

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

F2_R2

C Number: C93025
Lock Date: 03/22/2006
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 2.1.0

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HISTORICAL CONTROL STUDIES

From November 2008 report

SAME ROUTE

- 20011-05 -- 1-Bromopropane (INHALATION AIR)
- 96011-05 -- Cumene (INHALATION AIR)
- 88004-05 -- Divinylbenzene (INHALATION AIR)
- 97006-01 -- Methyl isobutyl ketone (INHALATION AIR)
- 88006-03 -- alpha-Methylstyrene (INHALATION AIR)
- 97008-05 -- Propargyl alcohol (INHALATION AIR)

ALL ROUTES

- 99024-07 -- Androstenedione (GAVAGE METHYLCELLULOSE)
- 88138-03 -- Benzophenone (ORAL FEED)
- 20011-05 -- 1-Bromopropane (INHALATION AIR)
- 99027-03 -- Chromium picolinate monohydrate (ORAL FEED)
- 05174-05 -- Cresols (ORAL FEED)
- 96011-05 -- Cumene (INHALATION AIR)
- 97003-07 -- 1,2-Dibromo-2,4-dicyanobutane (SKIN ETHANOL)
- 93020-07 -- Diisopropylcarbodiimide (SKIN ETHANOL)
- 88004-05 -- Divinylbenzene (INHALATION AIR)
- 88123-05 -- Formamide (GAVAGE WATER)
- 20005-05 -- Ginseng (GAVAGE WATER)
- 99007-05 -- Goldenseal root powder (ORAL FEED)
- 95011-07 -- 5-(Hydroxymethyl)-2-furfural (GAVAGE WATER)
- 88105-03 -- Isoeugenol (GAVAGE CORN OIL)
- 97006-01 -- Methyl isobutyl ketone (INHALATION AIR)
- 91005-07 -- Methylene blue trihydrate (GAVAGE METHYLCELLULOSE)
- 92013-05 -- 4-Methylimidazole (ORAL FEED)
- 88006-03 -- alpha-Methylstyrene (INHALATION AIR)
- 20008-03 -- Milk thistle extract (ORAL FEED)
- 99023-03 -- beta-Myrcene (GAVAGE CORN OIL)
- 97008-05 -- Propargyl alcohol (INHALATION AIR)

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HISTORICAL CONTROL STUDIES

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99020-05 -- Pulegone (GAVAGE CORN OIL)

20114-07 -- Sodium dichromate dihydrate (VI) (ORAL WATER)

96019-05 -- Water disinfection byproducts (Bromochloroacetic acid) (ORAL WATER)

96017-05 -- Water disinfection byproducts (Dibromoacetic acid) (ORAL WATER)

96015-05 -- Water disinfection byproducts (Dibromoacetonitrile) (ORAL WATER)

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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
Thymus
Thyroid Gland
Urinary Bladder

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SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS IN THE ANALYSIS OF TETRALIN

MALE RATS

Organ

Adrenal Cortex
Adrenal Medulla
Bone
Skin

Testes
All Organs

Morphology

Adenoma
Pheochromocytoma Malignant
Osteosarcoma
Fibrosarcoma
Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma
Squamous Cell Papilloma
Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma
Squamous Cell Papilloma, Papilloma, or Keratoacanthoma
Adenoma
Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated
Malignant Tumors

FEMALE RATS

Organ

Kidney: Renal Tubule
Liver

Mammary Gland

Pituitary Gland: Pars Distalis or Unspecified Site
Uterus

All Organs

Morphology

Carcinoma or Adenoma
Hepatocellular Adenoma
Hepatocellular Carcinoma or Hepatocellular Adenoma
Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma
Fibroadenoma
Fibroma, Fibroadenoma, Carcinoma, or Adenoma
Adenoma
Polyp Stromal
Sarcoma Stromal or Polyp Stromal
Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated
Benign Tumors
Malignant Tumors

