

**TDMS No.** 97003 - 07  
**Test Type:** CHRONIC  
**Route:** SKIN APPLICATION  
**Species/Strain:** RATS/F 344

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

1,2-Dibromo-2,4-dicyanobutane  
**CAS Number:** 35691-65-7

**Date Report Reqsted:** 08/21/2007  
**Time Report Reqsted:** 12:46:31  
**First Dose M/F:** 07/10/02 / 07/11/02  
**Lab:** BAT

F\_1.Rev.1\_R2

**C Number:** C97003D  
**Lock Date:** 03/23/2005  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**TDMSE Version:** 1.8.0

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**FOR ALL DOSES THE TUMOR RATES IN THE FOLLOWING TISSUES/ORGANS ARE BASED ON NUMBER OF TISSUES EXAMINED.  
IN OTHER TISSUES/ORGANS RATES ARE BASED ON THE NUMBER OF ANIMALS NECROPSIED.**

Adrenal Cortex  
Adrenal Medulla  
Brain  
Clitoral/Preputial Gland  
Islets, Pancreatic  
Kidney  
Liver  
Lung  
Nose  
Ovary  
Pancreas  
Pituitary Gland  
Prostate  
Spleen  
Testes  
Thyroid Gland  
Urinary Bladder

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## SUMMARY OF STATISTICALLY SIGNIFICANT ( $P \leq .05$ ) RESULTS IN THE ANALYSIS OF 1,2-Dibromo-2,4-dicyanobutane

### MALE RATS

<u>Organ</u>	<u>Morphology</u>
Pituitary Gland: Pars Distalis or Unspecified Site	Adenoma
Pituitary Gland: Pars Intermedia	Adenoma
Skin	Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma
Testes	Adenoma
Thyroid Gland: C-Cell	Carcinoma
	Carcinoma or Adenoma
	Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type
	Benign Tumors
	Malignant Tumors
	Malignant and Benign Tumors

### FEMALE RATS

<u>Organ</u>	<u>Morphology</u>
Lung	Alveolar/Bronchiolar Adenoma
	Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma
Mammary Gland	Carcinoma
	Carcinoma or Adenoma
	Fibroma, Fibroadenoma or Adenoma
	Fibroma, Fibroadenoma, Carcinoma, or Adenoma
Pituitary Gland: Pars Distalis or Unspecified Site	Adenoma
Skin	Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma
	Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated
All Organs	Benign Tumors

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**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Adrenal Cortex  
 Adenoma**

**TUMOR RATES**

OVERALL (a)	3/50 (6%)	0/50 (0%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	3/41.97	0/38.65	1/41.37	1/46.65
POLY-3 PERCENT (g)	7.2%	0%	2.4%	2.1%
TERMINAL (d)	2/25 (8%)	0/27 (0%)	0/27 (0%)	0/37 (0%)
FIRST INCIDENCE	714	---	691	699

**STATISTICAL TESTS**

LIFE TABLE	P=0.315N	P=0.114N	P=0.285N	P=0.188N
POLY 3	P=0.382N	P=0.133N	P=0.310N	P=0.268N
POLY 1.5	P=0.403N	P=0.129N	P=0.310N	P=0.285N
POLY 6	P=0.358N	P=0.135N	P=0.306N	P=0.246N
LOGISTIC REGRESSION	P=0.361N	P=0.127N	P=0.304N	P=0.232N
COCH-ARM / FISHERS	P=0.436N	P=0.121N	P=0.309N	P=0.309N
ORDER RESTRICTED	P=0.085N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.107N	(e)	(e)	(e)

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**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Adrenal Medulla  
 Pheochromocytoma Benign**

**TUMOR RATES**

OVERALL (a)	5/50 (10%)	2/50 (4%)	5/50 (10%)	4/50 (8%)
POLY-3 RATE (b)	5/42.2	2/39.24	5/42.16	4/46.53
POLY-3 PERCENT (g)	11.9%	5.1%	11.9%	8.6%
TERMINAL (d)	3/25 (12%)	1/27 (4%)	2/27 (7%)	4/37 (11%)
FIRST INCIDENCE	672	541	631	728 (T)

**STATISTICAL TESTS**

LIFE TABLE	P=0.406N	P=0.221N	P=0.610N	P=0.286N
POLY 3	P=0.522N	P=0.245N	P=0.631	P=0.439N
POLY 1.5	P=0.561N	P=0.237N	P=0.627	P=0.466N
POLY 6	P=0.475N	P=0.248N	P=0.622N	P=0.402N
LOGISTIC REGRESSION	P=0.546N	P=0.244N	P=0.622	P=0.357N
COCH-ARM / FISHERS	P=0.559	P=0.218N	P=0.630N	P=0.500N
ORDER RESTRICTED	P=0.472N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.488N	(e)	(e)	(e)

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 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Adrenal Medulla  
 Pheochromocytoma: Benign, Complex, Malignant, NOS**

**TUMOR RATES**

OVERALL (a)	5/50 (10%)	2/50 (4%)	5/50 (10%)	4/50 (8%)
POLY-3 RATE (b)	5/42.2	2/39.24	5/42.16	4/46.53
POLY-3 PERCENT (g)	11.9%	5.1%	11.9%	8.6%
TERMINAL (d)	3/25 (12%)	1/27 (4%)	2/27 (7%)	4/37 (11%)
FIRST INCIDENCE	672	541	631	728 (T)

**STATISTICAL TESTS**

LIFE TABLE	P=0.406N	P=0.221N	P=0.610N	P=0.286N
POLY 3	P=0.522N	P=0.245N	P=0.631	P=0.439N
POLY 1.5	P=0.561N	P=0.237N	P=0.627	P=0.466N
POLY 6	P=0.475N	P=0.248N	P=0.622N	P=0.402N
LOGISTIC REGRESSION	P=0.546N	P=0.244N	P=0.622	P=0.357N
COCH-ARM / FISHERS	P=0.559	P=0.218N	P=0.630N	P=0.500N
ORDER RESTRICTED	P=0.472N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.488N	(e)	(e)	(e)

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**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Clitoral/Preputial Gland  
 Adenoma**

**TUMOR RATES**

OVERALL (a)	2/50 (4%)	4/50 (8%)	5/50 (10%)	1/50 (2%)
POLY-3 RATE (b)	2/41.91	4/39.28	5/41.99	1/46.53
POLY-3 PERCENT (g)	4.8%	10.2%	11.9%	2.2%
TERMINAL (d)	2/25 (8%)	3/27 (11%)	1/27 (4%)	1/37 (3%)
FIRST INCIDENCE	728 (T)	525	612	728 (T)

**STATISTICAL TESTS**

LIFE TABLE	P=0.138N	P=0.356	P=0.240	P=0.364N
POLY 3	P=0.183N	P=0.306	P=0.215	P=0.464N
POLY 1.5	P=0.209N	P=0.315	P=0.214	P=0.480N
POLY 6	P=0.152N	P=0.304	P=0.223	P=0.441N
LOGISTIC REGRESSION	P=0.207N	P=0.302	P=0.210	P=0.364N
COCH-ARM / FISHERS	P=0.248N	P=0.339	P=0.218	P=0.500N
ORDER RESTRICTED	P=0.158N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.183N	(e)	(e)	(e)

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 Lab: BAT

STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

Intestine Large: Colon/Rectum  
 Adenoma

TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/41.91	2/39.33	1/41.23	0/46.53
POLY-3 PERCENT (g)	0%	5.1%	2.4%	0%
TERMINAL (d)	0/25 (0%)	1/27 (4%)	1/27 (4%)	0/37 (0%)
FIRST INCIDENCE	---	500	728 (T)	---

STATISTICAL TESTS

LIFE TABLE	P=0.323N	P=0.241	P=0.515	(e)
POLY 3	P=0.358N	P=0.223	P=0.497	(e)
POLY 1.5	P=0.371N	P=0.227	P=0.497	(e)
POLY 6	P=0.339N	P=0.222	P=0.498	(e)
LOGISTIC REGRESSION	P=0.419N	P=0.277	P=0.515	(e)
COCH-ARM / FISHERS	P=0.385N	P=0.247	P=0.500	(e)
ORDER RESTRICTED	P=0.294N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.321N	(e)	(e)	(e)



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 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Islets, Pancreatic  
 Adenoma**

**TUMOR RATES**

OVERALL (a)	6/50 (12%)	3/50 (6%)	5/50 (10%)	4/50 (8%)
POLY-3 RATE (b)	6/41.91	3/38.79	5/42.04	4/46.53
POLY-3 PERCENT (g)	14.3%	7.7%	11.9%	8.6%
TERMINAL (d)	6/25 (24%)	2/27 (7%)	3/27 (11%)	4/37 (11%)
FIRST INCIDENCE	728 (T)	693	545	728 (T)

**STATISTICAL TESTS**

LIFE TABLE	P=0.235N	P=0.211N	P=0.463N	P=0.153N
POLY 3	P=0.355N	P=0.279N	P=0.498N	P=0.305N
POLY 1.5	P=0.396N	P=0.268N	P=0.502N	P=0.334N
POLY 6	P=0.306N	P=0.282N	P=0.484N	P=0.267N
LOGISTIC REGRESSION	P=0.308N	P=0.259N	P=0.508N	P=0.153N
COCH-ARM / FISHERS	P=0.458N	P=0.243N	P=0.500N	P=0.370N
ORDER RESTRICTED	P=0.298N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.324N	(e)	(e)	(e)

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STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

