

Experiment Number: 88070-01
Test Type: 90-DAY
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene
CAS Number: 115-11-7

Date Report Requested: 10/15/2014
Time Report Requested: 23:11:54
First Dose M/F: NA / NA
Lab: BNW

C Number:	C88070
Lock Date:	09/04/1992
Cage Range:	All
Date Range:	All
Reasons For Removal:	All
Removal Date Range:	All
Treatment Groups:	All
Study Gender:	Both
PWG Approval Date	NONE

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SUMMARY OF STATISTICALLY SIGNIFICANT ($P \leq .05$) RESULTS IN THE ANALYSIS OF ISOBUTENE

MALE RAT

Organ

Nose: Goblet Cell, Nasopharyn Dct

Spleen

FEMALE RAT

Organ

Kidney

Liver

Liver: Serosa

Nose: Goblet Cell, Nasopharyn Dct

Ovary

Thymus

Morphology

Hypertrophy

Accessory Spleen

Morphology

Atrophy

Fibrosis

Hepatodiaphragmatic Nodule

Fibrosis

Hypertrophy

Cyst

Hemorrhage

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STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	MALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Epididymis						
Inflammation Granulomatous						
LESION RATES						
OVERALL(a)	1/10 (10%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
POLY-3 RATE (b)	1/10.00	0/0.00	0/0.00	0/0.00	0/0.00	0/10.00
POLY-3 PERCENT (g)	10%	0%	0%	0%	0%	0%
TERMINAL (d)	1/10 (10%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
FIRST INCIDENCE	93(T)	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	(e)	P=0.500N
POLY 1.5	(e)	(e)	(e)	(e)	(e)	P=0.500N
POLY 6	(e)	(e)	(e)	(e)	(e)	P=0.500N
COCH-ARM / FISHERS	P=0.304N	(e)	(e)	(e)	(e)	P=0.500N
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	P=0.159N
HISTCONT SAME RTE						
HISTCONT ALL RTEs						
CURR VS HC SAME RTE						
CURR VS HC ALL RTEs						

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LAST REMOVAL AT 14286 WEEKS

DOSE	MALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Heart						
Cardiomyopathy						
LESION RATES						
OVERALL(a)	4/10 (40%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/10 (10%)
POLY-3 RATE (b)	4/10.00	0/0.00	0/0.00	0/0.00	0/0.00	1/10.00
POLY-3 PERCENT (g)	40%	0%	0%	0%	0%	10%
TERMINAL (d)	4/10 (40%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/10 (10%)
FIRST INCIDENCE	93(T)	---	---	---	---	93(T)
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	(e)	P=0.148N
POLY 1.5	(e)	(e)	(e)	(e)	(e)	P=0.148N
POLY 6	(e)	(e)	(e)	(e)	(e)	P=0.148N
COCH-ARM / FISHERS	P=0.098N	(e)	(e)	(e)	(e)	P=0.152N
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	P=0.059N
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

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STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	MALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Intestine Large, Cecum: Lymphoid Tiss						
Hyperplasia Lymphoid						
LESION RATES						
OVERALL(a)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/10 (10%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/0.00	0/0.00	0/0.00	1/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	10%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/10 (10%)
FIRST INCIDENCE	---	---	---	---	---	93(T)
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 1.5	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 6	(e)	(e)	(e)	(e)	(e)	P=0.500
COCH-ARM / FISHERS	P=0.304	(e)	(e)	(e)	(e)	P=0.500
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	P=0.159
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS**

DOSE	MALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Kidney						
Atrophy						
LESION RATES						
OVERALL(a)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/0.00	0/0.00	0/0.00	0/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)	(n)	(n)
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

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STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	MALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Kidney: Renal Tubule						
Mineralization						
LESION RATES						
OVERALL(a)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/0.00	0/0.00	0/0.00	0/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)	(n)	(n)
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

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LAST REMOVAL AT 14286 WEEKS

DOSE	MALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Liver						
Fibrosis						
LESION RATES						
OVERALL(a)	0/10 (0%)	0/0 (0%)	0/2 (0%)	0/0 (0%)	0/1 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/2.00	0/0.00	0/1.00	0/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/2 (0%)	0/0 (0%)	0/1 (0%)	0/10 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)	(n)	(n)
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

