

**TDMS No.** 20011 - 05

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** RATS/F 344

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

1-Bromopropane

**CAS Number:** 106-94-5

**Date Report Requested:** 07/09/2008

**Time Report Requested:** 10:20:06

**First Dose M/F:** 07/14/03 / 07/14/03

**Lab:** BNW

**C Number:** C20011  
**Lock Date:** 06/15/2006  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 2.0.0

TDMS No. 20011 - 05

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## SUMMARY OF STATISTICALLY SIGNIFICANT ( $P \leq .05$ ) RESULTS IN THE ANALYSIS OF 1-Bromopropane

### MALE RATS

#### Organ

Adrenal Cortex

Bone

Harderian Gland

Heart

Heart: Atrium

Kidney: Pelvis

Larynx

Liver

Lung

Lymph Node, Bronchial

Lymph Node, Mediastinal

Nose

Nose: Glands

Pancreas: Acinus

Parathyroid Gland

Pituitary Gland

Preputial Gland

Prostate

Salivary Glands

Skin

Spleen

### FEMALE RATS

#### Organ

Clitoral Gland

#### Morphology

Vacuolization Cytoplasmic

Inflammation Chronic

Inflammation Chronic

Cardiomyopathy

Thrombosis

Inflammation Chronic

Foreign Body

Inflammation Chronic

Clear Cell Focus

Hepatodiaphragmatic Nodule

Inflammation Chronic

Hyperplasia Lymphoid

Angiectasis

Inflammation Chronic

Hyperplasia

Atrophy

Hyperplasia

Hemorrhage

Hyperplasia

Inflammation Chronic

Hyperplasia

Inflammation Chronic

Hyperkeratosis

Inflammation Chronic

Hematopoietic Cell Proliferation

Hemorrhage Chronic

Infarct Chronic

#### Morphology

Hyperplasia

TDMS No. 20011 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

1-Bromopropane

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Lab: BNW

SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS IN THE ANALYSIS OF 1-Bromopropane

Harderian Gland	Inflammation Chronic
Heart	Cardiomyopathy
Islets, Pancreatic	Hyperplasia
Larynx	Inflammation Chronic
	Metaplasia
Liver	Clear Cell Focus
	Vacuolization Cytoplasmic
Lung	Inflammation Chronic
Lymph Node, Bronchial	Angiectasis
Lymph Node, Mediastinal	Angiectasis
	Hemorrhage
Nose	Inflammation Chronic
Nose: Glands	Hyperplasia
Nose: Olfactory Epithelium	Metaplasia Respiratory
Nose: Respiratory Epithelium	Hyperplasia
	Metaplasia
Oral Mucosa	Foreign Body
	Inflammation Chronic
Spleen	Hematopoietic Cell Proliferation
Stomach, Forestomach	Hyperplasia
	Ulcer
Trachea	Inflammation Chronic
Trachea: Epithelium	Hyperplasia
Uterus	Decidual Reaction

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

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**Adrenal Cortex  
Hyperplasia**

**LESION RATES**

OVERALL (a)	27/50 (54%)	21/50 (42%)	22/50 (44%)	20/50 (40%)
POLY-3 RATE (b)	27/44.60	21/41.68	22/41.74	20/38.05
POLY-3 PERCENT (g)	60.5%	50.4%	52.7%	52.6%
TERMINAL (d)	15/23 (65%)	18/26 (69%)	8/18 (44%)	7/13 (54%)
FIRST INCIDENCE	582	528	418	624

**STATISTICAL TESTS**

POLY 3	P=0.299N	P=0.221N	P=0.294N	P=0.296N
POLY 1.5	P=0.218N	P=0.191N	P=0.254N	P=0.202N
POLY 6	P=0.421N	P=0.275N	P=0.350N	P=0.447N
COCH-ARM / FISHERS	P=0.135N	P=0.158N	P=0.212N	P=0.115N
MAX-ISO-POLY-3	P=0.359N	P=0.168N	P=0.229N	P=0.237N

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Adrenal Cortex  
Vacuolization Cytoplasmic**

**LESION RATES**

OVERALL (a)	9/50 (18%)	16/50 (32%)	9/50 (18%)	12/50 (24%)
POLY-3 RATE (b)	9/42.98	16/42.77	9/38.92	12/38.01
POLY-3 PERCENT (g)	20.9%	37.4%	23.1%	31.6%
TERMINAL (d)	4/23 (17%)	9/26 (35%)	3/18 (17%)	5/13 (39%)
FIRST INCIDENCE	501	562	603	577

**STATISTICAL TESTS**

POLY 3	P=0.313	P=0.070	P=0.511	P=0.199
POLY 1.5	P=0.379	P=0.073	P=0.550	P=0.241
POLY 6	P=0.241	P=0.073	P=0.466	P=0.155
COCH-ARM / FISHERS	P=0.477	P=0.083	P=0.602N	P=0.312
MAX-ISO-POLY-3	P=0.249	P=0.043*	P=0.407	P=0.148

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

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**Adrenal Medulla  
Hyperplasia**

**LESION RATES**

OVERALL (a)	23/50 (46%)	18/50 (36%)	23/50 (46%)	19/50 (38%)
POLY-3 RATE (b)	23/44.02	18/42.60	23/40.99	19/40.46
POLY-3 PERCENT (g)	52.2%	42.3%	56.1%	47%
TERMINAL (d)	12/23 (52%)	10/26 (39%)	12/18 (67%)	5/13 (39%)
FIRST INCIDENCE	582	562	520	422

**STATISTICAL TESTS**

POLY 3	P=0.479N	P=0.230N	P=0.442	P=0.391N
POLY 1.5	P=0.415N	P=0.223N	P=0.505	P=0.337N
POLY 6	P=0.517	P=0.238N	P=0.354	P=0.469N
COCH-ARM / FISHERS	P=0.340N	P=0.208N	P=0.579N	P=0.272N
MAX-ISO-POLY-3	P=0.500N	P=0.173N	P=0.358	P=0.315N

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

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**Bone  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/41.44	0/40.69	0/37.74	2/36.62
POLY-3 PERCENT (g)	0%	0%	0%	5.5%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	0/18 (0%)	0/13 (0%)
FIRST INCIDENCE	---	---	---	484

**STATISTICAL TESTS**

POLY 3	P=0.040*	(e)	(e)	P=0.210
POLY 1.5	P=0.042*	(e)	(e)	P=0.221
POLY 6	P=0.037*	(e)	(e)	P=0.196
COCH-ARM / FISHERS	P=0.046*	(e)	(e)	P=0.247
MAX-ISO-POLY-3	P=0.032*	(e)	(e)	P=0.075

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

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**Brain  
Hemorrhage**

**LESION RATES**

OVERALL (a)	1/50 (2%)	1/50 (2%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	1/42.05	1/41.23	2/38.13	2/36.30
POLY-3 PERCENT (g)	2.4%	2.4%	5.3%	5.5%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	0/18 (0%)	0/13 (0%)
FIRST INCIDENCE	534	562	666	660

**STATISTICAL TESTS**

POLY 3	P=0.278	P=0.757	P=0.466	P=0.449
POLY 1.5	P=0.303	P=0.757	P=0.480	P=0.470
POLY 6	P=0.249	P=0.758	P=0.448	P=0.423
COCH-ARM / FISHERS	P=0.337	P=0.753N	P=0.500	P=0.500
MAX-ISO-POLY-3	P=0.408	P=0.494	P=0.261	P=0.253

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

**Coagulating Gland  
Inflammation**

**LESION RATES**

OVERALL (a)	2/3 (67%)	0/0 (0%)	0/1 (0%)	0/2 (0%)
POLY-3 RATE (b)	2/3.00	0/0.00	0/1.00	0/0.98
POLY-3 PERCENT (g)	66.7%	0%	0%	0%
TERMINAL (d)	0/1 (0%)	0/0 (0%)	0/1 (0%)	0/0 (0%)
FIRST INCIDENCE	635	---	---	---

**STATISTICAL TESTS**

POLY 3	(e)	(e)	P=0.500N	P=0.506N
POLY 1.5	(e)	(e)	P=0.500N	P=0.422N
POLY 6	(e)	(e)	P=0.500N	P=0.583N
COCH-ARM / FISHERS	P=0.130N	(e)	P=0.500N	P=0.300N
MAX-ISO-POLY-3	(e)	(e)	P=0.207N	P=0.254N

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

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**Eye  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	0/49 (0%)	0/49 (0%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	0/41.24	0/40.61	1/37.74	2/36.95
POLY-3 PERCENT (g)	0%	0%	2.7%	5.4%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	1/18 (6%)	0/13 (0%)
FIRST INCIDENCE	---	---	729 (T)	422

**STATISTICAL TESTS**

POLY 3	P=0.059	(e)	P=0.482	P=0.213
POLY 1.5	P=0.064	(e)	P=0.491	P=0.225
POLY 6	P=0.052	(e)	P=0.471	P=0.199
COCH-ARM / FISHERS	P=0.072	(e)	P=0.505	P=0.253
MAX-ISO-POLY-3	P=0.078	(e)	P=0.159	P=0.076

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

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**Eye: Lens  
Cataract**

**LESION RATES**

OVERALL (a)	2/49 (4%)	0/49 (0%)	3/50 (6%)	2/50 (4%)
POLY-3 RATE (b)	2/41.24	0/40.61	3/38.38	2/36.56
POLY-3 PERCENT (g)	4.9%	0%	7.8%	5.5%
TERMINAL (d)	2/23 (9%)	0/26 (0%)	2/18 (11%)	1/13 (8%)
FIRST INCIDENCE	729 (T)	---	520	453

**STATISTICAL TESTS**

POLY 3	P=0.367	P=0.240N	P=0.467	P=0.650
POLY 1.5	P=0.394	P=0.239N	P=0.485	P=0.672
POLY 6	P=0.333	P=0.239N	P=0.446	P=0.622
COCH-ARM / FISHERS	P=0.432	P=0.247N	P=0.510	P=0.684N
MAX-ISO-POLY-3	P=0.323	P=0.079N	P=0.301	P=0.453

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Harderian Gland  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/41.44	0/40.69	0/37.74	2/36.64
POLY-3 PERCENT (g)	0%	0%	0%	5.5%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	0/18 (0%)	0/13 (0%)
FIRST INCIDENCE	---	---	---	453

**STATISTICAL TESTS**

POLY 3	P=0.040*	(e)	(e)	P=0.210
POLY 1.5	P=0.042*	(e)	(e)	P=0.221
POLY 6	P=0.037*	(e)	(e)	P=0.196
COCH-ARM / FISHERS	P=0.046*	(e)	(e)	P=0.247
MAX-ISO-POLY-3	P=0.032*	(e)	(e)	P=0.075

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Heart  
Cardiomyopathy**

**LESION RATES**

OVERALL (a)	26/50 (52%)	23/50 (46%)	23/50 (46%)	15/50 (30%)
POLY-3 RATE (b)	26/44.30	23/42.33	23/41.39	15/38.01
POLY-3 PERCENT (g)	58.7%	54.3%	55.6%	39.5%
TERMINAL (d)	17/23 (74%)	17/26 (65%)	11/18 (61%)	7/13 (54%)
FIRST INCIDENCE	429	569	520	527

**STATISTICAL TESTS**

POLY 3	P=0.047N*	P=0.420N	P=0.469N	P=0.054N
POLY 1.5	P=0.030N*	P=0.396N	P=0.417N	P=0.036N*
POLY 6	P=0.081N	P=0.429N	P=0.522N	P=0.085N
COCH-ARM / FISHERS	P=0.016N*	P=0.345N	P=0.345N	P=0.021N*
MAX-ISO-POLY-3	P=0.069N	P=0.337N	P=0.381N	P=0.042N*

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Heart: Atrium  
Thrombosis**

**LESION RATES**

OVERALL (a)	4/50 (8%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	4/42.29	0/40.69	0/37.74	2/36.06
POLY-3 PERCENT (g)	9.5%	0%	0%	5.6%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	0/18 (0%)	1/13 (8%)
FIRST INCIDENCE	646	---	---	659

**STATISTICAL TESTS**

POLY 3	P=0.340N	P=0.065N	P=0.075N	P=0.412N
POLY 1.5	P=0.337N	P=0.063N	P=0.068N	P=0.380N
POLY 6	P=0.346N	P=0.066N	P=0.086N	P=0.458N
COCH-ARM / FISHERS	P=0.337N	P=0.059N	P=0.059N	P=0.339N
MAX-ISO-POLY-3	P=0.076N	P=0.023N*	P=0.032N*	P=0.275N

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Islets, Pancreatic  
Hyperplasia**

**LESION RATES**

OVERALL (a)	10/50 (20%)	7/50 (14%)	6/50 (12%)	9/50 (18%)
POLY-3 RATE (b)	10/42.86	7/41.46	6/38.78	9/38.21
POLY-3 PERCENT (g)	23.3%	16.9%	15.5%	23.6%
TERMINAL (d)	5/23 (22%)	5/26 (19%)	4/18 (22%)	1/13 (8%)
FIRST INCIDENCE	591	568	534	453

**STATISTICAL TESTS**

POLY 3	P=0.509	P=0.320N	P=0.268N	P=0.595
POLY 1.5	P=0.549	P=0.312N	P=0.239N	P=0.567N
POLY 6	P=0.453	P=0.326N	P=0.314N	P=0.540
COCH-ARM / FISHERS	P=0.500N	P=0.298N	P=0.207N	P=0.500N
MAX-ISO-POLY-3	P=0.480	P=0.233N	P=0.196N	P=0.490

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Islets, Pancreatic  
Metaplasia Hepatocyte**

**LESION RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/41.44	0/40.69	0/37.74	0/35.80
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	0/18 (0%)	0/13 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

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**Kidney  
Nephropathy Chronic**

**LESION RATES**

OVERALL (a)	44/50 (88%)	45/50 (90%)	39/50 (78%)	44/49 (90%)
POLY-3 RATE (b)	44/47.89	45/46.75	39/44.62	44/45.75
POLY-3 PERCENT (g)	91.9%	96.3%	87.4%	96.2%
TERMINAL (d)	23/23 (100%)	26/26 (100%)	17/18 (94%)	13/13 (100%)
FIRST INCIDENCE	534	528	514	422

**STATISTICAL TESTS**

POLY 3	P=0.358	P=0.287	P=0.333N	P=0.301
POLY 1.5	P=0.450	P=0.373	P=0.220N	P=0.383
POLY 6	P=0.266	P=0.204	P=0.563N	P=0.244
COCH-ARM / FISHERS	P=0.553N	P=0.500	P=0.143N	P=0.514
MAX-ISO-POLY-3	P=0.250	P=0.141	P=0.210N	P=0.153

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

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**Kidney: Cortex, Renal Tubule  
Casts Granular**

**LESION RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/49 (0%)
POLY-3 RATE (b)	0/41.44	0/40.69	2/38.63	0/35.06
POLY-3 PERCENT (g)	0%	0%	5.2%	0%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	0/18 (0%)	0/13 (0%)
FIRST INCIDENCE	---	---	578	---

**STATISTICAL TESTS**

POLY 3	P=0.513	(e)	P=0.221	(e)
POLY 1.5	P=0.547	(e)	P=0.228	(e)
POLY 6	P=0.468	(e)	P=0.214	(e)
COCH-ARM / FISHERS	P=0.591	(e)	P=0.247	(e)
MAX-ISO-POLY-3	P=0.267	(e)	P=0.075	(e)

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Kidney: Pelvis  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/49 (4%)
POLY-3 RATE (b)	0/41.44	0/40.69	0/37.74	2/35.17
POLY-3 PERCENT (g)	0%	0%	0%	5.7%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	0/18 (0%)	1/13 (8%)
FIRST INCIDENCE	---	---	---	701

**STATISTICAL TESTS**

POLY 3	P=0.038*	(e)	(e)	P=0.202
POLY 1.5	P=0.040*	(e)	(e)	P=0.214
POLY 6	P=0.035*	(e)	(e)	P=0.187
COCH-ARM / FISHERS	P=0.045*	(e)	(e)	P=0.242
MAX-ISO-POLY-3	P=0.031*	(e)	(e)	P=0.074

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

Larynx  
Foreign Body

**LESION RATES**

OVERALL (a)	6/50 (12%)	1/50 (2%)	5/50 (10%)	1/50 (2%)
POLY-3 RATE (b)	6/42.19	1/41.06	5/39.05	1/36.42
POLY-3 PERCENT (g)	14.2%	2.4%	12.8%	2.8%
TERMINAL (d)	3/23 (13%)	0/26 (0%)	1/18 (6%)	0/13 (0%)
FIRST INCIDENCE	501	624	561	527

**STATISTICAL TESTS**

POLY 3	P=0.126N	P=0.059N	P=0.555N	P=0.081N
POLY 1.5	P=0.111N	P=0.059N	P=0.532N	P=0.070N
POLY 6	P=0.150N	P=0.057N	P=0.579N	P=0.098N
COCH-ARM / FISHERS	P=0.095N	P=0.056N	P=0.500N	P=0.056N
MAX-ISO-POLY-3	P=0.064N	P=0.026N*	P=0.427N	P=0.046N*