Lung  
 Alveolar/Bronchiolar Adenoma

TUMOR RATES

OVERALL (a)	1/50 (2%)	3/50 (6%)	1/50 (2%)	3/50 (6%)
POLY-3 RATE (b)	1/41.99	3/38.65	1/41.23	3/46.89
POLY-3 PERCENT (g)	2.4%	7.8%	2.4%	6.4%
TERMINAL (d)	0/25 (0%)	3/27 (11%)	1/27 (4%)	2/37 (5%)
FIRST INCIDENCE	709	728 (T)	728 (T)	629

STATISTICAL TESTS

LIFE TABLE	P=0.506	P=0.317	P=0.756N	P=0.422
POLY 3	P=0.396	P=0.275	P=0.757	P=0.346
POLY 1.5	P=0.371	P=0.285	P=0.757	P=0.328
POLY 6	P=0.431	P=0.270	P=0.758	P=0.372
LOGISTIC REGRESSION	P=0.445	P=0.284	P=0.762N	P=0.314
COCH-ARM / FISHERS	P=0.340	P=0.309	P=0.753N	P=0.309
ORDER RESTRICTED	P=0.289	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.315	(e)	(e)	(e)

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STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

Lung  
 Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma

TUMOR RATES

OVERALL (a)	2/50 (4%)	3/50 (6%)	1/50 (2%)	3/50 (6%)
POLY-3 RATE (b)	2/42.07	3/38.65	1/41.23	3/46.89
POLY-3 PERCENT (g)	4.8%	7.8%	2.4%	6.4%
TERMINAL (d)	0/25 (0%)	3/27 (11%)	1/27 (4%)	2/37 (5%)
FIRST INCIDENCE	709	728 (T)	728 (T)	629

STATISTICAL TESTS

LIFE TABLE	P=0.576N	P=0.502	P=0.499N	P=0.635
POLY 3	P=0.535	P=0.461	P=0.507N	P=0.549
POLY 1.5	P=0.508	P=0.474	P=0.505N	P=0.528
POLY 6	P=0.571	P=0.454	P=0.506N	P=0.579
LOGISTIC REGRESSION	P=0.581	P=0.468	P=0.500N	P=0.525
COCH-ARM / FISHERS	P=0.471	P=0.500	P=0.500N	P=0.500
ORDER RESTRICTED	P=0.568N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.580N	(e)	(e)	(e)

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**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Mammary Gland  
 Adenoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	3/50 (6%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/41.91	3/38.65	0/41.23	1/46.53
POLY-3 PERCENT (g)	0%	7.8%	0%	2.2%
TERMINAL (d)	0/25 (0%)	3/27 (11%)	0/27 (0%)	1/37 (3%)
FIRST INCIDENCE	---	728 (T)	---	728 (T)

**STATISTICAL TESTS**

LIFE TABLE	P=0.489N	P=0.133	(e)	P=0.578
POLY 3	P=0.600N	P=0.104	(e)	P=0.521
POLY 1.5	P=0.608N	P=0.109	(e)	P=0.512
POLY 6	P=0.584N	P=0.102	(e)	P=0.534
LOGISTIC REGRESSION	(e)	P=0.133	(e)	P=0.578
COCH-ARM / FISHERS	P=0.614N	P=0.121	(e)	P=0.500
ORDER RESTRICTED	P=0.249	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.275	(e)	(e)	(e)

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**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Mammary Gland  
 Carcinoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/41.91	0/38.65	0/41.23	0/46.53
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/25 (0%)	0/27 (0%)	0/27 (0%)	0/37 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

LIFE TABLE	(e)	(e)	(e)	(e)
POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

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 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Mammary Gland  
 Carcinoma or Adenoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	3/50 (6%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/41.91	3/38.65	0/41.23	1/46.53
POLY-3 PERCENT (g)	0%	7.8%	0%	2.2%
TERMINAL (d)	0/25 (0%)	3/27 (11%)	0/27 (0%)	1/37 (3%)
FIRST INCIDENCE	---	728 (T)	---	728 (T)

**STATISTICAL TESTS**

LIFE TABLE	P=0.489N	P=0.133	(e)	P=0.578
POLY 3	P=0.600N	P=0.104	(e)	P=0.521
POLY 1.5	P=0.608N	P=0.109	(e)	P=0.512
POLY 6	P=0.584N	P=0.102	(e)	P=0.534
LOGISTIC REGRESSION	(e)	P=0.133	(e)	P=0.578
COCH-ARM / FISHERS	P=0.614N	P=0.121	(e)	P=0.500
ORDER RESTRICTED	P=0.249	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.275	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Mammary Gland  
 Fibroadenoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/41.91	2/38.65	0/41.23	1/46.53
POLY-3 PERCENT (g)	2.4%	5.2%	0%	2.2%
TERMINAL (d)	1/25 (4%)	2/27 (7%)	0/27 (0%)	1/37 (3%)
FIRST INCIDENCE	728 (T)	728 (T)	---	728 (T)

**STATISTICAL TESTS**

LIFE TABLE	P=0.434N	P=0.527	P=0.485N	P=0.672N
POLY 3	P=0.534N	P=0.472	P=0.503N	P=0.737N
POLY 1.5	P=0.545N	P=0.481	P=0.503N	P=0.747N
POLY 6	P=0.518N	P=0.468	P=0.502N	P=0.721N
LOGISTIC REGRESSION	P=0.434N	P=0.527	(e)	P=0.672N
COCH-ARM / FISHERS	P=0.558N	P=0.500	P=0.500N	P=0.753N
ORDER RESTRICTED	P=0.331N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.357N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Mammary Gland  
 Fibroma, Fibroadenoma or Adenoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	1/50 (2%)	5/50 (10%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	1/41.91	5/38.65	0/41.23	2/46.53
POLY-3 PERCENT (g)	2.4%	12.9%	0%	4.3%
TERMINAL (d)	1/25 (4%)	5/27 (19%)	0/27 (0%)	2/37 (5%)
FIRST INCIDENCE	728 (T)	728 (T)	---	728 (T)

**STATISTICAL TESTS**

LIFE TABLE	P=0.332N	P=0.117	P=0.485N	P=0.636
POLY 3	P=0.468N	P=0.082	P=0.503N	P=0.536
POLY 1.5	P=0.483N	P=0.088	P=0.503N	P=0.520
POLY 6	P=0.442N	P=0.079	P=0.502N	P=0.559
LOGISTIC REGRESSION	P=0.332N	P=0.117	(e)	P=0.636
COCH-ARM / FISHERS	P=0.500N	P=0.102	P=0.500N	P=0.500
ORDER RESTRICTED	P=0.185N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.212N	(e)	(e)	(e)



TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Mammary Gland  
 Fibroma, Fibroadenoma, Carcinoma, or Adenoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	1/50 (2%)	5/50 (10%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	1/41.91	5/38.65	0/41.23	2/46.53
POLY-3 PERCENT (g)	2.4%	12.9%	0%	4.3%
TERMINAL (d)	1/25 (4%)	5/27 (19%)	0/27 (0%)	2/37 (5%)
FIRST INCIDENCE	728 (T)	728 (T)	---	728 (T)

**STATISTICAL TESTS**

LIFE TABLE	P=0.332N	P=0.117	P=0.485N	P=0.636
POLY 3	P=0.468N	P=0.082	P=0.503N	P=0.536
POLY 1.5	P=0.483N	P=0.088	P=0.503N	P=0.520
POLY 6	P=0.442N	P=0.079	P=0.502N	P=0.559
LOGISTIC REGRESSION	P=0.332N	P=0.117	(e)	P=0.636
COCH-ARM / FISHERS	P=0.500N	P=0.102	P=0.500N	P=0.500
ORDER RESTRICTED	P=0.185N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.212N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

Pancreas  
 Adenoma

TUMOR RATES

OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/41.91	2/38.65	0/41.23	0/46.53
POLY-3 PERCENT (g)	0%	5.2%	0%	0%
TERMINAL (d)	0/25 (0%)	2/27 (7%)	0/27 (0%)	0/37 (0%)
FIRST INCIDENCE	---	728 (T)	---	---

STATISTICAL TESTS

LIFE TABLE	P=0.309N	P=0.255	(e)	(e)
POLY 3	P=0.377N	P=0.219	(e)	(e)
POLY 1.5	P=0.380N	P=0.225	(e)	(e)
POLY 6	P=0.368N	P=0.216	(e)	(e)
LOGISTIC REGRESSION	(e)	P=0.255	(e)	(e)
COCH-ARM / FISHERS	P=0.380N	P=0.247	(e)	(e)
ORDER RESTRICTED	P=0.210N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.237N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Pituitary Gland: Pars Distalis or Unspecified Site  
 Adenoma**

**TUMOR RATES**

OVERALL (a)	32/50 (64%)	34/50 (68%)	26/50 (52%)	24/50 (48%)
POLY-3 RATE (b)	32/46.31	34/43.64	26/45.75	24/48.71
POLY-3 PERCENT (g)	69.1%	77.9%	56.8%	49.3%
TERMINAL (d)	17/25 (68%)	22/27 (82%)	15/27 (56%)	16/37 (43%)
FIRST INCIDENCE	542	384	325	479

**STATISTICAL TESTS**

LIFE TABLE	P<0.001N**	P=0.443	P=0.168N	P=0.005N**
POLY 3	P=0.004N**	P=0.227	P=0.149N	P=0.035N*
POLY 1.5	P=0.009N**	P=0.289	P=0.150N	P=0.050N*
POLY 6	P<0.001N**	P=0.185	P=0.155N	P=0.023N*
LOGISTIC REGRESSION	P=0.013N*	P=0.243	P=0.162N	P=0.073N
COCH-ARM / FISHERS	P=0.030N*	P=0.417	P=0.156N	P=0.079N
ORDER RESTRICTED	P=0.006N**	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.007N**	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Pituitary Gland: Pars Intermedia  
 Adenoma**