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STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	MALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Liver						
Hepatodiaphragmatic Nodule						
LESION RATES						
OVERALL(a)	2/10 (20%)	0/0 (0%)	1/2 (50%)	0/0 (0%)	1/1 (100%)	0/10 (0%)
POLY-3 RATE (b)	2/10.00	0/0.00	1/2.00	0/0.00	1/1.00	0/10.00
POLY-3 PERCENT (g)	20%	0%	50%	0%	100%	0%
TERMINAL (d)	2/10 (20%)	0/0 (0%)	1/2 (50%)	0/0 (0%)	1/1 (100%)	0/10 (0%)
FIRST INCIDENCE	93(T)	---	93(T)	---	93(T)	---
STATISTICAL TESTS						
POLY 3	(e)	(e)	P=0.500	(e)	P=0.286	P=0.227N
POLY 1.5	(e)	(e)	P=0.500	(e)	P=0.286	P=0.227N
POLY 6	(e)	(e)	P=0.500	(e)	P=0.286	P=0.227N
COCH-ARM / FISHERS	P=0.126N	(e)	P=0.455	(e)	P=0.273	P=0.237N
MAX-ISO-POLY-3	(e)	(e)	P=0.256	(e)	P=0.090	P=0.067N
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

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Species/Strain: Rat/F 344/N

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS**

DOSE	MALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Liver: Serosa						
Fibrosis						
LESION RATES						
OVERALL(a)	0/10 (0%)	0/0 (0%)	0/2 (0%)	0/0 (0%)	0/1 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/2.00	0/0.00	0/1.00	0/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/2 (0%)	0/0 (0%)	0/1 (0%)	0/10 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)	(n)	(n)
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

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STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	MALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Lung						
Hemorrhage						
LESION RATES						
OVERALL(a)	8/10 (80%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	7/10 (70%)
POLY-3 RATE (b)	8/10.00	0/0.00	0/0.00	0/0.00	0/0.00	7/10.00
POLY-3 PERCENT (g)	80%	0%	0%	0%	0%	70%
TERMINAL (d)	8/10 (80%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	7/10 (70%)
FIRST INCIDENCE	93(T)	---	---	---	---	93(T)
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	(e)	P=0.500N
POLY 1.5	(e)	(e)	(e)	(e)	(e)	P=0.500N
POLY 6	(e)	(e)	(e)	(e)	(e)	P=0.500N
COCH-ARM / FISHERS	P=0.398N	(e)	(e)	(e)	(e)	P=0.500N
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	P=0.311N
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

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LAST REMOVAL AT 14286 WEEKS

DOSE	MALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Lymph Node, Mediastinal Hemorrhage						
LESION RATES						
OVERALL(a)	0/9 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/9 (11%)
POLY-3 RATE (b)	0/9.00	0/0.00	0/0.00	0/0.00	0/0.00	1/9.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	11.1%
TERMINAL (d)	0/9 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/9 (11%)
FIRST INCIDENCE	---	---	---	---	---	93(T)
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 1.5	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 6	(e)	(e)	(e)	(e)	(e)	P=0.500
COCH-ARM / FISHERS	P=0.303	(e)	(e)	(e)	(e)	P=0.500
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	P=0.159
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

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STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	MALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Mesentery						
Fibrosis						
LESION RATES						
OVERALL(a)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
POLY-3 RATE (b)	0/0.00	0/0.00	0/0.00	0/0.00	0/0.00	0/0.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)	(n)	(n)
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS**

DOSE	MALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Mesentery: Fat						
Necrosis						
LESION RATES						
OVERALL(a)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
POLY-3 RATE (b)	0/0.00	0/0.00	0/0.00	0/0.00	0/0.00	0/0.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)	(n)	(n)
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