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Adrenal Cortex				
Adenoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	1/50 (2%)	3/49 (6%)	0/50 (0%)
POLY-3 RATE (b)	0/39.70	1/43.10	3/39.95	0/42.88
POLY-3 PERCENT (g)	0%	2.3%	7.5%	0%
TERMINAL (d)	0/20 (0%)	1/29 (3%)	3/24 (13%)	0/28 (0%)
FIRST INCIDENCE	---	729 (T)	729 (T)	---
HC TUMORS SAME ROUTE	1/299 (0%)			
HC TUMORS ALL ROUTES	14/1298 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.604N	P=0.516	P=0.119	(e)
POLY 1.5	P=0.619N	P=0.509	P=0.117	(e)
POLY 6	P=0.577N	P=0.530	P=0.124	(e)
COCH-ARM / FISHERS	P=0.633	P=0.500	P=0.117	(e)
MAX-ISO-POLY-3	P=0.242	P=0.178	P=0.039*	(e)
HISTCONT SAME RTE	(h)	(h)	(h)	(e)
HISTCONT ALL RTEs	(h)	(h)	(h)	(e)

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Adrenal Medulla				
Pheochromocytoma Benign				
TUMOR RATES				
OVERALL (a)	9/50 (18%)	10/50 (20%)	12/49 (24%)	9/50 (18%)
POLY-3 RATE (b)	9/41.84	10/43.19	12/41.71	9/44.40
POLY-3 PERCENT (g)	21.5%	23.2%	28.8%	20.3%
TERMINAL (d)	3/20 (15%)	8/29 (28%)	5/24 (21%)	4/28 (14%)
FIRST INCIDENCE	563	715	561	566
HC TUMORS SAME ROUTE	53/299 (18%)			
HC TUMORS ALL ROUTES	193/1296 (15%)			
STATISTICAL TESTS				
POLY 3	P=0.490N	P=0.531	P=0.303	P=0.549N
POLY 1.5	P=0.520N	P=0.517	P=0.296	P=0.576N
POLY 6	P=0.439N	P=0.559	P=0.323	P=0.504N
COCH-ARM / FISHERS	P=0.545	P=0.500	P=0.294	P=0.602N
MAX-ISO-POLY-3	P=0.520N	P=0.427	P=0.222	P=0.444N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Adrenal Medulla				
Pheochromocytoma Malignant				
TUMOR RATES				
OVERALL (a)	4/50 (8%)	2/50 (4%)	1/49 (2%)	0/50 (0%)
POLY-3 RATE (b)	4/40.25	2/43.75	1/39.95	0/42.88
POLY-3 PERCENT (g)	9.9%	4.6%	2.5%	0%
TERMINAL (d)	2/20 (10%)	1/29 (3%)	1/24 (4%)	0/28 (0%)
FIRST INCIDENCE	586	513	729 (T)	---
HC TUMORS SAME ROUTE	7/299 (2%)			
HC TUMORS ALL ROUTES	23/1296 (2%)			
STATISTICAL TESTS				
POLY 3	P=0.028N*	P=0.299N	P=0.179N	P=0.052N
POLY 1.5	P=0.029N*	P=0.316N	P=0.183N	P=0.056N
POLY 6	P=0.027N*	P=0.270N	P=0.171N	P=0.045N*
COCH-ARM / FISHERS	P=0.030N*	P=0.339N	P=0.187N	P=0.059N
MAX-ISO-POLY-3	P=0.021N*	P=0.181N	P=0.084N	P=0.019N*
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Adrenal Medulla				
Pheochromocytoma: Benign, Complex, Malignant, NOS				
TUMOR RATES				
OVERALL (a)	12/50 (24%)	12/50 (24%)	14/49 (29%)	9/50 (18%)
POLY-3 RATE (b)	12/42.39	12/43.84	14/42.08	9/44.40
POLY-3 PERCENT (g)	28.3%	27.4%	33.3%	20.3%
TERMINAL (d)	4/20 (20%)	9/29 (31%)	6/24 (25%)	4/28 (14%)
FIRST INCIDENCE	563	513	561	566
HC TUMORS SAME ROUTE	59/299 (20%)			
HC TUMORS ALL ROUTES	218/1296 (17%)			
STATISTICAL TESTS				
POLY 3	P=0.234N	P=0.557N	P=0.397	P=0.265N
POLY 1.5	P=0.257N	P=0.573N	P=0.389	P=0.288N
POLY 6	P=0.197N	P=0.531N	P=0.422	P=0.229N
COCH-ARM / FISHERS	P=0.279N	P=0.592N	P=0.387	P=0.312N
MAX-ISO-POLY-3	P=0.270N	P=0.461N	P=0.309	P=0.195N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Bone				
Osteosarcoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	3/50 (6%)	0/50 (0%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	3/40.68	0/43.10	1/40.99	1/42.96
POLY-3 PERCENT (g)	7.4%	0%	2.4%	2.3%
TERMINAL (d)	1/20 (5%)	0/29 (0%)	0/25 (0%)	0/28 (0%)
FIRST INCIDENCE	563	---	718	708
HC TUMORS SAME ROUTE	3/299 (1%)			
HC TUMORS ALL ROUTES	10/1299 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.300N	P=0.108N	P=0.302N	P=0.285N
POLY 1.5	P=0.298N	P=0.113N	P=0.304N	P=0.296N
POLY 6	P=0.304N	P=0.099N	P=0.293N	P=0.267N
COCH-ARM / FISHERS	P=0.296N	P=0.121N	P=0.309N	P=0.309N
MAX-ISO-POLY-3	P=0.101N	P=0.037N*	P=0.152N	P=0.146N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Clitoral/Preputial Gland Carcinoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	2/49 (4%)
POLY-3 RATE (b)	0/39.70	0/43.10	1/41.39	2/42.84
POLY-3 PERCENT (g)	0%	0%	2.4%	4.7%
TERMINAL (d)	0/20 (0%)	0/29 (0%)	0/25 (0%)	1/28 (4%)
FIRST INCIDENCE	---	---	600	381
HC TUMORS SAME ROUTE	5/297 (2%)			
HC TUMORS ALL ROUTES	19/1295 (2%)			
STATISTICAL TESTS				
POLY 3	P=0.075	(e)	P=0.508	P=0.254
POLY 1.5	P=0.071	(e)	P=0.504	P=0.244
POLY 6	P=0.080	(e)	P=0.517	P=0.271
COCH-ARM / FISHERS	P=0.068	(e)	P=0.500	P=0.242
MAX-ISO-POLY-3	P=0.100	(e)	P=0.169	P=0.093
HISTCONT SAME RTE	P=0.117	(e)	P=0.211	P=0.112
HISTCONT ALL RTEs	P=0.113	(e)	P=0.201	P=0.106