**TUMOR RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/41.91	0/38.65	0/41.23	2/46.53
POLY-3 PERCENT (g)	0%	0%	0%	4.3%
TERMINAL (d)	0/25 (0%)	0/27 (0%)	0/27 (0%)	2/37 (5%)
FIRST INCIDENCE	---	---	---	728 (T)

**STATISTICAL TESTS**

LIFE TABLE	P=0.078	(e)	(e)	P=0.328
POLY 3	P=0.050*	(e)	(e)	P=0.261
POLY 1.5	P=0.046*	(e)	(e)	P=0.250
POLY 6	P=0.055	(e)	(e)	P=0.277
LOGISTIC REGRESSION	(e)	(e)	(e)	P=0.328
COCH-ARM / FISHERS	P=0.042*	(e)	(e)	P=0.247
ORDER RESTRICTED	P=0.040*	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.055	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Skin**  
 Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma

TUMOR RATES	#	#	#	#
OVERALL (a)	2/50 (4%)	1/50 (2%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	2/41.91	1/38.65	2/41.23	2/46.81
POLY-3 PERCENT (g)	4.8%	2.6%	4.9%	4.3%
TERMINAL (d)	2/25 (8%)	1/27 (4%)	2/27 (7%)	1/37 (3%)
FIRST INCIDENCE	728 (T)	728 (T)	728 (T)	654

**STATISTICAL TESTS**

LIFE TABLE	P=0.566N	P=0.473N	P=0.669N	P=0.568N
POLY 3	P=0.606	P=0.528N	P=0.689	P=0.654N
POLY 1.5	P=0.576	P=0.519N	P=0.689	P=0.672N
POLY 6	P=0.626N	P=0.532N	P=0.691	P=0.627N
LOGISTIC REGRESSION	P=0.609N	P=0.473N	P=0.669N	P=0.651N
COCH-ARM / FISHERS	P=0.533	P=0.500N	P=0.691N	P=0.691N
ORDER RESTRICTED	P=0.652N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.657N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Skin  
 Fibroma**

TUMOR RATES	#	#	#	#
OVERALL (a)	7/50 (14%)	3/50 (6%)	6/50 (12%)	3/50 (6%)
POLY-3 RATE (b)	7/42.46	3/39.01	6/41.6	3/46.65
POLY-3 PERCENT (g)	16.5%	7.7%	14.4%	6.4%
TERMINAL (d)	3/25 (12%)	2/27 (7%)	4/27 (15%)	2/37 (5%)
FIRST INCIDENCE	609	629	631	699

**STATISTICAL TESTS**

LIFE TABLE	P=0.096N	P=0.167N	P=0.461N	P=0.061N
POLY 3	P=0.151N	P=0.191N	P=0.516N	P=0.121N
POLY 1.5	P=0.180N	P=0.181N	P=0.513N	P=0.137N
POLY 6	P=0.120N	P=0.197N	P=0.515N	P=0.102N
LOGISTIC REGRESSION	P=0.140N	P=0.193N	P=0.508N	P=0.106N
COCH-ARM / FISHERS	P=0.229N	P=0.159N	P=0.500N	P=0.159N
ORDER RESTRICTED	P=0.092N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.113N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Skin  
 Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	8/50 (16%)	4/50 (8%)	7/50 (14%)	3/50 (6%)
POLY-3 RATE (b)	8/42.89	4/39.16	7/41.74	3/46.65
POLY-3 PERCENT (g)	18.7%	10.2%	16.8%	6.4%
TERMINAL (d)	3/25 (12%)	2/27 (7%)	4/27 (15%)	2/37 (5%)
FIRST INCIDENCE	605	629	631	699

**STATISTICAL TESTS**

LIFE TABLE	P=0.052N	P=0.197N	P=0.463N	P=0.036N*
POLY 3	P=0.085N	P=0.221N	P=0.523N	P=0.074N
POLY 1.5	P=0.106N	P=0.206N	P=0.517N	P=0.084N
POLY 6	P=0.065N	P=0.229N	P=0.525N	P=0.061N
LOGISTIC REGRESSION	P=0.089N	P=0.214N	P=0.512N	P=0.080N
COCH-ARM / FISHERS	P=0.143N	P=0.178N	P=0.500N	P=0.100N
ORDER RESTRICTED	P=0.055N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.071N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

---

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

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**Skin  
 Keratoacanthoma**

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TUMOR RATES	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	2/41.91	0/38.65	1/41.23	0/46.53
POLY-3 PERCENT (g)	4.8%	0%	2.4%	0%
TERMINAL (d)	2/25 (8%)	0/27 (0%)	1/27 (4%)	0/37 (0%)
FIRST INCIDENCE	728 (T)	---	728 (T)	---

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**STATISTICAL TESTS**

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LIFE TABLE	P=0.198N	P=0.221N	P=0.473N	P=0.157N
POLY 3	P=0.230N	P=0.255N	P=0.506N	P=0.215N
POLY 1.5	P=0.244N	P=0.250N	P=0.505N	P=0.224N
POLY 6	P=0.215N	P=0.258N	P=0.504N	P=0.201N
LOGISTIC REGRESSION	P=0.198N	(e)	P=0.473N	(e)
COCH-ARM / FISHERS	P=0.266N	P=0.247N	P=0.500N	P=0.247N
ORDER RESTRICTED	P=0.060N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.079N	(e)	(e)	(e)

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TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Skin  
 Neurofibrosarcoma, Neurofibroma, or Schwannoma (benign, malignant or NOS)**

TUMOR RATES	#	#	#	#
OVERALL (a)	2/50 (4%)	1/50 (2%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	2/42.34	1/39.29	0/41.23	1/46.53
POLY-3 PERCENT (g)	4.7%	2.6%	0%	2.2%
TERMINAL (d)	1/25 (4%)	0/27 (0%)	0/27 (0%)	1/37 (3%)
FIRST INCIDENCE	603	519	---	728 (T)

**STATISTICAL TESTS**

LIFE TABLE	P=0.419N	P=0.527N	P=0.236N	P=0.395N
POLY 3	P=0.471N	P=0.526N	P=0.243N	P=0.467N
POLY 1.5	P=0.483N	P=0.518N	P=0.241N	P=0.482N
POLY 6	P=0.456N	P=0.530N	P=0.243N	P=0.447N
LOGISTIC REGRESSION	P=0.562N	P=0.427N	P=0.233N	P=0.521N
COCH-ARM / FISHERS	P=0.500N	P=0.500N	P=0.247N	P=0.500N
ORDER RESTRICTED	P=0.202N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.226N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Skin  
 Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	2/41.91	0/38.65	1/41.23	1/46.53
POLY-3 PERCENT (g)	4.8%	0%	2.4%	2.2%
TERMINAL (d)	2/25 (8%)	0/27 (0%)	1/27 (4%)	1/37 (3%)
FIRST INCIDENCE	728 (T)	---	728 (T)	728 (T)

**STATISTICAL TESTS**

LIFE TABLE	P=0.489N	P=0.221N	P=0.473N	P=0.364N
POLY 3	P=0.566N	P=0.255N	P=0.506N	P=0.464N
POLY 1.5	P=0.585N	P=0.250N	P=0.505N	P=0.480N
POLY 6	P=0.544N	P=0.258N	P=0.504N	P=0.441N
LOGISTIC REGRESSION	P=0.489N	(e)	P=0.473N	P=0.364N
COCH-ARM / FISHERS	P=0.614N	P=0.247N	P=0.500N	P=0.500N
ORDER RESTRICTED	P=0.250N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.277N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Skin  
 Squamous Cell Papilloma, Papilloma, or Keratoacanthoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	2/41.91	0/38.65	1/41.23	1/46.53
POLY-3 PERCENT (g)	4.8%	0%	2.4%	2.2%
TERMINAL (d)	2/25 (8%)	0/27 (0%)	1/27 (4%)	1/37 (3%)
FIRST INCIDENCE	728 (T)	---	728 (T)	728 (T)

**STATISTICAL TESTS**

LIFE TABLE	P=0.489N	P=0.221N	P=0.473N	P=0.364N
POLY 3	P=0.566N	P=0.255N	P=0.506N	P=0.464N
POLY 1.5	P=0.585N	P=0.250N	P=0.505N	P=0.480N
POLY 6	P=0.544N	P=0.258N	P=0.504N	P=0.441N
LOGISTIC REGRESSION	P=0.489N	(e)	P=0.473N	P=0.364N
COCH-ARM / FISHERS	P=0.614N	P=0.247N	P=0.500N	P=0.500N
ORDER RESTRICTED	P=0.250N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.277N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

Testes  
 Adenoma

**TUMOR RATES**

OVERALL (a)	37/50 (74%)	35/50 (70%)	44/50 (88%)	42/50 (84%)
POLY-3 RATE (b)	37/45.21	35/42.37	44/47.34	42/48.83
POLY-3 PERCENT (g)	81.8%	82.6%	92.9%	86%
TERMINAL (d)	23/25 (92%)	25/27 (93%)	26/27 (96%)	33/37 (89%)
FIRST INCIDENCE	552	519	482	479

**STATISTICAL TESTS**

LIFE TABLE	P=0.062N	P=0.373N	P=0.244	P=0.074N
POLY 3	P=0.371	P=0.584	P=0.066	P=0.385
POLY 1.5	P=0.205	P=0.573N	P=0.055	P=0.271
POLY 6	P=0.572N	P=0.552	P=0.108	P=0.562
LOGISTIC REGRESSION	P=0.464	P=0.384	P=0.021*	P=0.516
COCH-ARM / FISHERS	P=0.078	P=0.412N	P=0.062	P=0.163
ORDER RESTRICTED	P=0.176	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.198	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Thyroid Gland: C-Cell  
 Adenoma**

