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Table II. Summary of Chamber Components Confirmation Area Percent of Gasoline MTBE Vapor Condensate (Exposures 1-259)

Compound	Area %								
	Spiked Control 1	TM standard 1	Samples Group 1A	Samples Group 2A	Samples Group 3A	Samples Group 4A	All Samples [a]	TM Standard-2	Spiked Control 2
Isobutane	1.73	1.65	ND	2.02	1.95	1.98	1.98	1.68	1.62
N-Butane	9.25	8.91	ND	10.26	10.16	10.17	10.20	9.14	8.86
3-Methy-1-butene	0.34	0.33	ND	0.35	0.35	0.35	0.35	0.33	0.33
Isopentane	31.24	31.04	ND	32.03	31.83	31.85	31.90	31.27	31.06
N-Pentane	6.70	6.70	ND	6.74	6.74	6.73	6.74	6.69	6.70
Trans-2-pentene	1.77	1.77	ND	1.77	1.78	1.79	1.78	1.79	1.76
MTBE + 2,3-Dimethylbutane	24.91	25.33	ND	24.28	24.33	24.28	24.30	25.02	25.36
2-Methylpentane	4.99	4.99	ND	4.79	4.82	4.80	4.81	4.98	5.01
3-Methylpentane	2.99	3.01	ND	2.87	2.89	2.88	2.88	3.00	3.01
N-hexane	2.56	2.58	ND	2.43	2.46	2.44	2.44	2.55	2.58
Methylcyclopentane	1.34	1.35	ND	1.28	1.29	1.29	1.29	1.34	1.35
2,4-Dimethylpentane	1.15	1.16	ND	1.06	1.07	1.08	1.07	1.14	1.15
Benzene	2.01	2.08	ND	1.94	1.95	1.94	1.95	2.01	2.08
2-Methylhexane	1.26	1.26	ND	1.16	1.18	1.18	1.17	1.26	1.27
2,3-Dimethylpentane	1.30	1.31	ND	1.19	1.22	1.21	1.21	1.30	1.30
3-Methylhexane	1.46	1.47	ND	1.33	1.36	1.36	1.35	1.46	1.45
Isooctane	1.66	1.63	ND	1.48	1.50	1.51	1.50	1.65	1.63
Toluene	2.88	2.98	ND	2.58	2.63	2.64	2.62	2.88	2.97
Total	99.51	99.53	0.00	99.56	99.49	99.49	99.51	99.49	99.51

ND = none detected. [a] average of Groups II, III, and IV only

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Table III-A. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 1

Area %

	Control	Spiked Control 1	TM Standard-1	Sample 1001	Sample 2001	Sample 3001	Sample 4001	Spiked Control 2	TM Standard-2
Compound	002_002	002_003	002_004	002_005	002_006	002_007	002_008	002_009	002_010
Isobutane	ND	1.78	1.61	ND	2.08	2.05	2.04	1.75	1.66
N-Butane	ND	9.25	8.64	ND	8.44	10.18	10.09	9.21	8.72
3-Methyl-1-butene	ND	0.35	0.34	ND	0.36	0.32	0.36	0.35	0.34
Isopentane	ND	31.25	30.85	ND	32.22	31.74	31.73	31.36	31.02
N-Pentane	ND	6.85	7.02	ND	6.98	6.88	6.72	6.83	6.85
Trans-2-pentene	ND	1.63	1.70	ND	1.76	1.63	1.75	1.75	1.70
MTBE + 2,3-Dimethylbutane	ND	24.44	25.03	ND	24.59	24.16	23.95	25.15	25.17
2-Methylpentane	ND	5.14	5.17	ND	5.11	4.99	4.98	5.26	5.22
3-Methylpentane	ND	3.02	3.08	ND	3.00	2.92	2.94	3.03	3.07
N-hexane	ND	2.60	2.66	ND	2.64	2.33	2.38	2.74	2.73
Methylcyclopentane	ND	1.36	1.39	ND	1.32	1.34	1.33	1.38	1.54
2,4-Dimethylpentane	ND	1.17	1.20	ND	1.07	0.90	1.06	1.05	1.06
Benzene	<LOQ	2.03	2.09	<LOQ	2.00	2.02	1.98	2.03	2.13
2-Methylhexane	ND	1.27	1.24	ND	1.22	1.23	1.23	1.33	1.35
2,3-Dimethylpentane	ND	1.34	1.36	ND	1.28	1.24	1.25	1.29	1.24
3-Methylhexane	ND	1.50	1.53	ND	1.35	1.39	1.41	1.49	1.05
Isooctane	ND	1.64	1.66	ND	1.56	1.53	1.60	0.68	1.71
Toluene	ND	2.89	2.96	ND	2.65	2.71	2.76	2.86	3.07
Total	0.00	99.51	99.53	0.00	99.63	99.56	99.56	99.54	99.63

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard

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Table III-B. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 7

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1002	Sample 2002	Sample 3002	Sample 4002	Spiked Control 2	TM Standard 2
Compound	003_002	003_003	003_004	003_005	003_006	003_007	003_008	003_009	003_010
Isobutane	ND	1.73	1.63	ND	2.16	2.04	2.01	1.70	1.58
N-Butane	ND	9.01	8.75	ND	10.40	9.97	9.93	8.89	8.49
3-Methyl-1-butene	ND	0.34	0.34	ND	0.36	0.35	0.36	0.34	0.34
Isopentane	ND	30.93	30.73	ND	31.60	31.29	31.32	30.91	30.61
N-Pentane	ND	6.89	6.78	ND	6.96	6.89	7.03	6.90	6.85
Trans-2-pentene	ND	1.61	1.71	ND	1.60	1.65	1.51	1.63	1.58
MTBE + 2,3-Dimethylbutane	ND	24.55	24.89	ND	23.59	23.88	23.92	24.65	25.06
2-Methylpentane	ND	5.23	5.20	ND	4.95	5.01	5.02	5.20	5.24
3-Methylpentane	ND	3.04	3.06	ND	2.90	2.94	2.94	3.06	3.08
N-Hexane	ND	2.72	2.74	ND	2.58	2.62	2.56	2.73	2.76
Methylcyclopentane	ND	1.38	1.39	ND	1.31	1.34	1.33	1.39	1.41
2,4-Dimethylpentane	ND	1.19	1.20	ND	1.12	1.14	1.14	1.20	1.21
Benzene	<LOQ	2.05	2.11	ND	1.91	1.98	1.95	2.06	2.14
2-Methylhexane	ND	1.33	1.34	ND	1.24	1.27	1.27	1.34	1.36
2,3-Dimethylpentane	ND	1.36	1.37	ND	1.26	1.29	1.29	1.36	1.38
3-Methylhexane	ND	1.52	1.54	ND	1.41	1.45	1.45	1.52	1.56
Isooctane	ND	1.71	1.72	ND	1.57	1.63	1.61	1.71	1.73
Toluene	ND	3.00	3.12	ND	2.73	2.87	2.83	3.00	3.13
Total	0.00	99.59	99.62	0.00	99.65	99.61	99.47	99.59	99.51

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard

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Table III-C. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 14

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1003	Sample 2003	Sample 3003	Sample 4003	Spiked Control 2	TM Standard 2
Compound	004_002	004_003	004_004	004_005	004_006	004_007	004_008	004_009	004_010
Isobutane	ND	1.59	1.48	ND	2.05	2.07	2.08	1.30	1.42
N-Butane	ND	8.88	8.54	ND	10.69	10.81	10.71	8.10	8.47
3-Methyl-1-butene	ND	0.32	0.32	ND	0.29	0.36	0.35	0.26	0.33
Isopentane	ND	30.93	30.77	ND	32.11	32.19	31.91	30.71	31.04
N-Pentane	ND	6.66	6.81	ND	6.87	6.86	6.78	6.46	6.57
Trans-2-pentene	ND	1.61	1.55	ND	1.66	1.61	1.83	2.19	1.79
MTBE + 2,3-Dimethylbutane	ND	25.20	25.46	ND	23.78	23.88	23.84	24.89	25.52
2-Methylpentane	ND	5.26	5.25	ND	4.92	4.86	4.87	5.16	5.29
3-Methylpentane	ND	3.08	3.08	ND	2.87	2.82	2.84	3.02	3.10
N-Hexane	ND	2.55	2.72	ND	2.34	2.32	2.34	2.48	2.54
Methylcyclopentane	ND	1.39	1.39	ND	1.28	1.27	1.26	1.36	1.39
2,4-Dimethylpentane	ND	1.20	1.20	ND	1.06	1.02	1.07	1.17	1.20
Benzene	ND	1.99	2.04	<LOQ	1.94	1.92	1.92	1.94	2.04
2-Methylhexane	ND	1.34	1.33	ND	1.19	1.13	1.17	1.30	1.29
2,3-Dimethylpentane	ND	1.37	1.36	ND	1.13	1.16	1.20	1.33	1.37
3-Methylhexane	ND	1.53	1.52	ND	1.35	1.28	1.33	1.48	1.52
Isooctane	ND	1.71	1.70	ND	1.47	1.42	1.49	3.60	1.69
Toluene	ND	3.00	3.07	ND	2.66	2.51	2.65	2.89	3.03
Total	0.00	99.61	99.59	0.00	99.66	99.49	99.64	99.64	99.60

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-D. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 21

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1004	Sample 2004	Sample 3004	Sample 4004	Spiked Control 2	TM Standard 2
Compound	005_002	005_003	005_004	005_005	005_006	005_007	005_008	005_009	005_010
Isobutane	ND	1.75	1.65	ND	2.70	2.12	2.03	1.72	1.57
N-Butane	ND	9.34	8.90	ND	12.32	10.62	10.40	9.48	9.13
3-Methyl -1-butene	ND	0.34	0.33	ND	0.38	0.36	0.36	0.35	0.35
Isopentane	ND	30.85	31.27	ND	32.50	32.05	32.18	31.57	31.38
N-Pentane	ND	6.73	7.00	ND	6.74	6.88	6.95	6.96	6.94
Trans-2-pentene	ND	1.54	1.36	ND	1.40	1.38	1.51	1.46	1.40
MTBE + 2,3-Dimethylbutane	ND	24.42	25.31	ND	22.93	23.98	24.20	24.79	25.15
2-Methylpentane	ND	5.00	5.13	ND	4.63	4.87	4.92	5.07	5.08
3-Methylpentane	ND	2.92	2.96	ND	2.66	2.83	2.76	2.96	2.97
N-Hexane	ND	2.36	2.46	ND	2.18	2.49	2.20	2.39	2.65
Methylcyclopentane	ND	1.31	1.35	ND	1.19	1.26	1.28	1.32	1.33
2,4-Dimethylpentane	ND	1.12	1.15	ND	1.00	1.07	1.07	1.12	1.11
Benzene	<LOQ	1.97	2.09	<LOQ	1.80	1.93	1.95	2.00	2.06
2-Methylhexane	ND	1.24	1.28	ND	1.09	1.18	1.19	1.26	1.26
2,3-Dimethylpentane	ND	1.27	1.31	ND	1.10	1.20	1.22	1.28	1.29
3-Methylhexane	ND	1.42	1.46	ND	1.24	1.33	1.35	1.43	1.44
Isooctane	ND	2.92	1.62	ND	1.37	1.46	1.50	1.58	1.62
Toluene	ND	2.85	3.00	ND	2.43	2.58	2.55	2.87	2.91
Total	0.00	99.35	99.63	0.00	99.66	99.59	99.62	99.61	99.64

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-E. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 28

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1005	Sample 2005	Sample 3005	Sample 4005	Spiked Control 2	TM Standard 2
Compound	006_002	006_003	006_004	006_005	006_006	006_007	006_008	006_009	006_010
Isobutane	ND	1.79	1.68	ND	1.94	1.63	1.51	1.53	1.65
N-Butane	ND	9.54	9.10	ND	10.07	9.37	9.28	9.37	8.90
3-Methyl-1-butene	ND	0.34	0.34	ND	0.35	0.33	0.34	0.35	0.35
Isopentane	ND	31.47	31.32	ND	32.04	31.63	31.57	31.59	31.45
N-Pentane	ND	6.66	6.90	ND	7.05	7.04	7.09	6.98	6.95
Trans-2-pentene	ND	1.45	1.45	ND	1.59	1.41	1.39	1.47	1.48
MTBE +2,3-Dimethylbutane	ND	24.86	25.23	ND	24.36	24.97	25.07	24.92	25.40
2-Methylpentane	ND	5.08	5.10	ND	4.96	5.09	5.11	5.08	5.16
3-Methylpentane	ND	2.97	2.97	ND	2.84	2.97	2.98	2.96	2.99
N-Hexane	ND	2.47	2.44	ND	2.32	2.40	2.41	2.40	2.57
Methylcyclopentane	ND	1.33	1.34	ND	1.29	1.34	1.34	1.33	1.34
2,4-Dimethylpentane	ND	1.14	1.14	ND	1.08	1.13	1.13	1.14	0.96
Benzene	<LOQ	2.03	2.02	<LOQ	1.94	2.04	2.05	2.01	2.10
2-Methylhexane	ND	1.26	1.27	ND	1.18	1.24	1.24	1.26	1.21
2,3-Dimethylpentane	ND	1.29	1.29	ND	1.17	1.27	1.27	1.29	1.27
3-Methylhexane	ND	1.43	1.44	ND	1.34	1.41	1.42	1.43	1.42
Isooctane	ND	1.62	1.62	ND	1.47	1.57	1.59	1.61	1.50
Toluene	ND	2.90	2.97	<LOQ	2.64	2.77	2.78	2.87	2.83
Total	0.00	99.63	99.62	0.00	99.63	99.61	99.57	99.59	99.53

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-F. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 35

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1006	Sample 2006	Sample 3006	Sample 4006	Spiked Control 2	TM Standard 2
Compound	007_002	007_011	007_004	007_005	007_006	007_007	007_008	007_009	007_010
Isobutane	ND	1.82	1.55	ND	2.10	2.10	2.12	1.83	1.64
N-Butane	ND	9.44	8.75	ND	10.45	10.48	10.57	9.54	8.94
3-Methyl-1-butene	ND	0.34	0.34	ND	0.36	0.36	0.36	0.35	0.34
Isopentane	ND	31.70	31.47	ND	32.12	32.12	32.10	31.67	31.43
N-Pentane	ND	6.88	6.93	ND	6.93	7.05	6.97	7.04	7.00
Trans-2-pentene	ND	1.34	1.40	ND	1.52	1.46	1.46	1.53	1.42
MTBE + 2,3-Dimethylbutane	ND	24.96	25.58	ND	24.20	23.99	24.14	24.77	25.40
2-Methylpentane	ND	5.09	5.16	ND	4.90	4.90	4.89	5.05	5.12
3-Methylpentane	ND	2.96	3.00	ND	2.85	2.84	2.84	2.94	2.99
N-Hexane	ND	2.40	2.43	ND	2.28	2.52	2.29	2.37	2.42
Methylcyclopentane	ND	1.31	1.34	ND	1.26	1.25	1.25	1.30	1.33
2,4-Dimethylpentane	ND	1.13	1.14	ND	1.06	1.05	1.06	1.11	1.13
Benzene	<LOQ	1.98	2.08	<LOQ	1.89	1.96	1.88	1.96	2.06
2-Methylhexane	ND	1.21	1.22	ND	1.13	1.12	1.13	1.19	1.21
2,3-Dimethylpentane	ND	1.27	1.29	ND	1.20	1.18	1.19	1.25	1.28
3-Methylhexane	ND	1.41	1.43	ND	1.33	1.31	1.32	1.40	1.42
Isooctane	ND	1.56	1.57	ND	1.46	1.42	1.45	1.53	1.56
Toluene	ND	2.77	2.88	ND	2.56	2.50	2.56	2.73	2.85
Total	0.00	99.57	99.56	0.00	99.60	99.61	99.58	99.56	99.54

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-G. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 42

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1007	Sample 2007	Sample 3007	Sample 4007	Spiked Control 2	TM Standard 2
Compound	008_002	008_003	008_004	008_005	008_006	008_007	008_008	008_009	008_010
Isobutane	ND	1.74	1.40	ND	2.09	2.08	2.02	1.75	1.67
N-Butane	ND	9.48	8.08	ND	10.44	10.73	10.51	9.56	8.99
3-Methyl-1-butene	ND	0.34	0.33	ND	0.36	0.36	0.35	0.34	0.33
Isopentane	ND	31.31	30.81	ND	32.12	31.98	31.79	31.34	31.32
N-Pentane	ND	6.90	7.03	ND	7.04	7.00	7.03	6.96	7.02
Trans-2-pentene	ND	1.50	1.40	ND	1.48	1.41	1.41	1.39	1.45
MTBE + 2,3-Dimethylbutane	ND	25.01	26.05	ND	24.17	24.12	24.12	24.77	25.33
2-Methylpentane	ND	5.11	5.29	ND	4.92	4.91	4.89	5.08	5.13
3-Methylpentane	ND	2.98	3.09	ND	2.86	2.85	2.86	2.96	2.99
N-Hexane	ND	2.42	2.52	ND	2.30	2.29	2.54	2.64	2.43
Methylcyclopentane	ND	1.33	1.39	ND	1.26	1.25	1.27	1.32	1.34
2,4-Dimethylpentane	ND	1.14	1.19	ND	1.06	1.07	1.08	1.13	1.13
Benzene	<LOQ	2.01	2.15	<LOQ	1.90	1.91	1.93	1.99	2.07
2-Methylhexane	ND	1.22	1.28	ND	1.13	1.13	1.15	1.23	1.22
2,3-Dimethylpentane	ND	1.29	1.35	ND	1.19	1.20	1.21	1.28	1.29
3-Methylhexane	ND	1.44	1.50	ND	1.33	1.33	1.35	1.43	1.44
Isooctane	ND	1.58	1.66	ND	1.45	1.46	1.51	1.61	1.58
Toluene	ND	2.80	3.06	ND	2.52	2.56	2.62	2.83	2.88
Total	0.00	99.60	99.58	0.00	99.62	99.64	99.64	99.61	99.62

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-H. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 49

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1008	Sample 2008	Sample 3008	Sample 4008	Spiked Control 2	TM Standard 2
Compound	009_002	009_003	009_004	009_005	009_006	009_007	009_008	009_009	009_010
Isobutane	ND	1.73	1.59	ND	2.08	2.02	2.10	1.74	1.64
N-Butane	ND	9.21	8.73	ND	10.43	10.25	10.50	9.54	8.84
3-Methyl-1-butene	ND	0.32	0.32	ND	0.30	0.31	0.33	0.29	0.30
Isopentane	ND	31.42	31.08	ND	32.27	32.00	32.14	31.38	31.32
N-Pentane	ND	7.06	6.98	ND	6.97	7.10	7.02	7.00	7.00
Trans-2-pentene	ND	1.56	1.40	ND	1.55	1.51	1.51	1.44	1.51
MTBE + 2,3-Dimethylbutane	ND	25.01	25.50	ND	24.22	24.36	24.18	24.95	25.56
2-Methylpentane	ND	5.11	5.17	ND	4.93	4.96	4.90	5.10	5.17
3-Methylpentane	ND	2.98	3.01	ND	2.86	2.88	2.84	2.97	3.01
N-Hexane	ND	2.42	2.69	ND	2.34	2.33	2.29	2.41	2.45
Methylcyclopentane	ND	1.33	1.35	ND	1.26	1.27	1.26	1.32	1.34
2,4-Dimethylpentane	ND	1.14	1.16	ND	0.99	1.03	1.05	1.14	1.11
Benzene	<LOQ	2.00	2.08	<LOQ	2.02	2.02	1.94	1.99	2.07
2-Methylhexane	ND	1.22	1.24	ND	1.12	1.14	1.13	1.22	1.23
2,3-Dimethylpentane	ND	1.29	1.31	ND	1.17	1.21	1.19	1.29	1.28
3-Methylhexane	ND	1.43	1.46	ND	1.32	1.33	1.32	1.43	1.43
Isooctane	ND	1.59	1.61	ND	1.42	1.44	1.45	1.59	1.55
Toluene	ND	2.81	2.93	ND	2.44	2.50	2.51	2.81	2.80
Total	0.00	99.63	99.61	0.00	99.69	99.66	99.66	99.61	99.69

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-I. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 56

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1009	Sample 2009	Sample 3009	Sample 4009	Spiked Control 2	TM Standard 2
Compound	010_002	010_003	010_004	010_005	010_007	010_008	010_009	010_010	010_011
Isobutane	ND	1.73	1.62	ND	2.08	2.00	2.03	1.66	1.59
N-Butane	ND	9.16	8.79	ND	10.46	10.18	10.26	8.98	8.66
3-Methyl-1-butene	ND	0.29	0.30	ND	0.32	0.34	0.33	0.33	0.33
Isopentane	ND	31.39	31.19	ND	32.39	32.10	31.90	31.44	31.10
N-Pentane	ND	7.01	7.04	ND	7.11	7.01	7.03	7.11	7.12
Trans-2-pentene	ND	1.45	1.37	ND	1.43	1.43	1.33	1.37	1.41
MTBE + 2,3-Dimethylbutane	ND	25.12	25.54	ND	24.08	24.59	24.21	25.36	25.47
2-Methylpentane	ND	5.14	5.17	ND	4.80	4.99	4.94	5.18	5.16
3-Methylpentane	ND	2.99	3.02	ND	2.79	2.89	2.87	3.02	3.01
N-Hexane	ND	2.43	2.45	ND	2.20	2.34	2.31	2.45	2.44
Methylcyclopentane	ND	1.33	1.35	ND	1.26	1.28	1.27	1.34	1.35
2,4-Dimethylpentane	ND	1.14	1.15	ND	1.01	1.04	1.08	1.11	1.16
Benzene	<LOQ	2.01	2.08	<LOQ	2.40	1.93	2.06	2.02	2.08
2-Methylhexane	ND	1.23	1.24	ND	1.10	1.13	1.20	1.23	1.29
2,3-Dimethylpentane	ND	1.30	1.31	ND	1.13	1.18	1.22	1.28	1.32
3-Methylhexane	ND	1.44	1.45	ND	1.25	1.32	1.36	1.44	1.47
Isooctane	ND	1.60	1.61	ND	1.40	1.41	1.53	1.55	1.65
Toluene	ND	2.83	2.93	ND	2.42	2.47	2.66	2.73	2.98
Total	0.00	99.59	99.61	0.00	99.63	99.63	99.59	99.60	99.63

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-J. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 63

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1010	Sample 2010	Sample 3010	Sample 4010	Spiked Control 2	TM Standard 2
Compound	011_002	011_003	011_004	011_005	011_006	011_007	011_008	011_009	011_010
Isobutane	ND	1.68	1.64	ND	2.06	1.94	2.00	1.69	1.57
N-Butane	ND	9.07	8.89	ND	10.41	9.98	10.14	9.05	8.64
3-Methyl-1-butene	ND	0.34	0.34	ND	0.36	0.35	0.35	0.34	0.34
Isopentane	ND	31.49	31.38	ND	32.41	32.05	32.14	31.55	31.23
N-Pentane	ND	6.99	6.99	ND	6.61	6.93	6.75	6.78	6.86
Trans-2-pentene	ND	1.48	1.41	ND	1.48	1.51	1.41	1.43	1.45
MTBE + 2,3-Dimethylbutane	ND	25.34	25.58	ND	24.42	24.72	24.63	25.40	25.81
2-Methylpentane	ND	5.17	5.16	ND	5.00	5.04	5.01	5.19	5.22
3-Methylpentane	ND	3.01	3.01	ND	2.90	2.93	2.91	3.02	3.04
N-Hexane	ND	2.45	2.45	ND	2.33	2.40	2.38	2.49	2.48
Methylcyclopentane	ND	1.34	1.34	ND	1.28	1.29	1.28	1.34	1.36
2,4-Dimethylpentane	ND	1.11	1.11	ND	1.04	0.94	1.06	1.12	1.13
Benzene	ND	2.02	2.07	ND	1.92	1.95	1.92	2.02	2.10
2-Methylhexane	ND	1.22	1.22	ND	1.13	1.16	1.15	1.22	1.24
2,3-Dimethylpentane	ND	1.28	1.28	ND	1.18	1.21	1.21	1.28	1.30
3-Methylhexane	ND	1.43	1.43	ND	1.31	1.34	1.35	1.43	1.45
Isooctane	ND	1.53	1.54	ND	1.39	1.45	1.44	1.55	1.57
Toluene	ND	2.70	2.79	ND	2.44	2.49	2.53	2.74	2.85
Total	0.00	99.65	99.63	0.00	99.67	99.68	99.66	99.64	99.67

ND = none detected

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Table III-K. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 70

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1011	Sample 2011	Sample 3011	Sample 4011	Spiked Control 2	TM Standard 2
Compound	012_002	012_003	012_004	012_005	012_006	012_007	012_008	012_009	012_010
Isobutane	ND	1.70	1.68	ND	2.04	1.96	1.99	1.69	1.58
N-Butane	ND	9.01	8.97	ND	10.32	10.01	10.11	8.96	8.59
3-Methyl-1-butene	ND	0.34	0.34	ND	0.36	0.36	0.36	0.34	0.34
Isopentane	ND	31.57	31.51	ND	32.16	31.95	31.99	31.33	31.07
N-Pentane	ND	6.98	6.92	ND	6.96	6.99	6.99	6.87	6.86
Trans-2-pentene	ND	1.46	1.47	ND	1.53	1.60	1.51	1.54	1.62
MTBE + 2,3-Dimethylbutane	ND	25.40	25.62	ND	24.28	24.58	24.40	25.26	25.61
2-Methylpentane	ND	4.95	4.84	ND	4.48	4.99	4.97	5.17	5.19
3-Methylpentane	ND	3.03	3.02	ND	2.75	2.90	2.88	3.02	3.03
N-Hexane	ND	2.46	2.45	ND	2.33	2.37	2.38	2.49	2.51
Methylcyclopentane	ND	1.34	1.34	ND	1.27	1.28	1.27	1.34	1.35
2,4-Dimethylpentane	ND	1.13	1.12	ND	1.08	1.07	1.08	1.16	1.17
Benzene	ND	1.99	2.05	ND	1.97	1.96	1.91	2.00	2.07
2-Methylhexane	ND	1.23	1.23	ND	1.15	1.15	1.16	1.25	1.25
2,3-Dimethylpentane	ND	1.29	1.29	ND	1.23	1.21	1.22	1.31	1.32
3-Methylhexane	ND	1.45	1.44	ND	1.36	1.34	1.36	1.46	1.47
Isooctane	ND	1.57	1.55	ND	1.48	1.45	1.50	1.62	1.64
Toluene	ND	2.73	2.79	ND	2.57	2.51	2.60	2.83	2.94
Total	0.00	99.63	99.63	0.00	99.32	99.68	99.68	99.64	99.61

ND = none detected.