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Larynx  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	21/50 (42%)	28/50 (56%)	31/50 (62%)	27/50 (54%)
POLY-3 RATE (b)	21/44.09	28/45.59	31/45.51	27/44.93
POLY-3 PERCENT (g)	47.6%	61.4%	68.1%	60.1%
TERMINAL (d)	11/23 (48%)	13/26 (50%)	9/18 (50%)	6/13 (46%)
FIRST INCIDENCE	501	560	488	394

**STATISTICAL TESTS**

POLY 3	P=0.169	P=0.127	P=0.032*	P=0.157
POLY 1.5	P=0.170	P=0.115	P=0.031*	P=0.156
POLY 6	P=0.170	P=0.164	P=0.042*	P=0.165
COCH-ARM / FISHERS	P=0.175	P=0.115	P=0.036*	P=0.158
MAX-ISO-POLY-3	P=0.080	P=0.091	P=0.021*	P=0.112

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Larynx  
Metaplasia**

**LESION RATES**

OVERALL (a)	4/50 (8%)	6/50 (12%)	8/50 (16%)	5/50 (10%)
POLY-3 RATE (b)	4/42.14	6/42.36	8/40.43	5/37.07
POLY-3 PERCENT (g)	9.5%	14.2%	19.8%	13.5%
TERMINAL (d)	2/23 (9%)	2/26 (8%)	1/18 (6%)	1/13 (8%)
FIRST INCIDENCE	501	585	561	562

**STATISTICAL TESTS**

POLY 3	P=0.332	P=0.372	P=0.153	P=0.419
POLY 1.5	P=0.381	P=0.367	P=0.162	P=0.452
POLY 6	P=0.278	P=0.388	P=0.148	P=0.383
COCH-ARM / FISHERS	P=0.455	P=0.370	P=0.178	P=0.500
MAX-ISO-POLY-3	P=0.313	P=0.254	P=0.095	P=0.300

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Liver  
Angiectasis**

**LESION RATES**

OVERALL (a)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/41.44	2/40.69	1/37.87	0/35.80
POLY-3 PERCENT (g)	0%	4.9%	2.6%	0%
TERMINAL (d)	0/23 (0%)	2/26 (8%)	0/18 (0%)	0/13 (0%)
FIRST INCIDENCE	---	729 (T)	697	---

**STATISTICAL TESTS**

POLY 3	P=0.514N	P=0.233	P=0.482	(e)
POLY 1.5	P=0.492N	P=0.234	P=0.490	(e)
POLY 6	P=0.545N	P=0.233	P=0.472	(e)
COCH-ARM / FISHERS	P=0.461N	P=0.247	P=0.500	(e)
MAX-ISO-POLY-3	P=0.355	P=0.075	P=0.158	(e)

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Liver  
Basophilic Focus**

**LESION RATES**

OVERALL (a)	9/50 (18%)	9/50 (18%)	8/50 (16%)	8/50 (16%)
POLY-3 RATE (b)	9/41.83	9/41.08	8/37.74	8/35.93
POLY-3 PERCENT (g)	21.5%	21.9%	21.2%	22.3%
TERMINAL (d)	7/23 (30%)	8/26 (31%)	8/18 (44%)	7/13 (54%)
FIRST INCIDENCE	653	618	729 (T)	697

**STATISTICAL TESTS**

POLY 3	P=0.525	P=0.589	P=0.595N	P=0.578
POLY 1.5	P=0.508N	P=0.591	P=0.552N	P=0.580N
POLY 6	P=0.428	P=0.594	P=0.567	P=0.498
COCH-ARM / FISHERS	P=0.424N	P=0.602N	P=0.500N	P=0.500N
MAX-ISO-POLY-3	P=0.714	P=0.482	P=0.486N	P=0.469

---



**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

Liver  
Clear Cell Focus

**LESION RATES**

OVERALL (a)	16/50 (32%)	25/50 (50%)	17/50 (34%)	15/50 (30%)
POLY-3 RATE (b)	16/42.40	25/41.09	17/39.08	15/37.44
POLY-3 PERCENT (g)	37.7%	60.8%	43.5%	40.1%
TERMINAL (d)	11/23 (48%)	23/26 (89%)	13/18 (72%)	8/13 (62%)
FIRST INCIDENCE	635	627	514	562

**STATISTICAL TESTS**

POLY 3	P=0.397N	P=0.022*	P=0.377	P=0.507
POLY 1.5	P=0.312N	P=0.031*	P=0.433	P=0.577
POLY 6	P=0.527N	P=0.012*	P=0.299	P=0.412
COCH-ARM / FISHERS	P=0.221N	P=0.052	P=0.500	P=0.500N
MAX-ISO-POLY-3	P=0.273	P=0.013*	P=0.300	P=0.416

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Liver  
Degeneration Cystic**

**LESION RATES**

OVERALL (a)	2/50 (4%)	2/50 (4%)	1/50 (2%)	4/50 (8%)
POLY-3 RATE (b)	2/41.44	2/40.95	1/38.44	4/35.80
POLY-3 PERCENT (g)	4.8%	4.9%	2.6%	11.2%
TERMINAL (d)	2/23 (9%)	1/26 (4%)	0/18 (0%)	4/13 (31%)
FIRST INCIDENCE	729 (T)	660	488	729 (T)

**STATISTICAL TESTS**

POLY 3	P=0.184	P=0.690	P=0.526N	P=0.271
POLY 1.5	P=0.202	P=0.690	P=0.515N	P=0.298
POLY 6	P=0.162	P=0.695	P=0.541N	P=0.236
COCH-ARM / FISHERS	P=0.227	P=0.691N	P=0.500N	P=0.339
MAX-ISO-POLY-3	P=0.176	P=0.494	P=0.308N	P=0.167

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

Liver  
Hepatodiaphragmatic Nodule

**LESION RATES**

OVERALL (a)	4/50 (8%)	1/50 (2%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	4/41.70	1/40.69	0/37.74	2/36.40
POLY-3 PERCENT (g)	9.6%	2.5%	0%	5.5%
TERMINAL (d)	3/23 (13%)	1/26 (4%)	0/18 (0%)	0/13 (0%)
FIRST INCIDENCE	660	729 (T)	---	635

**STATISTICAL TESTS**

POLY 3	P=0.294N	P=0.185N	P=0.073N	P=0.401N
POLY 1.5	P=0.286N	P=0.184N	P=0.067N	P=0.374N
POLY 6	P=0.305N	P=0.184N	P=0.081N	P=0.435N
COCH-ARM / FISHERS	P=0.279N	P=0.181N	P=0.059N	P=0.339N
MAX-ISO-POLY-3	P=0.128N	P=0.090N	P=0.030N*	P=0.264N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Liver  
Mixed Cell Focus**

**LESION RATES**

OVERALL (a)	2/50 (4%)	1/50 (2%)	3/50 (6%)	0/50 (0%)
POLY-3 RATE (b)	2/41.70	1/40.69	3/37.90	0/35.80
POLY-3 PERCENT (g)	4.8%	2.5%	7.9%	0%
TERMINAL (d)	1/23 (4%)	1/26 (4%)	2/18 (11%)	0/13 (0%)
FIRST INCIDENCE	660	729 (T)	688	---

**STATISTICAL TESTS**

POLY 3	P=0.296N	P=0.509N	P=0.456	P=0.272N
POLY 1.5	P=0.272N	P=0.506N	P=0.475	P=0.257N
POLY 6	P=0.332N	P=0.509N	P=0.431	P=0.294N
COCH-ARM / FISHERS	P=0.242N	P=0.500N	P=0.500	P=0.247N
MAX-ISO-POLY-3	P=0.235N	P=0.290N	P=0.293	P=0.109N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

Liver  
Necrosis

**LESION RATES**

OVERALL (a)	2/50 (4%)	1/50 (2%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	2/41.98	1/41.17	1/37.87	1/36.06
POLY-3 PERCENT (g)	4.8%	2.4%	2.6%	2.8%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	0/18 (0%)	0/13 (0%)
FIRST INCIDENCE	646	585	697	659

**STATISTICAL TESTS**

POLY 3	P=0.446N	P=0.507N	P=0.536N	P=0.553N
POLY 1.5	P=0.430N	P=0.505N	P=0.520N	P=0.531N
POLY 6	P=0.468N	P=0.506N	P=0.557N	P=0.582N
COCH-ARM / FISHERS	P=0.409N	P=0.500N	P=0.500N	P=0.500N
MAX-ISO-POLY-3	P=0.494N	P=0.288N	P=0.319N	P=0.336N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

Liver  
Vacuolization Cytoplasmic

**LESION RATES**

OVERALL (a)	31/50 (62%)	38/50 (76%)	32/50 (64%)	37/50 (74%)
POLY-3 RATE (b)	31/46.22	38/47.40	32/46.52	37/46.10
POLY-3 PERCENT (g)	67.1%	80.2%	68.8%	80.3%
TERMINAL (d)	15/23 (65%)	24/26 (92%)	11/18 (61%)	12/13 (92%)
FIRST INCIDENCE	429	316	418	394

**STATISTICAL TESTS**

POLY 3	P=0.160	P=0.100	P=0.519	P=0.099
POLY 1.5	P=0.181	P=0.099	P=0.511	P=0.113
POLY 6	P=0.137	P=0.099	P=0.528	P=0.082
COCH-ARM / FISHERS	P=0.219	P=0.097	P=0.500	P=0.142
MAX-ISO-POLY-3	P=0.097	P=0.065	P=0.425	P=0.061

---

TDMS No. 20011 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 1-Bromopropane  
 CAS Number: 106-94-5

Date Report Requested: 07/09/2008  
 Time Report Requested: 10:20:06  
 First Dose M/F: 07/14/03 / 07/14/03  
 Lab: BNW

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Lung  
 Hemorrhage**

**LESION RATES**

OVERALL (a)	2/50 (4%)	5/50 (10%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	2/42.38	5/40.94	1/38.24	1/35.80
POLY-3 PERCENT (g)	4.7%	12.2%	2.6%	2.8%
TERMINAL (d)	0/23 (0%)	4/26 (15%)	0/18 (0%)	1/13 (8%)
FIRST INCIDENCE	501	663	578	729 (T)

**STATISTICAL TESTS**

POLY 3	P=0.253N	P=0.201	P=0.536N	P=0.558N
POLY 1.5	P=0.226N	P=0.206	P=0.520N	P=0.534N
POLY 6	P=0.292N	P=0.198	P=0.556N	P=0.591N
COCH-ARM / FISHERS	P=0.194N	P=0.218	P=0.500N	P=0.500N
MAX-ISO-POLY-3	P=0.257N	P=0.112	P=0.319N	P=0.343N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Lung  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	5/50 (10%)	0/50 (0%)	1/50 (2%)	6/50 (12%)
POLY-3 RATE (b)	5/43.25	0/40.69	1/38.21	6/39.67
POLY-3 PERCENT (g)	11.6%	0%	2.6%	15.1%
TERMINAL (d)	1/23 (4%)	0/26 (0%)	0/18 (0%)	0/13 (0%)
FIRST INCIDENCE	501	---	590	422

**STATISTICAL TESTS**

POLY 3	P=0.192	P=0.035N*	P=0.131N	P=0.439
POLY 1.5	P=0.200	P=0.034N*	P=0.118N	P=0.465
POLY 6	P=0.179	P=0.037N*	P=0.150N	P=0.402
COCH-ARM / FISHERS	P=0.210	P=0.028N*	P=0.102N	P=0.500
MAX-ISO-POLY-3	P=0.062	P=0.013N*	P=0.072N	P=0.323

---



**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Lung: Alveolar Epithelium  
Hyperplasia**

**LESION RATES**

OVERALL (a)	15/50 (30%)	11/50 (22%)	13/50 (26%)	11/50 (22%)
POLY-3 RATE (b)	15/44.57	11/42.92	13/40.29	11/38.55
POLY-3 PERCENT (g)	33.7%	25.6%	32.3%	28.5%
TERMINAL (d)	7/23 (30%)	5/26 (19%)	5/18 (28%)	3/13 (23%)
FIRST INCIDENCE	501	505	534	500

**STATISTICAL TESTS**

POLY 3	P=0.424N	P=0.276N	P=0.538N	P=0.394N
POLY 1.5	P=0.358N	P=0.266N	P=0.483N	P=0.331N
POLY 6	P=0.512N	P=0.285N	P=0.581	P=0.477N
COCH-ARM / FISHERS	P=0.272N	P=0.247N	P=0.412N	P=0.247N
MAX-ISO-POLY-3	P=0.504N	P=0.208N	P=0.447N	P=0.318N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Lung: Alveolus  
Infiltration Cellular Histiocyte**

**LESION RATES**

OVERALL (a)	16/50 (32%)	14/50 (28%)	13/50 (26%)	11/50 (22%)
POLY-3 RATE (b)	16/44.53	14/43.31	13/40.09	11/38.45
POLY-3 PERCENT (g)	35.9%	32.3%	32.4%	28.6%
TERMINAL (d)	7/23 (30%)	7/26 (27%)	5/18 (28%)	3/13 (23%)
FIRST INCIDENCE	501	562	520	484

**STATISTICAL TESTS**

POLY 3	P=0.281N	P=0.447N	P=0.456N	P=0.315N
POLY 1.5	P=0.221N	P=0.438N	P=0.400N	P=0.256N
POLY 6	P=0.371N	P=0.449N	P=0.530N	P=0.398N
COCH-ARM / FISHERS	P=0.153N	P=0.414N	P=0.330N	P=0.184N
MAX-ISO-POLY-3	P=0.405N	P=0.360N	P=0.371N	P=0.251N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Lymph Node, Bronchial  
Angiectasis**

**LESION RATES**

OVERALL (a)	1/3 (33%)	2/6 (33%)	2/5 (40%)	0/8 (0%)
POLY-3 RATE (b)	1/2.29	2/4.76	2/4.11	0/5.41
POLY-3 PERCENT (g)	43.7%	42%	48.6%	0%
TERMINAL (d)	0/0 (0%)	0/0 (0%)	1/1 (100%)	0/2 (0%)
FIRST INCIDENCE	669	660	697	---

**STATISTICAL TESTS**

POLY 3	P=0.105N	P=0.765N	P=0.743	P=0.301N
POLY 1.5	P=0.105N	P=0.756N	P=0.715	P=0.299N
POLY 6	P=0.088N	P=0.784N	P=0.801	P=0.291N
COCH-ARM / FISHERS	P=0.092N	P=0.762N	P=0.714	P=0.273N
MAX-ISO-POLY-3	P=0.166N	P=0.486N	P=0.460	P=0.060N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Lymph Node, Bronchial  
Hyperplasia Lymphoid**

**LESION RATES**

OVERALL (a)	0/3 (0%)	0/6 (0%)	0/5 (0%)	4/8 (50%)
POLY-3 RATE (b)	0/2.06	0/4.42	0/3.99	4/6.73
POLY-3 PERCENT (g)	0%	0%	0%	59.4%
TERMINAL (d)	0/0 (0%)	0/0 (0%)	0/1 (0%)	1/2 (50%)
FIRST INCIDENCE	---	---	---	422

**STATISTICAL TESTS**

POLY 3	P=0.003**	(e)	(e)	P=0.239
POLY 1.5	P=0.003**	(e)	(e)	P=0.206
POLY 6	P=0.005**	(e)	(e)	P=0.334
COCH-ARM / FISHERS	P=0.010**	(e)	(e)	P=0.212
MAX-ISO-POLY-3	P=0.005**	(e)	(e)	P=0.114

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Lymph Node, Mediastinal  
Angiectasis**

**LESION RATES**

OVERALL (a)	0/30 (0%)	0/25 (0%)	1/23 (4%)	3/32 (9%)
POLY-3 RATE (b)	0/26.46	0/19.21	1/16.93	3/22.12
POLY-3 PERCENT (g)	0%	0%	5.9%	13.6%
TERMINAL (d)	0/17 (0%)	0/13 (0%)	0/6 (0%)	1/6 (17%)
FIRST INCIDENCE	---	---	418	562

**STATISTICAL TESTS**

POLY 3	P=0.018*	(e)	P=0.412	P=0.085
POLY 1.5	P=0.023*	(e)	P=0.427	P=0.102
POLY 6	P=0.013*	(e)	P=0.391	P=0.067
COCH-ARM / FISHERS	P=0.030*	(e)	P=0.434	P=0.131
MAX-ISO-POLY-3	P=0.028*	(e)	P=0.139	P=0.036*

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Lymph Node, Mediastinal Hemorrhage**

**LESION RATES**

OVERALL (a)	0/30 (0%)	0/25 (0%)	0/23 (0%)	0/32 (0%)
POLY-3 RATE (b)	0/26.46	0/19.21	0/16.11	0/21.51
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/17 (0%)	0/13 (0%)	0/6 (0%)	0/6 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Lymph Node, Mediastinal  
Hyperplasia Lymphoid**

**LESION RATES**

OVERALL (a)	0/30 (0%)	1/25 (4%)	1/23 (4%)	2/32 (6%)
POLY-3 RATE (b)	0/26.46	1/19.21	1/16.76	2/22.50
POLY-3 PERCENT (g)	0%	5.2%	6%	8.9%
TERMINAL (d)	0/17 (0%)	1/13 (8%)	0/6 (0%)	0/6 (0%)
FIRST INCIDENCE	---	729 (T)	514	500