**TUMOR RATES**

OVERALL (a)	10/50 (20%)	4/50 (8%)	6/50 (12%)	10/50 (20%)
POLY-3 RATE (b)	10/42.34	4/38.65	6/41.59	10/46.65
POLY-3 PERCENT (g)	23.6%	10.4%	14.4%	21.4%
TERMINAL (d)	9/25 (36%)	4/27 (15%)	5/27 (19%)	9/37 (24%)
FIRST INCIDENCE	605	728 (T)	629	699

**STATISTICAL TESTS**

LIFE TABLE	P=0.531N	P=0.051N	P=0.158N	P=0.238N
POLY 3	P=0.379	P=0.097N	P=0.212N	P=0.503N
POLY 1.5	P=0.326	P=0.089N	P=0.213N	P=0.546N
POLY 6	P=0.449	P=0.101N	P=0.205N	P=0.441N
LOGISTIC REGRESSION	P=0.513	P=0.090N	P=0.203N	P=0.364N
COCH-ARM / FISHERS	P=0.257	P=0.074N	P=0.207N	P=0.598N
ORDER RESTRICTED	P=0.251N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.276N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Thyroid Gland: C-Cell  
 Carcinoma**

**TUMOR RATES**

OVERALL (a)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/42.13	0/38.65	0/41.23	0/46.53
POLY-3 PERCENT (g)	4.8%	0%	0%	0%
TERMINAL (d)	0/25 (0%)	0/27 (0%)	0/27 (0%)	0/37 (0%)
FIRST INCIDENCE	671	---	---	---

**STATISTICAL TESTS**

LIFE TABLE	P=0.202N	P=0.245N	P=0.245N	P=0.184N
POLY 3	P=0.217N	P=0.256N	P=0.242N	P=0.216N
POLY 1.5	P=0.224N	P=0.250N	P=0.241N	P=0.225N
POLY 6	P=0.210N	P=0.260N	P=0.241N	P=0.203N
LOGISTIC REGRESSION	P=0.219N	P=0.255N	P=0.240N	P=0.223N
COCH-ARM / FISHERS	P=0.238N	P=0.247N	P=0.247N	P=0.247N
ORDER RESTRICTED	P=0.023N*	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.034N*	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Thyroid Gland: C-Cell  
 Carcinoma or Adenoma**

**TUMOR RATES**

OVERALL (a)	12/50 (24%)	4/50 (8%)	6/50 (12%)	10/50 (20%)
POLY-3 RATE (b)	12/42.56	4/38.65	6/41.59	10/46.65
POLY-3 PERCENT (g)	28.2%	10.4%	14.4%	21.4%
TERMINAL (d)	9/25 (36%)	4/27 (15%)	5/27 (19%)	9/37 (24%)
FIRST INCIDENCE	605	728 (T)	629	699

**STATISTICAL TESTS**

LIFE TABLE	P=0.376N	P=0.020N*	P=0.073N	P=0.110N
POLY 3	P=0.535	P=0.038N*	P=0.098N	P=0.310N
POLY 1.5	P=0.475	P=0.034N*	P=0.099N	P=0.351N
POLY 6	P=0.535N	P=0.040N*	P=0.094N	P=0.256N
LOGISTIC REGRESSION	P=0.470N	P=0.036N*	P=0.093N	P=0.200N
COCH-ARM / FISHERS	P=0.391	P=0.027N*	P=0.096N	P=0.405N
ORDER RESTRICTED	P=0.089N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.110N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Zymbal's Gland  
 Adenoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/41.91	0/38.65	1/41.71	0/46.53
POLY-3 PERCENT (g)	0%	0%	2.4%	0%
TERMINAL (d)	0/25 (0%)	0/27 (0%)	0/27 (0%)	0/37 (0%)
FIRST INCIDENCE	---	---	584	---

**STATISTICAL TESTS**

LIFE TABLE	P=0.750N	(e)	P=0.495	(e)
POLY 3	P=0.761N	(e)	P=0.499	(e)
POLY 1.5	P=0.771N	(e)	P=0.498	(e)
POLY 6	P=0.749N	(e)	P=0.502	(e)
LOGISTIC REGRESSION	P=0.817	(e)	P=0.555	(e)
COCH-ARM / FISHERS	P=0.785N	(e)	P=0.500	(e)
ORDER RESTRICTED	P=0.382	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.405	(e)	(e)	(e)



TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

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DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

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**Zymbal's Gland  
 Carcinoma or Adenoma**

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TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/41.91	1/39.59	1/41.71	0/46.53
POLY-3 PERCENT (g)	0%	2.5%	2.4%	0%
TERMINAL (d)	0/25 (0%)	0/27 (0%)	0/27 (0%)	0/37 (0%)
FIRST INCIDENCE	---	286	584	---

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**STATISTICAL TESTS**

LIFE TABLE	P=0.516N	P=0.500	P=0.495	(e)
POLY 3	P=0.513N	P=0.489	P=0.499	(e)
POLY 1.5	P=0.525N	P=0.492	P=0.498	(e)
POLY 6	P=0.496N	P=0.487	P=0.502	(e)
LOGISTIC REGRESSION	P=0.855	(e)	P=0.555	(e)
COCH-ARM / FISHERS	P=0.541N	P=0.500	P=0.500	(e)
ORDER RESTRICTED	P=0.377N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.401N	(e)	(e)	(e)

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TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**All Organs**  
 Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated

TUMOR RATES	#	#	#	#
OVERALL (a)	17/50 (34%)	16/50 (32%)	16/50 (32%)	14/50 (28%)
POLY-3 RATE (b)	17/45.63	16/43.49	16/45.21	14/48.3
POLY-3 PERCENT (g)	37.3%	36.8%	35.4%	29%
TERMINAL (d)	4/25 (16%)	5/27 (19%)	5/27 (19%)	6/37 (16%)
FIRST INCIDENCE	451	433	490	612

**STATISTICAL TESTS**

LIFE TABLE	P=0.092N	P=0.553N	P=0.484N	P=0.116N
POLY 3	P=0.201N	P=0.569N	P=0.513N	P=0.263N
POLY 1.5	P=0.241N	P=0.551N	P=0.514N	P=0.294N
POLY 6	P=0.159N	P=0.572N	P=0.501N	P=0.223N
LOGISTIC REGRESSION	P=0.462N	P=0.409N	P=0.466N	P=0.509N
COCH-ARM / FISHERS	P=0.304N	P=0.500N	P=0.500N	P=0.333N
ORDER RESTRICTED	P=0.311N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.327N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**All Organs  
 Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type**

TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/41.91	0/38.65	0/41.23	2/47.58
POLY-3 PERCENT (g)	0%	0%	0%	4.2%
TERMINAL (d)	0/25 (0%)	0/27 (0%)	0/27 (0%)	0/37 (0%)
FIRST INCIDENCE	---	---	---	479

**STATISTICAL TESTS**

LIFE TABLE	P=0.054	(e)	(e)	P=0.261
POLY 3	P=0.051	(e)	(e)	P=0.267
POLY 1.5	P=0.047*	(e)	(e)	P=0.254
POLY 6	P=0.058	(e)	(e)	P=0.285
LOGISTIC REGRESSION	P=0.005**	(e)	(e)	P=0.072
COCH-ARM / FISHERS	P=0.042*	(e)	(e)	P=0.247
ORDER RESTRICTED	P=0.042*	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.060	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**All Organs  
 Mesothelioma: Benign, Malignant, NOS**

TUMOR RATES	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	4/50 (8%)	1/50 (2%)
POLY-3 RATE (b)	1/41.99	1/38.65	4/42.56	1/46.53
POLY-3 PERCENT (g)	2.4%	2.6%	9.4%	2.2%
TERMINAL (d)	0/25 (0%)	1/27 (4%)	1/27 (4%)	1/37 (3%)
FIRST INCIDENCE	709	728 (T)	490	728 (T)

**STATISTICAL TESTS**

LIFE TABLE	P=0.475N	P=0.757	P=0.187	P=0.683N
POLY 3	P=0.520N	P=0.742	P=0.182	P=0.737N
POLY 1.5	P=0.553N	P=0.748	P=0.179	P=0.748N
POLY 6	P=0.479N	P=0.739	P=0.188	P=0.722N
LOGISTIC REGRESSION	P=0.630N	P=0.747	P=0.196	P=0.716N
COCH-ARM / FISHERS	P=0.598N	P=0.753N	P=0.181	P=0.753N
ORDER RESTRICTED	P=0.346	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.372	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**All Organs  
 Mesothelioma: Malignant**

TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	3/50 (6%)	0/50 (0%)
POLY-3 RATE (b)	0/41.91	1/38.65	3/41.86	0/46.53
POLY-3 PERCENT (g)	0%	2.6%	7.2%	0%
TERMINAL (d)	0/25 (0%)	1/27 (4%)	1/27 (4%)	0/37 (0%)
FIRST INCIDENCE	---	728 (T)	629	---

**STATISTICAL TESTS**

LIFE TABLE	P=0.405N	P=0.515	P=0.129	(e)
POLY 3	P=0.438N	P=0.484	P=0.118	(e)
POLY 1.5	P=0.464N	P=0.489	P=0.117	(e)
POLY 6	P=0.404N	P=0.481	P=0.121	(e)
LOGISTIC REGRESSION	P=0.488N	P=0.515	P=0.122	(e)
COCH-ARM / FISHERS	P=0.500N	P=0.500	P=0.121	(e)
ORDER RESTRICTED	P=0.222	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.248	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**All Organs  
 Benign Tumors**