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Table III-L. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 77

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1012	Sample 2012	Sample 3012	Sample 4012	Spiked Control 2	TM Standard 2
Compound	013_002	013_003	013_004	013_005	013_006	013_007	013_008	013_009	013_010
Isobutane	ND	1.69	1.66	ND	2.01	1.99	2.49	1.68	1.59
N-Butane	ND	9.01	9.00	ND	10.21	10.10	12.26	8.95	8.75
3-Methyl-1-butene	ND	0.34	0.34	ND	0.35	0.35	0.40	0.34	0.33
Isopentane	ND	31.26	31.06	ND	32.31	31.99	34.78	31.25	30.90
N-Pentane	ND	6.96	7.01	ND	7.02	7.00	7.12	6.96	6.84
Trans-2-pentene	ND	1.61	1.50	ND	1.51	1.51	1.57	1.47	1.61
MTBE + 2,3-Dimethylbutane	ND	25.23	25.41	ND	24.57	24.41	23.47	25.25	25.57
2-Methylpentane	ND	5.14	5.13	ND	4.92	4.97	4.35	5.16	5.18
3-Methylpentane	ND	3.00	2.99	ND	2.86	2.88	2.51	3.01	3.03
N-Hexane	ND	2.44	2.48	ND	2.32	2.37	1.92	2.50	2.51
Methylcyclopentane	ND	1.34	1.34	ND	1.28	1.27	1.15	1.34	1.36
2,4-Dimethylpentane	ND	1.15	1.14	ND	1.04	1.08	0.82	1.16	1.17
Benzene	<LOQ	2.03	2.08	<LOQ	1.91	1.92	1.57	2.03	2.11
2-Methylhexane	ND	1.24	1.23	ND	1.10	1.15	0.82	1.25	1.26
2,3-Dimethylpentane	ND	1.30	1.30	ND	1.16	1.22	0.88	1.32	1.33
3-Methylhexane	ND	1.45	1.44	ND	1.28	1.36	0.96	1.46	1.48
Isooctane	ND	1.61	1.60	ND	1.41	1.50	1.01	1.63	1.64
Toluene	ND	2.84	2.92	ND	2.41	2.58	1.63	2.87	2.98
Total	0.00	99.64	99.63	0.00	99.67	99.65	99.71	99.63	99.64

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-M. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 84

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1013	Sample 2013	Sample 3013	Sample 4013	Spiked Control 2	TM Standard 2
Compound	014_002	014_003	014_004	014_005	014_006	014_007	014_008	014_009	014_010
Isobutane	ND	1.72	1.54	ND	2.00	1.35	1.92	1.69	1.57
N-Butane	ND	9.13	8.48	ND	10.11	10.10	9.86	9.02	8.65
3-Methyl-1-butene	ND	0.34	0.33	ND	0.36	0.36	0.35	0.34	0.34
Isopentane	ND	31.45	30.92	ND	32.23	32.27	31.85	31.40	31.24
N-Pentane	ND	7.09	7.06	ND	7.05	7.11	7.04	7.03	7.10
Trans-2-pentene	ND	1.42	1.51	ND	1.56	1.55	1.61	1.61	1.50
MTBE + 2,3-Dimethylbutane	ND	25.10	25.72	ND	24.50	24.82	24.69	25.29	25.67
2-Methylpentane	ND	5.12	5.20	ND	4.95	5.03	5.04	5.17	5.19
3-Methylpentane	ND	2.98	3.04	ND	2.88	2.94	2.93	3.00	3.02
N-Hexane	ND	2.42	2.47	ND	2.30	2.37	2.37	2.48	2.50
Methylcyclopentane	ND	1.33	1.36	ND	1.28	1.30	1.29	1.33	1.34
2,4-Dimethylpentane	ND	1.13	1.16	ND	1.06	0.94	1.04	1.10	1.12
Benzene	<LOQ	2.00	2.11	<LOQ	1.90	1.97	1.94	2.01	2.08
2-Methylhexane	ND	1.22	1.26	ND	1.12	1.16	1.17	1.22	1.23
2,3-Dimethylpentane	ND	1.29	1.33	ND	1.13	1.21	1.22	1.27	1.29
3-Methylhexane	ND	1.44	1.47	ND	1.31	1.35	1.36	1.43	1.44
Isooctane	ND	1.60	1.64	ND	1.44	1.42	1.45	1.53	1.55
Toluene	ND	2.80	2.97	ND	2.45	2.42	2.51	2.70	2.81
Total	0.00	99.58	99.57	0.00	99.63	99.67	99.64	99.62	99.64

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-N. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 91

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1014	Sample 2014	Sample 3014	Sample 4014	Spiked Control 2	TM Standard 2
Compound	015_002	015_003	015_004	015_005	015_006	015_007	015_008	015_009	015_010
Isobutane	ND	1.69	1.61	ND	1.93	2.02	1.96	1.67	1.60
N-Butane	ND	8.88	8.62	ND	9.88	10.27	9.98	8.85	8.59
3-Methyl-1-butene	ND	0.32	0.32	ND	0.32	0.33	0.30	0.30	0.29
Isopentane	ND	31.23	31.09	ND	31.75	32.58	31.70	31.32	31.15
N-Pentane	ND	6.82	6.79	ND	6.74	6.99	6.86	6.88	6.86
Trans-2-pentene	ND	1.47	1.47	ND	1.55	1.57	1.50	1.58	1.53
MTBE + 2,3-Dimethylbutane	ND	25.25	25.65	ND	24.67	24.73	24.51	25.42	25.80
2-Methylpentane	ND	5.17	5.19	ND	5.00	4.86	4.98	5.20	5.22
3-Methylpentane	ND	3.03	3.04	ND	2.91	2.83	2.90	3.04	3.05
N-Hexane	ND	2.69	2.60	ND	2.57	2.42	2.51	2.39	2.42
Methylcyclopentane	ND	1.35	1.36	ND	1.30	1.28	1.29	1.36	1.36
2,4-Dimethylpentane	ND	1.17	1.16	ND	1.11	1.01	1.10	1.16	1.15
Benzene	<LOQ	1.97	2.04	<LOQ	1.93	1.82	1.93	1.98	2.04
2-Methylhexane	ND	1.26	1.26	ND	1.21	1.05	1.18	1.26	1.25
2,3-Dimethylpentane	ND	1.33	1.33	ND	1.17	1.11	1.22	1.33	1.33
3-Methylhexane	ND	1.48	1.47	ND	1.31	1.22	1.39	1.47	1.47
Isooctane	ND	1.66	1.63	ND	1.54	1.33	1.55	1.62	1.60
Toluene	ND	2.86	2.90	ND	2.76	2.25	2.72	2.80	2.89
Total	0.00	99.63	99.53	0.00	99.65	99.67	99.58	99.63	99.60

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-O. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 98

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1015	Sample 2015	Sample 3015	Sample 4015	Spiked Control 2	TM Standard 2
Compound	016_002	016_003	016_004	016_005	016_006	016_007	016_008	016_009	016_010
Isobutane	ND	1.70	1.60	ND	1.90	1.91	1.93	1.69	1.61
N-Butane	ND	9.08	8.62	ND	9.77	9.77	9.85	9.03	8.71
3-Methyl-1-butene	ND	0.34	0.33	ND	0.35	0.35	0.35	0.34	0.34
Isopentane	ND	31.12	30.99	ND	31.92	31.81	31.53	31.23	30.96
N-Pentane	ND	6.68	6.88	ND	7.00	6.86	6.83	6.83	6.76
Trans-2-pentene	ND	1.61	1.60	ND	1.56	1.48	1.54	1.41	1.50
MTBE + 2,3-Dimethylbutane	ND	25.15	25.66	ND	24.84	24.82	24.59	25.19	25.55
2-Methylpentane	ND	5.12	5.16	ND	5.02	5.03	4.98	5.13	5.14
3-Methylpentane	ND	2.99	3.02	ND	2.92	2.92	2.90	3.00	3.01
N-Hexane	ND	2.67	2.60	ND	2.48	2.49	2.48	2.57	2.68
Methylcyclopentane	ND	1.35	1.35	ND	1.30	1.30	1.30	1.34	1.36
2,4-Dimethylpentane	ND	1.15	1.12	ND	0.95	1.06	1.10	1.15	1.16
Benzene	ND	2.05	2.11	ND	1.99	1.98	2.02	2.04	2.12
2-Methylhexane	ND	1.26	1.24	ND	1.14	1.17	1.19	1.25	1.25
2,3-Dimethylpentane	ND	1.32	1.30	ND	1.20	1.23	1.25	1.31	1.32
3-Methylhexane	ND	1.47	1.44	ND	1.33	1.36	1.39	1.46	1.47
Isooctane	ND	1.65	1.57	ND	1.42	1.47	1.56	1.64	1.66
Toluene	ND	2.92	2.89	ND	2.47	2.55	2.74	2.90	3.01
Total	0.00	99.63	99.48	0.00	99.56	99.56	99.53	99.51	99.61

ND = none detected

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Table III-P. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 105

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1016	Sample 2016	Sample 3016	Sample 4016	Spiked Control 2	TM Standard 2
Compound	017_002	017_003	017_004	017_005	017_006	017_007	017_008	017_009	017_010
Isobutane	ND	1.62	1.51	ND	1.98	1.24	1.90	1.63	1.51
N-Butane	ND	8.81	8.35	ND	10.18	7.83	9.85	8.88	8.43
3-Methyl-1-butene	ND	0.34	0.33	ND	0.36	0.34	0.36	0.34	0.34
Isopentane	ND	31.01	30.83	ND	32.74	30.93	31.57	31.05	30.74
N-Pentane	ND	6.84	6.73	ND	6.75	6.89	6.71	6.72	6.86
Trans-2-pentene	ND	1.56	1.62	ND	1.82	1.71	1.88	1.81	1.66
MTBE + 2,3-Dimethylbutane	ND	25.33	25.80	ND	24.71	25.88	24.55	25.18	25.69
2-Methylpentane	ND	5.16	5.20	ND	4.79	5.27	4.96	5.13	5.17
3-Methylpentane	ND	3.02	3.05	ND	2.79	3.09	2.89	3.00	3.03
N-Hexane	ND	2.70	2.72	ND	2.27	2.65	2.56	2.68	2.70
Methylcyclopentane	ND	1.36	1.38	ND	1.28	1.40	1.30	1.35	1.37
2,4-Dimethylpentane	ND	1.16	1.18	ND	0.99	1.18	1.08	1.16	1.17
Benzene	<LOQ	2.06	2.15	<LOQ	2.06	2.34	2.14	2.04	2.11
2-Methylhexane	ND	1.27	1.27	ND	1.03	1.28	1.15	1.29	1.30
2,3-Dimethylpentane	ND	1.33	1.34	ND	1.10	1.35	1.22	1.31	1.33
3-Methylhexane	ND	1.48	1.49	ND	1.21	1.50	1.35	1.47	1.48
Isooctane	ND	1.67	1.68	ND	1.34	1.69	1.53	1.66	1.68
Toluene	ND	2.94	3.01	ND	2.18	2.93	2.65	2.94	3.04
Total	0.00	99.66	99.64	0.00	99.58	99.50	99.65	99.64	99.61

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-Q. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 112

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1017	Sample 2017	Sample 3017	Sample 4017	Spiked Control 2	TM Standard 2
Compound	018_002	018_003	018_004	018_005	018_006	018_007	018_008	018_009	018_010
Isobutane	ND	1.73	1.59	ND	2.16	1.90	1.28	1.73	1.57
N-Butane	ND	9.12	8.61	ND	10.76	9.73	7.93	9.09	8.52
3-Methyl-1-butene	ND	0.34	0.34	ND	0.37	0.31	0.31	0.31	0.30
Isopentane	ND	31.16	30.95	ND	32.99	31.69	30.80	31.27	30.83
N-Pentane	ND	6.66	6.69	ND	6.78	6.62	6.99	6.79	6.77
Trans-2-pentene	ND	1.53	1.58	ND	1.76	1.75	1.64	1.55	1.57
MTBE + 2,3-Dimethylbutane	ND	25.07	25.60	ND	24.03	24.68	25.90	25.09	25.63
2-Methylpentane	ND	5.09	5.15	ND	4.66	5.01	5.27	5.10	5.16
3-Methylpentane	ND	2.98	3.01	ND	2.71	2.91	3.09	2.98	3.02
N-Hexane	ND	2.66	2.69	ND	2.34	2.50	2.65	2.53	2.69
Methylcyclopentane	ND	1.34	1.36	ND	1.24	1.31	1.40	1.34	1.36
2,4-Dimethylpentane	ND	1.14	1.15	ND	0.92	1.00	1.17	1.10	1.14
Benzene	<LOQ	2.04	2.13	<LOQ	1.78	1.99	2.13	2.01	2.12
2-Methylhexane	ND	1.27	1.29	ND	1.08	1.22	1.28	1.23	1.30
2,3-Dimethylpentane	ND	1.30	1.32	ND	1.12	1.25	1.35	1.30	1.33
3-Methylhexane	ND	1.46	1.47	ND	1.23	1.39	1.50	1.45	1.48
Isooctane	ND	1.65	1.67	ND	1.36	1.54	1.70	1.63	1.68
Toluene	ND	2.92	3.04	ND	2.37	2.76	3.00	2.89	3.04
Total	0.00	99.46	99.64	0.00	99.66	99.56	99.39	99.39	99.51

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-R. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 119

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1018	Sample 2018	Sample 3018	Sample 4018	Spiked Control 2	TM Standard 2
Compound	019_002	019_003	019_004	019_005	019_006	019_007	019_008	019_009	019_010
Isobutane	ND	1.80	1.73	ND	1.91	2.02	2.00	1.09	1.71
N-Butane	ND	9.42	9.20	ND	9.97	10.20	10.12	7.15	9.02
3-Methyl-1-butene	ND	0.34	0.34	ND	0.35	0.35	0.35	0.33	0.34
Isopentane	ND	31.21	31.06	ND	31.60	31.49	31.48	30.20	30.70
N-Pentane	ND	6.76	6.75	ND	6.75	6.78	6.71	6.89	6.73
Trans-2-pentene	ND	1.52	1.69	ND	1.59	1.67	1.69	1.63	1.63
MTBE + 2,3-Dimethylbutane	ND	24.93	25.21	ND	24.62	24.38	24.45	26.53	25.43
2-Methylpentane	ND	5.06	5.06	ND	4.95	4.91	4.93	5.40	5.09
3-Methylpentane	ND	2.95	2.94	ND	2.89	2.86	2.87	3.17	2.98
N-Hexane	ND	2.64	2.53	ND	2.56	2.54	2.55	2.74	2.66
Methylcyclopentane	ND	1.33	1.33	ND	1.29	1.28	1.28	1.45	1.34
2,4-Dimethylpentane	ND	1.13	1.13	ND	1.09	1.09	1.09	1.24	1.15
Benzene	<LOQ	2.02	2.08	<LOQ	1.99	1.97	1.98	2.23	2.11
2-Methylhexane	ND	1.26	1.21	ND	1.20	1.20	1.20	1.39	1.27
2,3-Dimethylpentane	ND	1.29	1.28	ND	1.23	1.22	1.23	1.41	1.30
3-Methylhexane	ND	1.44	1.42	ND	1.37	1.36	1.37	1.58	1.45
Isooctane	ND	1.63	1.60	ND	1.53	1.54	1.55	1.79	1.64
Toluene	ND	2.89	2.94	ND	2.70	2.71	2.72	3.20	2.99
Total	0.00	99.62	99.50	0.00	99.59	99.57	99.57	99.42	99.54

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-S. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 126

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1019	Sample 2019	Sample 3019	Sample 4019	Spiked Control 2	TM Standard 2
Compound	020_002	020_003	020_004	020_005	020_006	020_007	020_008	020_009	020_010
Isobutane	ND	1.83	1.69	ND	2.01	2.10	2.00	1.75	1.80
N-Butane	ND	9.99	9.01	ND	10.61	10.95	10.02	9.19	9.90
3-Methyl-1-butene	ND	0.35	0.34	ND	0.35	0.36	0.35	0.34	0.34
Isopentane	ND	31.47	31.15	ND	31.65	32.01	31.68	31.21	31.42
N-Pentane	ND	6.87	6.84	ND	6.72	6.83	6.87	6.84	6.85
Trans-2-pentene	ND	1.48	1.48	ND	1.63	1.60	1.59	1.59	1.59
MTBE + 2,3-Dimethylbutane	ND	24.66	25.39	ND	24.29	24.03	24.44	25.01	24.85
2-Methylpentane	ND	4.98	5.09	ND	4.89	4.83	4.92	5.07	4.95
3-Methylpentane	ND	2.90	2.97	ND	2.85	2.80	2.86	2.96	2.89
N-Hexane	ND	2.48	2.64	ND	2.43	2.46	2.54	2.64	2.46
Methylcyclopentane	ND	1.29	1.33	ND	1.27	1.24	1.28	1.33	1.28
2,4-Dimethylpentane	ND	1.11	1.14	ND	1.08	1.05	1.09	1.14	1.09
Benzene	<LOQ	1.96	2.09	<LOQ	1.90	1.85	1.93	2.03	1.99
2-Methylhexane	ND	1.22	1.22	ND	1.19	1.15	1.20	1.27	1.21
2,3-Dimethylpentane	ND	1.25	1.29	ND	1.21	1.17	1.23	1.29	1.23
3-Methylhexane	ND	1.39	1.44	ND	1.28	1.30	1.37	1.45	1.37
Isooctane	ND	1.57	1.60	ND	1.52	1.46	1.55	1.63	1.55
Toluene	ND	2.76	2.93	ND	2.66	2.49	2.73	2.90	2.78
Total	0.00	99.56	99.64	0.00	99.54	99.68	99.65	99.64	99.55

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-T. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 133

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1020	Sample 2020	Sample 3020	Sample 4020	Spiked Control 2	TM Standard 2
Compound	021_002	021_003	021_004	021_005	021_006	021_007	021_008	021_009	021_010
Isobutane	ND	1.63	1.40	ND	1.99	2.05	2.14	1.60	1.54
N-Butane	ND	8.88	8.03	ND	10.14	10.34	10.69	8.65	8.36
3-Methyl-1-butene	ND	0.29	0.30	ND	0.34	0.34	0.34	0.33	0.28
Isopentane	ND	30.95	30.44	ND	31.78	31.79	32.59	30.88	30.67
N-Pentane	ND	6.90	6.92	ND	6.92	6.92	6.95	6.98	6.80
Trans-2-pentene	ND	1.43	1.48	ND	1.43	1.52	1.50	1.34	1.53
MTBE + 2,3-Dimethylbutane	ND	25.35	26.04	ND	24.46	24.28	24.19	25.45	25.82
2-Methylpentane	ND	5.16	5.26	ND	4.93	4.90	4.79	5.19	5.21
3-Methylpentane	ND	3.02	3.08	ND	2.88	2.85	2.78	3.04	3.05
N-Hexane	ND	2.69	2.76	ND	2.50	2.53	2.32	2.61	2.73
Methylcyclopentane	ND	1.36	1.40	ND	1.28	1.27	1.25	1.36	1.37
2,4-Dimethylpentane	ND	1.17	1.20	ND	1.09	1.07	1.01	1.18	1.18
Benzene	<LOQ	2.05	2.17	<LOQ	1.93	1.92	1.83	2.06	2.13
2-Methylhexane	ND	1.30	1.35	ND	1.20	1.19	1.09	1.32	1.32
2,3-Dimethylpentane	ND	1.33	1.37	ND	1.23	1.21	1.12	1.34	1.35
3-Methylhexane	ND	1.48	1.53	ND	1.37	1.34	1.24	1.50	1.50
Isooctane	ND	1.68	1.74	ND	1.54	1.51	1.39	1.70	1.71
Toluene	ND	2.95	3.15	ND	2.67	2.64	2.34	2.99	3.08
Total	0.00	99.62	99.62	0.00	99.68	99.67	99.56	99.52	99.63

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-U. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 140

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1021	Sample 2021	Sample 3021	Sample 4021	Spiked Control 2	TM Standard 2
Compound	022_002	022_003	022_004	022_005	022_006	022_007	022_008	022_009	022_010
Isobutane	ND	1.73	1.66	ND	2.04	2.08	1.78	1.74	1.65
N-Butane	ND	9.71	9.36	ND	10.87	10.91	10.08	9.70	9.24
3-Methyl-1-butene	ND	0.34	0.34	<LOQ	0.36	0.35	0.35	0.34	0.34
Isopentane	ND	31.34	31.03	ND	32.45	31.98	31.63	31.39	31.16
N-Pentane	ND	6.78	6.73	<LOQ	6.78	6.74	6.69	6.75	6.68
Trans-2-pentene	ND	1.57	1.66	ND	1.57	1.59	1.61	1.63	1.43
MTBE + 2,3-Dimethylbutane	ND	24.85	25.23	ND	24.38	24.10	24.65	24.85	25.39
2-Methylpentane	ND	5.03	5.05	ND	4.83	4.83	4.96	5.03	5.09
3-Methylpentane	ND	2.94	2.95	ND	2.81	2.81	2.89	2.93	2.97
N-Hexane	ND	2.61	2.63	ND	2.44	2.37	2.56	2.50	2.54
Methylcyclopentane	ND	1.31	1.32	ND	1.26	1.24	1.29	1.30	1.33
2,4-Dimethylpentane	ND	1.12	1.14	ND	1.00	1.05	1.09	1.12	1.14
Benzene	<LOQ	1.98	2.06	<LOQ	1.87	1.87	1.95	1.98	2.07
2-Methylhexane	ND	1.24	1.25	ND	1.07	1.15	1.21	1.24	1.26
2,3-Dimethylpentane	ND	1.27	1.28	ND	1.10	1.17	1.23	1.26	1.29
3-Methylhexane	ND	1.41	1.43	ND	1.21	1.30	1.37	1.41	1.43
Isooctane	ND	1.60	1.61	ND	1.32	1.45	1.53	1.58	1.62
Toluene	ND	2.81	2.92	ND	2.29	2.52	2.70	2.80	2.92
Total	0.00	99.64	99.65	0.00	99.65	99.51	99.57	99.55	99.55

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-V. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 147