**STATISTICAL TESTS**

POLY 3	P=0.129	P=0.436	P=0.410	P=0.201
POLY 1.5	P=0.152	P=0.446	P=0.426	P=0.221
POLY 6	P=0.101	P=0.427	P=0.389	P=0.175
COCH-ARM / FISHERS	P=0.184	P=0.455	P=0.434	P=0.262
MAX-ISO-POLY-3	P=0.143	P=0.145	P=0.139	P=0.076

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

**Lymph Node, Mesenteric  
Angiectasis**

**LESION RATES**

OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	0/41.44	1/40.69	1/37.74	2/36.10
POLY-3 PERCENT (g)	0%	2.5%	2.7%	5.5%
TERMINAL (d)	0/23 (0%)	1/26 (4%)	1/18 (6%)	0/13 (0%)
FIRST INCIDENCE	---	729 (T)	729 (T)	653

**STATISTICAL TESTS**

POLY 3	P=0.123	P=0.496	P=0.481	P=0.207
POLY 1.5	P=0.136	P=0.497	P=0.489	P=0.219
POLY 6	P=0.109	P=0.497	P=0.471	P=0.192
COCH-ARM / FISHERS	P=0.153	P=0.500	P=0.500	P=0.247
MAX-ISO-POLY-3	P=0.120	P=0.158	P=0.158	P=0.075



**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Lymph Node: Pancreatic  
Angiectasis**

**LESION RATES**

OVERALL (a)	0/5 (0%)	2/5 (40%)	0/5 (0%)	0/4 (0%)
POLY-3 RATE (b)	0/3.36	2/3.82	0/3.29	0/3.40
POLY-3 PERCENT (g)	0%	52.3%	0%	0%
TERMINAL (d)	0/1 (0%)	2/2 (100%)	0/0 (0%)	0/2 (0%)
FIRST INCIDENCE	---	729 (T)	---	---

**STATISTICAL TESTS**

POLY 3	P=0.373N	P=0.217	(e)	(e)
POLY 1.5	P=0.408N	P=0.210	(e)	(e)
POLY 6	P=0.305N	P=0.246	(e)	(e)
COCH-ARM / FISHERS	P=0.445N	P=0.222	(e)	(e)
MAX-ISO-POLY-3	P=0.218N	P=0.056	(e)	(e)

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Mammary Gland  
Galactocele**

**LESION RATES**

OVERALL (a)	1/40 (3%)	1/36 (3%)	0/39 (0%)	0/36 (0%)
POLY-3 RATE (b)	1/33.39	1/30.32	0/28.95	0/27.87
POLY-3 PERCENT (g)	3%	3.3%	0%	0%
TERMINAL (d)	0/17 (0%)	1/19 (5%)	0/13 (0%)	0/12 (0%)
FIRST INCIDENCE	716	729 (T)	---	---

**STATISTICAL TESTS**

POLY 3	P=0.260N	P=0.740	P=0.528N	P=0.536N
POLY 1.5	P=0.254N	P=0.738	P=0.519N	P=0.530N
POLY 6	P=0.267N	P=0.744	P=0.541N	P=0.544N
COCH-ARM / FISHERS	P=0.247N	P=0.726	P=0.506N	P=0.526N
MAX-ISO-POLY-3	P=0.297N	P=0.472	P=0.191N	P=0.196N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Mesentery  
Necrosis**

**LESION RATES**

OVERALL (a)	13/13 (100%)	13/13 (100%)	7/8 (88%)	17/19 (89%)
POLY-3 RATE (b)	13/13.00	13/13.00	7/7.98	17/18.37
POLY-3 PERCENT (g)	100%	100%	87.7%	92.6%
TERMINAL (d)	8/8 (100%)	6/6 (100%)	3/3 (100%)	3/3 (100%)
FIRST INCIDENCE	591	611	488	394

**STATISTICAL TESTS**

POLY 3	P=0.201N	(e)	P=0.408N	P=0.445N
POLY 1.5	P=0.165N	(e)	P=0.405N	P=0.377N
POLY 6	P=0.290N	(e)	P=0.415N	P=0.624N
COCH-ARM / FISHERS	P=0.133N	(e)	P=0.381N	P=0.345N
MAX-ISO-POLY-3	P=0.179N	(e)	P=0.122N	P=0.133N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

Nose  
Foreign Body

**LESION RATES**

OVERALL (a)	11/50 (22%)	10/48 (21%)	15/48 (31%)	11/50 (22%)
POLY-3 RATE (b)	11/43.27	10/41.18	15/39.94	11/37.24
POLY-3 PERCENT (g)	25.4%	24.3%	37.6%	29.5%
TERMINAL (d)	5/23 (22%)	5/26 (19%)	7/18 (39%)	3/13 (23%)
FIRST INCIDENCE	501	505	418	611

**STATISTICAL TESTS**

POLY 3	P=0.280	P=0.552N	P=0.165	P=0.435
POLY 1.5	P=0.357	P=0.548N	P=0.184	P=0.502
POLY 6	P=0.198	P=0.553N	P=0.143	P=0.356
COCH-ARM / FISHERS	P=0.477	P=0.542N	P=0.210	P=0.595N
MAX-ISO-POLY-3	P=0.337	P=0.451N	P=0.118	P=0.348

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Nose  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	29/50 (58%)	34/48 (71%)	36/48 (75%)	42/50 (84%)
POLY-3 RATE (b)	29/44.85	34/43.76	36/43.38	42/48.57
POLY-3 PERCENT (g)	64.7%	77.7%	83%	86.5%
TERMINAL (d)	16/23 (70%)	21/26 (81%)	16/18 (89%)	9/13 (69%)
FIRST INCIDENCE	501	505	418	394

**STATISTICAL TESTS**

POLY 3	P=0.006**	P=0.114	P=0.029*	P=0.008**
POLY 1.5	P=0.004**	P=0.121	P=0.040*	P=0.005**
POLY 6	P=0.013*	P=0.114	P=0.020*	P=0.017*
COCH-ARM / FISHERS	P=0.003**	P=0.132	P=0.058	P=0.004**
MAX-ISO-POLY-3	P=0.005**	P=0.072	P=0.016*	P=0.005**

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Nose: Epithelium  
Accumulation, Hyaline Droplet**

**LESION RATES**

OVERALL (a)	44/50 (88%)	39/48 (81%)	36/48 (75%)	44/50 (88%)
POLY-3 RATE (b)	44/48.40	39/45.97	36/44.55	44/48.65
POLY-3 PERCENT (g)	90.9%	84.8%	80.8%	90.4%
TERMINAL (d)	20/23 (87%)	22/26 (85%)	14/18 (78%)	12/13 (92%)
FIRST INCIDENCE	501	505	488	394

**STATISTICAL TESTS**

POLY 3	P=0.529	P=0.265N	P=0.116N	P=0.613N
POLY 1.5	P=0.526	P=0.255N	P=0.094N	P=0.606N
POLY 6	P=0.507	P=0.294N	P=0.162N	P=0.655N
COCH-ARM / FISHERS	P=0.504	P=0.259N	P=0.080N	P=0.620N
MAX-ISO-POLY-3	P=0.317N	P=0.172N	P=0.070N	P=0.465N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Nose: Glands  
Hyperplasia**

**LESION RATES**

OVERALL (a)	5/50 (10%)	14/48 (29%)	14/48 (29%)	15/50 (30%)
POLY-3 RATE (b)	5/42.60	14/40.59	14/38.15	15/39.83
POLY-3 PERCENT (g)	11.7%	34.5%	36.7%	37.7%
TERMINAL (d)	2/23 (9%)	8/26 (31%)	9/18 (50%)	5/13 (39%)
FIRST INCIDENCE	501	660	534	449

**STATISTICAL TESTS**

POLY 3	P=0.011*	P=0.011*	P=0.006**	P=0.005**
POLY 1.5	P=0.017*	P=0.012*	P=0.009**	P=0.006**
POLY 6	P=0.007**	P=0.010**	P=0.004**	P=0.003**
COCH-ARM / FISHERS	P=0.031*	P=0.015*	P=0.015*	P=0.011*
MAX-ISO-POLY-3	P=0.007**	P=0.006**	P=0.004**	P=0.003**

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Nose: Olfactory Epithelium  
Metaplasia Respiratory**

**LESION RATES**

OVERALL (a)	7/50 (14%)	10/48 (21%)	12/48 (25%)	12/50 (24%)
POLY-3 RATE (b)	7/42.30	10/41.66	12/39.54	12/38.89
POLY-3 PERCENT (g)	16.6%	24%	30.4%	30.9%
TERMINAL (d)	3/23 (13%)	5/26 (19%)	5/18 (28%)	3/13 (23%)
FIRST INCIDENCE	586	505	418	484

**STATISTICAL TESTS**

POLY 3	P=0.080	P=0.280	P=0.108	P=0.100
POLY 1.5	P=0.102	P=0.274	P=0.118	P=0.119
POLY 6	P=0.059	P=0.294	P=0.097	P=0.081
COCH-ARM / FISHERS	P=0.144	P=0.266	P=0.131	P=0.154
MAX-ISO-POLY-3	P=0.120	P=0.197	P=0.071	P=0.068

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Nose: Respiratory Epithelium  
Hyperplasia**

**LESION RATES**

OVERALL (a)	14/50 (28%)	15/48 (31%)	20/48 (42%)	17/50 (34%)
POLY-3 RATE (b)	14/43.82	15/41.94	20/41.40	17/39.45
POLY-3 PERCENT (g)	32%	35.8%	48.3%	43.1%
TERMINAL (d)	6/23 (26%)	7/26 (27%)	8/18 (44%)	5/13 (39%)
FIRST INCIDENCE	501	505	418	484

**STATISTICAL TESTS**

POLY 3	P=0.127	P=0.442	P=0.087	P=0.200
POLY 1.5	P=0.175	P=0.444	P=0.097	P=0.250
POLY 6	P=0.082	P=0.444	P=0.077	P=0.148
COCH-ARM / FISHERS	P=0.266	P=0.448	P=0.113	P=0.333
MAX-ISO-POLY-3	P=0.170	P=0.353	P=0.059	P=0.153

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

**Nose: Respiratory Epithelium  
Metaplasia**

**LESION RATES**

OVERALL (a)	1/50 (2%)	1/48 (2%)	0/48 (0%)	2/50 (4%)
POLY-3 RATE (b)	1/41.70	1/39.97	0/36.71	2/36.17
POLY-3 PERCENT (g)	2.4%	2.5%	0%	5.5%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	0/18 (0%)	0/13 (0%)
FIRST INCIDENCE	660	663	---	659

**STATISTICAL TESTS**

POLY 3	P=0.335	P=0.752	P=0.525N	P=0.450
POLY 1.5	P=0.350	P=0.751	P=0.518N	P=0.471
POLY 6	P=0.316	P=0.754	P=0.535N	P=0.424
COCH-ARM / FISHERS	P=0.370	P=0.742	P=0.510N	P=0.500
MAX-ISO-POLY-3	P=0.263	P=0.487	P=0.187N	P=0.254

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Oral Mucosa  
Foreign Body**

**LESION RATES**

OVERALL (a)	1/3 (33%)	0/0 (0%)	1/2 (50%)	2/4 (50%)
POLY-3 RATE (b)	1/2.77	0/0.00	1/2.00	2/3.52
POLY-3 PERCENT (g)	36.1%	0%	50%	56.8%
TERMINAL (d)	0/1 (0%)	0/0 (0%)	1/2 (50%)	1/1 (100%)
FIRST INCIDENCE	724	---	729 (T)	666

**STATISTICAL TESTS**

POLY 3	(e)	(e)	P=0.694	P=0.602
POLY 1.5	(e)	(e)	P=0.682	P=0.607
POLY 6	(e)	(e)	P=0.714	P=0.593
COCH-ARM / FISHERS	P=0.483	(e)	P=0.700	P=0.629
MAX-ISO-POLY-3	(e)	(e)	P=0.407	P=0.328

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Oral Mucosa  
Hyperplasia**

**LESION RATES**

OVERALL (a)	1/3 (33%)	0/0 (0%)	1/2 (50%)	0/4 (0%)
POLY-3 RATE (b)	1/2.75	0/0.00	1/2.00	0/3.29
POLY-3 PERCENT (g)	36.3%	0%	50%	0%
TERMINAL (d)	1/1 (100%)	0/0 (0%)	1/2 (50%)	0/1 (0%)
FIRST INCIDENCE	729 (T)	---	729 (T)	---

**STATISTICAL TESTS**

POLY 3	(e)	(e)	P=0.696	P=0.463N
POLY 1.5	(e)	(e)	P=0.684	P=0.452N
POLY 6	(e)	(e)	P=0.719	P=0.484N
COCH-ARM / FISHERS	P=0.254N	(e)	P=0.700	P=0.429N
MAX-ISO-POLY-3	(e)	(e)	P=0.409	P=0.127N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Oral Mucosa  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	1/3 (33%)	0/0 (0%)	0/2 (0%)	2/4 (50%)
POLY-3 RATE (b)	1/2.77	0/0.00	0/2.00	2/3.52
POLY-3 PERCENT (g)	36.1%	0%	0%	56.8%
TERMINAL (d)	0/1 (0%)	0/0 (0%)	0/2 (0%)	1/1 (100%)
FIRST INCIDENCE	724	---	---	666

**STATISTICAL TESTS**

POLY 3	(e)	(e)	P=0.564N	P=0.602
POLY 1.5	(e)	(e)	P=0.570N	P=0.607
POLY 6	(e)	(e)	P=0.552N	P=0.593
COCH-ARM / FISHERS	P=0.446	(e)	P=0.600N	P=0.629
MAX-ISO-POLY-3	(e)	(e)	P=0.217N	P=0.328

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Pancreas: Acinus Atrophy**

**LESION RATES**

OVERALL (a)	23/50 (46%)	13/50 (26%)	20/50 (40%)	23/50 (46%)
POLY-3 RATE (b)	23/45.35	13/42.41	20/43.66	23/40.03
POLY-3 PERCENT (g)	50.7%	30.7%	45.8%	57.5%
TERMINAL (d)	10/23 (44%)	8/26 (31%)	7/18 (39%)	8/13 (62%)
FIRST INCIDENCE	501	560	418	453

**STATISTICAL TESTS**

POLY 3	P=0.145	P=0.040N*	P=0.399N	P=0.337
POLY 1.5	P=0.197	P=0.035N*	P=0.372N	P=0.437
POLY 6	P=0.097	P=0.050N*	P=0.442N	P=0.226
COCH-ARM / FISHERS	P=0.287	P=0.030N*	P=0.343N	P=0.579N
MAX-ISO-POLY-3	P=0.107	P=0.028N*	P=0.321N	P=0.271

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Parathyroid Gland  
Hyperplasia**

**LESION RATES**

OVERALL (a)	2/46 (4%)	0/48 (0%)	0/47 (0%)	0/46 (0%)
POLY-3 RATE (b)	2/37.44	0/38.69	0/35.30	0/34.24
POLY-3 PERCENT (g)	5.3%	0%	0%	0%
TERMINAL (d)	2/19 (11%)	0/24 (0%)	0/16 (0%)	0/13 (0%)
FIRST INCIDENCE	729 (T)	---	---	---

**STATISTICAL TESTS**

POLY 3	P=0.112N	P=0.229N	P=0.250N	P=0.257N
POLY 1.5	P=0.112N	P=0.230N	P=0.242N	P=0.248N
POLY 6	P=0.113N	P=0.226N	P=0.259N	P=0.268N
COCH-ARM / FISHERS	P=0.114N	P=0.237N	P=0.242N	P=0.247N
MAX-ISO-POLY-3	P=0.047N*	P=0.073N	P=0.089N	P=0.094N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Pituitary Gland  
Cyst**

**LESION RATES**

OVERALL (a)	1/50 (2%)	2/50 (4%)	1/50 (2%)	0/49 (0%)
POLY-3 RATE (b)	1/41.74	2/40.73	1/37.74	0/35.06
POLY-3 PERCENT (g)	2.4%	4.9%	2.7%	0%
TERMINAL (d)	0/23 (0%)	1/26 (4%)	1/18 (6%)	0/13 (0%)
FIRST INCIDENCE	646	719	729 (T)	---

**STATISTICAL TESTS**

POLY 3	P=0.295N	P=0.491	P=0.738	P=0.535N
POLY 1.5	P=0.276N	P=0.494	P=0.748	P=0.522N
POLY 6	P=0.322N	P=0.491	P=0.724	P=0.552N
COCH-ARM / FISHERS	P=0.251N	P=0.500	P=0.753N	P=0.505N
MAX-ISO-POLY-3	P=0.290N	P=0.275	P=0.472	P=0.199N

---



**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Pituitary Gland Hemorrhage**

**LESION RATES**

OVERALL (a)	4/50 (8%)	2/50 (4%)	5/50 (10%)	0/49 (0%)
POLY-3 RATE (b)	4/42.64	2/41.44	5/39.36	0/35.06
POLY-3 PERCENT (g)	9.4%	4.8%	12.7%	0%
TERMINAL (d)	1/23 (4%)	0/26 (0%)	1/18 (6%)	0/13 (0%)
FIRST INCIDENCE	582	505	488	---

**STATISTICAL TESTS**

POLY 3	P=0.149N	P=0.350N	P=0.450	P=0.088N
POLY 1.5	P=0.125N	P=0.346N	P=0.472	P=0.077N
POLY 6	P=0.187N	P=0.352N	P=0.422	P=0.107N
COCH-ARM / FISHERS	P=0.099N	P=0.339N	P=0.500	P=0.061N
MAX-ISO-POLY-3	P=0.109N	P=0.213N	P=0.322	P=0.043N*