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Clitoral/Preputial Gland Carcinoma or Adenoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	2/49 (4%)
POLY-3 RATE (b)	0/39.70	0/43.10	2/41.39	2/42.84
POLY-3 PERCENT (g)	0%	0%	4.8%	4.7%
TERMINAL (d)	0/20 (0%)	0/29 (0%)	1/25 (4%)	1/28 (4%)
FIRST INCIDENCE	---	---	600	381
HC TUMORS SAME ROUTE	12/297 (4%)			
HC TUMORS ALL ROUTES	68/1295 (5%)			
STATISTICAL TESTS				
POLY 3	P=0.094	(e)	P=0.246	P=0.254
POLY 1.5	P=0.089	(e)	P=0.241	P=0.244
POLY 6	P=0.103	(e)	P=0.256	P=0.271
COCH-ARM / FISHERS	P=0.083	(e)	P=0.247	P=0.242
MAX-ISO-POLY-3	P=0.140	(e)	P=0.085	P=0.093
HISTCONT SAME RTE	P=0.167	(e)	P=0.102	P=0.112
HISTCONT ALL RTEs	P=0.160	(e)	P=0.096	P=0.106

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Islets, Pancreatic Adenoma				
TUMOR RATES				
OVERALL (a)	3/50 (6%)	4/50 (8%)	4/50 (8%)	1/50 (2%)
POLY-3 RATE (b)	3/40.24	4/43.10	4/41.38	1/42.99
POLY-3 PERCENT (g)	7.5%	9.3%	9.7%	2.3%
TERMINAL (d)	0/20 (0%)	4/29 (14%)	2/25 (8%)	0/28 (0%)
FIRST INCIDENCE	642	729 (T)	619	701
HC TUMORS SAME ROUTE	16/299 (5%)			
HC TUMORS ALL ROUTES	80/1295 (6%)			
STATISTICAL TESTS				
POLY 3	P=0.186N	P=0.538	P=0.515	P=0.281N
POLY 1.5	P=0.198N	P=0.520	P=0.507	P=0.293N
POLY 6	P=0.168N	P=0.568	P=0.533	P=0.262N
COCH-ARM / FISHERS	P=0.210N	P=0.500	P=0.500	P=0.309N
MAX-ISO-POLY-3	P=0.216N	P=0.385	P=0.362	P=0.145N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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TERMINAL SACRIFICE AT 105 WEEKS