TUMOR RATES	#	#	#	#
OVERALL (a)	46/50 (92%)	47/50 (94%)	50/50 (100%)	48/50 (96%)
POLY-3 RATE (b)	46/47.61	47/47.57	50/50	48/49.59
POLY-3 PERCENT (g)	96.6%	98.8%	100%	96.8%
TERMINAL (d)	25/25 (100%)	27/27 (100%)	27/27 (100%)	36/37 (97%)
FIRST INCIDENCE	542	384	325	479

**STATISTICAL TESTS**

LIFE TABLE	P=0.008N**	P=0.496	P=0.427	P=0.016N*
POLY 3	P=0.538N	P=0.484	P=0.215	P=0.741
POLY 1.5	P=0.622	P=0.432	P=0.107	P=0.545
POLY 6	P=0.294N	P=0.880	P=0.790	P=0.634N
LOGISTIC REGRESSION	P=0.621N	P=0.036*	P=0.013*	P=0.669N
COCH-ARM / FISHERS	P=0.304	P=0.500	P=0.059	P=0.339
ORDER RESTRICTED	P=0.296	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.311	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**All Organs  
 Malignant Tumors**

TUMOR RATES	#	#	#	#
OVERALL (a)	23/50 (46%)	21/50 (42%)	19/50 (38%)	16/50 (32%)
POLY-3 RATE (b)	23/46.86	21/46.1	19/46.28	16/49.34
POLY-3 PERCENT (g)	49.1%	45.6%	41.1%	32.4%
TERMINAL (d)	6/25 (24%)	6/27 (22%)	6/27 (22%)	6/37 (16%)
FIRST INCIDENCE	451	286	482	479

**STATISTICAL TESTS**

LIFE TABLE	P=0.023N*	P=0.493N	P=0.299N	P=0.030N*
POLY 3	P=0.051N	P=0.446N	P=0.283N	P=0.070N
POLY 1.5	P=0.067N	P=0.437N	P=0.283N	P=0.085N
POLY 6	P=0.036N*	P=0.450N	P=0.276N	P=0.054N
LOGISTIC REGRESSION	P=0.316N	P=0.254N	P=0.236N	P=0.318N
COCH-ARM / FISHERS	P=0.094N	P=0.420N	P=0.272N	P=0.109N
ORDER RESTRICTED	P=0.067N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.080N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**All Organs  
 Malignant and Benign Tumors**

TUMOR RATES	#	#	#	#
OVERALL (a)	50/50 (100%)	50/50 (100%)	50/50 (100%)	49/50 (98%)
POLY-3 RATE (b)	50/50	50/50	50/50	49/50
POLY-3 PERCENT (g)	100%	100%	100%	98%
TERMINAL (d)	25/25 (100%)	27/27 (100%)	27/27 (100%)	36/37 (97%)
FIRST INCIDENCE	451	286	325	479

**STATISTICAL TESTS**

LIFE TABLE	P=0.003N**	(e)	(e)	P=0.006N**
POLY 3	P=0.215N	(e)	(e)	P=0.500N
POLY 1.5	P=0.215N	(e)	(e)	P=0.500N
POLY 6	P=0.215N	(e)	(e)	P=0.500N
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.215N	(e)	(e)	P=0.500N
ORDER RESTRICTED	P=0.119N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.126N	(e)	(e)	(e)



TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Adrenal Cortex  
 Adenoma**

**TUMOR RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44	0/41.99	0/39.72	0/40.61
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/29 (0%)	0/32 (0%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

LIFE TABLE	(e)	(e)	(e)	(e)
POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

Adrenal Medulla  
 Pheochromocytoma Benign

TUMOR RATES

OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	1/44	0/41.99	1/39.78	1/40.61
POLY-3 PERCENT (g)	2.3%	0%	2.5%	2.5%
TERMINAL (d)	1/29 (3%)	0/32 (0%)	0/24 (0%)	1/31 (3%)
FIRST INCIDENCE	729 (T)	---	713	729 (T)

STATISTICAL TESTS

LIFE TABLE	P=0.555	P=0.480N	P=0.724	P=0.747N
POLY 3	P=0.532	P=0.509N	P=0.738	P=0.743
POLY 1.5	P=0.534	P=0.507N	P=0.747	P=0.746
POLY 6	P=0.533	P=0.508N	P=0.727	P=0.744
LOGISTIC REGRESSION	P=0.540	(e)	P=0.720	P=0.747N
COCH-ARM / FISHERS	P=0.550	P=0.500N	P=0.753N	P=0.753N
ORDER RESTRICTED	P=0.512	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.525	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

Adrenal Medulla  
 Pheochromocytoma: Benign, Complex, Malignant, NOS

TUMOR RATES

OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	1/44	0/41.99	1/39.78	1/40.61
POLY-3 PERCENT (g)	2.3%	0%	2.5%	2.5%
TERMINAL (d)	1/29 (3%)	0/32 (0%)	0/24 (0%)	1/31 (3%)
FIRST INCIDENCE	729 (T)	---	713	729 (T)

STATISTICAL TESTS

LIFE TABLE	P=0.555	P=0.480N	P=0.724	P=0.747N
POLY 3	P=0.532	P=0.509N	P=0.738	P=0.743
POLY 1.5	P=0.534	P=0.507N	P=0.747	P=0.746
POLY 6	P=0.533	P=0.508N	P=0.727	P=0.744
LOGISTIC REGRESSION	P=0.540	(e)	P=0.720	P=0.747N
COCH-ARM / FISHERS	P=0.550	P=0.500N	P=0.753N	P=0.753N
ORDER RESTRICTED	P=0.512	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.525	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Clitoral/Preputial Gland  
 Adenoma**

**TUMOR RATES**

OVERALL (a)	6/50 (12%)	2/50 (4%)	3/50 (6%)	5/49 (10%)
POLY-3 RATE (b)	6/45.55	2/41.99	3/39.72	5/40.1
POLY-3 PERCENT (g)	13.2%	4.8%	7.6%	12.5%
TERMINAL (d)	2/29 (7%)	2/32 (6%)	3/24 (13%)	3/30 (10%)
FIRST INCIDENCE	553	729 (T)	729 (T)	625

**STATISTICAL TESTS**

LIFE TABLE	P=0.459	P=0.136N	P=0.335N	P=0.518N
POLY 3	P=0.423	P=0.160N	P=0.313N	P=0.589N
POLY 1.5	P=0.428	P=0.151N	P=0.283N	P=0.571N
POLY 6	P=0.423	P=0.166N	P=0.354N	P=0.597N
LOGISTIC REGRESSION	P=0.424	P=0.114N	P=0.230N	P=0.512N
COCH-ARM / FISHERS	P=0.456	P=0.134N	P=0.243N	P=0.514N
ORDER RESTRICTED	P=0.343N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.370N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

Intestine Large: Colon/Rectum  
 Adenoma

TUMOR RATES	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/44	0/41.99	0/39.72	0/40.61
POLY-3 PERCENT (g)	2.3%	0%	0%	0%
TERMINAL (d)	1/29 (3%)	0/32 (0%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	729 (T)	---	---	---

STATISTICAL TESTS

LIFE TABLE	P=0.467N	P=0.480N	P=0.538N	P=0.487N
POLY 3	P=0.462N	P=0.509N	P=0.520N	P=0.516N
POLY 1.5	P=0.464N	P=0.507N	P=0.512N	P=0.513N
POLY 6	P=0.462N	P=0.508N	P=0.530N	P=0.515N
LOGISTIC REGRESSION	P=0.467N	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.471N	P=0.500N	P=0.500N	P=0.500N
ORDER RESTRICTED	P=0.133N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.155N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Islets, Pancreatic  
 Adenoma**

**TUMOR RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/44	0/41.99	1/39.72	0/40.61
POLY-3 PERCENT (g)	0%	0%	2.5%	0%
TERMINAL (d)	0/29 (0%)	0/32 (0%)	1/24 (4%)	0/31 (0%)
FIRST INCIDENCE	---	---	729 (T)	---

**STATISTICAL TESTS**

LIFE TABLE	P=0.774N	(e)	P=0.462	(e)
POLY 3	P=0.794N	(e)	P=0.480	(e)
POLY 1.5	P=0.792N	(e)	P=0.488	(e)
POLY 6	P=0.794N	(e)	P=0.470	(e)
LOGISTIC REGRESSION	(e)	(e)	P=0.462	(e)
COCH-ARM / FISHERS	P=0.785N	(e)	P=0.500	(e)
ORDER RESTRICTED	P=0.364	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.385	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

Lung  
 Alveolar/Bronchiolar Adenoma

TUMOR RATES

OVERALL (a)	4/50 (8%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	4/44	2/41.99	0/39.72	0/40.61
POLY-3 PERCENT (g)	9.1%	4.8%	0%	0%
TERMINAL (d)	4/29 (14%)	2/32 (6%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	---	---

STATISTICAL TESTS

LIFE TABLE	P=0.042N*	P=0.290N	P=0.087N	P=0.054N
POLY 3	P=0.042N*	P=0.359N	P=0.074N	P=0.071N
POLY 1.5	P=0.042N*	P=0.353N	P=0.068N	P=0.069N
POLY 6	P=0.042N*	P=0.356N	P=0.081N	P=0.070N
LOGISTIC REGRESSION	P=0.042N*	P=0.290N	(e)	(e)
COCH-ARM / FISHERS	P=0.043N*	P=0.339N	P=0.059N	P=0.059N
ORDER RESTRICTED	P=0.015N*	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.022N*	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Lung  
 Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma**