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Pituitary Gland: Pars Distalis  
Hyperplasia**

**LESION RATES**

OVERALL (a)	8/50 (16%)	5/50 (10%)	11/50 (22%)	7/49 (14%)
POLY-3 RATE (b)	8/42.78	5/40.85	11/39.83	7/36.17
POLY-3 PERCENT (g)	18.7%	12.2%	27.6%	19.4%
TERMINAL (d)	5/23 (22%)	4/26 (15%)	6/18 (33%)	2/13 (15%)
FIRST INCIDENCE	429	687	520	642

**STATISTICAL TESTS**

POLY 3	P=0.354	P=0.303N	P=0.239	P=0.585
POLY 1.5	P=0.410	P=0.295N	P=0.267	P=0.592N
POLY 6	P=0.291	P=0.307N	P=0.207	P=0.531
COCH-ARM / FISHERS	P=0.495	P=0.277N	P=0.306	P=0.517N
MAX-ISO-POLY-3	P=0.319	P=0.212N	P=0.174	P=0.471

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Preputial Gland  
Hyperplasia**

**LESION RATES**

OVERALL (a)	3/50 (6%)	0/50 (0%)	0/49 (0%)	1/50 (2%)
POLY-3 RATE (b)	3/41.93	0/40.69	0/37.18	1/35.80
POLY-3 PERCENT (g)	7.2%	0%	0%	2.8%
TERMINAL (d)	1/23 (4%)	0/26 (0%)	0/18 (0%)	1/13 (8%)
FIRST INCIDENCE	660	---	---	729 (T)

**STATISTICAL TESTS**

POLY 3	P=0.247N	P=0.123N	P=0.141N	P=0.363N
POLY 1.5	P=0.247N	P=0.122N	P=0.133N	P=0.338N
POLY 6	P=0.249N	P=0.124N	P=0.153N	P=0.399N
COCH-ARM / FISHERS	P=0.248N	P=0.121N	P=0.125N	P=0.309N
MAX-ISO-POLY-3	P=0.082N	P=0.042N*	P=0.056N	P=0.212N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

**Preputial Gland  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	30/50 (60%)	34/50 (68%)	31/49 (63%)	37/50 (74%)
POLY-3 RATE (b)	30/45.82	34/43.95	31/41.43	37/44.04
POLY-3 PERCENT (g)	65.5%	77.4%	74.8%	84%
TERMINAL (d)	15/23 (65%)	24/26 (92%)	16/18 (89%)	12/13 (92%)
FIRST INCIDENCE	582	505	514	453

**STATISTICAL TESTS**

POLY 3	P=0.025*	P=0.138	P=0.220	P=0.026*
POLY 1.5	P=0.049*	P=0.188	P=0.319	P=0.045*
POLY 6	P=0.011*	P=0.084	P=0.114	P=0.014*
COCH-ARM / FISHERS	P=0.109	P=0.266	P=0.449	P=0.101
MAX-ISO-POLY-3	P=0.019*	P=0.095	P=0.164	P=0.015*

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Prostate  
Hyperplasia**

**LESION RATES**

OVERALL (a)	12/50 (24%)	13/50 (26%)	10/50 (20%)	17/50 (34%)
POLY-3 RATE (b)	12/42.52	13/42.65	10/38.98	17/38.32
POLY-3 PERCENT (g)	28.2%	30.5%	25.7%	44.4%
TERMINAL (d)	8/23 (35%)	7/26 (27%)	5/18 (28%)	8/13 (62%)
FIRST INCIDENCE	596	569	603	422

**STATISTICAL TESTS**

POLY 3	P=0.078	P=0.504	P=0.495N	P=0.093
POLY 1.5	P=0.110	P=0.497	P=0.456N	P=0.129
POLY 6	P=0.047*	P=0.527	P=0.546N	P=0.057
COCH-ARM / FISHERS	P=0.163	P=0.500	P=0.405N	P=0.189
MAX-ISO-POLY-3	P=0.101	P=0.407	P=0.398N	P=0.068

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Prostate  
Inflammation**

**LESION RATES**

OVERALL (a)	38/50 (76%)	42/50 (84%)	40/50 (80%)	36/50 (72%)
POLY-3 RATE (b)	38/46.21	42/47.70	40/45.55	36/44.26
POLY-3 PERCENT (g)	82.2%	88%	87.8%	81.3%
TERMINAL (d)	20/23 (87%)	22/26 (85%)	16/18 (89%)	11/13 (85%)
FIRST INCIDENCE	534	505	514	394

**STATISTICAL TESTS**

POLY 3	P=0.429N	P=0.293	P=0.303	P=0.572N
POLY 1.5	P=0.333N	P=0.247	P=0.342	P=0.496N
POLY 6	P=0.562	P=0.397	P=0.281	P=0.608
COCH-ARM / FISHERS	P=0.244N	P=0.227	P=0.405	P=0.410N
MAX-ISO-POLY-3	P=0.400N	P=0.199	P=0.201	P=0.450N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Salivary Glands  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	0/50 (0%)	1/50 (2%)	3/50 (6%)	2/50 (4%)
POLY-3 RATE (b)	0/41.44	1/41.36	3/38.44	2/37.06
POLY-3 PERCENT (g)	0%	2.4%	7.8%	5.4%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	1/18 (6%)	0/13 (0%)
FIRST INCIDENCE	---	505	603	449

**STATISTICAL TESTS**

POLY 3	P=0.125	P=0.500	P=0.105	P=0.213
POLY 1.5	P=0.140	P=0.499	P=0.111	P=0.223
POLY 6	P=0.106	P=0.502	P=0.098	P=0.200
COCH-ARM / FISHERS	P=0.163	P=0.500	P=0.121	P=0.247
MAX-ISO-POLY-3	P=0.116	P=0.158	P=0.037*	P=0.075

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Seminal Vesicle  
Inflammation**

**LESION RATES**

OVERALL (a)	2/50 (4%)	1/49 (2%)	0/49 (0%)	2/50 (4%)
POLY-3 RATE (b)	2/41.80	1/40.13	0/36.86	2/35.98
POLY-3 PERCENT (g)	4.8%	2.5%	0%	5.6%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	0/18 (0%)	1/13 (8%)
FIRST INCIDENCE	635	711	---	682

**STATISTICAL TESTS**

POLY 3	P=0.555	P=0.514N	P=0.266N	P=0.639
POLY 1.5	P=0.571	P=0.513N	P=0.255N	P=0.663
POLY 6	P=0.533	P=0.513N	P=0.280N	P=0.608
COCH-ARM / FISHERS	P=0.592	P=0.508N	P=0.253N	P=0.691N
MAX-ISO-POLY-3	P=0.393	P=0.295N	P=0.102N	P=0.442

---



**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Skin  
Hyperkeratosis**

**LESION RATES**

OVERALL (a)	3/50 (6%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	3/41.70	0/40.69	2/38.01	0/35.80
POLY-3 PERCENT (g)	7.2%	0%	5.3%	0%
TERMINAL (d)	2/23 (9%)	0/26 (0%)	1/18 (6%)	0/13 (0%)
FIRST INCIDENCE	660	---	658	---

**STATISTICAL TESTS**

POLY 3	P=0.145N	P=0.122N	P=0.542N	P=0.148N
POLY 1.5	P=0.135N	P=0.122N	P=0.524N	P=0.135N
POLY 6	P=0.158N	P=0.122N	P=0.566N	P=0.166N
COCH-ARM / FISHERS	P=0.125N	P=0.121N	P=0.500N	P=0.121N
MAX-ISO-POLY-3	P=0.074N	P=0.041N*	P=0.367N	P=0.063N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Skin  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	1/50 (2%)	4/50 (8%)	5/50 (10%)	14/50 (28%)
POLY-3 RATE (b)	1/41.44	4/41.17	5/39.66	14/41.01
POLY-3 PERCENT (g)	2.4%	9.7%	12.6%	34.1%
TERMINAL (d)	1/23 (4%)	2/26 (8%)	2/18 (11%)	1/13 (8%)
FIRST INCIDENCE	729 (T)	611	418	422

**STATISTICAL TESTS**

POLY 3	P<0.001**	P=0.175	P=0.090	P<0.001**
POLY 1.5	P<0.001**	P=0.176	P=0.095	P<0.001**
POLY 6	P<0.001**	P=0.179	P=0.083	P<0.001**
COCH-ARM / FISHERS	P<0.001**	P=0.181	P=0.102	P<0.001**
MAX-ISO-POLY-3	P<0.001**	P=0.082	P=0.041*	P<0.001**

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Spleen  
Fibrosis**

**LESION RATES**

OVERALL (a)	1/50 (2%)	2/50 (4%)	1/49 (2%)	0/50 (0%)
POLY-3 RATE (b)	1/41.44	2/40.69	1/37.29	0/35.80
POLY-3 PERCENT (g)	2.4%	4.9%	2.7%	0%
TERMINAL (d)	1/23 (4%)	2/26 (8%)	1/18 (6%)	0/13 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	---

**STATISTICAL TESTS**

POLY 3	P=0.289N	P=0.494	P=0.737	P=0.529N
POLY 1.5	P=0.272N	P=0.495	P=0.745	P=0.517N
POLY 6	P=0.313N	P=0.495	P=0.726	P=0.545N
COCH-ARM / FISHERS	P=0.248N	P=0.500	P=0.747	P=0.500N
MAX-ISO-POLY-3	P=0.284N	P=0.276	P=0.470	P=0.193N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

**Spleen  
Hematopoietic Cell Proliferation**

**LESION RATES**

OVERALL (a)	10/50 (20%)	17/50 (34%)	13/49 (27%)	6/50 (12%)
POLY-3 RATE (b)	10/42.00	17/41.26	13/37.99	6/36.17
POLY-3 PERCENT (g)	23.8%	41.2%	34.2%	16.6%
TERMINAL (d)	7/23 (30%)	15/26 (58%)	8/18 (44%)	4/13 (31%)
FIRST INCIDENCE	660	585	682	659

**STATISTICAL TESTS**

POLY 3	P=0.169N	P=0.066	P=0.213	P=0.305N
POLY 1.5	P=0.122N	P=0.073	P=0.249	P=0.260N
POLY 6	P=0.251N	P=0.060	P=0.173	P=0.370N
COCH-ARM / FISHERS	P=0.079N	P=0.088	P=0.298	P=0.207N
MAX-ISO-POLY-3	P=0.100N	P=0.041*	P=0.158	P=0.230N

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Spleen  
Hemorrhage Chronic**

**LESION RATES**

OVERALL (a)	4/50 (8%)	0/50 (0%)	1/49 (2%)	3/50 (6%)
POLY-3 RATE (b)	4/42.73	0/40.69	1/37.37	3/36.53
POLY-3 PERCENT (g)	9.4%	0%	2.7%	8.2%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	0/18 (0%)	0/13 (0%)
FIRST INCIDENCE	591	---	709	639

**STATISTICAL TESTS**

POLY 3	P=0.561	P=0.066N	P=0.221N	P=0.585N
POLY 1.5	P=0.576	P=0.064N	P=0.205N	P=0.550N
POLY 6	P=0.539	P=0.068N	P=0.245N	P=0.631N
COCH-ARM / FISHERS	P=0.595	P=0.059N	P=0.187N	P=0.500N
MAX-ISO-POLY-3	P=0.216N	P=0.024N*	P=0.123N	P=0.432N

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Spleen  
Infarct Chronic**

**LESION RATES**

OVERALL (a)	0/50 (0%)	1/50 (2%)	2/49 (4%)	3/50 (6%)
POLY-3 RATE (b)	0/41.44	1/41.23	2/37.37	3/36.24
POLY-3 PERCENT (g)	0%	2.4%	5.4%	8.3%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	1/18 (6%)	1/13 (8%)
FIRST INCIDENCE	---	562	709	639

**STATISTICAL TESTS**

POLY 3	P=0.043*	P=0.499	P=0.214	P=0.096
POLY 1.5	P=0.051	P=0.499	P=0.222	P=0.105
POLY 6	P=0.036*	P=0.502	P=0.204	P=0.085
COCH-ARM / FISHERS	P=0.062	P=0.500	P=0.242	P=0.121
MAX-ISO-POLY-3	P=0.060	P=0.158	P=0.074	P=0.037*

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Spleen  
Inflammation Granulomatous**

**LESION RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/41.44	0/40.69	0/37.29	0/35.80
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	0/18 (0%)	0/13 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Stomach, Forestomach  
Hyperplasia**

**LESION RATES**

OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	1/41.91	1/41.23	1/37.87	1/36.08
POLY-3 PERCENT (g)	2.4%	2.4%	2.6%	2.8%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	0/18 (0%)	0/13 (0%)
FIRST INCIDENCE	591	562	697	653

**STATISTICAL TESTS**

POLY 3	P=0.579	P=0.757	P=0.738	P=0.727
POLY 1.5	P=0.602	P=0.758	P=0.748	P=0.741
POLY 6	P=0.548	P=0.759	P=0.725	P=0.707
COCH-ARM / FISHERS	P=0.634	P=0.753N	P=0.753N	P=0.753N
MAX-ISO-POLY-3	P=0.702	P=0.495	P=0.471	P=0.460

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Stomach, Forestomach  
Ulcer**

**LESION RATES**

OVERALL (a)	7/50 (14%)	3/50 (6%)	5/50 (10%)	4/50 (8%)
POLY-3 RATE (b)	7/43.36	3/41.95	5/39.06	4/37.18
POLY-3 PERCENT (g)	16.1%	7.2%	12.8%	10.8%
TERMINAL (d)	1/23 (4%)	0/26 (0%)	0/18 (0%)	1/13 (8%)
FIRST INCIDENCE	582	585	603	446

**STATISTICAL TESTS**

POLY 3	P=0.379N	P=0.169N	P=0.454N	P=0.354N
POLY 1.5	P=0.343N	P=0.166N	P=0.421N	P=0.313N
POLY 6	P=0.433N	P=0.171N	P=0.496N	P=0.415N
COCH-ARM / FISHERS	P=0.298N	P=0.159N	P=0.380N	P=0.262N
MAX-ISO-POLY-3	P=0.357N	P=0.101N	P=0.341N	P=0.258N

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Stomach, Glandular  
Ulcer**

**LESION RATES**

OVERALL (a)	1/50 (2%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	1/41.74	2/41.58	1/37.87	0/35.80
POLY-3 PERCENT (g)	2.4%	4.8%	2.6%	0%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	0/18 (0%)	0/13 (0%)
FIRST INCIDENCE	646	585	697	---

**STATISTICAL TESTS**

POLY 3	P=0.291N	P=0.499	P=0.739	P=0.531N
POLY 1.5	P=0.272N	P=0.498	P=0.748	P=0.518N
POLY 6	P=0.318N	P=0.504	P=0.726	P=0.548N
COCH-ARM / FISHERS	P=0.247N	P=0.500	P=0.753N	P=0.500N
MAX-ISO-POLY-3	P=0.289N	P=0.279	P=0.472	P=0.196N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

Testes: Germinal Epithelium Atrophy

**LESION RATES**

OVERALL (a)	12/50 (24%)	8/50 (16%)	7/50 (14%)	6/50 (12%)
POLY-3 RATE (b)	12/42.59	8/40.73	7/38.71	6/36.39
POLY-3 PERCENT (g)	28.2%	19.6%	18.1%	16.5%
TERMINAL (d)	7/23 (30%)	7/26 (27%)	5/18 (28%)	4/13 (31%)
FIRST INCIDENCE	646	719	488	639

**STATISTICAL TESTS**

POLY 3	P=0.134N	P=0.254N	P=0.206N	P=0.165N
POLY 1.5	P=0.110N	P=0.244N	P=0.181N	P=0.131N
POLY 6	P=0.177N	P=0.266N	P=0.248N	P=0.219N
COCH-ARM / FISHERS	P=0.083N	P=0.227N	P=0.154N	P=0.096N
MAX-ISO-POLY-3	P=0.185N	P=0.184N	P=0.149N	P=0.123N

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

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Testes: Interstitial Cell  
Hyperplasia

**LESION RATES**

OVERALL (a)	1/50 (2%)	0/50 (0%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	1/41.92	0/40.69	2/38.89	1/36.08
POLY-3 PERCENT (g)	2.4%	0%	5.1%	2.8%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	0/18 (0%)	0/13 (0%)
FIRST INCIDENCE	586	---	536	653

**STATISTICAL TESTS**

POLY 3	P=0.440	P=0.506N	P=0.474	P=0.727
POLY 1.5	P=0.465	P=0.504N	P=0.485	P=0.741
POLY 6	P=0.406	P=0.507N	P=0.459	P=0.707
COCH-ARM / FISHERS	P=0.500	P=0.500N	P=0.500	P=0.753N
MAX-ISO-POLY-3	P=0.382	P=0.166N	P=0.265	P=0.459

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TDMS No. 20011 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 1-Bromopropane  
 CAS Number: 106-94-5

Date Report Requested: 07/09/2008  
 Time Report Requested: 10:20:06  
 First Dose M/F: 07/14/03 / 07/14/03  
 Lab: BNW