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1022	Sample 2022	Sample 3022	Sample 4022	Spiked Control 2	TM Standard 2
Compound	023_002	023_003	023_004	023_005	023_006	023_007	023_008	023_009	023_010
Isobutane	ND	1.82	1.73	ND	1.11	1.71	2.02	1.81	1.35
N-Butane	ND	9.90	9.14	ND	7.73	9.66	10.55	9.82	8.04
3-Methyl-1-butene	ND	0.34	0.34	ND	0.33	0.34	0.35	0.34	0.33
Isopentane	ND	31.33	31.22	ND	30.77	31.51	31.62	31.49	30.75
N-Pentane	ND	6.79	6.87	ND	6.89	6.87	6.76	6.72	6.90
Trans-2-pentene	ND	1.61	1.61	ND	1.73	1.71	1.66	1.50	1.57
MTBE + 2,3-Dimethylbutane	ND	24.68	25.18	ND	26.39	24.84	24.20	24.76	26.01
2-Methylpentane	ND	5.00	5.04	ND	5.33	5.03	4.90	5.01	5.23
3-Methylpentane	ND	2.91	2.94	ND	3.12	2.92	2.85	2.92	3.06
N-Hexane	ND	2.59	2.62	ND	2.65	2.60	2.43	2.60	2.63
Methylcyclopentane	ND	1.30	1.32	ND	1.43	1.33	1.27	1.30	1.38
2,4-Dimethylpentane	ND	1.11	1.12	ND	1.18	1.10	1.08	1.11	1.18
Benzene	<LOQ	1.98	2.06	<LOQ	2.17	2.01	1.94	1.98	2.16
2-Methylhexane	ND	1.23	1.25	ND	1.30	1.21	1.19	1.23	1.32
2,3-Dimethylpentane	ND	1.26	1.27	ND	1.34	1.24	1.21	1.26	1.34
3-Methylhexane	ND	1.40	1.42	ND	1.48	1.37	1.35	1.41	1.50
Isooctane	ND	1.59	1.61	ND	1.67	1.55	1.53	1.59	1.69
Toluene	ND	2.79	2.89	ND	2.88	2.66	2.64	2.79	3.07
Total	0.00	99.63	99.63	0.00	99.50	99.66	99.55	99.64	99.51

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-W. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 154

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1023	Sample 2023	Sample 3023	Sample 4023	Spiked Control 2	TM Standard 2
Compound	024_002	024_003	024_004	024_005	024_006	024_007	024_008	024_009	024_010
Isobutane	ND	1.80	1.77	ND	2.06	2.02	2.05	1.73	1.55
N-Butane	ND	9.66	9.58	ND	10.76	10.65	10.68	9.74	9.34
3-Methyl-1-butene	ND	0.32	0.32	ND	0.32	0.31	0.33	0.33	0.32
Isopentane	ND	31.43	31.20	ND	31.94	31.88	31.88	31.45	31.28
N-Pentane	ND	6.77	6.86	ND	6.74	6.72	6.78	6.69	6.67
Trans-2-pentene	ND	1.60	1.57	ND	1.55	1.50	1.41	1.39	1.35
MTBE + 2,3-Dimethylbutane	ND	24.82	24.95	ND	24.15	24.39	24.19	24.84	25.28
2-Methylpentane	ND	5.02	4.99	ND	4.86	4.89	4.87	5.03	5.07
3-Methylpentane	ND	2.93	2.91	ND	2.83	2.85	2.83	2.93	2.96
N-Hexane	ND	2.60	2.59	ND	2.49	2.51	2.50	2.61	2.63
Methylcyclopentane	ND	1.31	1.30	ND	1.25	1.27	1.25	1.31	1.33
2,4-Dimethylpentane	ND	1.12	1.11	ND	1.07	1.07	1.06	1.12	1.13
Benzene	<LOQ	1.98	2.03	<LOQ	1.89	1.90	1.88	1.98	2.06
2-Methylhexane	ND	1.24	1.23	ND	1.17	1.17	1.16	1.24	1.26
2,3-Dimethylpentane	ND	1.26	1.25	ND	1.20	1.20	1.19	1.27	1.28
3-Methylhexane	ND	1.41	1.40	ND	1.33	1.33	1.32	1.41	1.43
Isooctane	ND	1.60	1.58	ND	1.49	1.48	1.48	1.60	1.62
Toluene	ND	2.80	2.84	ND	2.57	2.53	2.56	2.79	2.92
Total	0.00	99.67	99.48	0.00	99.67	99.67	99.42	99.46	99.48

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-X. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 161

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1024	Sample 2024	Sample 3024	Sample 4024	Spiked Control 2	TM Standard 2
Compound	025_002	025_003	025_004	025_005	025_006	025_007	025_008	025_009	025_010
Isobutane	ND	1.08	1.32	ND	1.94	2.09	2.14	1.68	1.35
N-Butane	ND	7.43	7.81	ND	10.99	10.91	11.26	9.47	7.90
3-Methyl-1-butene	ND	0.32	0.31	ND	0.37	0.35	0.36	0.34	0.31
Isopentane	ND	30.50	30.14	ND	33.75	32.05	32.79	31.39	30.38
N-Pentane	ND	7.11	6.84	ND	7.19	6.92	7.01	6.94	6.81
Trans-2-pentene	ND	1.80	1.73	ND	1.91	1.81	1.94	1.82	1.88
MTBE + 2,3-Dimethylbutane	ND	26.58	26.55	ND	24.24	23.92	24.00	25.07	26.54
2-Methylpentane	ND	5.43	5.36	ND	4.58	4.80	4.71	5.07	5.34
3-Methylpentane	ND	3.18	3.13	ND	2.66	2.79	2.73	2.95	3.11
N-Hexane	ND	2.83	2.79	ND	2.23	2.46	2.37	2.62	2.76
Methylcyclopentane	ND	1.44	1.40	ND	1.24	1.24	1.24	1.31	1.38
2,4-Dimethylpentane	ND	1.20	1.23	ND	0.89	1.05	0.96	1.11	1.20
Benzene	ND	2.19	2.26	ND	1.74	1.89	1.83	1.99	2.25
2-Methylhexane	ND	1.31	1.32	ND	0.92	1.14	1.01	1.21	1.29
2,3-Dimethylpentane	ND	1.34	1.37	ND	0.96	1.17	1.04	1.23	1.33
3-Methylhexane	ND	1.50	1.53	ND	1.05	1.30	1.14	1.37	1.48
Isooctane	ND	1.67	1.76	ND	1.15	1.45	1.23	1.54	1.69
Toluene	ND	2.89	2.97	ND	1.90	2.52	2.11	2.67	2.83
Total	0.00	99.80	99.82	0.00	99.71	99.86	99.87	99.78	99.83

ND = none detected.

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Table III-Y. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 168

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1025	Sample 2025	Sample 3025	Sample 4025	Spiked Control 2	TM Standard 2
Compound	026_002	026_003	026_004	026_005	026_006	026_007	026_008	026_009	026_010
Isobutane	ND	1.85	1.76	ND	1.99	2.03	2.05	1.82	1.76
N-Butane	ND	9.67	9.34	ND	10.14	10.22	10.29	9.42	9.15
3-Methyl-1-butene	ND	0.34	0.34	ND	0.35	0.35	0.35	0.34	0.34
Isopentane	ND	31.45	31.24	ND	31.76	31.70	31.75	31.35	31.19
N-Pentane	ND	6.86	6.78	ND	6.81	6.71	6.89	6.82	6.80
Trans-2-pentene	ND	1.60	1.56	ND	1.63	1.64	1.50	1.65	1.65
MTBE + 2,3-Dimethylbutane	ND	24.72	25.13	ND	24.47	24.34	24.28	24.82	25.17
2-Methylpentane	ND	4.96	5.02	ND	4.92	4.92	4.90	5.03	5.03
3-Methylpentane	ND	2.91	2.93	ND	2.87	2.86	2.85	2.94	2.94
N-Hexane	ND	2.59	2.61	ND	2.53	2.44	2.53	2.51	2.62
Methylcyclopentane	ND	1.30	1.31	ND	1.28	1.28	1.27	1.31	1.32
2,4-Dimethylpentane	ND	1.11	1.12	ND	1.08	1.08	1.08	1.12	1.12
Benzene	<LOQ	1.99	2.06	<LOQ	1.95	1.96	1.94	2.01	2.07
2-Methylhexane	ND	1.23	1.24	ND	1.18	1.20	1.19	1.25	1.25
2,3-Dimethylpentane	ND	1.25	1.26	ND	1.21	1.22	1.22	1.27	1.28
3-Methylhexane	ND	1.41	1.41	ND	1.35	1.36	1.36	1.42	1.42
Isooctane	ND	1.59	1.60	ND	1.51	1.54	1.54	1.61	1.61
Toluene	ND	2.80	2.90	ND	2.62	2.68	2.68	2.84	2.92
Total	0.00	99.63	99.61	0.00	99.65	99.53	99.67	99.53	99.64

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-Z. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 175

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1026[a]	Sample 2026	Sample 3026	Sample 4026	Spiked Control 2	TM Standard 2
Compound	027_002	027_003	027_004	029_005	027_006	027_007	027_008	027_010	027_011
Isobutane	ND	1.83	1.73	>LOQ	2.02	1.77	1.78	1.81	1.73
N-Butane	ND	9.46	9.06	ND	10.33	9.27	9.33	9.36	9.05
3-Methyl-1-butene	ND	0.35	0.34	ND	0.36	0.34	0.34	0.35	0.34
Isopentane	ND	32.23	31.83	ND	32.59	31.60	31.61	31.88	31.36
N-Pentane	ND	6.68	6.61	ND	7.14	6.58	6.52	6.10	6.48
Trans-2-pentene	ND	2.20	2.22	ND	1.70	1.97	2.13	2.00	2.16
MTBE + 2,3-Dimethylbutane	ND	22.85	23.36	ND	22.72	22.80	22.73	22.73	22.85
2-Methylpentane	ND	4.55	4.62	ND	4.60	4.61	4.60	4.71	4.71
3-Methylpentane	ND	3.10	3.13	ND	2.99	3.04	3.03	3.07	3.06
N-Hexane	ND	2.67	2.68	ND	2.65	2.71	2.58	2.64	2.75
Methylcyclopentane	ND	1.39	1.41	ND	1.33	1.38	1.37	1.37	1.38
2,4-Dimethylpentane	ND	1.21	1.22	ND	1.13	1.17	1.16	1.19	1.19
Benzene	<LOQ	2.07	2.16	<LOQ	1.99	2.06	2.05	2.04	2.11
2-Methylhexane	ND	1.30	1.32	ND	1.21	1.25	1.25	1.30	1.30
2,3-Dimethylpentane	ND	1.35	1.37	ND	1.23	1.29	1.29	1.33	1.33
3-Methylhexane	ND	1.54	1.56	ND	1.41	1.47	1.46	1.52	1.52
Isooctane	ND	1.67	1.68	ND	1.52	1.59	1.63	1.70	1.69
Toluene	ND	3.05	3.20	ND	2.71	2.83	2.81	3.00	3.12
Total	0.00	99.50	99.50	0.00	99.63	97.73	97.67	98.10	98.13

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

[a] Suspicious result, sample reanalyzed; please refer to exposure 177. Both 1026 and 1026D-1 samples will be reported.

>LOQ = Greater than the limit of quantification = Greater than 25% of the area count of the component in the test substance standard.

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Table III-Z1. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposures 177 & 186 (Duplicate Samples)
Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1026D-1 [a]	Sample 1027D-1 [b]	Sample 2027D-1 [b]	Sample 3027D-1 [b]	Sample 4027D-1 [b]	Spiked Control 2	TM Standard 2
Compound	029_002	029_003	029_004	029_005	029_006	029_007	029_008	029_009	029_014	029_015
Isobutane	ND	1.82	1.80	ND	ND	2.06	2.08	2.09	1.85	1.76
N-Butane	ND	9.54	9.45	ND	ND	10.50	10.53	10.61	9.71	9.34
3-Methyl-1-butene	ND	0.34	0.34	ND	ND	0.36	0.36	0.36	0.35	0.34
Isopentane	ND	31.06	31.21	ND	ND	31.94	32.10	32.14	31.50	31.17
N-Pentane	ND	6.37	6.33	ND	ND	6.41	6.52	6.42	6.44	6.29
Trans-2-pentene	ND	2.15	2.18	ND	ND	2.24	2.19	2.25	2.13	2.28
MTBE + 2,3-Dimethylbutane	ND	24.27	24.88	ND	ND	23.58	23.33	23.54	24.62	25.02
2-Methylpentane	ND	4.89	4.65	ND	ND	4.73	4.55	4.48	4.63	4.65
3-Methylpentane	ND	2.95	2.97	ND	ND	2.86	2.90	2.85	2.96	2.98
N-Hexane	ND	2.53	2.55	ND	ND	2.42	2.46	2.43	2.53	2.56
Methylcyclopentane	ND	1.32	1.33	ND	ND	1.27	1.28	1.28	1.31	1.33
2,4-Dimethylpentane	ND	1.14	1.15	ND	ND	1.06	1.09	1.07	1.14	1.15
Benzene	<LOQ	1.95	2.03	<LOQ	<LOQ	1.86	1.88	1.89	1.95	2.03
2-Methylhexane	ND	1.24	1.25	ND	ND	1.12	1.17	1.14	1.24	1.25
2,3-Dimethylpentane	ND	1.27	1.28	ND	ND	1.15	1.20	1.17	1.26	1.28
3-Methylhexane	ND	1.45	1.46	ND	ND	1.31	1.36	1.33	1.44	1.46
Isooctane	ND	1.62	1.64	ND	ND	1.42	1.51	1.49	1.61	1.64
Toluene	ND	2.88	3.01	ND	ND	2.52	2.61	2.59	2.87	3.01
Total	0.00	98.79	99.51	0.00	0.00	98.81	99.12	99.13	99.54	99.54

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.
[a] Reanalyzed results due to suspicious original results. Please refer to exposure 177.
[b] Reanalyzed results due to suspicious original results and poor extraction. Please refer to exposure 186.

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Table III-Z2. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 189

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1028	Sample 2028	Sample 3028	Sample 4028	Spiked Control 2	TM Standard 2
Compound	029_002	029_003	029_004	029_010	029_011	029_012	029_013	029_014	029_015
Isobutane	ND	1.82	1.80	ND	2.06	1.86	1.75	1.85	1.76
N-Butane	ND	9.54	9.45	ND	10.50	10.16	9.44	9.71	9.34
3-Methyl-1-butene	ND	0.34	0.34	ND	0.36	0.36	0.35	0.35	0.34
Isopentane	ND	31.06	31.21	ND	32.10	32.50	31.88	31.50	31.17
N-Pentane	ND	6.37	6.33	ND	6.47	6.56	6.40	6.44	6.29
Trans-2-pentene	ND	2.15	2.18	ND	2.19	2.25	2.27	2.13	2.28
MTBE + 2,3-Dimethylbutane	ND	24.27	24.88	ND	23.61	24.11	24.51	24.62	25.02
2-Methylpentane	ND	4.89	4.65	ND	4.51	4.48	4.68	4.63	4.65
3-Methylpentane	ND	2.95	2.97	ND	2.87	2.85	2.99	2.96	2.98
N-Hexane	ND	2.53	2.55	ND	2.43	2.39	2.56	2.53	2.56
Methylcyclopentane	ND	1.32	1.33	ND	1.28	1.29	1.33	1.31	1.33
2,4-Dimethylpentane	ND	1.14	1.15	ND	1.08	1.04	1.09	1.14	1.15
Benzene	<LOQ	1.95	2.03	<LOQ	1.88	1.87	1.99	1.95	2.03
2-Methylhexane	ND	1.24	1.25	ND	1.16	1.11	1.20	1.24	1.25
2,3-Dimethylpentane	ND	1.27	1.28	ND	1.19	1.13	1.25	1.26	1.28
3-Methylhexane	ND	1.45	1.46	ND	1.35	1.28	1.40	1.44	1.46
Isooctane	ND	1.62	1.64	ND	1.52	1.43	1.50	1.61	1.64
Toluene	ND	2.88	3.01	ND	2.61	2.46	2.58	2.87	3.01
Total	0.00	98.79	99.51	0.00	99.17	99.13	99.17	99.54	99.54

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-Z3. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 196

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1029	Sample 2029	Sample 3029	Sample 4029	Spiked Control 2	TM Standard 2
Compound	030_002	030_003	030_004	030_005	030_006	030_007	030_008	030_009	030_010
Isobutane	ND	1.78	1.73	ND	2.05	2.08	2.08	1.79	1.72
N-Butane	ND	9.18	8.97	ND	10.34	10.49	10.45	9.20	9.05
3-Methyl-1-butene	ND	0.33	0.33	ND	0.35	0.35	0.35	0.34	0.34
Isopentane	ND	31.13	30.96	ND	31.68	31.98	31.87	31.16	30.82
N-Pentane	ND	6.33	6.32	ND	6.32	6.48	6.40	6.33	6.28
Trans-2-pentene	ND	2.21	2.21	ND	2.29	2.20	2.28	2.32	2.30
MTBE + 2,3-Dimethylbutane	ND	24.81	25.09	ND	23.97	24.03	23.71	24.76	25.11
2-Methylpentane	ND	4.92	4.94	ND	4.75	4.54	4.70	4.89	4.93
3-Methylpentane	ND	2.99	2.99	ND	2.89	2.89	2.89	2.99	3.00
N-Hexane	ND	2.57	2.58	ND	2.45	2.45	2.44	2.56	2.57
Methylcyclopentane	ND	1.34	1.34	ND	1.28	1.28	1.28	1.33	1.34
2,4-Dimethylpentane	ND	1.16	1.16	ND	1.10	1.09	1.10	1.16	1.16
Benzene	<LOQ	1.97	2.03	<LOQ	1.93	1.91	1.92	1.97	2.04
2-Methylhexane	ND	1.27	1.27	ND	1.19	1.18	1.20	1.27	1.28
2,3-Dimethylpentane	ND	1.30	1.30	ND	1.23	1.20	1.20	1.29	1.30
3-Methylhexane	ND	1.48	1.48	ND	1.38	1.32	1.39	1.48	1.47
Isooctane	ND	1.65	1.65	ND	1.53	1.48	1.54	1.67	1.64
Toluene	ND	2.93	3.02	ND	2.64	2.61	2.69	2.92	3.04
Total	0.00	99.35	99.37	0.00	99.37	99.56	99.49	99.43	99.39

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-Z4. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 203

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1030	Sample 2030	Sample 3030	Sample 4030	Spiked Control 2	TM Standard 2
Compound	031_002	031_003	031_004	031_005	031_006	031_007	031_008	031_009	031_010
Isobutane	ND	1.83	1.72	ND	2.06	2.07	2.09	1.65	1.75
N-Butane	ND	9.40	9.04	ND	10.20	10.32	10.36	8.89	9.10
3-Methyl-1-butene	ND	0.33	0.34	ND	0.35	0.35	0.35	0.34	0.34
Isopentane	ND	31.22	31.11	ND	31.73	32.02	31.87	31.13	31.12
N-Pentane	ND	6.25	6.32	ND	6.26	6.18	6.29	6.39	6.25
Trans-2-pentene	ND	2.37	2.33	ND	2.37	2.27	2.36	2.31	2.35
MTBE + 2,3-Dimethylbutane	ND	24.72	25.23	ND	24.27	24.35	24.23	25.24	25.21
2-Methylpentane	ND	4.88	4.65	ND	4.53	4.54	4.49	4.72	4.64
3-Methylpentane	ND	2.94	2.98	ND	2.88	2.89	2.86	3.01	2.97
N-Hexane	ND	2.52	2.56	ND	2.46	2.36	2.43	2.59	2.55
Methylcyclopentane	ND	1.32	1.34	ND	1.28	1.28	1.27	1.35	1.33
2,4-Dimethylpentane	ND	1.13	1.15	ND	1.10	1.09	1.08	1.16	1.14
Benzene	<LOQ	1.95	2.05	<LOQ	1.93	1.83	1.90	2.01	2.03
2-Methylhexane	ND	1.23	1.25	ND	1.19	1.18	1.17	1.27	1.24
2,3-Dimethylpentane	ND	1.26	1.28	ND	1.21	1.21	1.20	1.30	1.27
3-Methylhexane	ND	1.44	1.46	ND	1.38	1.37	1.36	1.48	1.46
Isooctane	ND	1.62	1.64	ND	1.52	1.53	1.53	1.67	1.64
Toluene	ND	2.88	3.01	ND	2.73	2.67	2.66	2.95	2.99
Total	0.00	99.29	99.46	0.00	99.45	99.51	99.50	99.46	99.38

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-Z5. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 210

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1031	Sample 2031	Sample 3031	Sample 4031	Spiked Control 2	TM Standard 2
Compound	032_002	032_003	032_004	032_005	032_006	032_007	032_008	032_009	032_010
Isobutane	ND	1.80	1.76	ND	1.99	2.03	2.04	1.82	1.75
N-Butane	ND	9.31	9.11	ND	9.96	10.25	10.23	9.48	9.17
3-Methyl-1-butene	ND	0.34	0.34	ND	0.34	0.35	0.35	0.34	0.34
Isopentane	ND	31.29	31.10	ND	31.53	31.61	31.70	31.37	31.12
N-Pentane	ND	6.37	6.29	ND	6.28	6.48	6.35	6.41	6.27
Trans-2-pentene	ND	2.28	2.26	ND	2.29	2.19	2.27	2.08	2.23
MTBE + 2,3-Dimethylbutane	ND	24.94	25.23	ND	24.34	24.28	24.31	24.90	25.25
2-Methylpentane	ND	4.66	4.66	<LOQ	4.80	4.53	4.54	4.66	4.67
3-Methylpentane	ND	2.97	2.98	ND	2.89	2.88	2.89	2.97	2.98
N-Hexane	ND	2.55	2.55	ND	2.46	2.47	2.47	2.54	2.54
Methylcyclopentane	ND	1.33	1.34	ND	1.29	1.28	1.28	1.32	1.33
2,4-Dimethylpentane	ND	1.14	1.15	ND	1.11	1.10	1.10	1.14	1.15
Benzene	<LOQ	1.98	2.05	<LOQ	1.92	1.93	1.91	1.98	2.05
2-Methylhexane	ND	1.25	1.26	ND	1.19	1.20	1.20	1.25	1.25
2,3-Dimethylpentane	ND	1.28	1.28	ND	1.23	1.23	1.22	1.27	1.27
3-Methylhexane	ND	1.45	1.46	ND	1.39	1.40	1.39	1.45	1.46
Isooctane	ND	1.64	1.64	ND	1.57	1.56	1.54	1.61	1.65
Toluene	ND	2.89	3.00	ND	2.71	2.72	2.70	2.88	2.99
Total	0.00	99.47	99.46	0.00	99.29	99.49	99.49	99.47	99.47

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-Z6. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 217

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1032	Sample 2032	Sample 3032	Sample 4032	Spiked Control 2	TM Standard 2
Compound	033_002	033_003	033_004	033_005	033_006	033_007	033_008	033_009	033_010
Isobutane	ND	1.71	1.73	ND	2.03	2.02	2.05	1.77	1.71
N-Butane	ND	9.40	9.32	ND	10.38	10.38	10.45	9.55	9.28
3-Methyl-1-butene	ND	0.34	0.34	ND	0.35	0.35	0.35	0.34	0.34
Isopentane	ND	31.04	30.88	ND	31.63	31.59	31.60	31.29	31.11
N-Pentane	ND	6.30	6.23	ND	6.13	6.25	6.26	6.30	6.35
Trans-2-pentene	ND	2.24	2.27	ND	2.27	2.30	2.38	2.31	2.24
MTBE + 2,3-Dimethylbutane	ND	24.90	25.02	ND	24.34	24.31	24.24	24.90	25.19
2-Methylpentane	ND	4.91	4.88	ND	4.54	4.52	4.50	4.65	4.64
3-Methylpentane	ND	2.97	2.95	ND	2.90	2.88	2.87	2.96	2.97
N-Hexane	ND	2.55	2.54	ND	2.47	2.46	2.45	2.54	2.55
Methylcyclopentane	ND	1.33	1.32	ND	1.29	1.28	1.28	1.32	1.33
2,4-Dimethylpentane	ND	1.15	1.14	ND	1.11	1.10	1.10	1.14	1.15
Benzene	<LOQ	1.98	2.03	<LOQ	1.94	1.93	1.91	1.96	2.03
2-Methylhexane	ND	1.25	1.24	ND	1.20	1.19	1.19	1.24	1.25
2,3-Dimethylpentane	ND	1.28	1.27	ND	1.23	1.22	1.21	1.27	1.27
3-Methylhexane	ND	1.45	1.45	ND	1.40	1.39	1.38	1.45	1.45
Isooctane	ND	1.59	1.58	ND	1.51	1.56	1.54	1.62	1.63
Toluene	ND	2.91	2.98	ND	2.75	2.74	2.72	2.86	2.97
Total	0.00	99.30	99.17	0.00	99.47	99.47	99.48	99.47	99.46