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Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	MALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Nose: Goblet Cell, Nasopharyn Dct Hypertrophy						
LESION RATES						
OVERALL(a)	0/10 (0%)	4/10 (40%)	7/10 (70%)	9/10 (90%)	8/10 (80%)	9/10 (90%)
POLY-3 RATE (b)	0/10.00	4/10.00	7/10.00	9/10.00	8/10.00	9/10.00
POLY-3 PERCENT (g)	0%	40%	70%	90%	80%	90%
TERMINAL (d)	0/10 (0%)	4/10 (40%)	7/10 (70%)	9/10 (90%)	8/10 (80%)	9/10 (90%)
FIRST INCIDENCE	---	93(T)	93(T)	93(T)	93(T)	93(T)
STATISTICAL TESTS						
POLY 3	P=0.000**	P=0.033*	P=0.000**	P=0.000**	P=0.000**	P=0.000**
POLY 1.5	P=0.000**	P=0.033*	P=0.000**	P=0.000**	P=0.000**	P=0.000**
POLY 6	P=0.000**	P=0.033*	P=0.000**	P=0.000**	P=0.000**	P=0.000**
COCH-ARM / FISHERS	P<0.001**	P=0.043*	P=0.002**	P=0.000**	P=0.000**	P=0.000**
MAX-ISO-POLY-3	P=0.000**	P=0.007**	P=0.000**	P=0.000**	P=0.000**	P=0.000**
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS**

DOSE	MALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Nose: Goblet Cell, Respirat Epith Hypertrophy						
LESION RATES						
OVERALL(a)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/10.00	0/10.00	0/10.00	0/10.00	0/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)	(n)	(n)
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	MALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Preputial Gland						
Hyperplasia						
LESION RATES						
OVERALL(a)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/10 (10%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/0.00	0/0.00	0/0.00	1/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	10%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/10 (10%)
FIRST INCIDENCE	---	---	---	---	---	93(T)
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 1.5	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 6	(e)	(e)	(e)	(e)	(e)	P=0.500
COCH-ARM / FISHERS	P=0.304	(e)	(e)	(e)	(e)	P=0.500
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	P=0.159
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	MALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Spleen						
Accessory Spleen						
LESION RATES						
OVERALL(a)	1/10 (10%)	0/0 (0%)	1/1 (100%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
POLY-3 RATE (b)	1/10.00	0/0.00	1/1.00	0/0.00	0/0.00	0/10.00
POLY-3 PERCENT (g)	10%	0%	100%	0%	0%	0%
TERMINAL (d)	1/10 (10%)	0/0 (0%)	1/1 (100%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
FIRST INCIDENCE	93(T)	---	93(T)	---	---	---
STATISTICAL TESTS						
POLY 3	(e)	(e)	P=0.146	(e)	(e)	P=0.500N
POLY 1.5	(e)	(e)	P=0.146	(e)	(e)	P=0.500N
POLY 6	(e)	(e)	P=0.146	(e)	(e)	P=0.500N
COCH-ARM / FISHERS	P=0.188N	(e)	P=0.182	(e)	(e)	P=0.500N
MAX-ISO-POLY-3	(e)	(e)	P=0.022*	(e)	(e)	P=0.159N
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS**

DOSE	MALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Thymus						
Hemorrhage						
LESION RATES						
OVERALL(a)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/0.00	0/0.00	0/0.00	0/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)	(n)	(n)
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	FEMALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Heart						
Cardiomyopathy						
LESION RATES						
OVERALL(a)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/0.00	0/0.00	0/0.00	0/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)	(n)	(n)
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	FEMALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Intestine Large, Cecum: Lymphoid Tiss						
Hyperplasia Lymphoid						
LESION RATES						
OVERALL(a)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/0.00	0/0.00	0/0.00	0/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)	(n)	(n)
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS**