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

**Thyroid Gland: C-Cell  
 Hyperplasia**

**LESION RATES**

OVERALL (a)	32/50 (64%)	31/50 (62%)	29/50 (58%)	34/49 (69%)
POLY-3 RATE (b)	32/46.15	31/43.77	29/41.73	34/42.99
POLY-3 PERCENT (g)	69.3%	70.8%	69.5%	79.1%
TERMINAL (d)	15/23 (65%)	21/26 (81%)	14/18 (78%)	10/13 (77%)
FIRST INCIDENCE	534	540	536	422

**STATISTICAL TESTS**

POLY 3	P=0.156	P=0.532	P=0.591	P=0.193
POLY 1.5	P=0.216	P=0.589	P=0.481N	P=0.256
POLY 6	P=0.104	P=0.450	P=0.438	P=0.138
COCH-ARM / FISHERS	P=0.312	P=0.500N	P=0.341N	P=0.361
MAX-ISO-POLY-3	P=0.219	P=0.435	P=0.492	P=0.136

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

**Thyroid Gland: Follicular Cell Hyperplasia**

**LESION RATES**

OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	0/41.44	1/40.77	0/37.74	0/35.42
POLY-3 PERCENT (g)	0%	2.5%	0%	0%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	0/18 (0%)	0/13 (0%)
FIRST INCIDENCE	---	708	---	---

**STATISTICAL TESTS**

POLY 3	P=0.585N	P=0.497	(e)	(e)
POLY 1.5	P=0.579N	P=0.497	(e)	(e)
POLY 6	P=0.593N	P=0.498	(e)	(e)
COCH-ARM / FISHERS	P=0.571N	P=0.500	(e)	(e)
MAX-ISO-POLY-3	P=0.433N	P=0.158	(e)	(e)

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Trachea  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	4/50 (8%)
POLY-3 RATE (b)	1/41.70	1/40.76	1/37.89	4/38.63
POLY-3 PERCENT (g)	2.4%	2.5%	2.6%	10.4%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	0/18 (0%)	0/13 (0%)
FIRST INCIDENCE	660	711	690	394

**STATISTICAL TESTS**

POLY 3	P=0.057	P=0.756	P=0.739	P=0.155
POLY 1.5	P=0.062	P=0.757	P=0.749	P=0.165
POLY 6	P=0.051	P=0.757	P=0.727	P=0.140
COCH-ARM / FISHERS	P=0.067	P=0.753N	P=0.753N	P=0.181
MAX-ISO-POLY-3	P=0.071	P=0.493	P=0.473	P=0.077

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	CONTROL	125 PPM	250 PPM	500 PPM

**Trachea: Epithelium  
Hyperplasia**

**LESION RATES**

OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/41.70	0/40.69	0/37.74	1/36.34
POLY-3 PERCENT (g)	2.4%	0%	0%	2.8%
TERMINAL (d)	0/23 (0%)	0/26 (0%)	0/18 (0%)	0/13 (0%)
FIRST INCIDENCE	660	---	---	562

**STATISTICAL TESTS**

POLY 3	P=0.575	P=0.505N	P=0.520N	P=0.730
POLY 1.5	P=0.583	P=0.503N	P=0.511N	P=0.743
POLY 6	P=0.562	P=0.505N	P=0.532N	P=0.711
COCH-ARM / FISHERS	P=0.595	P=0.500N	P=0.500N	P=0.753N
MAX-ISO-POLY-3	P=0.391	P=0.164N	P=0.182N	P=0.463



**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Adrenal Cortex  
Hyperplasia**

**LESION RATES**

OVERALL (a)	27/50 (54%)	30/50 (60%)	24/50 (48%)	26/50 (52%)
POLY-3 RATE (b)	27/47.14	30/45.27	24/43.49	26/40.20
POLY-3 PERCENT (g)	57.3%	66.3%	55.2%	64.7%
TERMINAL (d)	22/34 (65%)	24/33 (73%)	20/30 (67%)	18/24 (75%)
FIRST INCIDENCE	493	577	607	450

**STATISTICAL TESTS**

POLY 3	P=0.374	P=0.243	P=0.505N	P=0.308
POLY 1.5	P=0.492	P=0.282	P=0.436N	P=0.418
POLY 6	P=0.255	P=0.208	P=0.589	P=0.206
COCH-ARM / FISHERS	P=0.342N	P=0.343	P=0.345N	P=0.500N
MAX-ISO-POLY-3	P=0.402	P=0.185	P=0.420N	P=0.250

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Adrenal Cortex  
Vacuolization Cytoplasmic**

**LESION RATES**

OVERALL (a)	12/50 (24%)	16/50 (32%)	16/50 (32%)	11/50 (22%)
POLY-3 RATE (b)	12/45.61	16/43.86	16/43.81	11/39.02
POLY-3 PERCENT (g)	26.3%	36.5%	36.5%	28.2%
TERMINAL (d)	10/34 (29%)	15/33 (46%)	11/30 (37%)	8/24 (33%)
FIRST INCIDENCE	683	708	607	578

**STATISTICAL TESTS**

POLY 3	P=0.505	P=0.207	P=0.206	P=0.520
POLY 1.5	P=0.512N	P=0.226	P=0.224	P=0.571
POLY 6	P=0.439	P=0.186	P=0.191	P=0.468
COCH-ARM / FISHERS	P=0.364N	P=0.252	P=0.252	P=0.500N
MAX-ISO-POLY-3	P=0.393	P=0.152	P=0.151	P=0.427

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Adrenal Medulla  
Hyperplasia**

**LESION RATES**

OVERALL (a)	4/50 (8%)	9/50 (18%)	7/50 (14%)	6/50 (12%)
POLY-3 RATE (b)	4/45.31	9/44.38	7/43.21	6/38.22
POLY-3 PERCENT (g)	8.8%	20.3%	16.2%	15.7%
TERMINAL (d)	4/34 (12%)	6/33 (18%)	5/30 (17%)	4/24 (17%)
FIRST INCIDENCE	730 (T)	575	541	611

**STATISTICAL TESTS**

POLY 3	P=0.314	P=0.106	P=0.233	P=0.267
POLY 1.5	P=0.361	P=0.110	P=0.245	P=0.298
POLY 6	P=0.269	P=0.103	P=0.220	P=0.238
COCH-ARM / FISHERS	P=0.472	P=0.117	P=0.262	P=0.370
MAX-ISO-POLY-3	P=0.256	P=0.062	P=0.152	P=0.188

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Bone  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/45.31	0/43.77	0/42.47	1/37.64
POLY-3 PERCENT (g)	0%	0%	0%	2.7%
TERMINAL (d)	0/34 (0%)	0/33 (0%)	0/30 (0%)	1/24 (4%)
FIRST INCIDENCE	---	---	---	730 (T)

**STATISTICAL TESTS**

POLY 3	P=0.177	(e)	(e)	P=0.463
POLY 1.5	P=0.184	(e)	(e)	P=0.475
POLY 6	P=0.171	(e)	(e)	P=0.450
COCH-ARM / FISHERS	P=0.198	(e)	(e)	P=0.500
MAX-ISO-POLY-3	P=0.123	(e)	(e)	P=0.158

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Brain  
Hemorrhage**

**LESION RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/45.31	0/43.77	1/42.47	0/37.64
POLY-3 PERCENT (g)	0%	0%	2.4%	0%
TERMINAL (d)	0/34 (0%)	0/33 (0%)	1/30 (3%)	0/24 (0%)
FIRST INCIDENCE	---	---	730 (T)	---

**STATISTICAL TESTS**

POLY 3	P=0.616	(e)	P=0.487	(e)
POLY 1.5	P=0.642	(e)	P=0.492	(e)
POLY 6	P=0.588	(e)	P=0.481	(e)
COCH-ARM / FISHERS	P=0.694	(e)	P=0.500	(e)
MAX-ISO-POLY-3	P=0.408	(e)	P=0.158	(e)

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Clitoral Gland  
Hyperplasia**

**LESION RATES**

OVERALL (a)	3/49 (6%)	5/50 (10%)	9/49 (18%)	4/49 (8%)
POLY-3 RATE (b)	3/44.31	5/44.60	9/43.07	4/38.20
POLY-3 PERCENT (g)	6.8%	11.2%	20.9%	10.5%
TERMINAL (d)	3/33 (9%)	2/33 (6%)	4/30 (13%)	1/24 (4%)
FIRST INCIDENCE	730 (T)	603	607	529

**STATISTICAL TESTS**

POLY 3	P=0.280	P=0.360	P=0.052	P=0.419
POLY 1.5	P=0.317	P=0.362	P=0.054	P=0.443
POLY 6	P=0.246	P=0.360	P=0.050*	P=0.398
COCH-ARM / FISHERS	P=0.418	P=0.369	P=0.060	P=0.500
MAX-ISO-POLY-3	P=0.193	P=0.234	P=0.027*	P=0.290

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Clitoral Gland  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	22/49 (45%)	26/50 (52%)	26/49 (53%)	18/49 (37%)
POLY-3 RATE (b)	22/44.43	26/44.20	26/42.20	18/38.28
POLY-3 PERCENT (g)	49.5%	58.8%	61.6%	47%
TERMINAL (d)	21/33 (64%)	22/33 (67%)	22/30 (73%)	16/24 (67%)
FIRST INCIDENCE	701	687	680	142

**STATISTICAL TESTS**

POLY 3	P=0.428N	P=0.246	P=0.170	P=0.498N
POLY 1.5	P=0.326N	P=0.270	P=0.210	P=0.411N
POLY 6	P=0.527	P=0.226	P=0.133	P=0.589
COCH-ARM / FISHERS	P=0.175N	P=0.307	P=0.272	P=0.269N
MAX-ISO-POLY-3	P=0.326N	P=0.184	P=0.126	P=0.412N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Coagulating Gland  
Inflammation**

**LESION RATES**

OVERALL (a)	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
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Eye  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/45.31	0/43.77	0/42.47	0/37.64
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/34 (0%)	0/33 (0%)	0/30 (0%)	0/24 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

Eye: Lens  
Cataract

**LESION RATES**

OVERALL (a)	4/50 (8%)	3/50 (6%)	5/50 (10%)	2/50 (4%)
POLY-3 RATE (b)	4/45.62	3/44.20	5/42.84	2/37.64
POLY-3 PERCENT (g)	8.8%	6.8%	11.7%	5.3%
TERMINAL (d)	3/34 (9%)	2/33 (6%)	4/30 (13%)	2/24 (8%)
FIRST INCIDENCE	647	603	628	730 (T)

**STATISTICAL TESTS**

POLY 3	P=0.430N	P=0.517N	P=0.461	P=0.429N
POLY 1.5	P=0.393N	P=0.510N	P=0.477	P=0.398N
POLY 6	P=0.472N	P=0.524N	P=0.441	P=0.465N
COCH-ARM / FISHERS	P=0.320N	P=0.500N	P=0.500	P=0.339N
MAX-ISO-POLY-3	P=0.466N	P=0.365N	P=0.331	P=0.292N

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Harderian Gland  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	0/45.31	0/43.77	1/42.47	2/38.03
POLY-3 PERCENT (g)	0%	0%	2.4%	5.3%
TERMINAL (d)	0/34 (0%)	0/33 (0%)	1/30 (3%)	1/24 (4%)
FIRST INCIDENCE	---	---	730 (T)	619

**STATISTICAL TESTS**

POLY 3	P=0.054	(e)	P=0.487	P=0.200
POLY 1.5	P=0.058	(e)	P=0.492	P=0.212
POLY 6	P=0.049*	(e)	P=0.481	P=0.189
COCH-ARM / FISHERS	P=0.070	(e)	P=0.500	P=0.247
MAX-ISO-POLY-3	P=0.077	(e)	P=0.158	P=0.075

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Heart  
Cardiomyopathy**

**LESION RATES**

OVERALL (a)	35/50 (70%)	32/50 (64%)	34/50 (68%)	21/50 (42%)
POLY-3 RATE (b)	35/46.22	32/44.00	34/44.33	21/38.10
POLY-3 PERCENT (g)	75.7%	72.7%	76.7%	55.1%
TERMINAL (d)	30/34 (88%)	29/33 (88%)	26/30 (87%)	19/24 (79%)
FIRST INCIDENCE	633	697	451	611

**STATISTICAL TESTS**

POLY 3	P=0.024N*	P=0.464N	P=0.559	P=0.028N*
POLY 1.5	P=0.012N*	P=0.402N	P=0.582N	P=0.014N*
POLY 6	P=0.055N	P=0.557N	P=0.491	P=0.061N
COCH-ARM / FISHERS	P=0.003N**	P=0.335N	P=0.500N	P=0.004N**
MAX-ISO-POLY-3	P=0.031N*	P=0.365N	P=0.452	P=0.024N*

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Heart: Atrium  
Thrombosis**

**LESION RATES**

OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/45.37	0/43.77	0/42.47	0/37.64
POLY-3 PERCENT (g)	2.2%	0%	0%	0%
TERMINAL (d)	0/34 (0%)	0/33 (0%)	0/30 (0%)	0/24 (0%)
FIRST INCIDENCE	716	---	---	---

**STATISTICAL TESTS**

POLY 3	P=0.285N	P=0.507N	P=0.513N	P=0.537N
POLY 1.5	P=0.292N	P=0.504N	P=0.508N	P=0.525N
POLY 6	P=0.278N	P=0.510N	P=0.520N	P=0.550N
COCH-ARM / FISHERS	P=0.306N	P=0.500N	P=0.500N	P=0.500N
MAX-ISO-POLY-3	P=0.192N	P=0.168N	P=0.175N	P=0.204N

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Islets, Pancreatic  
Hyperplasia**

**LESION RATES**

OVERALL (a)	0/50 (0%)	3/50 (6%)	4/50 (8%)	4/50 (8%)
POLY-3 RATE (b)	0/45.31	3/43.77	4/43.40	4/37.64
POLY-3 PERCENT (g)	0%	6.9%	9.2%	10.6%
TERMINAL (d)	0/34 (0%)	3/33 (9%)	2/30 (7%)	4/24 (17%)
FIRST INCIDENCE	---	730 (T)	554	730 (T)

**STATISTICAL TESTS**

POLY 3	P=0.041*	P=0.112	P=0.055	P=0.040*
POLY 1.5	P=0.051	P=0.115	P=0.057	P=0.046*
POLY 6	P=0.032*	P=0.110	P=0.052	P=0.034*
COCH-ARM / FISHERS	P=0.078	P=0.121	P=0.059	P=0.059
MAX-ISO-POLY-3	P=0.059	P=0.038*	P=0.019*	P=0.018*

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Islets, Pancreatic  
Metaplasia Hepatocyte**

**LESION RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	0/45.31	0/43.77	2/42.87	1/37.82
POLY-3 PERCENT (g)	0%	0%	4.7%	2.6%
TERMINAL (d)	0/34 (0%)	0/33 (0%)	1/30 (3%)	0/24 (0%)
FIRST INCIDENCE	---	---	618	682

**STATISTICAL TESTS**

POLY 3	P=0.184	(e)	P=0.225	P=0.464
POLY 1.5	P=0.202	(e)	P=0.230	P=0.476
POLY 6	P=0.166	(e)	P=0.219	P=0.452
COCH-ARM / FISHERS	P=0.246	(e)	P=0.247	P=0.500
MAX-ISO-POLY-3	P=0.197	(e)	P=0.076	P=0.158

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Kidney  
Nephropathy Chronic**

**LESION RATES**

OVERALL (a)	35/49 (71%)	35/50 (70%)	31/50 (62%)	29/50 (58%)
POLY-3 RATE (b)	35/46.95	35/47.84	31/44.95	29/40.35
POLY-3 PERCENT (g)	74.5%	73.2%	69%	71.9%
TERMINAL (d)	26/34 (77%)	24/33 (73%)	22/30 (73%)	19/24 (79%)
FIRST INCIDENCE	493	433	541	450

**STATISTICAL TESTS**

POLY 3	P=0.395N	P=0.533N	P=0.353N	P=0.484N
POLY 1.5	P=0.250N	P=0.527N	P=0.291N	P=0.328N
POLY 6	P=0.507	P=0.543N	P=0.437N	P=0.544
COCH-ARM / FISHERS	P=0.070N	P=0.526N	P=0.217N	P=0.117N
MAX-ISO-POLY-3	P=0.536N	P=0.436N	P=0.274N	P=0.390N



**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Kidney: Cortex, Renal Tubule  
Casts Granular**

**LESION RATES**

OVERALL (a)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.45	0/43.77	0/42.47	0/37.64
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/34 (0%)	0/33 (0%)	0/30 (0%)	0/24 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Kidney: Pelvis  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	0/49 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/44.45	0/43.77	1/42.47	0/37.64
POLY-3 PERCENT (g)	0%	0%	2.4%	0%
TERMINAL (d)	0/34 (0%)	0/33 (0%)	1/30 (3%)	0/24 (0%)
FIRST INCIDENCE	---	---	730 (T)	---

**STATISTICAL TESTS**

POLY 3	P=0.619	(e)	P=0.491	(e)
POLY 1.5	P=0.644	(e)	P=0.496	(e)
POLY 6	P=0.590	(e)	P=0.484	(e)
COCH-ARM / FISHERS	P=0.697	(e)	P=0.505	(e)
MAX-ISO-POLY-3	P=0.409	(e)	P=0.160	(e)