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-Z7. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 224

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1033	Sample 2033	Sample 3033	Sample 4033	Spiked Control 2	TM Standard 2
Compound	034_002	034_003	034_004	034_005	034_006	034_007	034_008	034_013	034_014
Isobutane	ND	1.77	1.69	ND	2.02	1.99	2.02	1.39	1.68
N-Butane	ND	9.46	9.26	ND	10.34	10.18	10.28	8.23	8.96
3-Methyl-1-butene	ND	0.35	0.34	ND	0.35	0.35	0.35	0.32	0.29
Isopentane	ND	31.14	30.82	ND	31.67	31.46	31.61	30.75	30.84
N-Pentane	ND	6.40	6.34	ND	6.28	6.35	6.48	6.40	6.39
Trans-2-pentene	ND	2.17	2.16	ND	2.19	2.29	2.16	2.32	2.23
MTBE + 2,3-Dimethylbutane	ND	24.91	25.21	ND	24.24	24.23	24.24	25.74	25.39
2-Methylpentane	ND	4.65	4.66	ND	4.56	4.56	4.55	4.82	4.69
3-Methylpentane	ND	2.98	2.98	ND	2.91	2.91	2.89	3.09	3.01
N-Hexane	ND	2.56	2.55	ND	2.49	2.50	2.49	2.66	2.59
Methylcyclopentane	ND	1.33	1.35	ND	1.29	1.30	1.29	1.40	1.36
2,4-Dimethylpentane	ND	1.15	1.15	ND	1.11	1.12	1.11	1.21	1.17
Benzene	<LOQ	1.99	2.06	<LOQ	1.95	1.96	1.94	2.09	2.09
2-Methylhexane	ND	1.26	1.27	ND	1.20	1.22	1.20	1.33	1.28
2,3-Dimethylpentane	ND	1.29	1.29	ND	1.23	1.24	1.23	1.35	1.31
3-Methylhexane	ND	1.47	1.47	ND	1.39	1.42	1.39	1.54	1.49
Isooctane	ND	1.65	1.63	ND	1.53	1.58	1.53	1.71	1.64
Toluene	ND	2.94	3.04	ND	2.73	2.81	2.73	3.09	3.06
Total	0.00	99.47	99.27	0.00	99.48	99.47	99.49	99.44	99.47

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-Z8. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 231

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1034	Sample 2034	Sample 3034	Sample 4034	Spiked Control 2	TM Standard 2
Compound	034_002	034_003	034_004	034_009	034_010	034_011	034_012	034_013	034_014
Isobutane	ND	1.77	1.69	ND	2.04	2.03	2.03	1.39	1.68
N-Butane	ND	9.46	9.26	ND	10.31	10.27	10.28	8.23	8.96
3-Methyl-1-butene	ND	0.35	0.34	ND	0.34	0.33	0.32	0.32	0.29
Isopentane	ND	31.14	30.82	ND	31.63	31.63	31.60	30.75	30.84
N-Pentane	ND	6.40	6.34	ND	6.42	6.41	6.43	6.40	6.39
Trans-2-pentene	ND	2.17	2.16	ND	2.11	2.17	2.14	2.32	2.23
MTBE + 2,3-Dimethylbutane	ND	24.91	25.21	ND	24.21	24.20	24.30	25.74	25.39
2-Methylpentane	ND	4.65	4.66	ND	4.54	4.53	4.53	4.82	4.69
3-Methylpentane	ND	2.98	2.98	ND	2.90	2.89	2.88	3.09	3.01
N-Hexane	ND	2.56	2.55	ND	2.48	2.49	2.46	2.66	2.59
Methylcyclopentane	ND	1.33	1.35	ND	1.29	1.29	1.28	1.40	1.36
2,4-Dimethylpentane	ND	1.15	1.15	ND	1.11	1.11	1.11	1.21	1.17
Benzene	<LOQ	1.99	2.06	<LOQ	1.95	1.95	1.94	2.09	2.09
2-Methylhexane	ND	1.26	1.27	ND	1.21	1.21	1.21	1.33	1.28
2,3-Dimethylpentane	ND	1.29	1.29	ND	1.24	1.23	1.23	1.35	1.31
3-Methylhexane	ND	1.47	1.47	ND	1.40	1.40	1.40	1.54	1.49
Isooctane	ND	1.65	1.63	ND	1.57	1.58	1.58	1.71	1.64
Toluene	ND	2.94	3.04	ND	2.74	2.76	2.75	3.09	3.06
Total	0.00	99.47	99.27	0.00	99.49	99.48	99.47	99.44	99.47

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-Z9. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 238

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1035	Sample 2035	Sample 3035	Sample 4035	Spiked Control 2	TM Standard 2
Compound	035_002	035_003	035_004	035_005	035_006	035_007	035_008	035_013	035_014
Isobutane	ND	1.77	1.71	ND	2.01	1.88	1.96	1.53	1.46
N-Butane	ND	9.15	9.00	ND	10.11	9.78	10.06	9.05	8.66
3-Methyl-1-butene	ND	0.34	0.33	ND	0.35	0.35	0.35	0.34	0.34
Isopentane	ND	31.14	30.85	ND	31.81	31.36	31.58	31.11	30.89
N-Pentane	ND	6.39	6.40	ND	6.09	6.48	6.54	6.34	6.45
Trans-2-pentene	ND	2.27	2.19	ND	1.84	2.14	2.09	2.16	2.03
MTBE + 2,3-Dimethylbutane	ND	25.02	25.34	ND	24.46	24.45	24.43	25.22	25.60
2-Methylpentane	ND	4.68	4.69	ND	4.59	4.60	4.54	4.72	4.75
3-Methylpentane	ND	2.99	3.00	ND	2.93	2.93	2.91	3.02	3.04
N-Hexane	ND	2.57	2.58	ND	2.50	2.53	2.49	2.60	2.62
Methylcyclopentane	ND	1.35	1.35	ND	1.31	1.31	1.30	1.36	1.37
2,4-Dimethylpentane	ND	1.16	1.16	ND	1.12	1.13	1.11	1.16	1.17
Benzene	<LOQ	1.99	2.06	<LOQ	1.96	1.98	1.95	2.01	2.10
2-Methylhexane	ND	1.27	1.28	ND	1.23	1.24	1.22	1.29	1.30
2,3-Dimethylpentane	ND	1.30	1.30	ND	1.26	1.27	1.24	1.31	1.32
3-Methylhexane	ND	1.48	1.48	ND	1.43	1.44	1.41	1.49	1.51
Isooctane	ND	1.63	1.56	ND	1.59	1.57	1.52	1.62	1.63
Toluene	ND	2.94	3.01	ND	2.84	2.86	2.77	2.98	3.09
Total	0.00	99.44	99.29	0.00	99.43	99.30	99.47	99.31	99.33

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

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Table III-Z10. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 245

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1036	Sample 2036	Sample 3036	Sample 4036	Spiked Control 2	TM Standard 2
Compound	035_002	035_003	035_004	035_009	035_010	035_011	035_012	035_013	035_014
Isobutane	ND	1.77	1.71	ND	1.81	1.84	1.80	1.53	1.46
N-Butane	ND	9.15	9.00	ND	9.97	10.04	9.97	9.05	8.66
3-Methyl-1-butene	ND	0.34	0.33	ND	0.35	0.35	0.35	0.34	0.34
Isopentane	ND	31.14	30.85	ND	31.71	31.69	31.46	31.11	30.89
N-Pentane	ND	6.39	6.40	ND	6.45	6.45	6.32	6.34	6.45
Trans-2-pentene	ND	2.27	2.19	ND	2.12	2.01	2.16	2.16	2.03
MTBE + 2,3-Dimethylbutane	ND	25.02	25.34	ND	24.49	24.45	24.56	25.22	25.60
2-Methylpentane	ND	4.68	4.69	ND	4.59	4.58	4.59	4.72	4.75
3-Methylpentane	ND	2.99	3.00	ND	2.92	2.92	2.93	3.02	3.04
N-Hexane	ND	2.57	2.58	ND	2.49	2.49	2.51	2.60	2.62
Methylcyclopentane	ND	1.35	1.35	ND	1.30	1.30	1.31	1.36	1.37
2,4-Dimethylpentane	ND	1.16	1.16	ND	1.11	1.10	1.11	1.16	1.17
Benzene	<LOQ	1.99	2.06	ND	1.93	1.93	1.96	2.01	2.10
2-Methylhexane	ND	1.27	1.28	ND	1.21	1.22	1.23	1.29	1.30
2,3-Dimethylpentane	ND	1.30	1.30	ND	1.24	1.24	1.25	1.31	1.32
3-Methylhexane	ND	1.48	1.48	ND	1.41	1.41	1.43	1.49	1.51
Isooctane	ND	1.63	1.56	ND	1.49	1.52	1.54	1.62	1.63
Toluene	ND	2.94	3.01	ND	2.72	2.75	2.82	2.98	3.09
Total	0.00	99.44	99.29	0.00	99.31	99.29	99.30	99.31	99.33

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

	Analytical Report	Appendix B

Table III-Z11. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 252

Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1037	Sample 2037	Sample 3037	Sample 4037	Spiked Control 2	TM Standard 2
Compound	036_002	036_003	036_004	036_005	036_006	036_007	036_008	036_009	036_010
Isobutane	ND	1.78	1.78	ND	2.04	2.00	2.03	1.78	1.73
N-Butane	ND	9.33	9.24	ND	10.21	9.96	10.06	9.21	9.06
3-Methyl-1-butene	ND	0.34	0.33	ND	0.36	0.34	0.33	0.34	0.34
Isopentane	ND	31.18	31.13	ND	31.78	31.59	31.61	31.19	31.11
N-Pentane	ND	6.46	6.38	ND	6.48	6.39	6.45	6.39	6.49
Trans-2-pentene	ND	2.14	2.14	ND	2.20	2.20	2.15	2.13	2.12
MTBE + 2,3-Dimethylbutane	ND	24.95	25.11	ND	24.30	24.49	24.52	25.02	25.26
2-Methylpentane	ND	4.66	4.63	ND	4.53	4.56	4.56	4.68	4.67
3-Methylpentane	ND	2.98	2.96	ND	2.89	2.91	2.90	2.99	2.98
N-Hexane	ND	2.55	2.55	ND	2.44	2.49	2.47	2.57	2.53
Methylcyclopentane	ND	1.34	1.33	ND	1.30	1.30	1.30	1.35	1.34
2,4-Dimethylpentane	ND	1.15	1.15	ND	1.05	1.11	1.10	1.15	1.14
Benzene	<LOQ	1.99	2.05	<LOQ	1.93	1.96	1.96	2.01	2.06
2-Methylhexane	ND	1.27	1.26	ND	1.17	1.21	1.19	1.27	1.26
2,3-Dimethylpentane	ND	1.29	1.29	ND	1.20	1.23	1.22	1.29	1.28
3-Methylhexane	ND	1.47	1.47	ND	1.36	1.40	1.38	1.47	1.46
Isooctane	ND	1.65	1.65	ND	1.52	1.57	1.53	1.65	1.64
Toluene	ND	2.92	3.02	ND	2.64	2.78	2.72	2.96	3.00
Total	0.00	99.45	99.47	0.00	99.40	99.49	99.48	99.45	99.47

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

	Analytical Report	Appendix B

Table III-Z12. Chamber Components Confirmation
Area Percent of Gasoline MTBE Vapor Condensate
Exposure 259

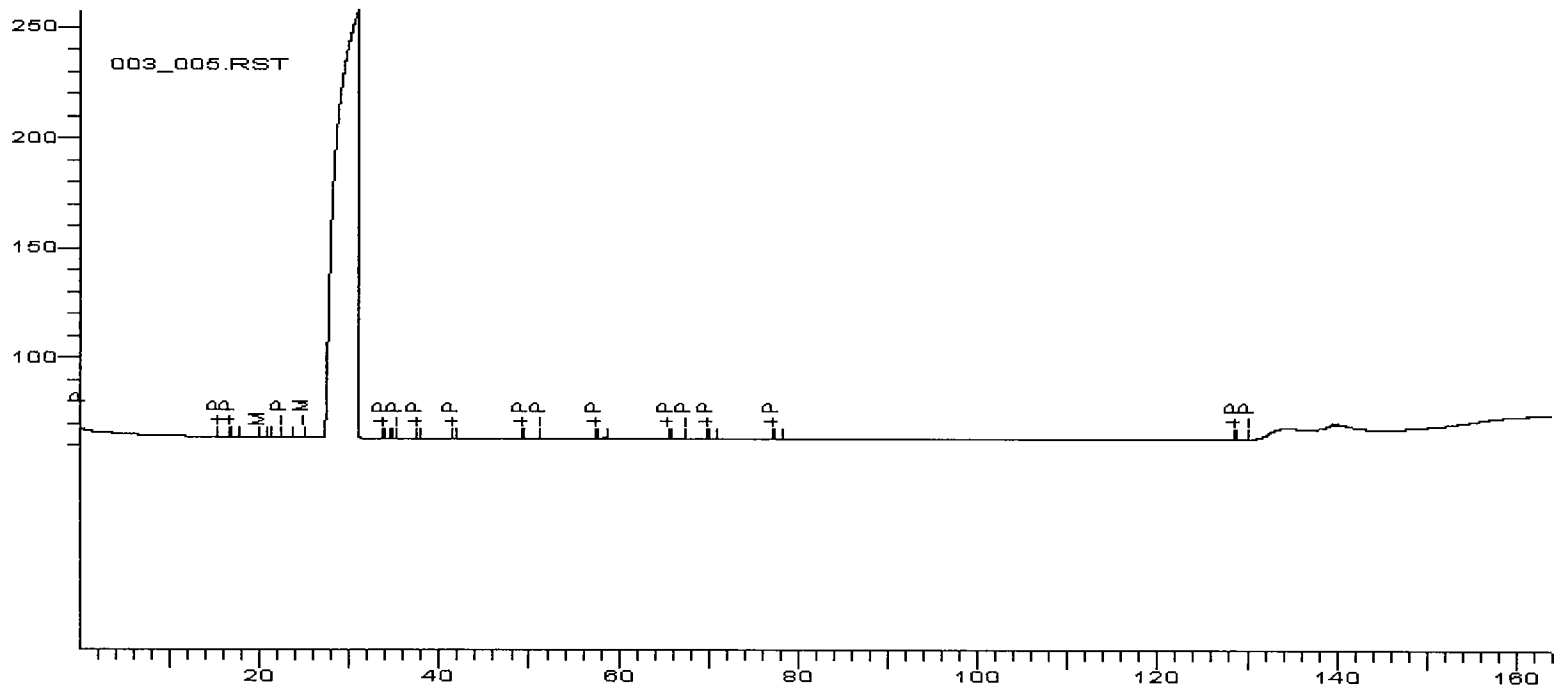
Area %

	Control	Spiked Control 1	TM Standard 1	Sample 1038	Sample 3038	Sample 4038	Spiked Control 2	TM Standard 2
Compound	037_002	037_003	037_004	037_005	037_006	037_007	037_008	037_009
Isobutane	ND	1.74	1.71	ND	2.08	2.02	1.79	1.71
N-Butane	ND	9.17	8.98	ND	10.26	10.10	9.27	8.97
3-Methyl-1-butene	ND	0.34	0.34	ND	0.36	0.35	0.34	0.34
Isopentane	ND	31.17	31.05	ND	31.81	31.64	31.32	31.04
N-Pentane	ND	6.38	6.23	ND	6.53	6.33	6.39	6.30
Trans-2-pentene	ND	2.31	2.41	ND	2.10	2.33	2.28	2.38
MTBE + 2,3-Dimethylbutane	ND	25.07	25.33	ND	24.29	24.35	24.86	25.35
2-Methylpentane	ND	4.69	4.69	ND	4.53	4.55	4.69	4.66
3-Methylpentane	ND	3.00	3.00	ND	2.89	2.91	3.00	3.01
N-Hexane	ND	2.58	2.58	ND	2.46	2.48	2.58	2.53
Methylcyclopentane	ND	1.35	1.35	ND	1.28	1.30	1.34	1.35
2,4-Dimethylpentane	ND	1.16	1.16	ND	1.10	1.11	1.16	1.16
Benzene	<LOQ	2.02	2.08	<LOQ	1.94	1.93	2.01	2.09
2-Methylhexane	ND	1.26	1.26	ND	1.18	1.20	1.25	1.26
2,3-Dimethylpentane	ND	1.30	1.30	ND	1.22	1.24	1.29	1.31
3-Methylhexane	ND	1.48	1.48	ND	1.38	1.41	1.47	1.46
Isooctane	ND	1.61	1.60	ND	1.50	1.53	1.60	1.61
Toluene	ND	2.90	2.99	ND	2.68	2.77	2.92	3.03
Total	0.00	99.53	99.54	0.00	99.59	99.55	99.56	99.56

ND = none detected. <LOQ = Less than the limit of quantification = Less than 25% of the area count of the component in the test substance standard.

	Analytical Report	Appendix B

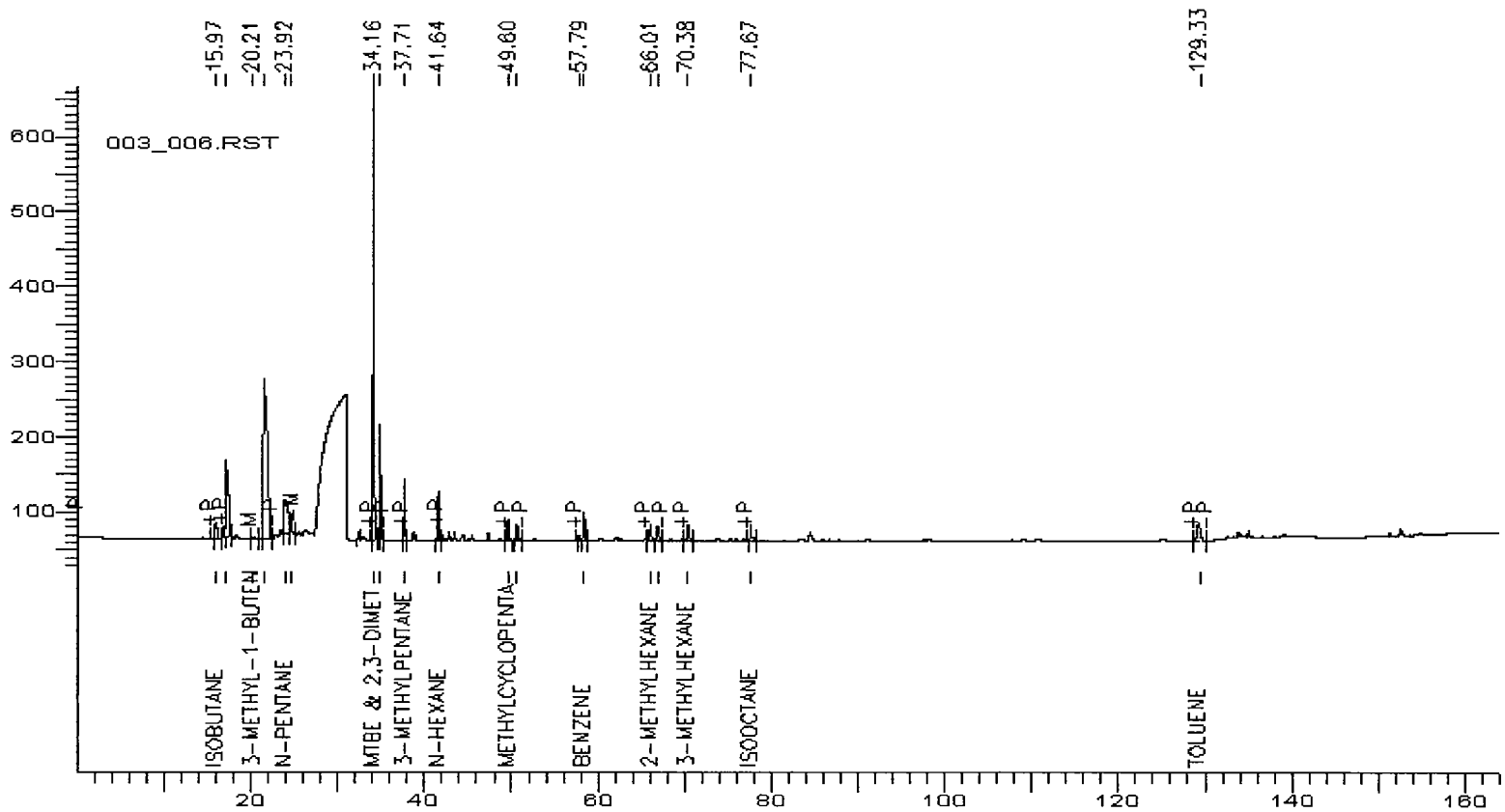
Figure I. Typical Gas Chromatogram of Group I Charcoal-Tube Sample



Response (mV) vs. Time (minutes)

	Analytical Report	Appendix B

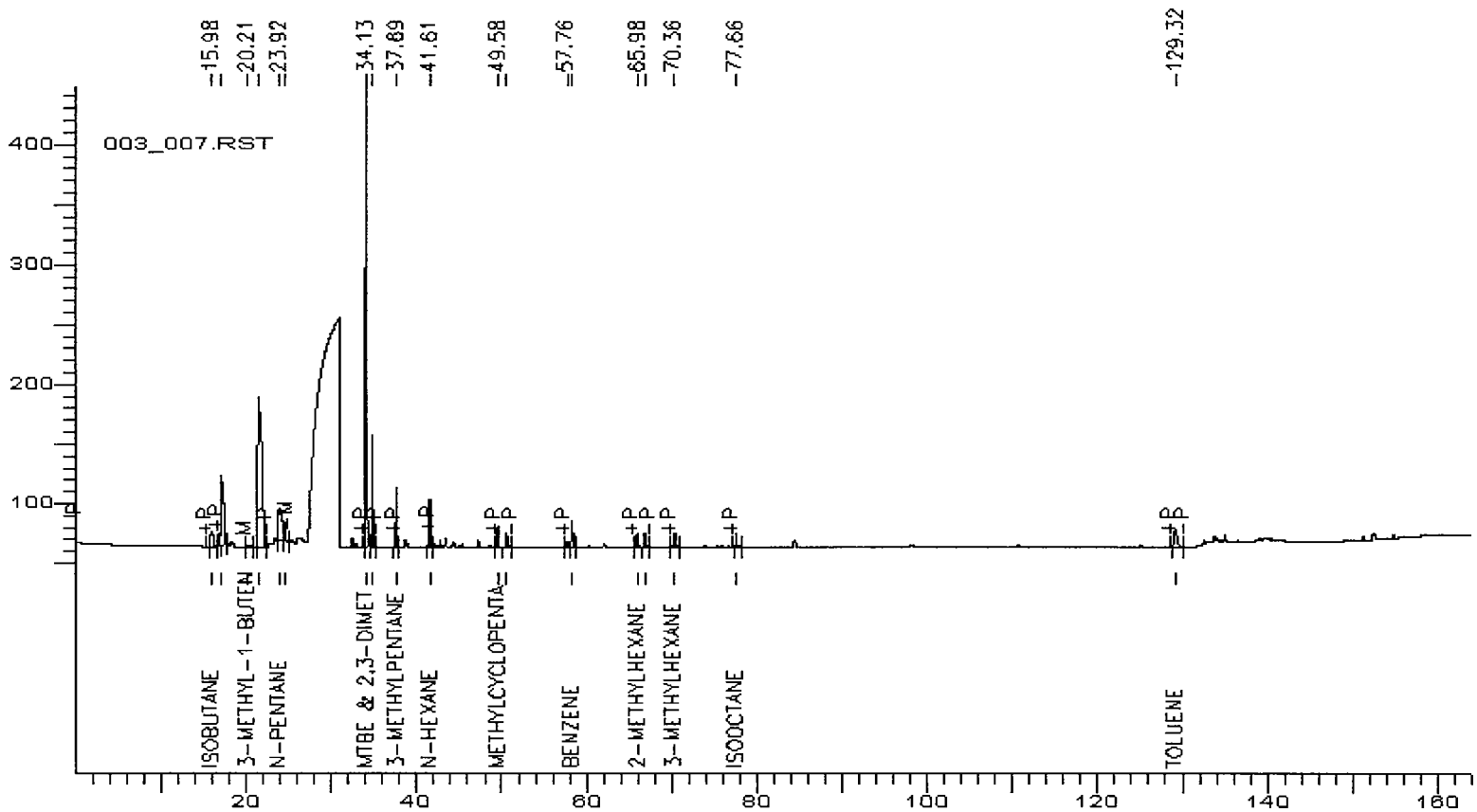
Figure II. Typical Gas Chromatogram of Group II Charcoal-Tube Sample