DOSE	FEMALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Kidney						
Atrophy						
LESION RATES						
OVERALL(a)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/1 (100%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/0.00	0/0.00	1/1.00	0/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	100%	0%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/1 (100%)	0/10 (0%)
FIRST INCIDENCE	---	---	---	---	93(T)	---
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	P=0.091	(e)
POLY 1.5	(e)	(e)	(e)	(e)	P=0.091	(e)
POLY 6	(e)	(e)	(e)	(e)	P=0.091	(e)
COCH-ARM / FISHERS	P=0.700	(e)	(e)	(e)	P=0.091	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	P=0.000**	(e)
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	FEMALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Kidney: Renal Tubule Mineralization						
LESION RATES						
OVERALL(a)	6/10 (60%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/1 (100%)	4/10 (40%)
POLY-3 RATE (b)	6/10.00	0/0.00	0/0.00	0/0.00	1/1.00	4/10.00
POLY-3 PERCENT (g)	60%	0%	0%	0%	100%	40%
TERMINAL (d)	6/10 (60%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/1 (100%)	4/10 (40%)
FIRST INCIDENCE	93(T)	---	---	---	93(T)	93(T)
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	P=0.609	P=0.333N
POLY 1.5	(e)	(e)	(e)	(e)	P=0.609	P=0.333N
POLY 6	(e)	(e)	(e)	(e)	P=0.609	P=0.333N
COCH-ARM / FISHERS	P=0.251N	(e)	(e)	(e)	P=0.636	P=0.328N
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	P=0.292	P=0.194N
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	FEMALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Liver						
Fibrosis						
LESION RATES						
OVERALL(a)	0/10 (0%)	0/0 (0%)	0/2 (0%)	0/2 (0%)	1/2 (50%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/2.00	0/2.00	1/2.00	0/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	50%	0%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/2 (0%)	0/2 (0%)	1/2 (50%)	0/10 (0%)
FIRST INCIDENCE	---	---	---	---	93(T)	---
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	P=0.124	(e)
POLY 1.5	(e)	(e)	(e)	(e)	P=0.124	(e)
POLY 6	(e)	(e)	(e)	(e)	P=0.124	(e)
COCH-ARM / FISHERS	P=0.675	(e)	(e)	(e)	P=0.167	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	P=0.013*	(e)
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	FEMALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Liver						
Hepatodiaphragmatic Nodule						
LESION RATES						
OVERALL(a)	1/10 (10%)	0/0 (0%)	1/2 (50%)	2/2 (100%)	2/2 (100%)	2/10 (20%)
POLY-3 RATE (b)	1/10.00	0/0.00	1/2.00	2/2.00	2/2.00	2/10.00
POLY-3 PERCENT (g)	10%	0%	50%	100%	100%	20%
TERMINAL (d)	1/10 (10%)	0/0 (0%)	1/2 (50%)	2/2 (100%)	2/2 (100%)	2/10 (20%)
FIRST INCIDENCE	93(T)	---	93(T)	93(T)	93(T)	93(T)
STATISTICAL TESTS						
POLY 3	(e)	(e)	P=0.365	P=0.005**	P=0.005**	P=0.500
POLY 1.5	(e)	(e)	P=0.365	P=0.005**	P=0.005**	P=0.500
POLY 6	(e)	(e)	P=0.365	P=0.005**	P=0.005**	P=0.500
COCH-ARM / FISHERS	P=0.589	(e)	P=0.318	P=0.045*	P=0.045*	P=0.500
MAX-ISO-POLY-3	(e)	(e)	P=0.143	P<0.001**	P<0.001**	P=0.274
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	FEMALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Liver: Serosa						
Fibrosis						
LESION RATES						
OVERALL(a)	0/10 (0%)	0/0 (0%)	1/2 (50%)	0/2 (0%)	0/2 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/0.00	1/2.00	0/2.00	0/2.00	0/10.00
POLY-3 PERCENT (g)	0%	0%	50%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	1/2 (50%)	0/2 (0%)	0/2 (0%)	0/10 (0%)
FIRST INCIDENCE	---	---	93(T)	---	---	---
STATISTICAL TESTS						
POLY 3	(e)	(e)	P=0.124	(e)	(e)	(e)
POLY 1.5	(e)	(e)	P=0.124	(e)	(e)	(e)
POLY 6	(e)	(e)	P=0.124	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.431N	(e)	P=0.167	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	P=0.013*	(e)	(e)	(e)
HISTCONT SAME RTE						
HISTCONT ALL RTEs						
CURR VS HC SAME RTE						
CURR VS HC ALL RTEs						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	FEMALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Lung						
Hemorrhage						
LESION RATES						
OVERALL(a)	3/10 (30%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	4/10 (40%)
POLY-3 RATE (b)	3/10.00	0/0.00	0/0.00	0/0.00	0/0.00	4/10.00
POLY-3 PERCENT (g)	30%	0%	0%	0%	0%	40%
TERMINAL (d)	3/10 (30%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	4/10 (40%)
FIRST INCIDENCE	93(T)	---	---	---	---	93(T)