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

Larynx  
Foreign Body

**LESION RATES**

OVERALL (a)	8/50 (16%)	6/50 (12%)	3/50 (6%)	4/50 (8%)
POLY-3 RATE (b)	8/46.48	6/43.82	3/42.47	4/38.37
POLY-3 PERCENT (g)	17.2%	13.7%	7.1%	10.4%
TERMINAL (d)	5/34 (15%)	5/33 (15%)	3/30 (10%)	2/24 (8%)
FIRST INCIDENCE	493	716	730 (T)	498

**STATISTICAL TESTS**

POLY 3	P=0.168N	P=0.432N	P=0.128N	P=0.283N
POLY 1.5	P=0.149N	P=0.414N	P=0.116N	P=0.245N
POLY 6	P=0.194N	P=0.453N	P=0.146N	P=0.328N
COCH-ARM / FISHERS	P=0.113N	P=0.387N	P=0.100N	P=0.178N
MAX-ISO-POLY-3	P=0.224N	P=0.327N	P=0.081N	P=0.209N

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Larynx  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	18/50 (36%)	25/50 (50%)	30/50 (60%)	35/50 (70%)
POLY-3 RATE (b)	18/46.35	25/45.82	30/44.92	35/45.48
POLY-3 PERCENT (g)	38.8%	54.6%	66.8%	77%
TERMINAL (d)	15/34 (44%)	18/33 (55%)	22/30 (73%)	17/24 (71%)
FIRST INCIDENCE	493	433	541	386

**STATISTICAL TESTS**

POLY 3	P<0.001**	P=0.091	P=0.005**	P<0.001**
POLY 1.5	P<0.001**	P=0.099	P=0.007**	P<0.001**
POLY 6	P<0.001**	P=0.084	P=0.003**	P<0.001**
COCH-ARM / FISHERS	P<0.001**	P=0.113	P=0.014*	P<0.001**
MAX-ISO-POLY-3	P<0.001**	P=0.062	P=0.003**	P<0.001**

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Larynx  
Metaplasia**

**LESION RATES**

OVERALL (a)	3/50 (6%)	2/50 (4%)	6/50 (12%)	21/50 (42%)
POLY-3 RATE (b)	3/46.15	2/43.90	6/42.80	21/42.71
POLY-3 PERCENT (g)	6.5%	4.6%	14%	49.2%
TERMINAL (d)	1/34 (3%)	1/33 (3%)	4/30 (13%)	8/24 (33%)
FIRST INCIDENCE	493	697	688	431

**STATISTICAL TESTS**

POLY 3	P<0.001**	P=0.523N	P=0.206	P<0.001**
POLY 1.5	P<0.001**	P=0.514N	P=0.220	P<0.001**
POLY 6	P<0.001**	P=0.532N	P=0.190	P<0.001**
COCH-ARM / FISHERS	P<0.001**	P=0.500N	P=0.243	P<0.001**
MAX-ISO-POLY-3	P<0.001**	P=0.347N	P=0.129	P<0.001**

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Liver  
Angiectasis**

**LESION RATES**

OVERALL (a)	3/50 (6%)	2/50 (4%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	3/45.31	2/43.77	2/42.64	1/37.64
POLY-3 PERCENT (g)	6.6%	4.6%	4.7%	2.7%
TERMINAL (d)	3/34 (9%)	2/33 (6%)	1/30 (3%)	1/24 (4%)
FIRST INCIDENCE	730 (T)	730 (T)	688	730 (T)

**STATISTICAL TESTS**

POLY 3	P=0.286N	P=0.516N	P=0.528N	P=0.374N
POLY 1.5	P=0.269N	P=0.509N	P=0.516N	P=0.351N
POLY 6	P=0.305N	P=0.522N	P=0.541N	P=0.400N
COCH-ARM / FISHERS	P=0.232N	P=0.500N	P=0.500N	P=0.309N
MAX-ISO-POLY-3	P=0.362N	P=0.340N	P=0.352N	P=0.224N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Liver  
Basophilic Focus**

**LESION RATES**

OVERALL (a)	40/50 (80%)	43/50 (86%)	42/50 (84%)	39/50 (78%)
POLY-3 RATE (b)	40/47.89	43/46.52	42/45.78	39/44.04
POLY-3 PERCENT (g)	83.5%	92.4%	91.8%	88.6%
TERMINAL (d)	30/34 (88%)	32/33 (97%)	30/30 (100%)	21/24 (88%)
FIRST INCIDENCE	438	575	534	453

**STATISTICAL TESTS**

POLY 3	P=0.322	P=0.130	P=0.157	P=0.336
POLY 1.5	P=0.419	P=0.188	P=0.249	P=0.411
POLY 6	P=0.274	P=0.087	P=0.076	P=0.310
COCH-ARM / FISHERS	P=0.354N	P=0.298	P=0.398	P=0.500N
MAX-ISO-POLY-3	P=0.168	P=0.072	P=0.091	P=0.236

TDMS No. 20011 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 1-Bromopropane  
 CAS Number: 106-94-5

Date Report Requested: 07/09/2008  
 Time Report Requested: 10:20:06  
 First Dose M/F: 07/14/03 / 07/14/03  
 Lab: BNW

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

Liver  
 Clear Cell Focus

**LESION RATES**

OVERALL (a)	30/50 (60%)	34/50 (68%)	35/50 (70%)	35/50 (70%)
POLY-3 RATE (b)	30/47.28	34/46.16	35/45.29	35/43.47
POLY-3 PERCENT (g)	63.5%	73.7%	77.3%	80.5%
TERMINAL (d)	21/34 (62%)	26/33 (79%)	24/30 (80%)	20/24 (83%)
FIRST INCIDENCE	633	433	554	386

**STATISTICAL TESTS**

POLY 3	P=0.038*	P=0.193	P=0.100	P=0.050*
POLY 1.5	P=0.064	P=0.226	P=0.135	P=0.076
POLY 6	P=0.022*	P=0.151	P=0.070	P=0.031*
COCH-ARM / FISHERS	P=0.194	P=0.266	P=0.201	P=0.201
MAX-ISO-POLY-3	P=0.048*	P=0.139	P=0.069	P=0.034*

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Liver  
Degeneration Cystic**

**LESION RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/45.31	0/43.77	0/42.47	1/37.64
POLY-3 PERCENT (g)	0%	0%	0%	2.7%
TERMINAL (d)	0/34 (0%)	0/33 (0%)	0/30 (0%)	1/24 (4%)
FIRST INCIDENCE	---	---	---	730 (T)

**STATISTICAL TESTS**

POLY 3	P=0.177	(e)	(e)	P=0.463
POLY 1.5	P=0.184	(e)	(e)	P=0.475
POLY 6	P=0.171	(e)	(e)	P=0.450
COCH-ARM / FISHERS	P=0.198	(e)	(e)	P=0.500
MAX-ISO-POLY-3	P=0.123	(e)	(e)	P=0.158

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TDMS No. 20011 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 1-Bromopropane  
 CAS Number: 106-94-5

Date Report Requested: 07/09/2008  
 Time Report Requested: 10:20:06  
 First Dose M/F: 07/14/03 / 07/14/03  
 Lab: BNW

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

Liver  
 Hepatodiaphragmatic Nodule

**LESION RATES**

OVERALL (a)	4/50 (8%)	9/50 (18%)	5/50 (10%)	5/50 (10%)
POLY-3 RATE (b)	4/45.31	9/43.90	5/43.36	5/38.82
POLY-3 PERCENT (g)	8.8%	20.5%	11.5%	12.9%
TERMINAL (d)	4/34 (12%)	8/33 (24%)	2/30 (7%)	3/24 (13%)
FIRST INCIDENCE	730 (T)	697	547	450

**STATISTICAL TESTS**

POLY 3	P=0.504	P=0.102	P=0.472	P=0.404
POLY 1.5	P=0.544	P=0.107	P=0.483	P=0.433
POLY 6	P=0.461	P=0.096	P=0.461	P=0.373
COCH-ARM / FISHERS	P=0.485N	P=0.117	P=0.500	P=0.500
MAX-ISO-POLY-3	P=0.357	P=0.060	P=0.340	P=0.291

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Liver  
Mixed Cell Focus**

**LESION RATES**

OVERALL (a)	2/50 (4%)	2/50 (4%)	3/50 (6%)	3/50 (6%)
POLY-3 RATE (b)	2/45.31	2/44.03	3/43.26	3/38.38
POLY-3 PERCENT (g)	4.4%	4.5%	6.9%	7.8%
TERMINAL (d)	2/34 (6%)	1/33 (3%)	1/30 (3%)	1/24 (4%)
FIRST INCIDENCE	730 (T)	659	607	626

**STATISTICAL TESTS**

POLY 3	P=0.292	P=0.684	P=0.479	P=0.425
POLY 1.5	P=0.315	P=0.687	P=0.487	P=0.448
POLY 6	P=0.270	P=0.681	P=0.470	P=0.402
COCH-ARM / FISHERS	P=0.371	P=0.691N	P=0.500	P=0.500
MAX-ISO-POLY-3	P=0.442	P=0.488	P=0.309	P=0.275

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

Liver  
Necrosis

**LESION RATES**

OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	1/45.31	0/43.77	1/43.05	0/37.64
POLY-3 PERCENT (g)	2.2%	0%	2.3%	0%
TERMINAL (d)	1/34 (3%)	0/33 (0%)	0/30 (0%)	0/24 (0%)
FIRST INCIDENCE	730 (T)	---	547	---

**STATISTICAL TESTS**

POLY 3	P=0.429N	P=0.507N	P=0.749	P=0.537N
POLY 1.5	P=0.422N	P=0.504N	P=0.754	P=0.525N
POLY 6	P=0.436N	P=0.510N	P=0.744	P=0.550N
COCH-ARM / FISHERS	P=0.405N	P=0.500N	P=0.753N	P=0.500N
MAX-ISO-POLY-3	P=0.328N	P=0.167N	P=0.485	P=0.203N

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

Liver  
Vacuolization Cytoplasmic

**LESION RATES**

OVERALL (a)	40/50 (80%)	41/50 (82%)	39/50 (78%)	47/50 (94%)
POLY-3 RATE (b)	40/47.44	41/47.14	39/45.93	47/47.85
POLY-3 PERCENT (g)	84.3%	87%	84.9%	98.2%
TERMINAL (d)	29/34 (85%)	30/33 (91%)	27/30 (90%)	24/24 (100%)
FIRST INCIDENCE	633	433	547	386

**STATISTICAL TESTS**

POLY 3	P=0.012*	P=0.468	P=0.589	P=0.012*
POLY 1.5	P=0.011*	P=0.486	P=0.587N	P=0.009**
POLY 6	P=0.017*	P=0.441	P=0.525	P=0.020*
COCH-ARM / FISHERS	P=0.038*	P=0.500	P=0.500N	P=0.036*
MAX-ISO-POLY-3	P=0.013*	P=0.346	P=0.466	P=0.004**

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Lung  
Hemorrhage**

**LESION RATES**

OVERALL (a)	4/50 (8%)	6/50 (12%)	4/50 (8%)	4/50 (8%)
POLY-3 RATE (b)	4/45.31	6/43.77	4/42.66	4/37.82
POLY-3 PERCENT (g)	8.8%	13.7%	9.4%	10.6%
TERMINAL (d)	4/34 (12%)	6/33 (18%)	3/30 (10%)	3/24 (13%)
FIRST INCIDENCE	730 (T)	730 (T)	681	682

**STATISTICAL TESTS**

POLY 3	P=0.540	P=0.347	P=0.610	P=0.541
POLY 1.5	P=0.545N	P=0.357	P=0.623	P=0.574
POLY 6	P=0.497	P=0.338	P=0.595	P=0.505
COCH-ARM / FISHERS	P=0.467N	P=0.370	P=0.643N	P=0.643N
MAX-ISO-POLY-3	P=0.585	P=0.238	P=0.465	P=0.401

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Lung  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	6/50 (12%)	10/50 (20%)	12/50 (24%)	6/50 (12%)
POLY-3 RATE (b)	6/45.31	10/44.30	12/42.89	6/39.91
POLY-3 PERCENT (g)	13.2%	22.6%	28%	15%
TERMINAL (d)	6/34 (18%)	7/33 (21%)	9/30 (30%)	2/24 (8%)
FIRST INCIDENCE	730 (T)	632	680	431

**STATISTICAL TESTS**

POLY 3	P=0.473	P=0.189	P=0.071	P=0.529
POLY 1.5	P=0.517	P=0.196	P=0.080	P=0.555
POLY 6	P=0.429	P=0.185	P=0.061	P=0.504
COCH-ARM / FISHERS	P=0.475N	P=0.207	P=0.096	P=0.620N
MAX-ISO-POLY-3	P=0.273	P=0.127	P=0.045*	P=0.410

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Lung: Alveolar Epithelium  
Hyperplasia**

**LESION RATES**

OVERALL (a)	11/50 (22%)	10/50 (20%)	16/50 (32%)	8/50 (16%)
POLY-3 RATE (b)	11/45.37	10/43.77	16/44.70	8/37.99
POLY-3 PERCENT (g)	24.3%	22.9%	35.8%	21.1%
TERMINAL (d)	10/34 (29%)	10/33 (30%)	9/30 (30%)	6/24 (25%)
FIRST INCIDENCE	716	730 (T)	541	682

**STATISTICAL TESTS**

POLY 3	P=0.540	P=0.538N	P=0.165	P=0.467N
POLY 1.5	P=0.478N	P=0.522N	P=0.171	P=0.413N
POLY 6	P=0.470	P=0.554N	P=0.163	P=0.524N
COCH-ARM / FISHERS	P=0.334N	P=0.500N	P=0.184	P=0.306N
MAX-ISO-POLY-3	P=0.430N	P=0.437N	P=0.115	P=0.374N

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Lung: Alveolus  
Infiltration Cellular Histiocyte**

**LESION RATES**

OVERALL (a)	30/50 (60%)	30/50 (60%)	29/50 (58%)	26/50 (52%)
POLY-3 RATE (b)	30/46.91	30/45.87	29/44.71	26/39.58
POLY-3 PERCENT (g)	64%	65.4%	64.9%	65.7%
TERMINAL (d)	24/34 (71%)	24/33 (73%)	21/30 (70%)	18/24 (75%)
FIRST INCIDENCE	438	433	541	590

**STATISTICAL TESTS**

POLY 3	P=0.481	P=0.529	P=0.552	P=0.523
POLY 1.5	P=0.469N	P=0.552	P=0.578N	P=0.531N
POLY 6	P=0.361	P=0.500	P=0.516	P=0.402
COCH-ARM / FISHERS	P=0.212N	P=0.581N	P=0.500N	P=0.273N
MAX-ISO-POLY-3	P=0.671	P=0.439	P=0.462	P=0.433

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Lymph Node, Bronchial  
Angiectasis**

**LESION RATES**

OVERALL (a)	1/1 (100%)	0/4 (0%)	2/5 (40%)	1/7 (14%)
POLY-3 RATE (b)	1/1.00	0/2.78	2/4.40	1/5.59
POLY-3 PERCENT (g)	100%	0%	45.5%	17.9%
TERMINAL (d)	0/0 (0%)	0/1 (0%)	1/2 (50%)	0/2 (0%)
FIRST INCIDENCE	660	---	684	616

**STATISTICAL TESTS**

POLY 3	P=0.254N	P=0.002N**	P=0.549N	P=0.280N
POLY 1.5	P=0.290N	P<0.001N**	P=0.525N	P=0.259N
POLY 6	P=0.240N	P=0.064N	P=0.593N	P=0.316N
COCH-ARM / FISHERS	P=0.357N	P=0.200N	P=0.500N	P=0.250N
MAX-ISO-POLY-3	P=0.098N	P<0.001N**	P=0.218N	P=0.052N

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Lymph Node, Bronchial  
Hyperplasia Lymphoid**

**LESION RATES**

OVERALL (a)	0/1 (0%)	0/4 (0%)	0/5 (0%)	0/7 (0%)
POLY-3 RATE (b)	0/0.74	0/2.78	0/4.22	0/5.19
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/0 (0%)	0/1 (0%)	0/2 (0%)	0/2 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Lymph Node, Mediastinal  
Angiectasis**

**LESION RATES**

OVERALL (a)	0/34 (0%)	0/30 (0%)	2/31 (6%)	2/28 (7%)
POLY-3 RATE (b)	0/31.29	0/27.57	2/28.22	2/21.23
POLY-3 PERCENT (g)	0%	0%	7.1%	9.4%
TERMINAL (d)	0/25 (0%)	0/22 (0%)	1/23 (4%)	2/14 (14%)
FIRST INCIDENCE	---	---	451	730 (T)

**STATISTICAL TESTS**

POLY 3	P=0.041*	(e)	P=0.213	P=0.157
POLY 1.5	P=0.047*	(e)	P=0.214	P=0.166
POLY 6	P=0.036*	(e)	P=0.212	P=0.147
COCH-ARM / FISHERS	P=0.065	(e)	P=0.224	P=0.200
MAX-ISO-POLY-3	P=0.064	(e)	P=0.070	P=0.063

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Lymph Node, Mediastinal Hemorrhage**