**TUMOR RATES**

OVERALL (a)	4/50 (8%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	4/44	2/41.99	0/39.72	0/40.61
POLY-3 PERCENT (g)	9.1%	4.8%	0%	0%
TERMINAL (d)	4/29 (14%)	2/32 (6%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	---	---

**STATISTICAL TESTS**

LIFE TABLE	P=0.042N*	P=0.290N	P=0.087N	P=0.054N
POLY 3	P=0.042N*	P=0.359N	P=0.074N	P=0.071N
POLY 1.5	P=0.042N*	P=0.353N	P=0.068N	P=0.069N
POLY 6	P=0.042N*	P=0.356N	P=0.081N	P=0.070N
LOGISTIC REGRESSION	P=0.042N*	P=0.290N	(e)	(e)
COCH-ARM / FISHERS	P=0.043N*	P=0.339N	P=0.059N	P=0.059N
ORDER RESTRICTED	P=0.015N*	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.022N*	(e)	(e)	(e)



TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Mammary Gland  
 Adenoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	1/50 (2%)	5/50 (10%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	1/44	5/42.53	1/40.37	0/40.61
POLY-3 PERCENT (g)	2.3%	11.8%	2.5%	0%
TERMINAL (d)	1/29 (3%)	3/32 (9%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	729 (T)	573	513	---

**STATISTICAL TESTS**

LIFE TABLE	P=0.105N	P=0.123	P=0.732	P=0.487N
POLY 3	P=0.109N	P=0.093	P=0.741	P=0.516N
POLY 1.5	P=0.107N	P=0.095	P=0.749	P=0.513N
POLY 6	P=0.107N	P=0.095	P=0.732	P=0.515N
LOGISTIC REGRESSION	P=0.097N	P=0.094	P=0.680N	(e)
COCH-ARM / FISHERS	P=0.098N	P=0.102	P=0.753N	P=0.500N
ORDER RESTRICTED	P=0.078N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.095N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Mammary Gland  
 Carcinoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/44	0/41.99	0/39.72	0/40.61
POLY-3 PERCENT (g)	4.6%	0%	0%	0%
TERMINAL (d)	2/29 (7%)	0/32 (0%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	729 (T)	---	---	---

**STATISTICAL TESTS**

LIFE TABLE	P=0.238N	P=0.216N	P=0.280N	P=0.223N
POLY 3	P=0.230N	P=0.248N	P=0.260N	P=0.255N
POLY 1.5	P=0.232N	P=0.245N	P=0.251N	P=0.252N
POLY 6	P=0.230N	P=0.246N	P=0.272N	P=0.254N
LOGISTIC REGRESSION	P=0.238N	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.238N	P=0.247N	P=0.247N	P=0.247N
ORDER RESTRICTED	P=0.037N*	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.049N*	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Mammary Gland  
 Carcinoma or Adenoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	3/50 (6%)	5/50 (10%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	3/44	5/42.53	1/40.37	0/40.61
POLY-3 PERCENT (g)	6.8%	11.8%	2.5%	0%
TERMINAL (d)	3/29 (10%)	3/32 (9%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	729 (T)	573	513	---

**STATISTICAL TESTS**

LIFE TABLE	P=0.041N*	P=0.401	P=0.363N	P=0.109N
POLY 3	P=0.042N*	P=0.337	P=0.336N	P=0.133N
POLY 1.5	P=0.041N*	P=0.341	P=0.324N	P=0.131N
POLY 6	P=0.041N*	P=0.343	P=0.352N	P=0.132N
LOGISTIC REGRESSION	P=0.040N*	P=0.332	P=0.289N	(e)
COCH-ARM / FISHERS	P=0.037N*	P=0.357	P=0.309N	P=0.121N
ORDER RESTRICTED	P=0.040N*	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.053N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Mammary Gland  
 Fibroadenoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	14/50 (28%)	18/50 (36%)	7/50 (14%)	9/50 (18%)
POLY-3 RATE (b)	14/45.19	18/43.01	7/41.2	9/40.88
POLY-3 PERCENT (g)	31%	41.9%	17%	22%
TERMINAL (d)	9/29 (31%)	15/32 (47%)	3/24 (13%)	8/31 (26%)
FIRST INCIDENCE	609	485	442	656

**STATISTICAL TESTS**

LIFE TABLE	P=0.060N	P=0.338	P=0.172N	P=0.158N
POLY 3	P=0.081N	P=0.197	P=0.100N	P=0.243N
POLY 1.5	P=0.076N	P=0.217	P=0.086N	P=0.225N
POLY 6	P=0.082N	P=0.188	P=0.121N	P=0.250N
LOGISTIC REGRESSION	P=0.079N	P=0.204	P=0.089N	P=0.225N
COCH-ARM / FISHERS	P=0.059N	P=0.260	P=0.070N	P=0.171N
ORDER RESTRICTED	P=0.054N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.072N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Mammary Gland  
 Fibroma, Fibroadenoma or Adenoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	15/50 (30%)	19/50 (38%)	8/50 (16%)	9/50 (18%)
POLY-3 RATE (b)	15/45.19	19/43.53	8/41.85	9/40.88
POLY-3 PERCENT (g)	33.2%	43.7%	19.1%	22%
TERMINAL (d)	10/29 (35%)	15/32 (47%)	3/24 (13%)	8/31 (26%)
FIRST INCIDENCE	609	485	442	656

**STATISTICAL TESTS**

LIFE TABLE	P=0.039N*	P=0.343	P=0.189N	P=0.109N
POLY 3	P=0.052N	P=0.210	P=0.103N	P=0.178N
POLY 1.5	P=0.048N*	P=0.225	P=0.091N	P=0.164N
POLY 6	P=0.053N	P=0.208	P=0.121N	P=0.184N
LOGISTIC REGRESSION	P=0.050N*	P=0.207	P=0.083N	P=0.164N
COCH-ARM / FISHERS	P=0.036N*	P=0.263	P=0.077N	P=0.121N
ORDER RESTRICTED	P=0.046N*	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.062N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Mammary Gland  
 Fibroma, Fibroadenoma, Carcinoma, or Adenoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	17/50 (34%)	19/50 (38%)	8/50 (16%)	9/50 (18%)
POLY-3 RATE (b)	17/45.19	19/43.53	8/41.85	9/40.88
POLY-3 PERCENT (g)	37.6%	43.7%	19.1%	22%
TERMINAL (d)	12/29 (41%)	15/32 (47%)	3/24 (13%)	8/31 (26%)
FIRST INCIDENCE	609	485	442	656

**STATISTICAL TESTS**

LIFE TABLE	P=0.021N*	P=0.509	P=0.104N	P=0.047N*
POLY 3	P=0.027N*	P=0.357	P=0.044N*	P=0.087N
POLY 1.5	P=0.025N*	P=0.374	P=0.038N*	P=0.079N
POLY 6	P=0.027N*	P=0.358	P=0.053N	P=0.089N
LOGISTIC REGRESSION	P=0.027N*	P=0.345	P=0.040N*	P=0.079N
COCH-ARM / FISHERS	P=0.019N*	P=0.418	P=0.032N*	P=0.055N
ORDER RESTRICTED	P=0.027N*	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.039N*	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Pancreas  
 Adenoma**

**TUMOR RATES**

OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44	0/41.99	0/39.72	0/40.61
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/29 (0%)	0/32 (0%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

LIFE TABLE	(e)	(e)	(e)	(e)
POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Pituitary Gland: Pars Distalis or Unspecified Site  
 Adenoma**

**TUMOR RATES**

OVERALL (a)	35/50 (70%)	22/50 (44%)	26/50 (52%)	27/50 (54%)
POLY-3 RATE (b)	35/49.07	22/45.17	26/44.08	27/44.9
POLY-3 PERCENT (g)	71.3%	48.7%	59%	60.1%
TERMINAL (d)	17/29 (59%)	12/32 (38%)	15/24 (63%)	18/31 (58%)
FIRST INCIDENCE	553	485	513	309

**STATISTICAL TESTS**

LIFE TABLE	P=0.363N	P=0.026N*	P=0.357N	P=0.136N
POLY 3	P=0.419N	P=0.018N*	P=0.144N	P=0.173N
POLY 1.5	P=0.394N	P=0.012N*	P=0.093N	P=0.137N
POLY 6	P=0.460N	P=0.025N*	P=0.239N	P=0.222N
LOGISTIC REGRESSION	P=0.377N	P=0.008N**	P=0.062N	P=0.088N
COCH-ARM / FISHERS	P=0.320N	P=0.007N**	P=0.050N*	P=0.074N
ORDER RESTRICTED	P=0.083N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.102N	(e)	(e)	(e)



TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

Pituitary Gland: Pars Intermedia  
 Adenoma

TUMOR RATES

OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44	1/42.35	0/39.72	0/40.61
POLY-3 PERCENT (g)	0%	2.4%	0%	0%
TERMINAL (d)	0/29 (0%)	0/32 (0%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	---	629	---	---

STATISTICAL TESTS

LIFE TABLE	P=0.588N	P=0.490	(e)	(e)
POLY 3	P=0.593N	P=0.492	(e)	(e)
POLY 1.5	P=0.592N	P=0.494	(e)	(e)
POLY 6	P=0.591N	P=0.495	(e)	(e)
LOGISTIC REGRESSION	P=0.554N	P=0.560	(e)	(e)
COCH-ARM / FISHERS	P=0.585N	P=0.500	(e)	(e)
ORDER RESTRICTED	P=0.390N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.409N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Skin**  
 Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma