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 1.5	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 6	(e)	(e)	(e)	(e)	(e)	P=0.500
COCH-ARM / FISHERS	P=0.407	(e)	(e)	(e)	(e)	P=0.500
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	P=0.327
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	FEMALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Lymph Node, Mediastinal Hemorrhage						
LESION RATES						
OVERALL(a)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/9 (0%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/0.00	0/0.00	0/0.00	0/9.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/9 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)	(n)	(n)
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	FEMALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Mesentery						
Fibrosis						
LESION RATES						
OVERALL(a)	0/0 (0%)	0/0 (0%)	0/2 (0%)	0/1 (0%)	1/1 (100%)	0/0 (0%)
POLY-3 RATE (b)	0/0.00	0/0.00	0/2.00	0/1.00	1/1.00	0/0.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	100%	0%
TERMINAL (d)	0/0 (0%)	0/0 (0%)	0/2 (0%)	0/1 (0%)	1/1 (100%)	0/0 (0%)
FIRST INCIDENCE	---	---	---	---	93(T)	---
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=1.000	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	(e)
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	FEMALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Mesentery: Fat						
Necrosis						
LESION RATES						
OVERALL(a)	0/0 (0%)	0/0 (0%)	2/2 (100%)	1/1 (100%)	0/1 (0%)	0/0 (0%)
POLY-3 RATE (b)	0/0.00	0/0.00	2/2.00	1/1.00	0/1.00	0/0.00
POLY-3 PERCENT (g)	0%	0%	100%	100%	0%	0%
TERMINAL (d)	0/0 (0%)	0/0 (0%)	2/2 (100%)	1/1 (100%)	0/1 (0%)	0/0 (0%)
FIRST INCIDENCE	---	---	93(T)	93(T)	---	---
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=1.000N	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	(e)
HISTCONT SAME RTE						
HISTCONT ALL RTEs						
CURR VS HC SAME RTE						
CURR VS HC ALL RTEs						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	FEMALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Nose: Goblet Cell, Nasopharyn Dct Hypertrophy						
LESION RATES						
OVERALL(a)	0/10 (0%)	4/10 (40%)	8/10 (80%)	8/10 (80%)	7/10 (70%)	10/10 (100%)
POLY-3 RATE (b)	0/10.00	4/10.00	8/10.00	8/10.00	7/10.00	10/10.00
POLY-3 PERCENT (g)	0%	40%	80%	80%	70%	100%
TERMINAL (d)	0/10 (0%)	4/10 (40%)	8/10 (80%)	8/10 (80%)	7/10 (70%)	10/10 (100%)
FIRST INCIDENCE	---	93(T)	93(T)	93(T)	93(T)	93(T)
STATISTICAL TESTS						
POLY 3	P=0.000**	P=0.033*	P=0.000**	P=0.000**	P=0.000**	P=NA
POLY 1.5	P=0.000**	P=0.033*	P=0.000**	P=0.000**	P=0.000**	P=NA
POLY 6	P=0.000**	P=0.033*	P=0.000**	P=0.000**	P=0.000**	P=NA
COCH-ARM / FISHERS	P=0.000**	P=0.043*	P=0.000**	P=0.000**	P=0.002**	P=0.000**
MAX-ISO-POLY-3	P=0.000**	P=0.007**	P=0.000**	P=0.000**	P=0.000**	(e)
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	FEMALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Nose: Goblet Cell, Respirat Epith Hypertrophy						
LESION RATES						
OVERALL(a)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	1/10 (10%)
POLY-3 RATE (b)	0/10.00	0/10.00	0/10.00	0/10.00	0/10.00	1/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	10%
TERMINAL (d)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	1/10 (10%)
FIRST INCIDENCE	---	---	---	---	---	93(T)
STATISTICAL TESTS						
POLY 3	P=0.107	(e)	(e)	(e)	(e)	P=0.500
POLY 1.5	P=0.107	(e)	(e)	(e)	(e)	P=0.500
POLY 6	P=0.107	(e)	(e)	(e)	(e)	P=0.500
COCH-ARM / FISHERS	P=0.105	(e)	(e)	(e)	(e)	P=0.500
MAX-ISO-POLY-3	P=0.075	(e)	(e)	(e)	(e)	P=0.159
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	FEMALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Ovary						
Cyst						
LESION RATES						
OVERALL(a)	3/10 (30%)	1/1 (100%)	0/0 (0%)	2/2 (100%)	1/1 (100%)	0/10 (0%)
POLY-3 RATE (b)	3/10.00	1/1.00	0/0.00	2/2.00	1/1.00	0/10.00
POLY-3 PERCENT (g)	30%	100%	0%	100%	100%	0%
TERMINAL (d)	3/10 (30%)	1/1 (100%)	0/0 (0%)	2/2 (100%)	1/1 (100%)	0/10 (0%)
FIRST INCIDENCE	93(T)	93(T)	---	93(T)	93(T)	---
STATISTICAL TESTS						
POLY 3	(e)	P=0.384	(e)	P=0.130	P=0.384	P=0.095N
POLY 1.5	(e)	P=0.384	(e)	P=0.130	P=0.384	P=0.095N
POLY 6	(e)	P=0.384	(e)	P=0.130	P=0.384	P=0.095N
COCH-ARM / FISHERS	P=0.033N*	P=0.364	(e)	P=0.152	P=0.364	P=0.105N
MAX-ISO-POLY-3	(e)	P=0.153	(e)	P=0.063	P=0.153	P=0.025N*
HISTCONT SAME RTE						
HISTCONT ALL RTEs						
CURR VS HC SAME RTE						
CURR VS HC ALL RTEs						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS**