**LESION RATES**

OVERALL (a)	0/34 (0%)	0/30 (0%)	0/31 (0%)	2/28 (7%)
POLY-3 RATE (b)	0/31.29	0/27.57	0/27.46	2/22.23
POLY-3 PERCENT (g)	0%	0%	0%	9%
TERMINAL (d)	0/25 (0%)	0/22 (0%)	0/23 (0%)	1/14 (7%)
FIRST INCIDENCE	---	---	---	38

**STATISTICAL TESTS**

POLY 3	P=0.031*	(e)	(e)	P=0.165
POLY 1.5	P=0.032*	(e)	(e)	P=0.174
POLY 6	P=0.030*	(e)	(e)	P=0.155
COCH-ARM / FISHERS	P=0.036*	(e)	(e)	P=0.200
MAX-ISO-POLY-3	P=0.024*	(e)	(e)	P=0.063

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Lymph Node, Mediastinal  
Hyperplasia Lymphoid**

**LESION RATES**

OVERALL (a)	0/34 (0%)	0/30 (0%)	0/31 (0%)	0/28 (0%)
POLY-3 RATE (b)	0/31.29	0/27.57	0/27.46	0/21.23
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/25 (0%)	0/22 (0%)	0/23 (0%)	0/14 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Lymph Node, Mesenteric  
Angiectasis**

**LESION RATES**

OVERALL (a)	0/49 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/45.10	0/43.56	0/42.47	0/37.64
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/34 (0%)	0/33 (0%)	0/30 (0%)	0/24 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

TDMS No. 20011 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 1-Bromopropane  
 CAS Number: 106-94-5

Date Report Requested: 07/09/2008  
 Time Report Requested: 10:20:06  
 First Dose M/F: 07/14/03 / 07/14/03  
 Lab: BNW

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Lymph Node: Pancreatic  
 Angiectasis**

**LESION RATES**

OVERALL (a)	0/1 (0%)	0/3 (0%)	0/2 (0%)	0/2 (0%)
POLY-3 RATE (b)	0/1.00	0/2.47	0/1.41	0/1.82
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/1 (0%)	0/0 (0%)	0/1 (0%)	0/1 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Mammary Gland  
Galactocele**

**LESION RATES**

OVERALL (a)	1/50 (2%)	0/50 (0%)	3/50 (6%)	1/50 (2%)
POLY-3 RATE (b)	1/45.31	0/43.77	3/42.62	1/37.90
POLY-3 PERCENT (g)	2.2%	0%	7%	2.6%
TERMINAL (d)	1/34 (3%)	0/33 (0%)	2/30 (7%)	0/24 (0%)
FIRST INCIDENCE	730 (T)	---	694	660

**STATISTICAL TESTS**

POLY 3	P=0.380	P=0.507N	P=0.283	P=0.719
POLY 1.5	P=0.407	P=0.504N	P=0.292	P=0.733
POLY 6	P=0.353	P=0.510N	P=0.273	P=0.705
COCH-ARM / FISHERS	P=0.469	P=0.500N	P=0.309	P=0.753N
MAX-ISO-POLY-3	P=0.281	P=0.167N	P=0.146	P=0.452

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Mesentery  
Necrosis**

**LESION RATES**

OVERALL (a)	13/13 (100%)	26/26 (100%)	16/17 (94%)	22/23 (96%)
POLY-3 RATE (b)	13/13.00	26/26.00	16/16.42	22/22.50
POLY-3 PERCENT (g)	100%	100%	97.4%	97.8%
TERMINAL (d)	10/10 (100%)	20/20 (100%)	10/10 (100%)	12/12 (100%)
FIRST INCIDENCE	438	575	417	453

**STATISTICAL TESTS**

POLY 3	P=0.464N	(e)	P=0.929N	P=0.904N
POLY 1.5	P=0.354N	(e)	P=0.745N	P=0.761N
POLY 6	P=0.841N	(e)	P=1.000N	P=1.000N
COCH-ARM / FISHERS	P=0.287N	(e)	P=0.567N	P=0.639N
MAX-ISO-POLY-3	P=0.338N	(e)	P=0.204N	P=0.253N

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

Nose  
Foreign Body

**LESION RATES**

OVERALL (a)	6/50 (12%)	6/50 (12%)	6/49 (12%)	9/50 (18%)
POLY-3 RATE (b)	6/45.64	6/45.02	6/41.71	9/40.65
POLY-3 PERCENT (g)	13.2%	13.3%	14.4%	22.1%
TERMINAL (d)	5/34 (15%)	2/33 (6%)	5/30 (17%)	5/24 (21%)
FIRST INCIDENCE	639	575	718	142

**STATISTICAL TESTS**

POLY 3	P=0.144	P=0.611	P=0.557	P=0.207
POLY 1.5	P=0.166	P=0.614	P=0.577	P=0.234
POLY 6	P=0.120	P=0.612	P=0.532	P=0.178
COCH-ARM / FISHERS	P=0.210	P=0.620N	P=0.606	P=0.288
MAX-ISO-POLY-3	P=0.225	P=0.489	P=0.434	P=0.148

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Nose  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	24/50 (48%)	38/50 (76%)	40/49 (82%)	43/50 (86%)
POLY-3 RATE (b)	24/47.26	38/47.41	40/48.15	43/48.34
POLY-3 PERCENT (g)	50.8%	80.2%	83.1%	89%
TERMINAL (d)	17/34 (50%)	27/33 (82%)	23/30 (77%)	20/24 (83%)
FIRST INCIDENCE	493	433	417	142

**STATISTICAL TESTS**

POLY 3	P<0.001**	P<0.001**	P<0.001**	P<0.001**
POLY 1.5	P<0.001**	P=0.002**	P<0.001**	P<0.001**
POLY 6	P<0.001**	P<0.001**	P<0.001**	P<0.001**
COCH-ARM / FISHERS	P<0.001**	P=0.004**	P<0.001**	P<0.001**
MAX-ISO-POLY-3	P<0.001**	P<0.001**	P<0.001**	P<0.001**

TDMS No. 20011 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 1-Bromopropane  
 CAS Number: 106-94-5

Date Report Requested: 07/09/2008  
 Time Report Requested: 10:20:06  
 First Dose M/F: 07/14/03 / 07/14/03  
 Lab: BNW

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Nose: Epithelium  
 Accumulation, Hyaline Droplet**

**LESION RATES**

OVERALL (a)	48/50 (96%)	48/50 (96%)	48/49 (98%)	47/50 (94%)
POLY-3 RATE (b)	48/49.67	48/49.38	48/48.24	47/48.01
POLY-3 PERCENT (g)	96.6%	97.2%	99.5%	97.9%
TERMINAL (d)	33/34 (97%)	32/33 (97%)	30/30 (100%)	23/24 (96%)
FIRST INCIDENCE	438	433	417	386

**STATISTICAL TESTS**

POLY 3	P=0.418	P=0.673	P=0.370	P=0.598
POLY 1.5	P=0.405	P=0.679	P=0.414	P=0.581
POLY 6	P=0.485	P=0.682	P=0.368	P=0.655
COCH-ARM / FISHERS	P=0.403N	P=0.691N	P=0.508	P=0.500N
MAX-ISO-POLY-3	P=0.374	P=0.429	P=0.128	P=0.348

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Nose: Glands  
Hyperplasia**

**LESION RATES**

OVERALL (a)	6/50 (12%)	23/50 (46%)	28/49 (57%)	30/50 (60%)
POLY-3 RATE (b)	6/46.06	23/46.65	28/46.66	30/44.92
POLY-3 PERCENT (g)	13%	49.3%	60%	66.8%
TERMINAL (d)	3/34 (9%)	15/33 (46%)	14/30 (47%)	11/24 (46%)
FIRST INCIDENCE	639	491	417	431

**STATISTICAL TESTS**

POLY 3	P<0.001**	P<0.001**	P<0.001**	P<0.001**
POLY 1.5	P<0.001**	P<0.001**	P<0.001**	P<0.001**
POLY 6	P<0.001**	P<0.001**	P<0.001**	P<0.001**
COCH-ARM / FISHERS	P<0.001**	P<0.001**	P<0.001**	P<0.001**
MAX-ISO-POLY-3	P<0.001**	P<0.001**	P<0.001**	P<0.001**

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

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**Nose: Olfactory Epithelium  
Metaplasia Respiratory**

**LESION RATES**

OVERALL (a)	3/50 (6%)	4/50 (8%)	6/49 (12%)	9/50 (18%)
POLY-3 RATE (b)	3/45.31	4/44.63	6/42.64	9/39.80
POLY-3 PERCENT (g)	6.6%	9%	14.1%	22.6%
TERMINAL (d)	3/34 (9%)	1/33 (3%)	2/30 (7%)	6/24 (25%)
FIRST INCIDENCE	730 (T)	575	541	142

**STATISTICAL TESTS**

POLY 3	P=0.014*	P=0.492	P=0.212	P=0.034*
POLY 1.5	P=0.018*	P=0.494	P=0.220	P=0.041*
POLY 6	P=0.011*	P=0.492	P=0.205	P=0.026*
COCH-ARM / FISHERS	P=0.028*	P=0.500	P=0.233	P=0.061
MAX-ISO-POLY-3	P=0.021*	P=0.341	P=0.131	P=0.022*

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

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**Nose: Respiratory Epithelium  
Hyperplasia**

**LESION RATES**

OVERALL (a)	5/50 (10%)	13/50 (26%)	9/49 (18%)	18/50 (36%)
POLY-3 RATE (b)	5/45.31	13/45.20	9/41.89	18/42.19
POLY-3 PERCENT (g)	11%	28.8%	21.5%	42.7%
TERMINAL (d)	5/34 (15%)	7/33 (21%)	7/30 (23%)	10/24 (42%)
FIRST INCIDENCE	730 (T)	575	684	142

**STATISTICAL TESTS**

POLY 3	P<0.001**	P=0.030*	P=0.149	P<0.001**
POLY 1.5	P=0.002**	P=0.030*	P=0.162	P<0.001**
POLY 6	P<0.001**	P=0.030*	P=0.136	P<0.001**
COCH-ARM / FISHERS	P=0.004**	P=0.033*	P=0.183	P=0.002**
MAX-ISO-POLY-3	P<0.001**	P=0.016*	P=0.098	P<0.001**

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

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**Nose: Respiratory Epithelium  
Metaplasia**

**LESION RATES**

OVERALL (a)	1/50 (2%)	1/50 (2%)	5/49 (10%)	1/50 (2%)
POLY-3 RATE (b)	1/45.57	1/43.77	5/42.43	1/38.03
POLY-3 PERCENT (g)	2.2%	2.3%	11.8%	2.6%
TERMINAL (d)	0/34 (0%)	1/33 (3%)	3/30 (10%)	0/24 (0%)
FIRST INCIDENCE	660	730 (T)	541	619

**STATISTICAL TESTS**

POLY 3	P=0.372	P=0.752	P=0.085	P=0.719
POLY 1.5	P=0.411	P=0.755	P=0.090	P=0.733
POLY 6	P=0.331	P=0.748	P=0.080	P=0.703
COCH-ARM / FISHERS	P=0.499	P=0.753N	P=0.098	P=0.753N
MAX-ISO-POLY-3	P=0.244	P=0.488	P=0.040*	P=0.452

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

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**Oral Mucosa  
Foreign Body**

**LESION RATES**

OVERALL (a)	0/2 (0%)	0/0 (0%)	1/1 (100%)	1/1 (100%)
POLY-3 RATE (b)	0/2.00	0/0.00	1/1.00	1/1.00
POLY-3 PERCENT (g)	0%	0%	100%	100%
TERMINAL (d)	0/2 (0%)	0/0 (0%)	1/1 (100%)	1/1 (100%)
FIRST INCIDENCE	---	---	730 (T)	730 (T)

**STATISTICAL TESTS**

POLY 3	(e)	(e)	P=0.333	P=0.333
POLY 1.5	(e)	(e)	P=0.333	P=0.333
POLY 6	(e)	(e)	P=0.333	P=0.333
COCH-ARM / FISHERS	P=0.114	(e)	P=0.333	P=0.333
MAX-ISO-POLY-3	(e)	(e)	P<0.001**	P<0.001**

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TDMS No. 20011 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 1-Bromopropane  
 CAS Number: 106-94-5

Date Report Requested: 07/09/2008  
 Time Report Requested: 10:20:06  
 First Dose M/F: 07/14/03 / 07/14/03  
 Lab: BNW

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Oral Mucosa  
 Hyperplasia**

**LESION RATES**

OVERALL (a)	2/2 (100%)	0/0 (0%)	1/1 (100%)	1/1 (100%)
POLY-3 RATE (b)	2/2.00	0/0.00	1/1.00	1/1.00
POLY-3 PERCENT (g)	100%	0%	100%	100%
TERMINAL (d)	2/2 (100%)	0/0 (0%)	1/1 (100%)	1/1 (100%)
FIRST INCIDENCE	730 (T)	---	730 (T)	730 (T)

**STATISTICAL TESTS**

POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Oral Mucosa  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	0/2 (0%)	0/0 (0%)	0/1 (0%)	1/1 (100%)
POLY-3 RATE (b)	0/2.00	0/0.00	0/1.00	1/1.00
POLY-3 PERCENT (g)	0%	0%	0%	100%
TERMINAL (d)	0/2 (0%)	0/0 (0%)	0/1 (0%)	1/1 (100%)
FIRST INCIDENCE	---	---	---	730 (T)

**STATISTICAL TESTS**

POLY 3	(e)	(e)	(e)	P=0.333
POLY 1.5	(e)	(e)	(e)	P=0.333
POLY 6	(e)	(e)	(e)	P=0.333
COCH-ARM / FISHERS	P=0.148	(e)	(e)	P=0.333
MAX-ISO-POLY-3	(e)	(e)	(e)	P<0.001**

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

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DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Ovary  
Cyst**

**LESION RATES**

OVERALL (a)	3/50 (6%)	1/50 (2%)	7/50 (14%)	3/50 (6%)
POLY-3 RATE (b)	3/45.49	1/43.77	7/43.11	3/37.64
POLY-3 PERCENT (g)	6.6%	2.3%	16.2%	8%
TERMINAL (d)	2/34 (6%)	1/33 (3%)	4/30 (13%)	3/24 (13%)
FIRST INCIDENCE	683	730 (T)	607	730 (T)

**STATISTICAL TESTS**

POLY 3	P=0.261	P=0.319N	P=0.135	P=0.572
POLY 1.5	P=0.300	P=0.314N	P=0.144	P=0.602
POLY 6	P=0.221	P=0.325N	P=0.125	P=0.537
COCH-ARM / FISHERS	P=0.389	P=0.309N	P=0.159	P=0.661N
MAX-ISO-POLY-3	P=0.188	P=0.169N	P=0.080	P=0.412

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Pancreas: Acinus Atrophy**

**LESION RATES**

OVERALL (a)	9/50 (18%)	12/50 (24%)	7/50 (14%)	7/50 (14%)
POLY-3 RATE (b)	9/45.31	12/44.60	7/43.41	7/38.91
POLY-3 PERCENT (g)	19.9%	26.9%	16.1%	18%
TERMINAL (d)	9/34 (27%)	9/33 (27%)	4/30 (13%)	4/24 (17%)
FIRST INCIDENCE	730 (T)	575	554	529

**STATISTICAL TESTS**

POLY 3	P=0.330N	P=0.294	P=0.428N	P=0.524N
POLY 1.5	P=0.294N	P=0.301	P=0.415N	P=0.484N
POLY 6	P=0.367N	P=0.291	P=0.442N	P=0.563N
COCH-ARM / FISHERS	P=0.216N	P=0.312	P=0.393N	P=0.393N
MAX-ISO-POLY-3	P=0.408N	P=0.217	P=0.327N	P=0.418N

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Parathyroid Gland  
Hyperplasia**

**LESION RATES**

OVERALL (a)	0/47 (0%)	0/48 (0%)	0/47 (0%)	0/46 (0%)
POLY-3 RATE (b)	0/42.31	0/41.93	0/40.48	0/34.46
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/31 (0%)	0/32 (0%)	0/29 (0%)	0/22 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Pituitary Gland  
Cyst**

**LESION RATES**

OVERALL (a)	2/50 (4%)	1/50 (2%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	2/45.37	1/43.77	2/42.83	2/38.68
POLY-3 PERCENT (g)	4.4%	2.3%	4.7%	5.2%
TERMINAL (d)	1/34 (3%)	1/33 (3%)	0/30 (0%)	0/24 (0%)
FIRST INCIDENCE	716	730 (T)	680	501

**STATISTICAL TESTS**

POLY 3	P=0.461	P=0.513N	P=0.673	P=0.635
POLY 1.5	P=0.480	P=0.507N	P=0.681	P=0.653
POLY 6	P=0.441	P=0.518N	P=0.664	P=0.616
COCH-ARM / FISHERS	P=0.526	P=0.500N	P=0.691N	P=0.691N
MAX-ISO-POLY-3	P=0.556	P=0.294N	P=0.476	P=0.439



TDMS No. 20011 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 1-Bromopropane  
 CAS Number: 106-94-5

Date Report Requested: 07/09/2008  
 Time Report Requested: 10:20:06  
 First Dose M/F: 07/14/03 / 07/14/03  
 Lab: BNW

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Pituitary Gland  
 Hemorrhage**