Response (mV) vs. Time (minutes)

	Analytical Report	Appendix B

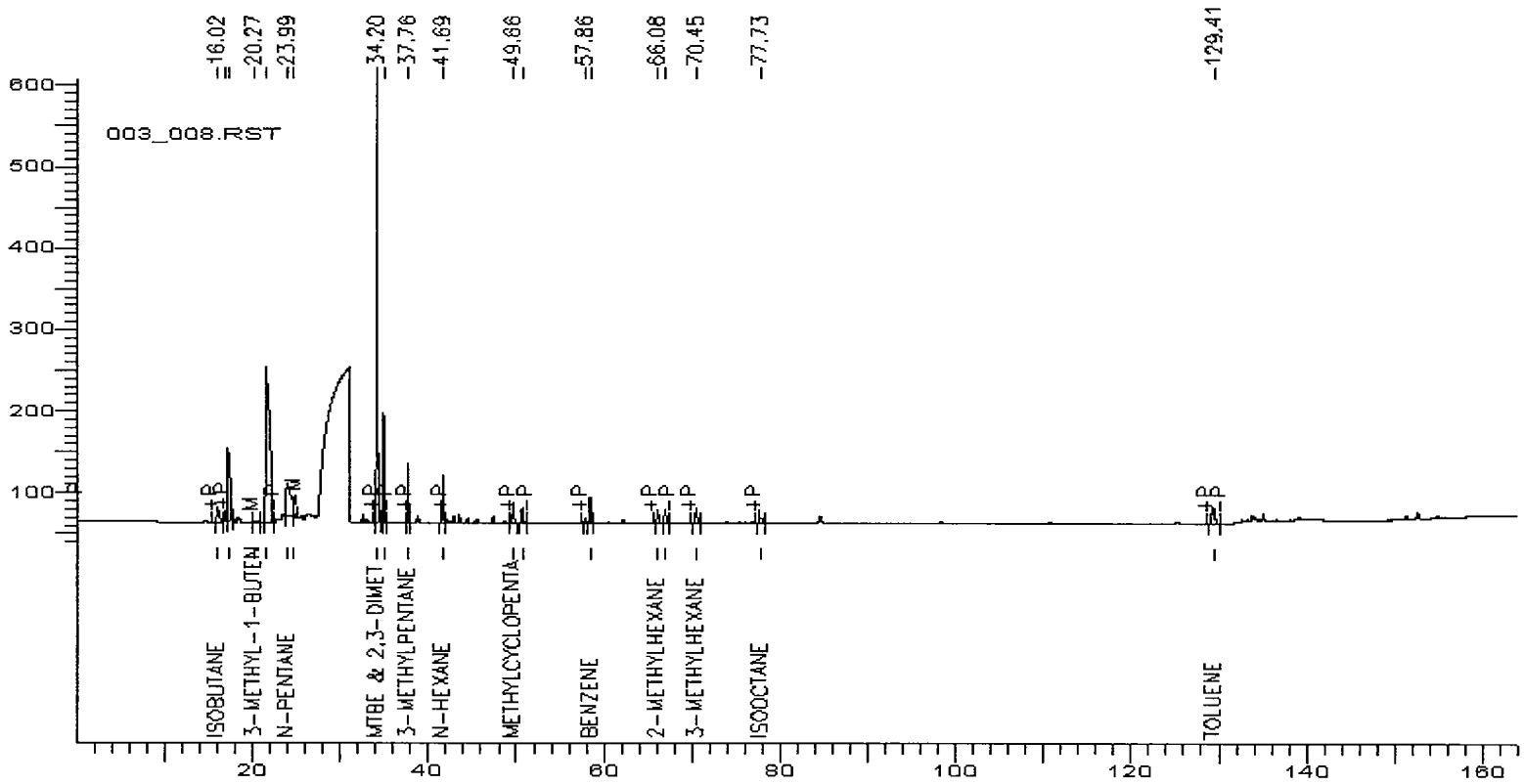
Figure III. Typical Gas Chromatogram of Group III Charcoal-Tube Sample



Response (mV) vs. Time (minutes)

	Analytical Report	Appendix B

Figure IV. Typical Gas Chromatogram of Group IV Charcoal-Tube Sample



Response (mV) vs. Time (minutes

APPENDIX C P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL ANIMAL TERMINATION HISTORY

MALES GROUP I 0 MG/M3

ANIMAL#	TYPE OF DEATH	DATE OF DEATH	STUDY DAY
1051	TERMINAL SACRIFICE	3-OCT-01	113
1052	TERMINAL SACRIFICE	3-OCT-01	113
1053	TERMINAL SACRIFICE	3-OCT-01	113
1054	TERMINAL SACRIFICE	3-OCT-01	113
1055	TERMINAL SACRIFICE	3-OCT-01	113
1056	TERMINAL SACRIFICE	3-OCT-01	113
1057	TERMINAL SACRIFICE	3-OCT-01	113
1058	TERMINAL SACRIFICE	3-OCT-01	113
1059	TERMINAL SACRIFICE	3-OCT-01	113
1060	TERMINAL SACRIFICE	3-OCT-01	113
1061	TERMINAL SACRIFICE	3-OCT-01	113
1062	TERMINAL SACRIFICE	3-OCT-01	113
1063	TERMINAL SACRIFICE	3-OCT-01	113
1064	TERMINAL SACRIFICE	4-OCT-01	114
1065	TERMINAL SACRIFICE	4-OCT-01	114
1066	TERMINAL SACRIFICE	4-OCT-01	114
1067	TERMINAL SACRIFICE	4-OCT-01	114
1068	TERMINAL SACRIFICE	4-OCT-01	114
1069	TERMINAL SACRIFICE	4-OCT-01	114
1070	TERMINAL SACRIFICE	4-OCT-01	114
1071	TERMINAL SACRIFICE	4-OCT-01	114
1072	TERMINAL SACRIFICE	4-OCT-01	114
1073	TERMINAL SACRIFICE	4-OCT-01	114
1074	TERMINAL SACRIFICE	4-OCT-01	114
1075	TERMINAL SACRIFICE	4-OCT-01	114
1076	TERMINAL SACRIFICE	4-OCT-01	114

APPENDIX C P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL ANIMAL TERMINATION HISTORY

MALES GROUP II 2000 MG/M3

ANIMAL#	TYPE OF DEATH	DATE OF DEATH	STUDY DAY
2051	TERMINAL SACRIFICE	3-OCT-01	113
2052	TERMINAL SACRIFICE	3-OCT-01	113
2053	TERMINAL SACRIFICE	3-OCT-01	113
2054	TERMINAL SACRIFICE	3-OCT-01	113
2055	TERMINAL SACRIFICE	3-OCT-01	113
2056	TERMINAL SACRIFICE	3-OCT-01	113
2057	TERMINAL SACRIFICE	3-OCT-01	113
2058	TERMINAL SACRIFICE	3-OCT-01	113
2059	TERMINAL SACRIFICE	3-OCT-01	113
2060	TERMINAL SACRIFICE	3-OCT-01	113
2061	TERMINAL SACRIFICE	3-OCT-01	113
2062	TERMINAL SACRIFICE	3-OCT-01	113
2063	TERMINAL SACRIFICE	3-OCT-01	113
2064	TERMINAL SACRIFICE	4-OCT-01	114
2065	TERMINAL SACRIFICE	4-OCT-01	114
2066	TERMINAL SACRIFICE	4-OCT-01	114
2067	TERMINAL SACRIFICE	4-OCT-01	114
2068	TERMINAL SACRIFICE	4-OCT-01	114
2069	TERMINAL SACRIFICE	4-OCT-01	114
2070	TERMINAL SACRIFICE	4-OCT-01	114
2071	TERMINAL SACRIFICE	4-OCT-01	114
2072	TERMINAL SACRIFICE	4-OCT-01	114
2073	TERMINAL SACRIFICE	4-OCT-01	114
2074	TERMINAL SACRIFICE	4-OCT-01	114
2075	TERMINAL SACRIFICE	4-OCT-01	114
2076	TERMINAL SACRIFICE	4-OCT-01	114

APPENDIX C P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL ANIMAL TERMINATION HISTORY

MALES GROUP III 10000 MG/M3

ANIMAL#	TYPE OF DEATH	DATE OF DEATH	STUDY DAY
3051	TERMINAL SACRIFICE	3-OCT-01	113
3052	TERMINAL SACRIFICE	3-OCT-01	113
3053	TERMINAL SACRIFICE	3-OCT-01	113
3054	TERMINAL SACRIFICE	3-OCT-01	113
3055	TERMINAL SACRIFICE	3-OCT-01	113
3056	TERMINAL SACRIFICE	3-OCT-01	113
3057	TERMINAL SACRIFICE	3-OCT-01	113
3058	TERMINAL SACRIFICE	3-OCT-01	113
3059	TERMINAL SACRIFICE	3-OCT-01	113
3060	TERMINAL SACRIFICE	3-OCT-01	113
3061	TERMINAL SACRIFICE	3-OCT-01	113
3062	TERMINAL SACRIFICE	3-OCT-01	113
3063	TERMINAL SACRIFICE	3-OCT-01	113
3064	TERMINAL SACRIFICE	4-OCT-01	114
3065	TERMINAL SACRIFICE	4-OCT-01	114
3066	TERMINAL SACRIFICE	4-OCT-01	114
3067	TERMINAL SACRIFICE	4-OCT-01	114
3068	TERMINAL SACRIFICE	4-OCT-01	114
3069	TERMINAL SACRIFICE	4-OCT-01	114
3070	TERMINAL SACRIFICE	4-OCT-01	114
3071	TERMINAL SACRIFICE	4-OCT-01	114
3072	TERMINAL SACRIFICE	4-OCT-01	114
3073	TERMINAL SACRIFICE	4-OCT-01	114
3074	TERMINAL SACRIFICE	4-OCT-01	114
3075	TERMINAL SACRIFICE	4-OCT-01	114
3076	TERMINAL SACRIFICE	4-OCT-01	114

APPENDIX C P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL ANIMAL TERMINATION HISTORY

MALES GROUP IV 20000 MG/M3

ANIMAL#	TYPE OF DEATH	DATE OF DEATH	STUDY DAY
4051	TERMINAL SACRIFICE	3-OCT-01	113
4052	TERMINAL SACRIFICE	3-OCT-01	113
4053	TERMINAL SACRIFICE	3-OCT-01	113
4054	TERMINAL SACRIFICE	3-OCT-01	113
4055	TERMINAL SACRIFICE	3-OCT-01	113
4056	TERMINAL SACRIFICE	3-OCT-01	113
4057	TERMINAL SACRIFICE	3-OCT-01	113
4058	TERMINAL SACRIFICE	3-OCT-01	113
4059	TERMINAL SACRIFICE	3-OCT-01	113
4060	TERMINAL SACRIFICE	3-OCT-01	113
4061	TERMINAL SACRIFICE	3-OCT-01	113
4062	TERMINAL SACRIFICE	3-OCT-01	113
4063	TERMINAL SACRIFICE	3-OCT-01	113
4064	TERMINAL SACRIFICE	4-OCT-01	114
4065	TERMINAL SACRIFICE	4-OCT-01	114
4066	TERMINAL SACRIFICE	4-OCT-01	114
4067	TERMINAL SACRIFICE	4-OCT-01	114
4068	TERMINAL SACRIFICE	4-OCT-01	114
4069	TERMINAL SACRIFICE	4-OCT-01	114
4070	TERMINAL SACRIFICE	4-OCT-01	114
4071	TERMINAL SACRIFICE	4-OCT-01	114
4072	TERMINAL SACRIFICE	4-OCT-01	114
4073	TERMINAL SACRIFICE	4-OCT-01	114
4074	TERMINAL SACRIFICE	4-OCT-01	114
4075	TERMINAL SACRIFICE	4-OCT-01	114
4076	TERMINAL SACRIFICE	4-OCT-01	114

APPENDIX C P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL ANIMAL TERMINATION HISTORY

FEMALES GROUP I 0 MG/M3

ANIMAL#	TYPE OF DEATH	DATE OF DEATH	STUDY DAY	PREGNANCY STATUS
1551	TERMINAL SACRIFICE	12-OCT-01	122	P
1552	TERMINAL SACRIFICE	11-OCT-01	121	P
1553	TERMINAL SACRIFICE	13-OCT-01	123	P
1554	TERMINAL SACRIFICE	13-OCT-01	123	P
1555	TERMINAL SACRIFICE	11-OCT-01	121	P
1556	TERMINAL SACRIFICE	11-OCT-01	121	P
1557	TERMINAL SACRIFICE	13-OCT-01	123	P
1558	TERMINAL SACRIFICE	18-OCT-01	128	P
1559	TERMINAL SACRIFICE	19-SEP-01	99	NP
1560	TERMINAL SACRIFICE	13-OCT-01	123	P
1561	TERMINAL SACRIFICE	9-OCT-01	119	P
1562	TERMINAL SACRIFICE	28-SEP-01	108	NP
1563	TERMINAL SACRIFICE	13-OCT-01	123	P
1564	TERMINAL SACRIFICE	11-OCT-01	121	P
1565	TERMINAL SACRIFICE	28-SEP-01	108	NP
1566	TERMINAL SACRIFICE	11-OCT-01	121	P
1567	TERMINAL SACRIFICE	11-OCT-01	121	P
1568	TERMINAL SACRIFICE	11-OCT-01	121	P
1569	TERMINAL SACRIFICE	13-OCT-01	123	P
1570	TERMINAL SACRIFICE	13-OCT-01	123	P
1571	TERMINAL SACRIFICE	10-OCT-01	120	P
1572	TERMINAL SACRIFICE	13-OCT-01	123	P
1573	TERMINAL SACRIFICE	13-OCT-01	123	P
1574	TERMINAL SACRIFICE	10-OCT-01	120	P
1575	TERMINAL SACRIFICE	13-OCT-01	123	P
1576	TERMINAL SACRIFICE	12-OCT-01	122	P

NP-NOT PREGNANT, P-PREGNANT

APPENDIX C P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL ANIMAL TERMINATION HISTORY

FEMALES GROUP II 2000 MG/M3

ANIMAL#	TYPE OF DEATH	DATE OF DEATH	STUDY DAY	PREGNANCY STATUS
2551	TERMINAL SACRIFICE	10-OCT-01	120	P
2552	TERMINAL SACRIFICE	11-OCT-01	121	P
2553	TERMINAL SACRIFICE	9-OCT-01	119	P
2554	TERMINAL SACRIFICE	11-OCT-01	121	P
2555	TERMINAL SACRIFICE	12-OCT-01	122	P
2556	TERMINAL SACRIFICE	11-OCT-01	121	P
2557	TERMINAL SACRIFICE	11-OCT-01	121	P
2558	TERMINAL SACRIFICE	11-OCT-01	121	P
2559	TERMINAL SACRIFICE	18-SEP-01	98	NP
2560	TERMINAL SACRIFICE	13-OCT-01	123	P
2561	TERMINAL SACRIFICE	11-OCT-01	121	P
2562	TERMINAL SACRIFICE	12-OCT-01	122	P
2563	TERMINAL SACRIFICE	9-OCT-01	119	P
2564	TERMINAL SACRIFICE	11-OCT-01	121	P
2565	TERMINAL SACRIFICE	11-OCT-01	121	P
2566	TERMINAL SACRIFICE	11-OCT-01	121	P
2567	TERMINAL SACRIFICE	10-OCT-01	120	P
2568	TERMINAL SACRIFICE	28-SEP-01	108	NP
2569	TERMINAL SACRIFICE	10-OCT-01	120	P
2570	TERMINAL SACRIFICE	13-OCT-01	123	P
2571	TERMINAL SACRIFICE	11-OCT-01	121	P
2572	TERMINAL SACRIFICE	11-OCT-01	121	P
2573	TERMINAL SACRIFICE	13-OCT-01	123	P
2574	TERMINAL SACRIFICE	11-OCT-01	121	P
2575	TERMINAL SACRIFICE	13-OCT-01	123	P
2576	TERMINAL SACRIFICE	12-OCT-01	122	P

NP-NOT PREGNANT, P-PREGNANT

APPENDIX C P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL ANIMAL TERMINATION HISTORY

FEMALES GROUP III 10000 MG/M3

ANIMAL#	TYPE OF DEATH	DATE OF DEATH	STUDY DAY	PREGNANCY STATUS
3551	TERMINAL SACRIFICE	11-OCT-01	121	P
3552	TERMINAL SACRIFICE	12-OCT-01	122	P
3553	TERMINAL SACRIFICE	9-OCT-01	119	P
3554	TERMINAL SACRIFICE	11-OCT-01	121	P
3555	TERMINAL SACRIFICE	10-OCT-01	120	P
3556	TERMINAL SACRIFICE	12-OCT-01	122	P
3557	TERMINAL SACRIFICE	28-SEP-01	108	NP
3558	TERMINAL SACRIFICE	14-OCT-01	124	P
3559	TERMINAL SACRIFICE	14-OCT-01	124	P
3560	TERMINAL SACRIFICE	11-OCT-01	121	P
3561	TERMINAL SACRIFICE	12-OCT-01	122	P
3562	TERMINAL SACRIFICE	12-OCT-01	122	P
3563	TERMINAL SACRIFICE	11-OCT-01	121	P
3564	TERMINAL SACRIFICE	10-OCT-01	120	P
3565	TERMINAL SACRIFICE	10-OCT-01	120	P
3566	TERMINAL SACRIFICE	10-OCT-01	120	P
3567	TERMINAL SACRIFICE	13-OCT-01	123	P
3568	TERMINAL SACRIFICE	11-OCT-01	121	P
3569	TERMINAL SACRIFICE	10-OCT-01	120	P
3570	TERMINAL SACRIFICE	12-OCT-01	122	P
3571	TERMINAL SACRIFICE	10-OCT-01	120	P
3572	TERMINAL SACRIFICE	12-OCT-01	122	P
3573	TERMINAL SACRIFICE	13-OCT-01	123	P
3574	TERMINAL SACRIFICE	12-OCT-01	122	P
3575	TERMINAL SACRIFICE	10-OCT-01	120	P
3576	TERMINAL SACRIFICE	11-OCT-01	121	P

NP-NOT PREGNANT, P-PREGNANT

APPENDIX C P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL ANIMAL TERMINATION HISTORY

FEMALES GROUP IV 20000 MG/M3

ANIMAL#	TYPE OF DEATH	DATE OF DEATH	STUDY DAY	PREGNANCY STATUS
4551	TERMINAL SACRIFICE	12-OCT-01	122	P
4552	TERMINAL SACRIFICE	11-OCT-01	121	P
4553	TERMINAL SACRIFICE	11-OCT-01	121	P
4554	TERMINAL SACRIFICE	13-OCT-01	123	P
4555	TERMINAL SACRIFICE	12-OCT-01	122	P
4556	TERMINAL SACRIFICE	12-OCT-01	122	P
4557	TERMINAL SACRIFICE	13-OCT-01	123	P
4558	TERMINAL SACRIFICE	10-OCT-01	120	P
4559	TERMINAL SACRIFICE	12-OCT-01	122	P
4560	TERMINAL SACRIFICE	12-OCT-01	122	P
4561	TERMINAL SACRIFICE	10-OCT-01	120	P
4562	TERMINAL SACRIFICE	13-OCT-01	123	P
4563	TERMINAL SACRIFICE	12-OCT-01	122	P
4564	TERMINAL SACRIFICE	11-OCT-01	121	P
4565	TERMINAL SACRIFICE	11-OCT-01	121	P
4566	TERMINAL SACRIFICE	14-OCT-01	124	P
4567	TERMINAL SACRIFICE	14-OCT-01	124	P
4568	TERMINAL SACRIFICE	12-OCT-01	122	P
4569	TERMINAL SACRIFICE	13-OCT-01	123	P
4570	TERMINAL SACRIFICE	10-OCT-01	120	P
4571	TERMINAL SACRIFICE	21-OCT-01	131	P
4572	TERMINAL SACRIFICE	12-OCT-01	122	P
4573	TERMINAL SACRIFICE	11-OCT-01	121	P
4574	TERMINAL SACRIFICE	13-OCT-01	123	P
4575	TERMINAL SACRIFICE	10-OCT-01	120	P
4576	TERMINAL SACRIFICE	10-OCT-01	120	P

NP-NOT PREGNANT, P-PREGNANT

APPENDIX C F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL ANIMAL TERMINATION HISTORY

MALES GROUP I 0 MG/M3

ANIMAL#		TYPE OF DEATH	DATE OF DEATH	STUDY DAY
1001		TERMINAL SACRIFICE	14-FEB-02	153
1002		TERMINAL SACRIFICE	14-FEB-02	153
1003		TERMINAL SACRIFICE	14-FEB-02	154
1004		TERMINAL SACRIFICE	14-FEB-02	154
1005		TERMINAL SACRIFICE	14-FEB-02	152
1006		TERMINAL SACRIFICE	14-FEB-02	152
1007		TERMINAL SACRIFICE	14-FEB-02	152
1008		TERMINAL SACRIFICE	14-FEB-02	154
1009		TERMINAL SACRIFICE	14-FEB-02	154
1010		TERMINAL SACRIFICE	14-FEB-02	152
1011		TERMINAL SACRIFICE	14-FEB-02	147
1012		TERMINAL SACRIFICE	14-FEB-02	152
1013		TERMINAL SACRIFICE	14-FEB-02	156
1014		TERMINAL SACRIFICE	15-FEB-02	153
1015		TERMINAL SACRIFICE	15-FEB-02	155
1016		TERMINAL SACRIFICE	15-FEB-02	155
1017		TERMINAL SACRIFICE	15-FEB-02	155
1018		TERMINAL SACRIFICE	15-FEB-02	155
1019		TERMINAL SACRIFICE	15-FEB-02	155
1020		TERMINAL SACRIFICE	15-FEB-02	153
1021		TERMINAL SACRIFICE	15-FEB-02	153
1022		TERMINAL SACRIFICE	15-FEB-02	156
1023		TERMINAL SACRIFICE	15-FEB-02	153
1024		TERMINAL SACRIFICE	15-FEB-02	153
1025	DIED	FOUND DEAD	26-DEC-01	105
1026		TERMINAL SACRIFICE	15-FEB-02	154

DIED=FOUND DEAD

APPENDIX C F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL ANIMAL TERMINATION HISTORY

MALES GROUP II 2000 MG/M3

ANIMAL#	TYPE OF DEATH	DATE OF DEATH	STUDY DAY
2001	TERMINAL SACRIFICE	14-FEB-02	155
2002	TERMINAL SACRIFICE	14-FEB-02	154
2003	TERMINAL SACRIFICE	14-FEB-02	156
2004	TERMINAL SACRIFICE	14-FEB-02	154
2005	TERMINAL SACRIFICE	14-FEB-02	153
2006	TERMINAL SACRIFICE	14-FEB-02	154
2007	TERMINAL SACRIFICE	14-FEB-02	154
2008	TERMINAL SACRIFICE	14-FEB-02	154
2009	TERMINAL SACRIFICE	14-FEB-02	152
2010	TERMINAL SACRIFICE	14-FEB-02	154
2011	TERMINAL SACRIFICE	14-FEB-02	153
2012	TERMINAL SACRIFICE	14-FEB-02	156
2013	TERMINAL SACRIFICE	14-FEB-02	154
2014	TERMINAL SACRIFICE	15-FEB-02	155
2015	TERMINAL SACRIFICE	15-FEB-02	155
2016	TERMINAL SACRIFICE	15-FEB-02	155
2017	TERMINAL SACRIFICE	15-FEB-02	156
2018	TERMINAL SACRIFICE	15-FEB-02	156
2019	TERMINAL SACRIFICE	15-FEB-02	153
2020	TERMINAL SACRIFICE	15-FEB-02	155
2021	TERMINAL SACRIFICE	15-FEB-02	155
2022	TERMINAL SACRIFICE	15-FEB-02	153
2023	TERMINAL SACRIFICE	15-FEB-02	153
2024	TERMINAL SACRIFICE	15-FEB-02	155
2025	TERMINAL SACRIFICE	15-FEB-02	153
2026	TERMINAL SACRIFICE	15-FEB-02	154

APPENDIX C F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL ANIMAL TERMINATION HISTORY