DOSE	FEMALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Spleen						
Accessory Spleen						
LESION RATES						
OVERALL(a)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/0.00	0/0.00	0/0.00	0/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)	(n)	(n)
HISTCONT SAME RTE						
HISTCONT ALL RTES						
CURR VS HC SAME RTE						
CURR VS HC ALL RTES						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

CAS Number: 115-11-7

Date Report Requested: 10/15/2014

Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RAT(F 344/N)
LAST REMOVAL AT 14286 WEEKS

DOSE	FEMALE					
	CONTROL	500 PPM	1000 PPM	2000 PPM	4000 PPM	8000 PPM
Thymus						
Hemorrhage						
LESION RATES						
OVERALL(a)	0/10 (0%)	1/1 (100%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	1/1.00	0/0.00	0/0.00	0/0.00	0/10.00
POLY-3 PERCENT (g)	0%	100%	0%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	1/1 (100%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
FIRST INCIDENCE	---	93(T)	---	---	---	---
STATISTICAL TESTS						
POLY 3	(e)	P=0.091	(e)	(e)	(e)	(e)
POLY 1.5	(e)	P=0.091	(e)	(e)	(e)	(e)
POLY 6	(e)	P=0.091	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.366N	P=0.091	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	P=0.000**	(e)	(e)	(e)	(e)
HISTCONT SAME RTE						
HISTCONT ALL RTEs						
CURR VS HC SAME RTE						
CURR VS HC ALL RTEs						

Experiment Number: 88070-01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Isobutene

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Time Report Requested: 23:11:55

First Dose M/F: NA / NA

Lab: BNW

LEGEND

- (a) Number of tumor-bearing animals/number of animals examined at site.
 - (b) Number of tumor-bearing animals/Poly-3 number
 - (d) Observed incidence at terminal kill.
 - (e) Value of statistic cannot be computed.
 - (f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group.
 - (g) Poly-3 adjusted lifetime tumor incidence.
 - (n) No statistics are calculated if all dose groups have fewer than two tumors.
 - (I) Interim sacrifice
 - (T) Terminal sacrifice
 - # Tumor rates based on numbers of animals necropsied.
 - * To the right of any statistical result, indicates significance at ($P \leq 0.05$).
 - ** To the right of any statistical result, indicates significance at ($P \leq 0.01$).
 - N Indicates a negative trend for all tests
- The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates.

**** END OF REPORT ****