TUMOR RATES	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/44.3	0/41.99	0/39.72	1/40.61
POLY-3 PERCENT (g)	2.3%	0%	0%	2.5%
TERMINAL (d)	0/29 (0%)	0/32 (0%)	0/24 (0%)	1/31 (3%)
FIRST INCIDENCE	649	---	---	729 (T)

**STATISTICAL TESTS**

LIFE TABLE	P=0.542	P=0.516N	P=0.545N	P=0.759N
POLY 3	P=0.533	P=0.511N	P=0.522N	P=0.741
POLY 1.5	P=0.534	P=0.508N	P=0.513N	P=0.745
POLY 6	P=0.533	P=0.511N	P=0.533N	P=0.741
LOGISTIC REGRESSION	P=0.532	P=0.465N	P=0.457N	P=0.755
COCH-ARM / FISHERS	P=0.541	P=0.500N	P=0.500N	P=0.753N
ORDER RESTRICTED	P=0.381	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.402	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

Skin  
 Fibroma

TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/44	0/41.99	0/39.72	1/40.98
POLY-3 PERCENT (g)	0%	0%	0%	2.4%
TERMINAL (d)	0/29 (0%)	0/32 (0%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	---	---	---	625

STATISTICAL TESTS

LIFE TABLE	P=0.215	(e)	(e)	P=0.486
POLY 3	P=0.207	(e)	(e)	P=0.486
POLY 1.5	P=0.208	(e)	(e)	P=0.488
POLY 6	P=0.209	(e)	(e)	P=0.488
LOGISTIC REGRESSION	P=0.237	(e)	(e)	P=0.542
COCH-ARM / FISHERS	P=0.215	(e)	(e)	P=0.500
ORDER RESTRICTED	P=0.107	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.126	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Skin**  
 Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma

TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/44	0/41.99	0/39.72	2/40.98
POLY-3 PERCENT (g)	0%	0%	0%	4.9%
TERMINAL (d)	0/29 (0%)	0/32 (0%)	0/24 (0%)	1/31 (3%)
FIRST INCIDENCE	---	---	---	625

STATISTICAL TESTS

LIFE TABLE	P=0.046*	(e)	(e)	P=0.239
POLY 3	P=0.038*	(e)	(e)	P=0.221
POLY 1.5	P=0.039*	(e)	(e)	P=0.224
POLY 6	P=0.039*	(e)	(e)	P=0.223
LOGISTIC REGRESSION	P=0.040*	(e)	(e)	P=0.234
COCH-ARM / FISHERS	P=0.042*	(e)	(e)	P=0.247
ORDER RESTRICTED	P=0.025*	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.034*	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
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 Lab: BAT

STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

Skin  
 Keratoacanthoma

TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44	0/41.99	0/39.72	0/40.61
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/29 (0%)	0/32 (0%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	---	---	---	---

STATISTICAL TESTS

LIFE TABLE	(e)	(e)	(e)	(e)
POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Skin  
 Neurofibrosarcoma, Neurofibroma, or Schwannoma (benign, malignant or NOS)**

TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	0/44	1/42.44	1/39.88	1/40.61
POLY-3 PERCENT (g)	0%	2.4%	2.5%	2.5%
TERMINAL (d)	0/29 (0%)	0/32 (0%)	0/24 (0%)	1/31 (3%)
FIRST INCIDENCE	---	596	687	729 (T)

**STATISTICAL TESTS**

LIFE TABLE	P=0.470	P=0.482	P=0.446	P=0.513
POLY 3	P=0.455	P=0.493	P=0.480	P=0.484
POLY 1.5	P=0.460	P=0.494	P=0.488	P=0.487
POLY 6	P=0.455	P=0.495	P=0.471	P=0.485
LOGISTIC REGRESSION	P=0.486	P=0.612	P=0.492	P=0.513
COCH-ARM / FISHERS	P=0.483	P=0.500	P=0.500	P=0.500
ORDER RESTRICTED	P=0.310	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.332	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
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 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Skin  
 Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/44.3	0/41.99	0/39.72	0/40.61
POLY-3 PERCENT (g)	2.3%	0%	0%	0%
TERMINAL (d)	0/29 (0%)	0/32 (0%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	649	---	---	---

**STATISTICAL TESTS**

LIFE TABLE	P=0.474N	P=0.516N	P=0.545N	P=0.510N
POLY 3	P=0.461N	P=0.511N	P=0.522N	P=0.517N
POLY 1.5	P=0.464N	P=0.508N	P=0.513N	P=0.514N
POLY 6	P=0.460N	P=0.511N	P=0.533N	P=0.518N
LOGISTIC REGRESSION	P=0.455N	P=0.465N	P=0.457N	P=0.479N
COCH-ARM / FISHERS	P=0.471N	P=0.500N	P=0.500N	P=0.500N
ORDER RESTRICTED	P=0.135N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.157N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Skin  
 Squamous Cell Papilloma, Papilloma, or Keratoacanthoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44	0/41.99	0/39.72	0/40.61
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/29 (0%)	0/32 (0%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

LIFE TABLE	(e)	(e)	(e)	(e)
POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)



TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Thyroid Gland: C-Cell  
 Adenoma**

**TUMOR RATES**

OVERALL (a)	8/50 (16%)	4/50 (8%)	5/50 (10%)	4/50 (8%)
POLY-3 RATE (b)	8/44.17	4/43.07	5/39.88	4/40.61
POLY-3 PERCENT (g)	18.1%	9.3%	12.5%	9.9%
TERMINAL (d)	7/29 (24%)	1/32 (3%)	4/24 (17%)	4/31 (13%)
FIRST INCIDENCE	687	561	687	729 (T)

**STATISTICAL TESTS**

LIFE TABLE	P=0.249N	P=0.158N	P=0.416N	P=0.150N
POLY 3	P=0.287N	P=0.187N	P=0.343N	P=0.218N
POLY 1.5	P=0.279N	P=0.187N	P=0.315N	P=0.211N
POLY 6	P=0.291N	P=0.177N	P=0.378N	P=0.216N
LOGISTIC REGRESSION	P=0.283N	P=0.193N	P=0.410N	P=0.181N
COCH-ARM / FISHERS	P=0.249N	P=0.178N	P=0.277N	P=0.178N
ORDER RESTRICTED	P=0.193N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.217N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

Thyroid Gland: C-Cell  
 Carcinoma

TUMOR RATES

OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/44	0/41.99	1/39.72	0/40.61
POLY-3 PERCENT (g)	0%	0%	2.5%	0%
TERMINAL (d)	0/29 (0%)	0/32 (0%)	1/24 (4%)	0/31 (0%)
FIRST INCIDENCE	---	---	729 (T)	---

STATISTICAL TESTS

LIFE TABLE	P=0.774N	(e)	P=0.462	(e)
POLY 3	P=0.794N	(e)	P=0.480	(e)
POLY 1.5	P=0.792N	(e)	P=0.488	(e)
POLY 6	P=0.794N	(e)	P=0.470	(e)
LOGISTIC REGRESSION	(e)	(e)	P=0.462	(e)
COCH-ARM / FISHERS	P=0.785N	(e)	P=0.500	(e)
ORDER RESTRICTED	P=0.364	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.385	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Thyroid Gland: C-Cell  
 Carcinoma or Adenoma**

**TUMOR RATES**

OVERALL (a)	8/50 (16%)	4/50 (8%)	6/50 (12%)	4/50 (8%)
POLY-3 RATE (b)	8/44.17	4/43.07	6/39.88	4/40.61
POLY-3 PERCENT (g)	18.1%	9.3%	15%	9.9%
TERMINAL (d)	7/29 (24%)	1/32 (3%)	5/24 (21%)	4/31 (13%)
FIRST INCIDENCE	687	561	687	729 (T)

**STATISTICAL TESTS**

LIFE TABLE	P=0.247N	P=0.158N	P=0.547N	P=0.150N
POLY 3	P=0.289N	P=0.187N	P=0.467N	P=0.218N
POLY 1.5	P=0.281N	P=0.187N	P=0.433N	P=0.211N
POLY 6	P=0.293N	P=0.177N	P=0.507N	P=0.216N
LOGISTIC REGRESSION	P=0.283N	P=0.193N	P=0.544N	P=0.181N
COCH-ARM / FISHERS	P=0.248N	P=0.178N	P=0.387N	P=0.178N
ORDER RESTRICTED	P=0.201N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.224N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG
<b>Uterus</b>				
<b>Polyp Stromal</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	2/50 (4%)	6/50 (12%)	5/50 (10%)	4/50 (8%)
POLY-3 RATE (b)	2/44.17	6/42.35	5/41.47	4/41.85
POLY-3 PERCENT (g)	4.5%	14.2%	12.1%	9.6%
TERMINAL (d)	1/29 (3%)	5/32 (16%)	1/24 (4%)	2/31 (7%)
FIRST INCIDENCE	687	629	589	489
<b>STATISTICAL TESTS</b>				
LIFE TABLE	P=0.526	P=0.156	P=0.162	P=0.328
POLY 3	P=0.500	P=0.118	P=0.190	P=0.312
POLY 1.5	P=0.501	P=0.123	P=0.200	P=0.314
POLY 6	P=0.512	P=0.120	P=0.181	P=0.318
LOGISTIC REGRESSION	P=0.554	P=0.120	P=0.292	P=0.372
COCH-ARM / FISHERS	P=0.536	P=0.134	P=0.218	P=0.339
ORDER RESTRICTED	P=0.194	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.213	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Uterus  
 Sarcoma Stromal**

TUMOR RATES	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	1/44.51	1/42.73	2/40.7	0/40.61
POLY-3 PERCENT (g)	2.3%	2.3%	4.9%	0%
TERMINAL (d)	0/29 (0%)	0/32 (0%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	575	467	561	---