MALES GROUP III 10000 MG/M3

ANIMAL#	TYPE OF DEATH	DATE OF DEATH	STUDY DAY
3001	TERMINAL SACRIFICE	14-FEB-02	154
3002	TERMINAL SACRIFICE	14-FEB-02	153
3003	TERMINAL SACRIFICE	14-FEB-02	156
3004	TERMINAL SACRIFICE	14-FEB-02	154
3005	TERMINAL SACRIFICE	14-FEB-02	155
3006	TERMINAL SACRIFICE	14-FEB-02	153
3007	TERMINAL SACRIFICE	14-FEB-02	151
3008	TERMINAL SACRIFICE	14-FEB-02	151
3009	TERMINAL SACRIFICE	14-FEB-02	154
3010	TERMINAL SACRIFICE	14-FEB-02	153
3011	TERMINAL SACRIFICE	14-FEB-02	153
3012	TERMINAL SACRIFICE	14-FEB-02	154
3013	TERMINAL SACRIFICE	14-FEB-02	155
3014	TERMINAL SACRIFICE	15-FEB-02	156
3015	TERMINAL SACRIFICE	15-FEB-02	156
3016	TERMINAL SACRIFICE	15-FEB-02	153
3017	TERMINAL SACRIFICE	15-FEB-02	155
3018	TERMINAL SACRIFICE	15-FEB-02	156
3019	TERMINAL SACRIFICE	15-FEB-02	154
3020	TERMINAL SACRIFICE	15-FEB-02	156
3021	TERMINAL SACRIFICE	15-FEB-02	154
3022	TERMINAL SACRIFICE	15-FEB-02	154
3023	TERMINAL SACRIFICE	15-FEB-02	153
3024	TERMINAL SACRIFICE	15-FEB-02	154
3025	TERMINAL SACRIFICE	15-FEB-02	156
3026	TERMINAL SACRIFICE	15-FEB-02	155

APPENDIX C F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL ANIMAL TERMINATION HISTORY

MALES GROUP IV 20000 MG/M3

ANIMAL#		TYPE OF DEATH	DATE OF DEATH	STUDY DAY
4001		TERMINAL SACRIFICE	14-FEB-02	153
4002	DIED	FOUND DEAD	25-JAN-02	134
4003		TERMINAL SACRIFICE	14-FEB-02	154
4004		TERMINAL SACRIFICE	14-FEB-02	152
4005	DIED	FOUND DEAD	17-DEC-01	94
4006		TERMINAL SACRIFICE	14-FEB-02	153
4007		TERMINAL SACRIFICE	14-FEB-02	152
4008		TERMINAL SACRIFICE	14-FEB-02	155
4009		TERMINAL SACRIFICE	14-FEB-02	153
4010		TERMINAL SACRIFICE	14-FEB-02	153
4011		TERMINAL SACRIFICE	14-FEB-02	155
4012		TERMINAL SACRIFICE	14-FEB-02	152
4013		TERMINAL SACRIFICE	14-FEB-02	153
4014		TERMINAL SACRIFICE	15-FEB-02	155
4015		TERMINAL SACRIFICE	15-FEB-02	155
4016		TERMINAL SACRIFICE	15-FEB-02	152
4017		TERMINAL SACRIFICE	15-FEB-02	152
4018		TERMINAL SACRIFICE	15-FEB-02	154
4019		TERMINAL SACRIFICE	15-FEB-02	153
4020		TERMINAL SACRIFICE	15-FEB-02	156
4021		TERMINAL SACRIFICE	15-FEB-02	145
4022		TERMINAL SACRIFICE	15-FEB-02	154
4023		TERMINAL SACRIFICE	15-FEB-02	155
4024		TERMINAL SACRIFICE	15-FEB-02	153
4025		TERMINAL SACRIFICE	15-FEB-02	156
4026		TERMINAL SACRIFICE	15-FEB-02	156

DIED=FOUND DEAD

APPENDIX C F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL ANIMAL TERMINATION HISTORY

FEMALES GROUP I 0 MG/M3

ANIMAL#		TYPE OF DEATH	DATE OF DEATH	STUDY DAY	PREGNANCY STATUS
1501		TERMINAL SACRIFICE	23-FEB-02	162	P
1502		TERMINAL SACRIFICE	24-FEB-02	163	P
1503		TERMINAL SACRIFICE	21-FEB-02	161	P
1504	PNMD	TERMINAL SACRIFICE	26-FEB-02	166	P
1505		TERMINAL SACRIFICE	23-FEB-02	161	P
1506		TERMINAL SACRIFICE	22-FEB-02	160	P
1507	NNMD	TERMINAL SACRIFICE	9-FEB-02	149	NP
1508		TERMINAL SACRIFICE	21-FEB-02	161	P
1509		TERMINAL SACRIFICE	2-FEB-02	140	NP
1510		TERMINAL SACRIFICE	22-FEB-02	155	P
1511		TERMINAL SACRIFICE	20-FEB-02	158	P
1512		TERMINAL SACRIFICE	19-FEB-02	161	P
1513		TERMINAL SACRIFICE	21-FEB-02	159	P
1514	NNMD	TERMINAL SACRIFICE	9-FEB-02	149	NP
1515	NNMD	TERMINAL SACRIFICE	9-FEB-02	149	NP
1516		TERMINAL SACRIFICE	21-FEB-02	161	P
1517		TERMINAL SACRIFICE	23-FEB-02	163	P
1518		TERMINAL SACRIFICE	20-FEB-02	160	P
1519		TERMINAL SACRIFICE	21-FEB-02	159	P
1520		TERMINAL SACRIFICE	26-JAN-02	133	NP
1521		TERMINAL SACRIFICE	25-FEB-02	166	P
1522		TERMINAL SACRIFICE	21-FEB-02	159	P
1523		TERMINAL SACRIFICE	20-FEB-02	158	P
1524		TERMINAL SACRIFICE	20-FEB-02	161	P
1525		TERMINAL SACRIFICE	20-FEB-02	158	P
1526		TERMINAL SACRIFICE	27-FEB-02	166	P

NP-NOT PREGNANT, P-PREGNANT

PNMD=PREGNANT, NO MATING DATE NNMD=NOT PREG., NO MATING DATE

APPENDIX C F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL ANIMAL TERMINATION HISTORY

FEMALES GROUP II 2000 MG/M3

ANIMAL#		TYPE OF DEATH	DATE OF DEATH	STUDY DAY	PREGNANCY STATUS
2501		TERMINAL SACRIFICE	21-FEB-02	162	P
2502		TERMINAL SACRIFICE	23-FEB-02	163	P
2503		TERMINAL SACRIFICE	24-FEB-02	166	P
2504		TERMINAL SACRIFICE	22-FEB-02	162	P
2505		TERMINAL SACRIFICE	19-FEB-02	158	P
2506		TERMINAL SACRIFICE	25-FEB-02	165	P
2507		TERMINAL SACRIFICE	22-FEB-02	162	P
2508		TERMINAL SACRIFICE	21-FEB-02	161	P
2509		TERMINAL SACRIFICE	22-FEB-02	160	P
2510		TERMINAL SACRIFICE	22-FEB-02	162	P
2511		TERMINAL SACRIFICE	21-FEB-02	160	P
2512		TERMINAL SACRIFICE	22-FEB-02	164	P
2513	NNMD	TERMINAL SACRIFICE	9-FEB-02	149	NP
2514	NNMD	TERMINAL SACRIFICE	9-FEB-02	149	NP
2515		TERMINAL SACRIFICE	22-FEB-02	162	P
2516	NNMD	TERMINAL SACRIFICE	9-FEB-02	150	NP
2517		TERMINAL SACRIFICE	20-FEB-02	161	P
2518		TERMINAL SACRIFICE	23-FEB-02	164	P
2519		TERMINAL SACRIFICE	22-FEB-02	160	P
2520		TERMINAL SACRIFICE	21-FEB-02	161	P
2521		TERMINAL SACRIFICE	23-FEB-02	163	P
2522		TERMINAL SACRIFICE	21-FEB-02	159	P
2523		TERMINAL SACRIFICE	21-FEB-02	161	P
2524	NNMD	TERMINAL SACRIFICE	9-FEB-02	147	NP
2525		TERMINAL SACRIFICE	21-FEB-02	159	P
2526		TERMINAL SACRIFICE	26-JAN-02	134	NP

NP-NOT PREGNANT, P-PREGNANT

NNMD=NOT PREG., NO MATING DATE

APPENDIX C F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL ANIMAL TERMINATION HISTORY

FEMALES GROUP III 10000 MG/M3

ANIMAL#		TYPE OF DEATH	DATE OF DEATH	STUDY DAY	PREGNANCY STATUS
3501		TERMINAL SACRIFICE	22-FEB-02	162	P
3502	NNMD	TERMINAL SACRIFICE	9-FEB-02	148	NP
3503		TERMINAL SACRIFICE	20-FEB-02	162	P
3504	NNMD	TERMINAL SACRIFICE	9-FEB-02	149	NP
3505		TERMINAL SACRIFICE	23-FEB-02	164	P
3506	NNMD	TERMINAL SACRIFICE	9-FEB-02	148	NP
3507		TERMINAL SACRIFICE	23-FEB-02	160	P
3508		TERMINAL SACRIFICE	28-FEB-02	165	P
3509		TERMINAL SACRIFICE	21-FEB-02	161	P
3510		TERMINAL SACRIFICE	21-FEB-02	160	P
3511		TERMINAL SACRIFICE	20-FEB-02	159	P
3512		TERMINAL SACRIFICE	21-FEB-02	161	P
3513		TERMINAL SACRIFICE	20-FEB-02	161	P
3514		TERMINAL SACRIFICE	23-FEB-02	164	P
3515		TERMINAL SACRIFICE	22-FEB-02	163	P
3516		TERMINAL SACRIFICE	20-FEB-02	158	P
3517		TERMINAL SACRIFICE	23-FEB-02	163	P
3518		TERMINAL SACRIFICE	23-FEB-02	163	P
3519		TERMINAL SACRIFICE	23-FEB-02	164	P
3520		TERMINAL SACRIFICE	20-FEB-02	159	P
3521		TERMINAL SACRIFICE	23-FEB-02	164	P
3522		TERMINAL SACRIFICE	24-FEB-02	163	P
3523		TERMINAL SACRIFICE	20-FEB-02	158	P
3524		TERMINAL SACRIFICE	5-MAR-02	172	P
3525		TERMINAL SACRIFICE	22-FEB-02	163	P
3526		TERMINAL SACRIFICE	23-FEB-02	163	P

NP-NOT PREGNANT, P-PREGNANT

NNMD=NOT PREG., NO MATING DATE

APPENDIX C F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL ANIMAL TERMINATION HISTORY

FEMALES GROUP IV 20000 MG/M3

ANIMAL#		TYPE OF DEATH	DATE OF DEATH	STUDY DAY	PREGNANCY STATUS
4501		TERMINAL SACRIFICE	19-FEB-02	158	P
4502		TERMINAL SACRIFICE	3-MAR-02	171	P
4503		TERMINAL SACRIFICE	20-FEB-02	160	P
4504		TERMINAL SACRIFICE	21-FEB-02	159	P
4505		TERMINAL SACRIFICE	21-FEB-02	160	P
4506		TERMINAL SACRIFICE	23-FEB-02	162	P
4507		TERMINAL SACRIFICE	22-FEB-02	160	P
4508		TERMINAL SACRIFICE	25-FEB-02	166	P
4509		TERMINAL SACRIFICE	20-FEB-02	159	P
4510		TERMINAL SACRIFICE	20-FEB-02	159	P
4511		TERMINAL SACRIFICE	22-FEB-02	163	P
4512		TERMINAL SACRIFICE	23-FEB-02	161	P
4513	NNMD	HUMANE SACRIFICE	27-DEC-01	104	-
4514	NNMD	TERMINAL SACRIFICE	9-FEB-02	149	NP
4515		TERMINAL SACRIFICE	20-FEB-02	160	P
4516		TERMINAL SACRIFICE	22-FEB-02	159	P
4517		TERMINAL SACRIFICE	27-FEB-02	164	P
4518		TERMINAL SACRIFICE	21-FEB-02	160	P
4519		TERMINAL SACRIFICE	20-FEB-02	158	P
4520		TERMINAL SACRIFICE	24-FEB-02	165	P
4521		TERMINAL SACRIFICE	21-FEB-02	151	P
4522		TERMINAL SACRIFICE	22-FEB-02	161	P
4523		TERMINAL SACRIFICE	20-FEB-02	160	P
4524		TERMINAL SACRIFICE	22-FEB-02	160	P
4525	PNMD	TERMINAL SACRIFICE	23-FEB-02	164	P
4526		TERMINAL SACRIFICE	22-FEB-02	163	P

NP-NOT PREGNANT, P-PREGNANT

PNMD=PREGNANT, NO MATING DATE NNMD=NOT PREG., NO MATING DATE

	Individual Clinical Observations Preface	Appendix D

Clinical observations presented in this appendix include weekly physical examinations and daily viability observations. Apparent duplication of observations indicates that the finding was noted during both types of examinations.

For summarization purposes, descriptive comments [i.e., location of scab(s) and sore(s), etc.] are not presented in this appendix. These data are contained in the study raw data if needed.

Observations (including deaths) noted between scheduled weekly examinations are presented at the previous interval. The actual day of an animal's death is presented in Appendix C.

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP I 0 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	1 0	1 1	1 2	1 3	1 4	1 5	1 6
1051	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P									
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT											2	2	2	2	2	2	2	2	2
1052	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
1053	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
1054	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
1055	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
1056	WITHIN NORMAL LIMITS		P	P		P	P	P	P		P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT				2					2										
1057	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
1058	WITHIN NORMAL LIMITS		P	P	P	P	P	P										P		
	TERMINAL SACRIFICE																			P
	INCISORS BROKEN/MISSING												P	P	P	P	P		P	P
	INCISORS MALOCCLUDED								P	P	P	P	P	P	P	P				
1059	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
	TERMINAL SACRIFICE																			P
	EARS SWOLLEN/RED - BILATERAL																	P	P	P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP I 0 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY - 1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1060	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
1061	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
1062	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
1063	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
	TERMINAL SACRIFICE																		P
	CHROMODACRYORRHEA - UNILATERAL																	P	P
1064	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P					P	P	P	P
	TERMINAL SACRIFICE																		P
	SWOLLEN PAW(S)											P	P						
	LEFT FORE																		
	ALOPECIA - EXTREMITIES/SNOUT											2	2	2	2				
1065	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
1066	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
1067	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
1068	WITHIN NORMAL LIMITS	P	P	P	P					P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
	ALOPECIA - EXTREMITIES/SNOUT					2	2	2	2										

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP I 0 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	1 0	1 1	1 2	1 3	1 4	1 5	1 6
1069	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
1070	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
1071	WITHIN NORMAL LIMITS		P	P		P	P		P	P	P	P								
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT				2			2					2	2	2	2	2	2	2	2
1072	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
1073	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P									
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT											2	2	2	2	2	2	2	2	2
	INCISORS BROKEN/MISSING															P				
1074	WITHIN NORMAL LIMITS		P	P	P	P														
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT						2	2	2	2	2	2	2	2	2	3	3	3	3	3
1075	WITHIN NORMAL LIMITS		P	P	P	P														
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT						2	2	3	3	3	3	3	3	3	3	3	3	3	3
1076	WITHIN NORMAL LIMITS		P	P																P
	TERMINAL SACRIFICE																			P
	SCABS				P	P														
	CERVICAL AREA AND SNOUT																			
	SCABS						P	P	P	P	P	P	P	P						
	CERVICAL AREA																			
	ALOPECIA - GENERAL										2	2	2	2	2	2	2	2	2	

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP II 2000 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	1 0	1 1	1 2	1 3	1 4	1 5	1 6
2051	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
2052	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
2053	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P			P	P	P
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT															2	2			
2054	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
2055	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
2056	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
2057	WITHIN NORMAL LIMITS		P	P		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT				2															
2058	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
2059	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP II 2000 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	1 0	1 1	1 2	1 3	1 4	1 5	1 6
2060	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
2061	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT																	2	3	3
	SCABS																		P	P
	SNOUT																			
2062	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
2063	WITHIN NORMAL LIMITS		P	P	P	P														
	TERMINAL SACRIFICE																			P
	CHROMODACRYORRHEA - UNILATERAL						P	P	P	P	P	P	P	P	P	P	P	P	P	P
	LACRIMATION - UNILATERAL								2	2	2	2	2	2	2	2	2		2	2
	INCISORS BROKEN/MISSING															P	P			
	INCISORS MALOCCLUDED						P	P	P	P	P	P	P	P	P	P	P	P	P	P
2064	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
2065	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
2066	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
2067	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP II 2000 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY - 1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2068	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
2069	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
2070	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
2071	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
2072	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
2073	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P										
	TERMINAL SACRIFICE																		P
	INCISORS BROKEN/MISSING														P	P			
	INCISORS MALOCCLUDED									P	P	P	P	P	P	P	P	P	P
2074	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
2075	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
2076	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP III 10000 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	-																		
			1	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6
3051	WITHIN NORMAL LIMITS		P	P											P	P	P			
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT																	2	2	2
	SCABS				P	P	P	P	P	P	P									
	CERVICAL AREA																			
	ALOPECIA - GENERAL											2	2	2						
3052	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		P	P
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT																	2		
3053	WITHIN NORMAL LIMITS		P	P																
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT				2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3054	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
3055	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
3056	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
3057	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
3058	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP III 10000 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
3059	WITHIN NORMAL LIMITS		P	P	P	P														
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT						2	2	2	2	3	3	3	3	3	3	3	2	2	3
3060	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
3061	WITHIN NORMAL LIMITS		P	P	P	P						P	P	P	P	P				
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT						2	2	2	2	2	2								
	YELLOW ANO-GENITAL STAINING																	1	1	1
3062	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
	TERMINAL SACRIFICE																			P
	MASS																		1	1
	LEFT MID LATERAL																			
3063	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
3064	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
3065	WITHIN NORMAL LIMITS		P	P	P												P	P	P	P
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT						2	2	3	2	2	2	3	3	2	2				
	SCABS					P	P													
	CERVICAL AREA																			

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP III 10000 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
3066	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
3067	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
3068	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P											
	TERMINAL SACRIFICE																			P
	CHROMODACRYORRHEA - UNILATERAL										P	P								
	MISSING DIGIT									P	P	P	P	P	P	P	P	P	P	P
	FIRST DIGIT, RIGHT FRONT PAW																			
3069	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
3070	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
3071	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
3072	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
3073	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
3074	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP III 10000 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	1 0	1 1	1 2	1 3	1 4	1 5	1 6
3075	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
3076	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP IV 20000 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	1 0	1 1	1 2	1 3	1 4	1 5	1 6
4051	WITHIN NORMAL LIMITS		P	P	P	P	P		P	P	P	P	P	P						
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT							2							2	2	2	3	3	2
4052	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
4053	WITHIN NORMAL LIMITS		P	P	P	P	P													
	TERMINAL SACRIFICE																			P
	INCISORS BROKEN/MISSING													P	P	P	P			
	INCISORS MALOCCLUDED							P	P	P	P	P	P	P	P	P	P	P	P	P
4054	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
4055	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
4056	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
4057	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P				
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT																2	2	2	2
4058	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
4059	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP IV 20000 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	1 0	1 1	1 2	1 3	1 4	1 5	1 6
4060	WITHIN NORMAL LIMITS		P	P	P			P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
	SCABS					P	P													
	CERVICAL AREA																			
4061	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
4062	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
4063	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
4064	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P		P	P	P	P
	TERMINAL SACRIFICE																			P
	SWOLLEN PAW(S)															P				
	RIGHT FRONT PAW																			
4065	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
4066	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
4067	WITHIN NORMAL LIMITS		P	P	P	P	P				P	P								
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT							2	2	2			2	2	2	2	2	2	2	2

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP IV 20000 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY - 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4068	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																	P
4069	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																	P
4070	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																	P
4071	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																	P
4072	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																	P
4073	WITHIN NORMAL LIMITS	P	P	P	P								P	P	P	P		
	TERMINAL SACRIFICE																	P
	SCABS					P	P	P	P	P	P	P						
	CERVICAL AREA																	
	SCABS																P	P
	BEHIND RIGHT EAR																	
4074	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																	P
4075	WITHIN NORMAL LIMITS	P	P	P		P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																	P
	SCABS				P													
	ORAL/BUCCAL AREA																	

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP IV 20000 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	1 0	1 1	1 2	1 3	1 4	1 5	1 6
4076	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP I 0 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	1 0
1551	WITHIN NORMAL LIMITS		P	P										
	ALOPECIA - EXTREMITIES/SNOUT				2	2	2	2	2	2	2	2	2	2
	INCISORS BROKEN/MISSING									P				
1552	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
1553	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
1554	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
1555	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
1556	WITHIN NORMAL LIMITS		P	P										
	ALOPECIA - EXTREMITIES/SNOUT				2	2	2	2	2	3	3	3	2	3
	INCISORS BROKEN/MISSING									P	P			
	INCISORS MALOCCLUDED										P			
1557	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
1558	WITHIN NORMAL LIMITS		P	P	P	P				P	P	P	P	P
	SCABS							P	P	P				
	CERVICAL AREA													
1559	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
1560	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
1561	WITHIN NORMAL LIMITS		P	P	P	P	P				P	P	P	
	ALOPECIA - EXTREMITIES/SNOUT							2	2	2				

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP I 0 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	1 0
1562	WITHIN NORMAL LIMITS		P	P	P	P		P	P	P	P	P		P
	INCISORS BROKEN/MISSING						P						P	
1563	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
1564	WITHIN NORMAL LIMITS		P	P	P			P	P	P	P	P	P	P
	SCABS					P	P							
	CERVICAL AREA													
1565	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P		P	P	P
	SWOLLEN PAW(S)										P			
	RIGHT HIND													
1566	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
1567	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	
	INCISORS BROKEN/MISSING													P
1568	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
1569	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
1570	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
1571	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
1572	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
1573	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P		
	EARS SWOLLEN/RED - BILATERAL												P	P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP I 0 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	1 0
1574	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
1575	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
1576	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP II 2000 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	1 0
2551	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	
2552	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
2553	WITHIN NORMAL LIMITS		P	P	P	P	P							
	ALOPECIA - EXTREMITIES/SNOUT							2	2	2	2	2	2	
2554	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
2555	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
2556	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
2557	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
2558	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
2559	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
2560	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
2561	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
2562	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
2563	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P			
	ALOPECIA - EXTREMITIES/SNOUT											2	2	
2564	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP II 2000 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	1 0
2565	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
2566	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
2567	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P			
	ALOPECIA - EXTREMITIES/SNOUT											2	2	
2568	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
2569	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	
2570	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
2571	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
2572	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
2573	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
2574	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	
	INCISORS BROKEN/MISSING													P
2575	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
2576	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P		P
	ALOPECIA - EXTREMITIES/SNOUT												2	

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP III 10000 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	1 0
3551	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
3552	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	
	INCISORS BROKEN/MISSING													P
3553	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	
3554	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
3555	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	
3556	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
3557	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
3558	WITHIN NORMAL LIMITS		P	P	P		P				P	P		
	ALOPECIA - EXTREMITIES/SNOUT					2		2	2	2			2	2
3559	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
3560	WITHIN NORMAL LIMITS		P	P	P	P	P							
	ALOPECIA - EXTREMITIES/SNOUT							2	2	2	2	2	2	2
	ALOPECIA - GENERAL													2
3561	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
3562	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P		P	P
	INCISORS BROKEN/MISSING											P		

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP III 10000 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	1 0
3563	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
3564	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
3565	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P		
3566	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P		
3567	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
3568	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
3569	WITHIN NORMAL LIMITS		P	P	P	P	P							
	ALOPECIA - EXTREMITIES/SNOUT							2	2	2	2	2	2	2
3570	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
3571	WITHIN NORMAL LIMITS		P	P	P	P	P							
	ALOPECIA - EXTREMITIES/SNOUT							3	3	3	3	3	3	
3572	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	
	ALOPECIA - GENERAL													2
3573	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
3574	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
3575	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP III 10000 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	1 0
3576	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P			P
	ALOPECIA - GENERAL											3	3	
	INCISORS BROKEN/MISSING												P	

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP IV 20000 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	1 0
4551	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
4552	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P		P
	ALOPECIA - EXTREMITIES/SNOUT												2	
4553	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
4554	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
4555	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
4556	WITHIN NORMAL LIMITS		P	P	P	P	P							
	ALOPECIA - EXTREMITIES/SNOUT							2	2	3	3			
	ALOPECIA - GENERAL												3	3
	INCISORS BROKEN/MISSING											P		
4557	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
4558	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	
4559	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P		
	ALOPECIA - EXTREMITIES/SNOUT												2	3
	DECREASED FECAL VOLUME		P											
4560	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
4561	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	
4562	WITHIN NORMAL LIMITS		P	P	P									
	ALOPECIA - EXTREMITIES/SNOUT					2	3	3	3	3	3	3	3	3