**LESION RATES**

OVERALL (a)	2/50 (4%)	4/50 (8%)	5/50 (10%)	3/50 (6%)
POLY-3 RATE (b)	2/45.31	4/43.77	5/43.46	3/38.74
POLY-3 PERCENT (g)	4.4%	9.1%	11.5%	7.7%
TERMINAL (d)	2/34 (6%)	4/33 (12%)	3/30 (10%)	1/24 (4%)
FIRST INCIDENCE	730 (T)	730 (T)	541	529

**STATISTICAL TESTS**

POLY 3	P=0.350	P=0.321	P=0.199	P=0.429
POLY 1.5	P=0.383	P=0.328	P=0.206	P=0.450
POLY 6	P=0.318	P=0.314	P=0.191	P=0.407
COCH-ARM / FISHERS	P=0.463	P=0.339	P=0.218	P=0.500
MAX-ISO-POLY-3	P=0.338	P=0.192	P=0.112	P=0.278

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Pituitary Gland: Pars Distalis  
Hyperplasia**

**LESION RATES**

OVERALL (a)	7/50 (14%)	11/50 (22%)	7/50 (14%)	7/50 (14%)
POLY-3 RATE (b)	7/46.05	11/44.86	7/43.06	7/38.07
POLY-3 PERCENT (g)	15.2%	24.5%	16.3%	18.4%
TERMINAL (d)	4/34 (12%)	8/33 (24%)	5/30 (17%)	6/24 (25%)
FIRST INCIDENCE	633	528	618	606

**STATISTICAL TESTS**

POLY 3	P=0.523	P=0.197	P=0.561	P=0.462
POLY 1.5	P=0.514N	P=0.205	P=0.583	P=0.512
POLY 6	P=0.454	P=0.188	P=0.535	P=0.406
COCH-ARM / FISHERS	P=0.397N	P=0.218	P=0.613N	P=0.613N
MAX-ISO-POLY-3	P=0.497	P=0.135	P=0.446	P=0.360

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Salivary Glands  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/45.31	0/43.77	0/42.47	1/38.11
POLY-3 PERCENT (g)	0%	0%	0%	2.6%
TERMINAL (d)	0/34 (0%)	0/33 (0%)	0/30 (0%)	0/24 (0%)
FIRST INCIDENCE	---	---	---	590

**STATISTICAL TESTS**

POLY 3	P=0.179	(e)	(e)	P=0.466
POLY 1.5	P=0.185	(e)	(e)	P=0.476
POLY 6	P=0.173	(e)	(e)	P=0.454
COCH-ARM / FISHERS	P=0.198	(e)	(e)	P=0.500
MAX-ISO-POLY-3	P=0.123	(e)	(e)	P=0.158

---

TDMS No. 20011 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 1-Bromopropane  
 CAS Number: 106-94-5

Date Report Requested: 07/09/2008  
 Time Report Requested: 10:20:06  
 First Dose M/F: 07/14/03 / 07/14/03  
 Lab: BNW

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Skin  
 Hyperkeratosis**

**LESION RATES**

OVERALL (a)	1/50 (2%)	2/50 (4%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	1/45.31	2/43.77	2/42.65	0/37.64
POLY-3 PERCENT (g)	2.2%	4.6%	4.7%	0%
TERMINAL (d)	1/34 (3%)	2/33 (6%)	1/30 (3%)	0/24 (0%)
FIRST INCIDENCE	730 (T)	730 (T)	684	---

**STATISTICAL TESTS**

POLY 3	P=0.367N	P=0.488	P=0.479	P=0.537N
POLY 1.5	P=0.344N	P=0.493	P=0.487	P=0.525N
POLY 6	P=0.393N	P=0.483	P=0.469	P=0.550N
COCH-ARM / FISHERS	P=0.296N	P=0.500	P=0.500	P=0.500N
MAX-ISO-POLY-3	P=0.291N	P=0.273	P=0.269	P=0.203N

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Skin  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	1/50 (2%)	3/50 (6%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	1/45.31	3/43.93	1/42.47	1/37.64
POLY-3 PERCENT (g)	2.2%	6.8%	2.4%	2.7%
TERMINAL (d)	1/34 (3%)	2/33 (6%)	1/30 (3%)	1/24 (4%)
FIRST INCIDENCE	730 (T)	687	730 (T)	730 (T)

**STATISTICAL TESTS**

POLY 3	P=0.510N	P=0.294	P=0.746	P=0.718
POLY 1.5	P=0.489N	P=0.299	P=0.752	P=0.732
POLY 6	P=0.535N	P=0.290	P=0.739	P=0.701
COCH-ARM / FISHERS	P=0.444N	P=0.309	P=0.753N	P=0.753N
MAX-ISO-POLY-3	P=0.526N	P=0.150	P=0.481	P=0.451

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Spleen  
Fibrosis**

**LESION RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/45.31	0/43.77	0/42.47	0/37.64
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/34 (0%)	0/33 (0%)	0/30 (0%)	0/24 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Spleen  
Hematopoietic Cell Proliferation**

**LESION RATES**

OVERALL (a)	33/50 (66%)	32/50 (64%)	29/50 (58%)	21/50 (42%)
POLY-3 RATE (b)	33/47.62	32/45.28	29/43.77	21/39.08
POLY-3 PERCENT (g)	69.3%	70.7%	66.3%	53.7%
TERMINAL (d)	27/34 (79%)	26/33 (79%)	23/30 (77%)	16/24 (67%)
FIRST INCIDENCE	438	577	547	578

**STATISTICAL TESTS**

POLY 3	P=0.057N	P=0.534	P=0.463N	P=0.093N
POLY 1.5	P=0.028N*	P=0.585	P=0.379N	P=0.051N
POLY 6	P=0.112N	P=0.487	P=0.566N	P=0.161N
COCH-ARM / FISHERS	P=0.006N**	P=0.500N	P=0.268N	P=0.013N*
MAX-ISO-POLY-3	P=0.089N	P=0.440	P=0.376N	P=0.077N

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Spleen  
Hemorrhage Chronic**

**LESION RATES**

OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	1/45.64	0/43.77	1/43.07	2/37.82
POLY-3 PERCENT (g)	2.2%	0%	2.3%	5.3%
TERMINAL (d)	0/34 (0%)	0/33 (0%)	0/30 (0%)	1/24 (4%)
FIRST INCIDENCE	639	---	541	682

**STATISTICAL TESTS**

POLY 3	P=0.211	P=0.508N	P=0.748	P=0.435
POLY 1.5	P=0.222	P=0.505N	P=0.753	P=0.456
POLY 6	P=0.200	P=0.512N	P=0.741	P=0.412
COCH-ARM / FISHERS	P=0.247	P=0.500N	P=0.753N	P=0.500
MAX-ISO-POLY-3	P=0.210	P=0.169N	P=0.483	P=0.247

---



**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Spleen  
Infarct Chronic**

**LESION RATES**

OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	1/45.37	1/43.77	1/42.65	1/37.80
POLY-3 PERCENT (g)	2.2%	2.3%	2.3%	2.7%
TERMINAL (d)	0/34 (0%)	1/33 (3%)	0/30 (0%)	0/24 (0%)
FIRST INCIDENCE	716	730 (T)	684	688

**STATISTICAL TESTS**

POLY 3	P=0.570	P=0.753	P=0.747	P=0.718
POLY 1.5	P=0.590	P=0.756	P=0.752	P=0.732
POLY 6	P=0.548	P=0.749	P=0.740	P=0.703
COCH-ARM / FISHERS	P=0.634	P=0.753N	P=0.753N	P=0.753N
MAX-ISO-POLY-3	P=0.692	P=0.489	P=0.482	P=0.451

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Spleen  
Inflammation Granulomatous**

**LESION RATES**

OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/45.31	2/43.77	0/42.47	0/37.64
POLY-3 PERCENT (g)	0%	4.6%	0%	0%
TERMINAL (d)	0/34 (0%)	2/33 (6%)	0/30 (0%)	0/24 (0%)
FIRST INCIDENCE	---	730 (T)	---	---

**STATISTICAL TESTS**

POLY 3	P=0.442N	P=0.229	(e)	(e)
POLY 1.5	P=0.429N	P=0.233	(e)	(e)
POLY 6	P=0.457N	P=0.226	(e)	(e)
COCH-ARM / FISHERS	P=0.405N	P=0.247	(e)	(e)
MAX-ISO-POLY-3	P=0.317N	P=0.076	(e)	(e)

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Stomach, Forestomach  
Hyperplasia**

**LESION RATES**

OVERALL (a)	4/50 (8%)	0/50 (0%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	4/46.08	0/43.77	2/42.65	2/38.91
POLY-3 PERCENT (g)	8.7%	0%	4.7%	5.1%
TERMINAL (d)	1/34 (3%)	0/33 (0%)	1/30 (3%)	0/24 (0%)
FIRST INCIDENCE	633	---	684	386

**STATISTICAL TESTS**

POLY 3	P=0.436N	P=0.067N	P=0.373N	P=0.418N
POLY 1.5	P=0.427N	P=0.064N	P=0.358N	P=0.391N
POLY 6	P=0.448N	P=0.071N	P=0.393N	P=0.450N
COCH-ARM / FISHERS	P=0.404N	P=0.059N	P=0.339N	P=0.339N
MAX-ISO-POLY-3	P=0.219N	P=0.025N*	P=0.237N	P=0.281N

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Stomach, Forestomach  
Ulcer**

**LESION RATES**

OVERALL (a)	2/50 (4%)	3/50 (6%)	3/50 (6%)	6/50 (12%)
POLY-3 RATE (b)	2/45.67	3/45.01	3/43.20	6/40.12
POLY-3 PERCENT (g)	4.4%	6.7%	6.9%	15%
TERMINAL (d)	0/34 (0%)	0/33 (0%)	1/30 (3%)	0/24 (0%)
FIRST INCIDENCE	647	433	554	386

**STATISTICAL TESTS**

POLY 3	P=0.055	P=0.493	P=0.475	P=0.094
POLY 1.5	P=0.062	P=0.496	P=0.485	P=0.105
POLY 6	P=0.048*	P=0.490	P=0.462	P=0.084
COCH-ARM / FISHERS	P=0.080	P=0.500	P=0.500	P=0.134
MAX-ISO-POLY-3	P=0.073	P=0.319	P=0.306	P=0.056

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Stomach, Glandular  
Ulcer**

**LESION RATES**

OVERALL (a)	3/50 (6%)	1/50 (2%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	3/46.05	1/43.93	1/43.05	1/38.03
POLY-3 PERCENT (g)	6.5%	2.3%	2.3%	2.6%
TERMINAL (d)	0/34 (0%)	0/33 (0%)	0/30 (0%)	0/24 (0%)
FIRST INCIDENCE	633	687	547	619

**STATISTICAL TESTS**

POLY 3	P=0.270N	P=0.322N	P=0.330N	P=0.377N
POLY 1.5	P=0.261N	P=0.315N	P=0.319N	P=0.353N
POLY 6	P=0.280N	P=0.330N	P=0.343N	P=0.404N
COCH-ARM / FISHERS	P=0.242N	P=0.309N	P=0.309N	P=0.309N
MAX-ISO-POLY-3	P=0.290N	P=0.172N	P=0.179N	P=0.226N

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Thyroid Gland: C-Cell  
Hyperplasia**

**LESION RATES**

OVERALL (a)	39/50 (78%)	36/50 (72%)	37/50 (74%)	37/50 (74%)
POLY-3 RATE (b)	39/47.92	36/45.51	37/45.78	37/44.21
POLY-3 PERCENT (g)	81.4%	79.1%	80.8%	83.7%
TERMINAL (d)	30/34 (88%)	28/33 (85%)	26/30 (87%)	20/24 (83%)
FIRST INCIDENCE	438	575	451	386

**STATISTICAL TESTS**

POLY 3	P=0.393	P=0.493N	P=0.583N	P=0.493
POLY 1.5	P=0.449	P=0.422N	P=0.512N	P=0.555
POLY 6	P=0.362	P=0.564N	P=0.592	P=0.458
COCH-ARM / FISHERS	P=0.424N	P=0.322N	P=0.408N	P=0.408N
MAX-ISO-POLY-3	P=0.526	P=0.385N	P=0.470N	P=0.380

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Thyroid Gland: Follicular Cell Hyperplasia**

**LESION RATES**

OVERALL (a)	0/50 (0%)	1/50 (2%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	0/45.31	1/43.77	2/42.67	0/37.64
POLY-3 PERCENT (g)	0%	2.3%	4.7%	0%
TERMINAL (d)	0/34 (0%)	1/33 (3%)	1/30 (3%)	0/24 (0%)
FIRST INCIDENCE	---	730 (T)	680	---

**STATISTICAL TESTS**

POLY 3	P=0.589	P=0.493	P=0.224	(e)
POLY 1.5	P=0.622	P=0.496	P=0.229	(e)
POLY 6	P=0.551	P=0.490	P=0.218	(e)
COCH-ARM / FISHERS	P=0.616N	P=0.500	P=0.247	(e)
MAX-ISO-POLY-3	P=0.356	P=0.158	P=0.076	(e)

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Trachea  
Inflammation Chronic**

**LESION RATES**

OVERALL (a)	0/50 (0%)	4/50 (8%)	1/50 (2%)	6/50 (12%)
POLY-3 RATE (b)	0/45.31	4/44.90	1/42.47	6/39.91
POLY-3 PERCENT (g)	0%	8.9%	2.4%	15%
TERMINAL (d)	0/34 (0%)	2/33 (6%)	1/30 (3%)	2/24 (8%)
FIRST INCIDENCE	---	528	730 (T)	431

**STATISTICAL TESTS**

POLY 3	P=0.012*	P=0.059	P=0.487	P=0.010**
POLY 1.5	P=0.014*	P=0.060	P=0.492	P=0.011*
POLY 6	P=0.010**	P=0.059	P=0.481	P=0.008**
COCH-ARM / FISHERS	P=0.020*	P=0.059	P=0.500	P=0.013*
MAX-ISO-POLY-3	P=0.005**	P=0.019*	P=0.158	P=0.004**



**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Trachea: Epithelium  
Hyperplasia**

**LESION RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	4/50 (8%)
POLY-3 RATE (b)	0/45.31	0/43.77	0/42.47	4/38.74
POLY-3 PERCENT (g)	0%	0%	0%	10.3%
TERMINAL (d)	0/34 (0%)	0/33 (0%)	0/30 (0%)	2/24 (8%)
FIRST INCIDENCE	---	---	---	529

**STATISTICAL TESTS**

POLY 3	P=0.002**	(e)	(e)	P=0.043*
POLY 1.5	P=0.002**	(e)	(e)	P=0.048*
POLY 6	P=0.002**	(e)	(e)	P=0.038*
COCH-ARM / FISHERS	P=0.003**	(e)	(e)	P=0.059
MAX-ISO-POLY-3	P=0.003**	(e)	(e)	P=0.019*

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

---

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

---

**Uterus  
Decidual Reaction**

**LESION RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/45.31	0/43.77	0/42.47	2/38.32
POLY-3 PERCENT (g)	0%	0%	0%	5.2%
TERMINAL (d)	0/34 (0%)	0/33 (0%)	0/30 (0%)	1/24 (4%)
FIRST INCIDENCE	---	---	---	501

**STATISTICAL TESTS**

POLY 3	P=0.040*	(e)	(e)	P=0.202
POLY 1.5	P=0.041*	(e)	(e)	P=0.213
POLY 6	P=0.038*	(e)	(e)	P=0.191
COCH-ARM / FISHERS	P=0.046*	(e)	(e)	P=0.247
MAX-ISO-POLY-3	P=0.032*	(e)	(e)	P=0.075

---

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Uterus  
Hemorrhage**

**LESION RATES**

OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/45.31	2/44.20	0/42.47	1/37.64
POLY-3 PERCENT (g)	0%	4.5%	0%	2.7%
TERMINAL (d)	0/34 (0%)	1/33 (3%)	0/30 (0%)	1/24 (4%)
FIRST INCIDENCE	---	603	---	730 (T)

**STATISTICAL TESTS**

POLY 3	P=0.474	P=0.232	(e)	P=0.463
POLY 1.5	P=0.496	P=0.234	(e)	P=0.475
POLY 6	P=0.451	P=0.230	(e)	P=0.450
COCH-ARM / FISHERS	P=0.539	P=0.247	(e)	P=0.500
MAX-ISO-POLY-3	P=0.332	P=0.076	(e)	P=0.158

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F 344)  
TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	CONTROL	125 PPM	250 PPM	500 PPM

**Vagina: Muscularis Hypertrophy**

**LESION RATES**

OVERALL (a)	2/3 (67%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
POLY-3 RATE (b)	2/2.31	0/0.00	0/0.00	0/0.00
POLY-3 PERCENT (g)	86.7%	0%	0%	0%
TERMINAL (d)	2/2 (100%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
FIRST INCIDENCE	730 (T)	---	---	---

**STATISTICAL TESTS**

POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=1.000N	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

**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.
  - (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. The life table analysis regards tumors in animals dying prior to terminal kill as being (directly or indirectly) the cause of death.
  - (e) Value of Statistic cannot be computed.
  - (g) Poly-3 adjusted lifetime tumor incidence.
  - (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
- Logistic regression is an alternative method for analyzing the incidence of non-fatal tumors.  
The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates.

\*\*\* END OF REPORT \*\*\*