**STATISTICAL TESTS**

LIFE TABLE	P=0.356N	P=0.741	P=0.464	P=0.527N
POLY 3	P=0.359N	P=0.752	P=0.469	P=0.518N
POLY 1.5	P=0.354N	P=0.754	P=0.481	P=0.514N
POLY 6	P=0.360N	P=0.753	P=0.455	P=0.519N
LOGISTIC REGRESSION	P=0.143N	P=0.470N	P=0.738N	P=0.411N
COCH-ARM / FISHERS	P=0.332N	P=0.753N	P=0.500	P=0.500N
ORDER RESTRICTED	P=0.272N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.297N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Uterus  
 Sarcoma Stromal or Polyp Stromal**

TUMOR RATES	#	#	#	#
OVERALL (a)	3/50 (6%)	7/50 (14%)	7/50 (14%)	4/50 (8%)
POLY-3 RATE (b)	3/44.68	7/43.08	7/42.45	4/41.85
POLY-3 PERCENT (g)	6.7%	16.3%	16.5%	9.6%
TERMINAL (d)	1/29 (3%)	5/32 (16%)	1/24 (4%)	2/31 (7%)
FIRST INCIDENCE	575	467	561	489

**STATISTICAL TESTS**

LIFE TABLE	P=0.488N	P=0.177	P=0.117	P=0.478
POLY 3	P=0.517N	P=0.142	P=0.136	P=0.464
POLY 1.5	P=0.511N	P=0.146	P=0.144	P=0.469
POLY 6	P=0.511N	P=0.143	P=0.129	P=0.468
LOGISTIC REGRESSION	P=0.377N	P=0.174	P=0.317	P=0.572
COCH-ARM / FISHERS	P=0.467N	P=0.159	P=0.159	P=0.500
ORDER RESTRICTED	P=0.229	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.248	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

Zymbal's Gland  
 Adenoma

TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/44	2/42.39	1/40.17	0/40.61
POLY-3 PERCENT (g)	0%	4.7%	2.5%	0%
TERMINAL (d)	0/29 (0%)	1/32 (3%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	---	616	596	---

STATISTICAL TESTS

LIFE TABLE	P=0.397N	P=0.237	P=0.477	(e)
POLY 3	P=0.410N	P=0.229	P=0.482	(e)
POLY 1.5	P=0.406N	P=0.231	P=0.489	(e)
POLY 6	P=0.408N	P=0.231	P=0.474	(e)
LOGISTIC REGRESSION	P=0.354N	P=0.245	P=0.637	(e)
COCH-ARM / FISHERS	P=0.385N	P=0.247	P=0.500	(e)
ORDER RESTRICTED	P=0.315	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.337	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**Zymbal's Gland  
 Carcinoma or Adenoma**

TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/44	2/42.39	1/40.17	0/40.61
POLY-3 PERCENT (g)	0%	4.7%	2.5%	0%
TERMINAL (d)	0/29 (0%)	1/32 (3%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	---	616	596	---

**STATISTICAL TESTS**

LIFE TABLE	P=0.397N	P=0.237	P=0.477	(e)
POLY 3	P=0.410N	P=0.229	P=0.482	(e)
POLY 1.5	P=0.406N	P=0.231	P=0.489	(e)
POLY 6	P=0.408N	P=0.231	P=0.474	(e)
LOGISTIC REGRESSION	P=0.354N	P=0.245	P=0.637	(e)
COCH-ARM / FISHERS	P=0.385N	P=0.247	P=0.500	(e)
ORDER RESTRICTED	P=0.315	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.337	(e)	(e)	(e)



TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**All Organs**  
 Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated

TUMOR RATES	#	#	#	#
OVERALL (a)	10/50 (20%)	18/50 (36%)	13/50 (26%)	15/50 (30%)
POLY-3 RATE (b)	10/45.47	18/45.11	13/42.73	15/44.43
POLY-3 PERCENT (g)	22%	39.9%	30.4%	33.8%
TERMINAL (d)	3/29 (10%)	11/32 (34%)	4/24 (17%)	6/31 (19%)
FIRST INCIDENCE	617	390	496	467

**STATISTICAL TESTS**

LIFE TABLE	P=0.375	P=0.098	P=0.188	P=0.193
POLY 3	P=0.344	P=0.050*	P=0.254	P=0.155
POLY 1.5	P=0.334	P=0.052	P=0.278	P=0.151
POLY 6	P=0.378	P=0.052	P=0.231	P=0.172
LOGISTIC REGRESSION	P=0.413	P=0.069	P=0.358	P=0.206
COCH-ARM / FISHERS	P=0.376	P=0.059	P=0.318	P=0.178
ORDER RESTRICTED	P=0.142	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.153	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**All Organs  
 Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type**

TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44	0/41.99	0/39.72	0/40.61
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/29 (0%)	0/32 (0%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

LIFE TABLE	(e)	(e)	(e)	(e)
POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
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 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

All Organs  
 Mesothelioma: Benign, Malignant, NOS

TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44	0/41.99	0/39.72	0/40.61
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/29 (0%)	0/32 (0%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

LIFE TABLE	(e)	(e)	(e)	(e)
POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
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 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**All Organs  
 Mesothelioma: Malignant**

TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44	0/41.99	0/39.72	0/40.61
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/29 (0%)	0/32 (0%)	0/24 (0%)	0/31 (0%)
FIRST INCIDENCE	---	---	---	---

**STATISTICAL TESTS**

LIFE TABLE	(e)	(e)	(e)	(e)
POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**All Organs  
 Benign Tumors**

TUMOR RATES	#	#	#	#
OVERALL (a)	46/50 (92%)	35/50 (70%)	37/50 (74%)	40/50 (80%)
POLY-3 RATE (b)	46/49.98	35/45.17	37/46.42	40/46.31
POLY-3 PERCENT (g)	92.1%	77.5%	79.7%	86.4%
TERMINAL (d)	26/29 (90%)	25/32 (78%)	20/24 (83%)	27/31 (87%)
FIRST INCIDENCE	553	485	442	309

**STATISTICAL TESTS**

LIFE TABLE	P=0.435N	P=0.029N*	P=0.470N	P=0.193N
POLY 3	P=0.554N	P=0.035N*	P=0.060N	P=0.278N
POLY 1.5	P=0.534N	P=0.015N*	P=0.033N*	P=0.201N
POLY 6	P=0.571	P=0.081N	P=0.126N	P=0.374N
LOGISTIC REGRESSION	P=0.501	P=0.012N*	P=0.025N*	P=0.156N
COCH-ARM / FISHERS	P=0.411N	P=0.005N**	P=0.016N*	P=0.074N
ORDER RESTRICTED	P=0.087N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.104N	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
 Time Report Requested: 12:46:31  
 First Dose M/F: 07/10/02 / 07/11/02  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**All Organs  
 Malignant Tumors**

TUMOR RATES	#	#	#	#
OVERALL (a)	15/50 (30%)	21/50 (42%)	19/50 (38%)	19/50 (38%)
POLY-3 RATE (b)	15/46.27	21/46.3	19/44.5	19/45.39
POLY-3 PERCENT (g)	32.4%	45.4%	42.7%	41.9%
TERMINAL (d)	6/29 (21%)	12/32 (38%)	5/24 (21%)	9/31 (29%)
FIRST INCIDENCE	575	390	496	246

**STATISTICAL TESTS**

LIFE TABLE	P=0.403	P=0.213	P=0.141	P=0.286
POLY 3	P=0.372	P=0.141	P=0.211	P=0.235
POLY 1.5	P=0.367	P=0.142	P=0.229	P=0.232
POLY 6	P=0.394	P=0.148	P=0.197	P=0.251
LOGISTIC REGRESSION	P=0.494	P=0.191	P=0.350	P=0.329
COCH-ARM / FISHERS	P=0.409	P=0.149	P=0.263	P=0.263
ORDER RESTRICTED	P=0.222	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.232	(e)	(e)	(e)

TDMS No. 97003 - 07  
 Test Type: CHRONIC  
 Route: SKIN APPLICATION  
 Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

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**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(F 344)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	0 MG/KG	2 MG/KG	6 MG/KG	18 MG/KG

**All Organs  
 Malignant and Benign Tumors**

TUMOR RATES	#	#	#	#
OVERALL (a)	48/50 (96%)	46/50 (92%)	45/50 (90%)	44/50 (88%)
POLY-3 RATE (b)	48/50	46/49.26	45/49.24	44/48.48
POLY-3 PERCENT (g)	96%	93.4%	91.4%	90.8%
TERMINAL (d)	27/29 (93%)	29/32 (91%)	20/24 (83%)	27/31 (87%)
FIRST INCIDENCE	553	390	442	246

**STATISTICAL TESTS**

LIFE TABLE	P=0.339N	P=0.331N	P=0.271	P=0.306N
POLY 3	P=0.248N	P=0.446N	P=0.296N	P=0.258N
POLY 1.5	P=0.231N	P=0.405N	P=0.265N	P=0.229N
POLY 6	P=0.270N	P=0.479N	P=0.320N	P=0.288N
LOGISTIC REGRESSION	P=0.174N	P=0.337N	P=0.192N	P=0.183N
COCH-ARM / FISHERS	P=0.142N	P=0.339N	P=0.218N	P=0.134N
ORDER RESTRICTED	P=0.240N	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.253N	(e)	(e)	(e)

TDMS No. 97003 - 07  
Test Type: CHRONIC  
Route: SKIN APPLICATION  
Species/Strain: RATS/F 344

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
1,2-Dibromo-2,4-dicyanobutane  
CAS Number: 35691-65-7

Date Report Requested: 08/21/2007  
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## 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 \*\*\*