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP IV 20000 MG/M3

ANIMAL#	OBSERVATIONS	WEEK OF STUDY	- 1	0	1	2	3	4	5	6	7	8	9	1 0
4563	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
4564	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
4565	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
4566	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
4567	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
4568	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
4569	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
4570	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	
4571	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
4572	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
4573	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P		
	ALOPECIA - EXTREMITIES/SNOUT												2	2
4574	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P
4575	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P		
	ALOPECIA - EXTREMITIES/SNOUT												2	
4576	WITHIN NORMAL LIMITS		P	P	P									
	ALOPECIA - EXTREMITIES/SNOUT					2	2	2	2	2	2	2	2	

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP I 0 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY 35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
1001	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
1002	WITHIN NORMAL LIMITS	P	P	P	P	P	P						P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
	ALOPECIA - EXTREMITIES/SNOUT							2	2	2	2	2							
1003	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
1004	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
1005	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
	TERMINAL SACRIFICE																	P	
	CHROMODACRYORRHEA - BILATERAL													P	P	P	P		
	INCISORS BROKEN/MISSING											P	P	P					
	INCISORS MALOCCLUDED													P	P	P	P	P	
1006	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
1007	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
1008	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
1009	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
	TERMINAL SACRIFICE																		P
	CHROMODACRYORRHEA - BILATERAL																	P	P
	INCISORS MALOCCLUDED																	P	P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP I 0 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY 35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
1010	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
1011	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
1012	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
1013	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1014	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
1015	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1016	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1017	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	INCISORS MALOCCLUDED																		P
1018	WITHIN NORMAL LIMITS	P				P	P	P	P	P	P	P	P	P	P	P	P	P	P
	SWOLLEN PAW(S) RIGHT HIND		P	P	P														
1019	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1020	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP I 0 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY	34	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
1021	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																		P	
1022	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1023	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																		P	
1024	WITHIN NORMAL LIMITS		P	P	P	P	P	P												
	TERMINAL SACRIFICE																		P	
	ALOPECIA - EXTREMITIES/SNOUT								2	2	2	2	3	3	3	3	3	3	3	
1025	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P								
	FOUND DEAD												P							
1026	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP II 2000 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY	34	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
2001	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2002	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
2003	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2004	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
2005	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																		P	
2006	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
2007	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
2008	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
2009	WITHIN NORMAL LIMITS		P	P	P	P														
	TERMINAL SACRIFICE																		P	
	CHROMODACRYORRHEA - UNILATERAL						P	P	P	P	P	P	P	P	P	P	P	P	P	
	INCISORS MALOCCLUDED						P	P	P	P	P	P	P	P	P	P	P	P	P	
	ORAL SORE						P	P	P				P							
2010	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P		P	P	P	P	
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT														2					2

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP II 2000 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY	35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
2011	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P											
	TERMINAL SACRIFICE																		P	
	INCISORS BROKEN/MISSING									P	P	P	P	P				P	P	
	INCISORS MALOCCLUDED									P	P	P	P	P	P	P	P	P	P	
2012	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P				
	CHROMODACRYORRHEA - UNILATERAL																P	P	P	P
	LACRIMATION - UNILATERAL																2	2	2	2
	INCISORS MALOCCLUDED																P	P	P	P
	ORAL SORE																P	P	P	
2013	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																			P
2014	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2015	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2016	WITHIN NORMAL LIMITS		P	P	P	P										P	P	P	P	P
	ALOPECIA - EXTREMITIES/SNOUT						2	2	2	2	2	2	2	2	2					
2017	WITHIN NORMAL LIMITS		P	P	P	P					P	P								
	ALOPECIA - EXTREMITIES/SNOUT						2	2	2	2			2	2	2	2	2	2	2	3
2018	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2019	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P				
	TERMINAL SACRIFICE																		P	
	LACRIMATION - UNILATERAL																	2	2	
	INCISORS BROKEN/MISSING																	P	P	

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP II 2000 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY 35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
2020	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2021	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2022	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
2023	WITHIN NORMAL LIMITS	P																	
	TERMINAL SACRIFICE																	P	
	SCABS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	DORSAL SURFACE																		
	INCISORS BROKEN/MISSING											P							
	INCISORS MALOCCLUDED											P	P	P					
2024	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2025	WITHIN NORMAL LIMITS	P	P	P		P	P	P											
	TERMINAL SACRIFICE																	P	
	CHROMODACRYORRHEA - UNILATERAL								P	P									
	INCISORS BROKEN/MISSING				P				P	P	P	P	P	P	P	P	P	P	
	ORAL SORE									P	P								
2026	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP III 10000 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY 35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
3001	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
3002	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P		P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
	INCISORS MALOCCLUDED												P						
3003	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P										
	CHROMODACRYORRHEA - UNILATERAL									P	P	P							
	INCISORS MALOCCLUDED									P	P	P	P	P	P	P	P	P	P
3004	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
3005	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3006	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
3007	WITHIN NORMAL LIMITS	P	P	P	P						P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
	ALOPECIA - EXTREMITIES/SNOUT					2	2	2	2	2									
3008	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
3009	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP III 10000 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY 35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
3010	WITHIN NORMAL LIMITS	P	P	P															
	TERMINAL SACRIFICE																	P	
	ALOPECIA - EXTREMITIES/SNOUT				2	2	2	2	2	2	2	2	2	2	2	2	2	2	
3011	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
3012	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
3013	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3014	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3015	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P					P	P		
	ALOPECIA - EXTREMITIES/SNOUT											2	2	2	2				
	CHROMODACRYORRHEA - UNILATERAL																	P	P
	LACRIMATION - UNILATERAL																	2	2
	INCISORS MALOCCLUDED																	P	P
3016	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
3017	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3018	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
	INCISORS BROKEN/MISSING												P	P	P	P	P	P	P
3019	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P						
	TERMINAL SACRIFICE																		P
	CHROMODACRYORRHEA - UNILATERAL																P		
	INCISORS BROKEN/MISSING																		P
	INCISORS MALOCCLUDED													P	P	P	P	P	

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP III 10000 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY 35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
3020	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3021	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
	TERMINAL SACRIFICE																		P
	INCISORS BROKEN/MISSING																	P	
	INCISORS MALOCCLUDED																	P	P
3022	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
	TERMINAL SACRIFICE																		P
	INCISORS MALOCCLUDED																P	P	P
	TIP OF TAIL MISSING																	P	P
3023	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P										
	TERMINAL SACRIFICE																	P	
	CHROMODACRYORRHEA - UNILATERAL												P	P	P	P	P	P	
	LACRIMATION - UNILATERAL												2	2	2	2	2		
	INCISORS BROKEN/MISSING											P							
	INCISORS MALOCCLUDED									P	P	P	P	P	P	P	P	P	
	ORAL SORE									P	P								
3024	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
3025	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P						P	P	P	P	P
	SWOLLEN PAW(S)									P	P	P	P	P					
	LEFT FORE PAW																		
3026	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P		P	P	P	P	P	P
	INCISORS BROKEN/MISSING												P						

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP IV 20000 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY 35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
4001	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
4002	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
	FOUND DEAD															P			
4003	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
4004	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
4005	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P									
	FOUND DEAD									P									
	DURING UNLOADING																		
4006	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
	TERMINAL SACRIFICE																	P	
	ALOPECIA - EXTREMITIES/SNOUT																	2	
4007	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
4008	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4009	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
4010	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP IV 20000 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY 35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
4011	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4012	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
4013	WITHIN NORMAL LIMITS	P	P	P	P	P	P												
	TERMINAL SACRIFICE																		P
	ALOPECIA - EXTREMITIES/SNOUT							2	2	2	2	2	3	2	2	2	2	2	
4014	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4015	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P									
	CHROMODACRYORRHEA - UNILATERAL										P	P	P						
	LACRIMATION - BILATERAL													2	2	2	2	2	2
	CHROMODACRYORRHEA - BILATERAL													P	P	P	P	P	P
	LACRIMATION - UNILATERAL										2	2	2						
	INCISORS MALOCCLUDED													P	P	P	P	P	P
	ORAL SORE										P								
4016	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
4017	WITHIN NORMAL LIMITS	P	P	P	P														
	TERMINAL SACRIFICE																	P	
	CHROMODACRYORRHEA - UNILATERAL					P	P	P	P	P	P	P							
	CHROMODACRYORRHEA - BILATERAL												P	P	P	P	P	P	
	INCISORS MALOCCLUDED					P	P				P	P	P	P	P	P	P	P	
4018	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

MALES GROUP IV 20000 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY	3 5	4 2	4 9	5 6	6 3	7 0	7 7	8 4	9 1	9 8	1 0 5	1 1 2	1 1 9	1 2 6	1 3 3	1 4 0	1 4 7	1 5 4
4019	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																		P	
4020	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P										
	CHROMODACRYORRHEA - UNILATERAL													P	P	P	P	P	P	P
	LACRIMATION - BILATERAL											2	2	2						
	CHROMODACRYORRHEA - BILATERAL											P	P	P						
	LACRIMATION - UNILATERAL														2	2	2	2	2	2
	INCISORS BROKEN/MISSING																			P
	INCISORS MALOCCLUDED											P	P	P	P	P	P	P	P	P
4021	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
	TERMINAL SACRIFICE																	P		
4022	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
	TERMINAL SACRIFICE																			P
	ALOPECIA - EXTREMITIES/SNOUT																	2	2	2
4023	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4024	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																		P	
4025	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4026	WITHIN NORMAL LIMITS		P	P	P	P	P										P	P	P	
	ALOPECIA - EXTREMITIES/SNOUT							2	2	2	2	2	2	2	2	2				2

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP I 0 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY 35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
1501	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P									
	ALOPECIA - EXTREMITIES/SNOUT										2	2							
1502	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P						
1503	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
1504	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
1505	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
1506	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
1507	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
1508	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
1509	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P										
	ALOPECIA - EXTREMITIES/SNOUT									3	3	3	3						
1510	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
1511	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
1512	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
1513	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP I 0 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY 35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
1514	WITHIN NORMAL LIMITS	P	P	P	P			P	P	P	P	P	P						
	TERMINAL SACRIFICE																		P
	SCABS					P	P												
	CERVICAL																		
	SCABS													P	P	P	P	P	
	LEFT UPPER DORSAL																		
1515	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
1516	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
1517	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P						
1518	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
1519	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
1520	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
1521	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P						
1522	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
1523	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
1524	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
1525	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP I 0 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY	34	44	59	66	73	70	77	84	91	98	10	11	12	19	26	33	40	47	54
1526	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P							

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP II 2000 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY	34	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
2501	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P											
	OPACITY - UNILATERAL LEFT EYE									3	3	3	3							
	ENOPHTHALMOS - UNILATERAL LEFT EYE									P	P	P	P							
2502	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P							
2503	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P							
2504	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P							
2505	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P							
2506	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P							
2507	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P							
2508	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P							
2509	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P							
2510	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P							
2511	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P							
2512	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P							
2513	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																		P	

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP II 2000 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY 34	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
2514	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
2515	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
2516	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	TERMINAL SACRIFICE																		P
2517	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
2518	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P						
2519	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
2520	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
2521	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P						
2522	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
2523	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
2524	WITHIN NORMAL LIMITS	P	P	P				P	P	P	P	P	P	P	P	P			
	TERMINAL SACRIFICE																		P
	LACERATION SNOUT																P		
	INCISORS MALOCCLUDED				P	P	P										P	P	
2525	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP II 2000 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY	34	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
2526	WITHIN NORMAL LIMITS		P	P	P	P	P	P	P	P	P	P	P							

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP III 10000 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY 34	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
3501	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
3502	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
3503	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
3504	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
3505	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
3506	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	
3507	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
3508	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
3509	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
3510	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
3511	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
3512	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
3513	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP III 10000 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY 35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
3514	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P						
3515	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P						
3516	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
3517	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P						
3518	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P						
3519	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P						
3520	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
3521	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P						
3522	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P						
3523	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
3524	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P					
3525	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P						
3526	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P						

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP IV 20000 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY 35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
4501	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
4502	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P					
4503	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
4504	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
4505	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
4506	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
4507	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
	ALOPECIA - EXTREMITIES/SNOUT											2							
4508	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P						
4509	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
4510	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
4511	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P						
4512	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
4513	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
	HUMANE SACRIFICE										P								
4514	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
	TERMINAL SACRIFICE																	P	

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX D F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS

FEMALES GROUP IV 20000 MG/M3

ANIMAL#	OBSERVATIONS	DAY OF STUDY 35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154
4515	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
4516	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
4517	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
4518	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
4519	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
4520	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							
4521	TIP OF TAIL MISSING	P	P	P	P	P	P	P	P	P									
4522	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
4523	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
4524	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P								
4525	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
4526	WITHIN NORMAL LIMITS	P	P	P	P	P	P	P	P	P	P	P							

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX E P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS DURING GESTATION

GROUP I 0 MG/M3

FEMALE#	OBSERVATIONS	DAY OF GESTATION 0 1 2 3 4 5 6 7 8 9	10 11 12 13 14 15 16 17 18 19	20
1551	ALOPECIA - EXTREMITIES/SNOUT	2	2	2	2
1552	WITHIN NORMAL LIMITS	P	P	P	P
1553	WITHIN NORMAL LIMITS	P	P	P	P
1554	WITHIN NORMAL LIMITS	P	P	P	P
1555	WITHIN NORMAL LIMITS	P	P	P	P
1556	ALOPECIA - EXTREMITIES/SNOUT	3	3	3	3
	INCISORS BROKEN/MISSING				P
1557	WITHIN NORMAL LIMITS	P	P	P	P
1558	WITHIN NORMAL LIMITS	P	P	P	P
1559	WITHIN NORMAL LIMITS	P	P	P	P
1560	WITHIN NORMAL LIMITS	P	P	P	P
1561	WITHIN NORMAL LIMITS	P	P	P	P
1563	WITHIN NORMAL LIMITS	P	P	P	P
1564	WITHIN NORMAL LIMITS	P	P	P	P
1566	WITHIN NORMAL LIMITS	P	P	P	P
1567	INCISORS BROKEN/MISSING	P			
	WITHIN NORMAL LIMITS		P	P	P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX E P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS DURING GESTATION

GROUP I 0 MG/M3

FEMALE#	OBSERVATIONS	DAY OF GESTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1568	WITHIN NORMAL LIMITS	P							P							P						P
1569	WITHIN NORMAL LIMITS	P							P							P						P
1570	WITHIN NORMAL LIMITS	P							P							P						P
1571	WITHIN NORMAL LIMITS	P							P							P						P
1572	WITHIN NORMAL LIMITS	P							P							P						P
1573	EARS SWOLLEN/RED - BILATERAL	P							P							P						P
1574	WITHIN NORMAL LIMITS	P							P							P						P
1575	WITHIN NORMAL LIMITS	P							P							P						P
1576	WITHIN NORMAL LIMITS	P							P							P						P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX E P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS DURING GESTATION

GROUP II 2000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF GESTATION 0 1 2 3 4 5 6 7 8 9	1 1 1 1 1 1 1 1 1 1 0 1 2 3 4 5 6 7 8 9	2 0
2551	WITHIN NORMAL LIMITS	P	P	P	P
2552	WITHIN NORMAL LIMITS	P	P	P	P
2553	ALOPECIA - EXTREMITIES/SNOUT	2	3	3	3
2554	WITHIN NORMAL LIMITS	P	P	P	P
2555	WITHIN NORMAL LIMITS	P	P	P	P
2556	WITHIN NORMAL LIMITS	P	P	P	P
2557	WITHIN NORMAL LIMITS	P	P	P	P
2558	WITHIN NORMAL LIMITS	P	P	P	P
2559	WITHIN NORMAL LIMITS	P	P	P	P
2560	WITHIN NORMAL LIMITS	P	P	P	P
2561	WITHIN NORMAL LIMITS	P	P	P	P
2562	ALOPECIA - EXTREMITIES/SNOUT				2
	ALOPECIA - GENERAL		2	2	2
	WITHIN NORMAL LIMITS	P			
2563	ALOPECIA - EXTREMITIES/SNOUT	2	2	2	2
	ALOPECIA - GENERAL				2
2564	WITHIN NORMAL LIMITS	P	P	P	P
2565	WITHIN NORMAL LIMITS	P	P	P	P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX E P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS DURING GESTATION

GROUP II 2000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF GESTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2566	WITHIN NORMAL LIMITS	P							P						P						P	
2567	ALOPECIA - EXTREMITIES/SNOUT	2							2						2							
	WITHIN NORMAL LIMITS																				P	
2569	WITHIN NORMAL LIMITS	P							P						P						P	
2570	WITHIN NORMAL LIMITS	P							P						P						P	
2571	WITHIN NORMAL LIMITS	P							P						P						P	
2572	WITHIN NORMAL LIMITS	P							P						P						P	
2573	WITHIN NORMAL LIMITS	P							P						P						P	
2574	INCISORS BROKEN/MISSING	P							P													
	WITHIN NORMAL LIMITS														P						P	
2575	WITHIN NORMAL LIMITS	P							P						P						P	
2576	WITHIN NORMAL LIMITS	P							P						P						P	

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX E P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS DURING GESTATION

GROUP III 10000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF GESTATION 0 1 2 3 4 5 6 7 8 9	1 1 1 1 1 1 1 1 1 2 0 1 2 3 4 5 6 7 8 9 0		
3551	WITHIN NORMAL LIMITS	P	P	P	P
3552	INCISORS BROKEN/MISSING	P			
	WITHIN NORMAL LIMITS		P	P	P
3553	WITHIN NORMAL LIMITS	P	P	P	P
3554	WITHIN NORMAL LIMITS	P	P	P	P
3555	WITHIN NORMAL LIMITS	P	P	P	P
3556	WITHIN NORMAL LIMITS	P	P	P	P
3558	ALOPECIA - EXTREMITIES/SNOUT	2	3	3	3
3559	WITHIN NORMAL LIMITS	P	P	P	P
3560	ALOPECIA - EXTREMITIES/SNOUT	2	2	2	2
	ALOPECIA - GENERAL		2	2	2
3561	WITHIN NORMAL LIMITS	P	P	P	P
3562	WITHIN NORMAL LIMITS	P	P	P	P
3563	WITHIN NORMAL LIMITS	P	P	P	P
3564	WITHIN NORMAL LIMITS	P	P	P	P
3565	WITHIN NORMAL LIMITS	P	P	P	P
3566	WITHIN NORMAL LIMITS	P	P	P	P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX E P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS DURING GESTATION

GROUP III 10000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF GESTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
3567	WITHIN NORMAL LIMITS	P							P							P						P
3568	CHROMODACRYORRHEA - UNILATERAL								P							P						P
	CHROMODACRYORRHEA - BILATERAL	P																				
	LACRIMATION - BILATERAL	2																				
	INCISORS MALOCCLUDED	P							P							P						P
3569	ALOPECIA - EXTREMITIES/SNOUT	2							2							2						2
3570	WITHIN NORMAL LIMITS	P							P							P						P
3571	ALOPECIA - EXTREMITIES/SNOUT	3							2													
	WITHIN NORMAL LIMITS															P						P
3572	ALOPECIA - GENERAL								2							2						
	WITHIN NORMAL LIMITS	P																				P
3573	WITHIN NORMAL LIMITS	P							P							P						P
3574	WITHIN NORMAL LIMITS	P							P							P						P
3575	WITHIN NORMAL LIMITS	P							P							P						P
3576	WITHIN NORMAL LIMITS	P							P							P						P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX E P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS DURING GESTATION

GROUP IV 20000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF GESTATION 0 1 2 3 4 5 6 7 8 9	1 1 1 1 1 1 1 1 1 2 0 1 2 3 4 5 6 7 8 9 0
4551	WITHIN NORMAL LIMITS	P P	P P
4552	WITHIN NORMAL LIMITS	P P	P P
4553	WITHIN NORMAL LIMITS	P P	P P
4554	WITHIN NORMAL LIMITS	P P	P P
4555	WITHIN NORMAL LIMITS	P P	P P
4556	ALOPECIA - EXTREMITIES/SNOUT	2 2	2 2
4557	WITHIN NORMAL LIMITS	P P	P P
4558	WITHIN NORMAL LIMITS	P P	P P
4559	ALOPECIA - EXTREMITIES/SNOUT	3 3	3 3
4560	ALOPECIA - EXTREMITIES/SNOUT		2 2
	WITHIN NORMAL LIMITS	P P	
4561	WITHIN NORMAL LIMITS	P P	P P
4562	ALOPECIA - EXTREMITIES/SNOUT	3 3	3 3
4563	WITHIN NORMAL LIMITS	P P	P P
4564	WITHIN NORMAL LIMITS	P P	P P
4565	WITHIN NORMAL LIMITS	P P	P P
4566	WITHIN NORMAL LIMITS	P P	P P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX E P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS DURING GESTATION

GROUP IV 20000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF GESTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
4567	WITHIN NORMAL LIMITS	P							P							P						P
4568	WITHIN NORMAL LIMITS	P							P							P						P
4569	WITHIN NORMAL LIMITS	P							P							P						P
4570	WITHIN NORMAL LIMITS	P							P							P						P
4571	WITHIN NORMAL LIMITS	P							P							P						P
4572	WITHIN NORMAL LIMITS	P							P							P						P
4573	WITHIN NORMAL LIMITS	P							P							P						P
4574	WITHIN NORMAL LIMITS	P							P							P						P
4575	WITHIN NORMAL LIMITS	P							P							P						P
4576	ALOPECIA - EXTREMITIES/SNOUT	2							2							2						2

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX E F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS DURING GESTATION

GROUP I 0 MG/M3

FEMALE#	OBSERVATIONS	DAY OF GESTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1501	ALOPECIA - EXTREMITIES/SNOUT	2							3						3							3
1502	WITHIN NORMAL LIMITS	P							P						P							P
1503	WITHIN NORMAL LIMITS	P							P						P							P
1505	WITHIN NORMAL LIMITS	P							P						P							P
1506	WITHIN NORMAL LIMITS	P							P						P							P
1508	WITHIN NORMAL LIMITS	P							P						P							P
1509	ALOPECIA - EXTREMITIES/SNOUT	3							3						3							3
1510	WITHIN NORMAL LIMITS	P							P						P							P
1511	WITHIN NORMAL LIMITS	P							P						P							P
1512	WITHIN NORMAL LIMITS	P							P						P							P
1513	SCABS	P																				
	ALOPECIA - GENERAL								2													
	WITHIN NORMAL LIMITS														P							P
1516	WITHIN NORMAL LIMITS	P							P						P							P
1517	WITHIN NORMAL LIMITS	P							P						P							P
1518	WITHIN NORMAL LIMITS	P							P						P							P
1519	WITHIN NORMAL LIMITS	P							P						P							P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX E F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS DURING GESTATION

GROUP I 0 MG/M3

FEMALE#	OBSERVATIONS	DAY OF GESTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1520	WITHIN NORMAL LIMITS	P							P							P						P
1521	WITHIN NORMAL LIMITS	P							P							P						P
1522	WITHIN NORMAL LIMITS	P							P							P						P
1523	WITHIN NORMAL LIMITS	P							P							P						P
1524	WITHIN NORMAL LIMITS	P							P							P						P
1525	WITHIN NORMAL LIMITS	P							P							P						P
1526	WITHIN NORMAL LIMITS	P							P							P						P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX E F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS DURING GESTATION

GROUP II 2000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF GESTATION 0 1 2 3 4 5 6 7 8 9	1 1 1 1 1 1 1 1 1 1 0 1 2 3 4 5 6 7 8 9	2 0
2501	OPACITY - UNILATERAL	3	3	3	3
	ENOPHTHALMOS - UNILATERAL	P	P	P	P
2502	WITHIN NORMAL LIMITS	P	P	P	P
2503	WITHIN NORMAL LIMITS	P	P	P	P
2504	WITHIN NORMAL LIMITS	P	P	P	P
2505	WITHIN NORMAL LIMITS	P	P	P	P
2506	INCISORS BROKEN/MISSING	P			
	INCISORS MALOCCLUDED		P		
	WITHIN NORMAL LIMITS			P	P
2507	WITHIN NORMAL LIMITS	P	P	P	P
2508	WITHIN NORMAL LIMITS	P	P	P	P
2509	WITHIN NORMAL LIMITS	P	P	P	P
2510	WITHIN NORMAL LIMITS	P	P	P	P
2511	WITHIN NORMAL LIMITS	P	P	P	P
2512	WITHIN NORMAL LIMITS	P	P	P	P
2515	WITHIN NORMAL LIMITS	P	P	P	P
2517	WITHIN NORMAL LIMITS	P	P	P	P
2518	WITHIN NORMAL LIMITS	P	P	P	P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX E F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS DURING GESTATION

GROUP II 2000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF GESTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2519	WITHIN NORMAL LIMITS	P							P						P						P	
2520	INCISORS MALOCCLUDED																				P	
	WITHIN NORMAL LIMITS	P							P						P							
2521	WITHIN NORMAL LIMITS	P							P						P						P	
2522	WITHIN NORMAL LIMITS	P							P						P						P	
2523	WITHIN NORMAL LIMITS	P							P						P						P	
2525	WITHIN NORMAL LIMITS	P							P						P						P	
2526	WITHIN NORMAL LIMITS	P							P						P						P	

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX E F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS DURING GESTATION

GROUP III 10000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF GESTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
3501	WITHIN NORMAL LIMITS	P							P						P						P	
3503	WITHIN NORMAL LIMITS	P							P						P						P	
3505	WITHIN NORMAL LIMITS	P							P						P						P	
3507	WITHIN NORMAL LIMITS	P							P						P						P	
3508	WITHIN NORMAL LIMITS	P							P						P						P	
3509	WITHIN NORMAL LIMITS	P							P						P						P	
3510	WITHIN NORMAL LIMITS	P							P						P						P	
3511	WITHIN NORMAL LIMITS	P							P						P						P	
3512	WITHIN NORMAL LIMITS	P							P						P						P	
3513	WITHIN NORMAL LIMITS	P							P						P							
3514	WITHIN NORMAL LIMITS	P							P						P						P	
3515	WITHIN NORMAL LIMITS	P							P						P						P	
3516	WITHIN NORMAL LIMITS	P							P						P						P	
3517	WITHIN NORMAL LIMITS	P							P						P						P	
3518	WITHIN NORMAL LIMITS	P							P						P						P	
3519	INCISORS BROKEN/MISSING								P						P							
	WITHIN NORMAL LIMITS	P																			P	

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX E F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS DURING GESTATION

GROUP III 10000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF GESTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
3520	WITHIN NORMAL LIMITS	P							P						P						P	
3521	WITHIN NORMAL LIMITS	P							P						P						P	
3522	WITHIN NORMAL LIMITS	P							P						P						P	
3523	WITHIN NORMAL LIMITS	P							P						P						P	
3524	WITHIN NORMAL LIMITS	P							P						P						P	
3525	WITHIN NORMAL LIMITS	P							P						P						P	
3526	WITHIN NORMAL LIMITS	P							P						P						P	

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX E F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS DURING GESTATION

GROUP IV 20000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF GESTATION 0 1 2 3 4 5 6 7 8 9	1 1 1 1 1 1 1 1 1 2 0 1 2 3 4 5 6 7 8 9 0		
4501	WITHIN NORMAL LIMITS	P	P	P	P
4502	WITHIN NORMAL LIMITS	P	P	P	P
4503	WITHIN NORMAL LIMITS	P	P	P	P
4504	WITHIN NORMAL LIMITS	P	P	P	P
4505	WITHIN NORMAL LIMITS	P	P	P	P
4506	WITHIN NORMAL LIMITS	P	P	P	P
4507	ALOPECIA - EXTREMITIES/SNOUT	2	2	2	2
4508	WITHIN NORMAL LIMITS	P	P	P	P
4509	WITHIN NORMAL LIMITS	P	P	P	P
4510	WITHIN NORMAL LIMITS	P	P	P	P
4511	WITHIN NORMAL LIMITS	P	P	P	P
4512	WITHIN NORMAL LIMITS	P	P	P	P
4515	WITHIN NORMAL LIMITS	P	P	P	P
4516	WITHIN NORMAL LIMITS	P	P	P	P
4517	WITHIN NORMAL LIMITS	P	P	P	P
4518	WITHIN NORMAL LIMITS	P	P	P	P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX E F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL CLINICAL OBSERVATIONS DURING GESTATION

GROUP IV 20000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF GESTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
4519	WITHIN NORMAL LIMITS	P							P							P						P
4520	WITHIN NORMAL LIMITS	P							P							P						P
4521	TIP OF TAIL MISSING	P							P							P						P
4522	WITHIN NORMAL LIMITS	P							P							P						P
4523	WITHIN NORMAL LIMITS	P							P							P						P
4524	WITHIN NORMAL LIMITS	P							P							P						P
4526	WITHIN NORMAL LIMITS	P							P							P						P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP I 0 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1551	TERMINAL SACRIFICE																													P
	ALOPECIA - EXTREMITIES/SNOUT			2		2		2								2								2						2
	ALOPECIA - GENERAL			2		2		2								2								2						2
1552	WITHIN NORMAL LIMITS			P		P		P								P								P						P
	TERMINAL SACRIFICE																													P
1553	WITHIN NORMAL LIMITS			P		P		P								P								P						P
	TERMINAL SACRIFICE																													P
1554	WITHIN NORMAL LIMITS			P		P		P								P								P						P
	TERMINAL SACRIFICE																													P
1555	WITHIN NORMAL LIMITS			P		P		P								P								P						P
	TERMINAL SACRIFICE																													P
1556	TERMINAL SACRIFICE																													P
	ALOPECIA - EXTREMITIES/SNOUT			3		3		3								3								3						3
	INCISORS BROKEN/MISSING			P		P		P								P								P						P
1557	WITHIN NORMAL LIMITS			P		P		P								P								P						P
	TERMINAL SACRIFICE																													P
1558	WITHIN NORMAL LIMITS			P		P		P								P								P						P
	TERMINAL SACRIFICE																													P
1560	WITHIN NORMAL LIMITS			P		P		P																P						P
	TERMINAL SACRIFICE																													P
	BLACK/BROWN STAINS ON SNOUT															2														

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP I 0 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1561	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
1563	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
1564	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
1566	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
1567	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
1568	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
1569	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
1570	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
1571	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
1572	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP I 0 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1573	TERMINAL SACRIFICE																													P
	EARS SWOLLEN/RED - BILATERAL		P		P		P									P							P							P
1574	WITHIN NORMAL LIMITS		P		P		P									P							P							P
	TERMINAL SACRIFICE																													P
1575	WITHIN NORMAL LIMITS		P		P		P																P							P
	TERMINAL SACRIFICE																													P
	BLACK/BROWN STAINS ON SNOUT															1														
1576	WITHIN NORMAL LIMITS		P		P		P									P							P							P
	TERMINAL SACRIFICE																													P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP II 2000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
2551	WITHIN NORMAL LIMITS		P		P			P								P								P						P
	TERMINAL SACRIFICE																													P
2552	WITHIN NORMAL LIMITS		P		P			P								P								P						P
	TERMINAL SACRIFICE																													P
2553	TERMINAL SACRIFICE																													P
	ALOPECIA - EXTREMITIES/SNOUT		3		3			3								3								3						3
2554	WITHIN NORMAL LIMITS		P		P			P								P								P						P
	TERMINAL SACRIFICE																													P
2555	WITHIN NORMAL LIMITS		P		P			P								P								P						P
	TERMINAL SACRIFICE																													P
2556	WITHIN NORMAL LIMITS		P		P			P								P								P						P
	TERMINAL SACRIFICE																													P
2557	WITHIN NORMAL LIMITS		P		P			P								P								P						P
	TERMINAL SACRIFICE																													P
2558	WITHIN NORMAL LIMITS		P		P			P								P								P						P
	TERMINAL SACRIFICE																													P
2560	WITHIN NORMAL LIMITS		P		P			P								P								P						P
	TERMINAL SACRIFICE																													P
2561	WITHIN NORMAL LIMITS		P		P			P								P								P						P
	TERMINAL SACRIFICE																													P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP II 2000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
2562	TERMINAL SACRIFICE																													P
	ALOPECIA - EXTREMITIES/SNOUT			2		2		2								2								2						2
	ALOPECIA - GENERAL			2		2																								
2563	TERMINAL SACRIFICE																													P
	ALOPECIA - EXTREMITIES/SNOUT			2		2		2								2								2						2
	ALOPECIA - GENERAL			2		2		2								2								2						2
2564	WITHIN NORMAL LIMITS			P		P		P								P								P						P
	TERMINAL SACRIFICE																													P
2565	WITHIN NORMAL LIMITS			P		P		P								P								P						P
	TERMINAL SACRIFICE																													P
2566	WITHIN NORMAL LIMITS			P																										
	TERMINAL SACRIFICE																													P
	ALOPECIA - EXTREMITIES/SNOUT					2		2								2								2						2
2567	WITHIN NORMAL LIMITS			P		P		P								P								P						P
	TERMINAL SACRIFICE																													P
2569	WITHIN NORMAL LIMITS			P		P		P								P								P						P
	TERMINAL SACRIFICE																													P
2570	WITHIN NORMAL LIMITS			P		P		P								P								P						P
	TERMINAL SACRIFICE																													P
2571	WITHIN NORMAL LIMITS			P		P		P								P								P						P
	TERMINAL SACRIFICE																													P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP II 2000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
2572	WITHIN NORMAL LIMITS			P		P		P									P								P						P
	TERMINAL SACRIFICE																														P
2573	WITHIN NORMAL LIMITS			P		P		P									P								P						P
	TERMINAL SACRIFICE																														P
2574	WITHIN NORMAL LIMITS			P		P		P									P								P						P
	TERMINAL SACRIFICE																														P
2575	WITHIN NORMAL LIMITS			P		P		P									P								P						P
	TERMINAL SACRIFICE																														P
2576	WITHIN NORMAL LIMITS			P		P		P									P								P						P
	TERMINAL SACRIFICE																														P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP III 10000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
3551	WITHIN NORMAL LIMITS		P		P		P									P							P							P
	TERMINAL SACRIFICE																													P
3552	WITHIN NORMAL LIMITS		P		P		P									P							P							P
	TERMINAL SACRIFICE																													P
3553	WITHIN NORMAL LIMITS		P		P		P									P							P							P
	TERMINAL SACRIFICE																													P
3554	WITHIN NORMAL LIMITS		P		P		P									P							P							P
	TERMINAL SACRIFICE																													P
3555	WITHIN NORMAL LIMITS		P		P		P									P							P							P
	TERMINAL SACRIFICE																													P
3556	WITHIN NORMAL LIMITS		P		P		P																							
	TERMINAL SACRIFICE																													P
	MASS															1							1							1
3558	TERMINAL SACRIFICE																													P
	ALOPECIA - EXTREMITIES/SNOUT		3		3		3									3							3							3
	ALOPECIA - GENERAL																						3							3
3559	WITHIN NORMAL LIMITS		P		P		P									P							P							P
	TERMINAL SACRIFICE																													P
3560	TERMINAL SACRIFICE																													P
	ALOPECIA - EXTREMITIES/SNOUT		2		3		3									3							3							3
	ALOPECIA - GENERAL		2		2		2									2							2							2

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP III 10000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
3561	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
3562	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
3563	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
3564	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
3565	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
3566	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
3567	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
3568	TERMINAL SACRIFICE																													P
	CHROMODACRYORRHEA - UNILATERAL		P		P		P									P								P						P
	LACRIMATION - UNILATERAL																													2
	INCISORS MALOCCLUDED		P		P		P									P								P						P
3569	TERMINAL SACRIFICE																													P
	ALOPECIA - EXTREMITIES/SNOUT		2		3		3									3								3						3
3570	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP III 10000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
3571	WITHIN NORMAL LIMITS			P																											
	TERMINAL SACRIFICE																														P
	ALOPECIA - EXTREMITIES/SNOUT						2			2							2								2						2
3572	WITHIN NORMAL LIMITS			P			P			P							P								P						P
	TERMINAL SACRIFICE																														P
3573	WITHIN NORMAL LIMITS			P			P			P							P								P						P
	TERMINAL SACRIFICE																														P
3574	WITHIN NORMAL LIMITS			P			P			P							P								P						P
	TERMINAL SACRIFICE																														P
3575	WITHIN NORMAL LIMITS			P			P			P							P								P						P
	TERMINAL SACRIFICE																														P
3576	WITHIN NORMAL LIMITS			P			P			P							P								P						P
	TERMINAL SACRIFICE																														P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP IV 20000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
4551	WITHIN NORMAL LIMITS		P		P			P								P								P						P
	TERMINAL SACRIFICE																													P
4552	WITHIN NORMAL LIMITS		P		P			P								P								P						P
	TERMINAL SACRIFICE																													P
4553	WITHIN NORMAL LIMITS		P		P			P								P								P						P
	TERMINAL SACRIFICE																													P
4554	WITHIN NORMAL LIMITS		P		P			P								P								P						P
	TERMINAL SACRIFICE																													P
4555	WITHIN NORMAL LIMITS		P		P			P								P								P						P
	TERMINAL SACRIFICE																													P
4556	TERMINAL SACRIFICE																													P
	ALOPECIA - EXTREMITIES/SNOUT		2		2			2								2								2						2
4557	WITHIN NORMAL LIMITS		P		P			P								P								P						P
	TERMINAL SACRIFICE																													P
4558	WITHIN NORMAL LIMITS		P		P			P								P								P						P
	TERMINAL SACRIFICE																													P
4559	TERMINAL SACRIFICE																													P
	ALOPECIA - EXTREMITIES/SNOUT		2		2			2								2								2						2
4560	TERMINAL SACRIFICE																													P
	ALOPECIA - EXTREMITIES/SNOUT		2		2			2								2								2						2

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP IV 20000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
4561	WITHIN NORMAL LIMITS			P			P			P							P							P							P
	TERMINAL SACRIFICE																														P
4562	TERMINAL SACRIFICE																														P
	ALOPECIA - EXTREMITIES/SNOUT			3			3			3							3							3							3
4563	WITHIN NORMAL LIMITS						P			P							P							P							P
	TERMINAL SACRIFICE																														P
	RED EXUDATE FROM VAGINA			P																											
4564	WITHIN NORMAL LIMITS			P			P			P							P							P							P
	TERMINAL SACRIFICE																														P
4565	WITHIN NORMAL LIMITS			P			P			P							P							P							P
	TERMINAL SACRIFICE																														P
4566	WITHIN NORMAL LIMITS			P			P			P							P							P							P
	TERMINAL SACRIFICE																														P
4567	WITHIN NORMAL LIMITS			P			P			P							P							P							P
	TERMINAL SACRIFICE																														P
4568	WITHIN NORMAL LIMITS						P			P							P							P							P
	TERMINAL SACRIFICE																														P
	RED EXUDATE FROM VAGINA			P																											
4569	WITHIN NORMAL LIMITS			P			P			P							P							P							P
	TERMINAL SACRIFICE																														P
4570	WITHIN NORMAL LIMITS			P			P			P							P							P							P
	TERMINAL SACRIFICE																														P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F P0 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP IV 20000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
4571	WITHIN NORMAL LIMITS		P			P			P							P							P							P
	TERMINAL SACRIFICE																													P
4572	WITHIN NORMAL LIMITS		P			P			P							P							P							P
	TERMINAL SACRIFICE																													P
4573	WITHIN NORMAL LIMITS		P			P			P							P							P							P
	TERMINAL SACRIFICE																													P
4574	WITHIN NORMAL LIMITS					P			P							P							P							P
	TERMINAL SACRIFICE																													P
	RED EXUDATE FROM VAGINA		P																											
4575	WITHIN NORMAL LIMITS		P			P			P							P							P							P
	TERMINAL SACRIFICE																													P
4576	TERMINAL SACRIFICE																													P
	ALOPECIA - EXTREMITIES/SNOUT		2			3			3							3							3							3

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP I 0 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1501	TERMINAL SACRIFICE																													P
	ALOPECIA - EXTREMITIES/SNOUT		3		3		3									3								3						3
1502	WITHIN NORMAL LIMITS		P		P		P																							
	TERMINAL SACRIFICE																													P
	CHROMODACRYORRHEA - UNILATERAL																													P
	INCISORS MALOCCLUDED															P								P						P
1503	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
1504	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
1505	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
1506	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
1508	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
1510	WITHIN NORMAL LIMITS		P		P		P									P								P						
	TERMINAL SACRIFICE																													P
	ALOPECIA - EXTREMITIES/SNOUT																													2
1511	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP I 0 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1512	WITHIN NORMAL LIMITS		P		P				P							P							P							P
	TERMINAL SACRIFICE																													P
1513	WITHIN NORMAL LIMITS		P		P				P							P							P							P
	TERMINAL SACRIFICE																													P
1516	WITHIN NORMAL LIMITS		P		P				P							P							P							P
	TERMINAL SACRIFICE																													P
1517	WITHIN NORMAL LIMITS		P		P				P							P							P							P
	TERMINAL SACRIFICE																													P
1518	WITHIN NORMAL LIMITS		P		P																									
	TERMINAL SACRIFICE																													P
	ALOPECIA - EXTREMITIES/SNOUT								2							2							2							2
1519	WITHIN NORMAL LIMITS		P		P				P							P							P							P
	TERMINAL SACRIFICE																													P
1521	WITHIN NORMAL LIMITS		P		P				P							P							P							P
	TERMINAL SACRIFICE																													P
1522	WITHIN NORMAL LIMITS		P		P				P							P							P							P
	TERMINAL SACRIFICE																													P
1523	WITHIN NORMAL LIMITS		P		P				P							P							P							P
	TERMINAL SACRIFICE																													P
1524	WITHIN NORMAL LIMITS		P		P				P							P							P							P
	TERMINAL SACRIFICE																													P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP I 0 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1525	WITHIN NORMAL LIMITS		P			P			P							P								P							P
	TERMINAL SACRIFICE																														P
1526	WITHIN NORMAL LIMITS		P			P			P							P								P							P
	TERMINAL SACRIFICE																														P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP II 2000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
2501	TERMINAL SACRIFICE																													P
	OPACITY - UNILATERAL			3		3			3							3								3						3
	ENOPHTHALMOS - UNILATERAL			P		P			P							P								P						P
2502	WITHIN NORMAL LIMITS			P		P			P							P								P						P
	TERMINAL SACRIFICE																													P
2503	WITHIN NORMAL LIMITS			P		P			P							P								P						P
	TERMINAL SACRIFICE																													P
2504	WITHIN NORMAL LIMITS			P		P			P							P								P						P
	TERMINAL SACRIFICE																													P
2505	WITHIN NORMAL LIMITS			P		P			P							P								P						P
	TERMINAL SACRIFICE																													P
2506	WITHIN NORMAL LIMITS			P		P			P																					
	TERMINAL SACRIFICE																													P
	CHROMODACRYORRHEA - UNILATERAL																													P
	INCISORS MALOCCLUDED															P								P						P
2507	WITHIN NORMAL LIMITS			P		P			P							P								P						P
	TERMINAL SACRIFICE																													P
2508	WITHIN NORMAL LIMITS			P		P			P							P								P						P
	TERMINAL SACRIFICE																													P
2509	WITHIN NORMAL LIMITS			P		P			P							P								P						P
	TERMINAL SACRIFICE																													P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP II 2000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
2510	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
2511	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
2512	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
2515	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
2517	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
2518	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
2519	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
2520	TERMINAL SACRIFICE																													P
	INCISORS BROKEN/MISSING				P		P									P								P						P
	INCISORS MALOCCLUDED		P		P		P									P								P						P
2521	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
2522	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP II 2000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
2523	WITHIN NORMAL LIMITS			P		P			P								P							P							P
	TERMINAL SACRIFICE																														P
2525	WITHIN NORMAL LIMITS			P		P			P								P							P							P
	TERMINAL SACRIFICE																														P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP III 10000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
3501	WITHIN NORMAL LIMITS			P			P			P							P							P							P
	TERMINAL SACRIFICE																														P
3503	WITHIN NORMAL LIMITS			P			P			P							P							P							P
	TERMINAL SACRIFICE																														P
3505	WITHIN NORMAL LIMITS			P			P			P							P							P							P
	TERMINAL SACRIFICE																														P
3507	WITHIN NORMAL LIMITS			P			P			P							P							P							P
	TERMINAL SACRIFICE																														P
3508	WITHIN NORMAL LIMITS			P			P			P							P							P							P
	TERMINAL SACRIFICE																														P
3509	WITHIN NORMAL LIMITS			P			P			P							P							P							P
	TERMINAL SACRIFICE																														P
3510	WITHIN NORMAL LIMITS			P			P			P							P							P							P
	TERMINAL SACRIFICE																														P
3511	WITHIN NORMAL LIMITS			P			P			P							P							P							P
	TERMINAL SACRIFICE																														P
3512	WITHIN NORMAL LIMITS			P																											
	TERMINAL SACRIFICE																														P
	ALOPECIA - EXTREMITIES/SNOUT						2			2							2							2							2
3513	WITHIN NORMAL LIMITS		P	P			P			P							P							P							P
	TERMINAL SACRIFICE																														P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP III 10000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
3514	WITHIN NORMAL LIMITS		P		P		P								P								P							P
	TERMINAL SACRIFICE																													P
3515	WITHIN NORMAL LIMITS		P		P		P								P								P							P
	TERMINAL SACRIFICE																													P
3516	WITHIN NORMAL LIMITS		P		P		P								P								P							P
	TERMINAL SACRIFICE																													P
3517	WITHIN NORMAL LIMITS		P		P		P								P								P							P
	TERMINAL SACRIFICE																													P
3518	WITHIN NORMAL LIMITS		P		P		P								P								P							P
	TERMINAL SACRIFICE																													P
3519	WITHIN NORMAL LIMITS		P		P		P								P								P							P
	TERMINAL SACRIFICE																													P
3520	WITHIN NORMAL LIMITS		P		P		P								P								P							P
	TERMINAL SACRIFICE																													P
3521	WITHIN NORMAL LIMITS		P		P		P								P								P							P
	TERMINAL SACRIFICE																													P
3522	WITHIN NORMAL LIMITS		P		P		P								P								P							P
	TERMINAL SACRIFICE																													P
3523	WITHIN NORMAL LIMITS		P		P		P								P								P							P
	TERMINAL SACRIFICE																													P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP III 10000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
3524	WITHIN NORMAL LIMITS			P		P			P								P								P						P
	TERMINAL SACRIFICE																														P
3525	WITHIN NORMAL LIMITS			P		P			P								P								P						P
	TERMINAL SACRIFICE																														P
3526	WITHIN NORMAL LIMITS			P		P			P								P								P						P
	TERMINAL SACRIFICE																														P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP IV 20000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
4501	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
4502	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
4503	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
4504	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
4505	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
4506	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
4507	TERMINAL SACRIFICE																													P
	ALOPECIA - EXTREMITIES/SNOUT		2		2		2									2								2						2
4508	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
4509	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P
4510	WITHIN NORMAL LIMITS		P		P		P									P								P						P
	TERMINAL SACRIFICE																													P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP IV 20000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
4511	WITHIN NORMAL LIMITS		P		P		P								P								P							P
	TERMINAL SACRIFICE																													P
4512	WITHIN NORMAL LIMITS		P		P		P								P								P							P
	TERMINAL SACRIFICE																													P
4515	WITHIN NORMAL LIMITS		P		P		P								P								P							P
	TERMINAL SACRIFICE																													P
4516	WITHIN NORMAL LIMITS		P		P		P								P								P							P
	TERMINAL SACRIFICE																													P
4517	TERMINAL SACRIFICE																													P
	INCISORS BROKEN/MISSING		P		P		P								P								P							P
4518	WITHIN NORMAL LIMITS		P		P		P								P								P							P
	TERMINAL SACRIFICE																													P
4519	WITHIN NORMAL LIMITS		P		P		P								P								P							P
	TERMINAL SACRIFICE																													P
4520	WITHIN NORMAL LIMITS		P		P		P								P								P							P
	TERMINAL SACRIFICE																													P
4521	TERMINAL SACRIFICE																													P
	TIP OF TAIL MISSING		P		P		P								P								P							P
4522	WITHIN NORMAL LIMITS		P		P		P								P								P							P
	TERMINAL SACRIFICE																													P

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT

APPENDIX F F1 GENERATION

GASOLINE MTBE VAPOR CONDENSATE: A TWO-GENERATION WHOLE-BODY
INHALATION REPRODUCTION TOXICITY STUDY IN RATS

INDIVIDUAL MATERNAL CLINICAL OBSERVATIONS DURING LACTATION

GROUP IV 20000 MG/M3

FEMALE#	OBSERVATIONS	DAY OF LACTATION 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
4523	WITHIN NORMAL LIMITS		P		P		P					P										P								P
	TERMINAL SACRIFICE																													P
4524	WITHIN NORMAL LIMITS		P		P		P					P										P								P
	TERMINAL SACRIFICE																													P
4525	WITHIN NORMAL LIMITS		P		P		P					P										P								P
	TERMINAL SACRIFICE																													P
4526	WITHIN NORMAL LIMITS		P		P		P					P																		
	TERMINAL SACRIFICE																													P
	ALOPECIA - GENERAL																					3								3

CODE: 1-SLIGHT 2-MODERATE 3-MARKED P-PRESENT