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Islets, Pancreatic Carcinoma				
TUMOR RATES				
OVERALL (a)	1/50 (2%)	4/50 (8%)	3/50 (6%)	4/50 (8%)
POLY-3 RATE (b)	1/39.70	4/43.15	3/40.97	4/43.03
POLY-3 PERCENT (g)	2.5%	9.3%	7.3%	9.3%
TERMINAL (d)	1/20 (5%)	3/29 (10%)	2/25 (8%)	2/28 (7%)
FIRST INCIDENCE	729 (T)	716	724	695
HC TUMORS SAME ROUTE	16/299 (5%)			
HC TUMORS ALL ROUTES	28/1295 (2%)			
STATISTICAL TESTS				
POLY 3	P=0.242	P=0.204	P=0.316	P=0.203
POLY 1.5	P=0.226	P=0.192	P=0.310	P=0.191
POLY 6	P=0.272	P=0.227	P=0.329	P=0.226
COCH-ARM / FISHERS	P=0.210	P=0.181	P=0.309	P=0.181
MAX-ISO-POLY-3	P=0.204	P=0.107	P=0.165	P=0.106
HISTCONT SAME RTE	P=0.244	P=0.131	P=0.206	P=0.129
HISTCONT ALL RTEs	P=0.011*	P=0.073	P=0.170	P=0.073

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TERMINAL SACRIFICE AT 105 WEEKS

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Islets, Pancreatic Carcinoma or Adenoma				
TUMOR RATES				
OVERALL (a)	4/50 (8%)	7/50 (14%)	7/50 (14%)	5/50 (10%)
POLY-3 RATE (b)	4/40.24	7/43.15	7/41.40	5/43.14
POLY-3 PERCENT (g)	9.9%	16.2%	16.9%	11.6%
TERMINAL (d)	1/20 (5%)	6/29 (21%)	4/25 (16%)	2/28 (7%)
FIRST INCIDENCE	642	716	619	695
HC TUMORS SAME ROUTE	32/299 (11%)			
HC TUMORS ALL ROUTES	108/1295 (8%)			
STATISTICAL TESTS				
POLY 3	P=0.557N	P=0.300	P=0.274	P=0.544
POLY 1.5	P=0.541	P=0.282	P=0.267	P=0.522
POLY 6	P=0.516N	P=0.334	P=0.292	P=0.581
COCH-ARM / FISHERS	P=0.515	P=0.262	P=0.262	P=0.500
MAX-ISO-POLY-3	P=0.425	P=0.207	P=0.181	P=0.406
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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TERMINAL SACRIFICE AT 105 WEEKS

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Kidney: Renal Tubule Adenoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	0/39.70	1/43.10	1/40.95	2/43.09
POLY-3 PERCENT (g)	0%	2.3%	2.4%	4.6%
TERMINAL (d)	0/20 (0%)	1/29 (3%)	1/25 (4%)	0/28 (0%)
FIRST INCIDENCE	---	729 (T)	729 (T)	701
HC TUMORS SAME ROUTE	2/299 (1%)			
HC TUMORS ALL ROUTES	8/1294 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.169	P=0.516	P=0.506	P=0.256
POLY 1.5	P=0.161	P=0.509	P=0.503	P=0.246
POLY 6	P=0.184	P=0.530	P=0.514	P=0.273
COCH-ARM / FISHERS	P=0.153	P=0.500	P=0.500	P=0.247
MAX-ISO-POLY-3	P=0.150	P=0.178	P=0.166	P=0.093
HISTCONT SAME RTE	P=0.048*	P=0.225	P=0.208	P=0.069
HISTCONT ALL RTEs	P=0.003**	P=0.181	P=0.175	P=0.016*

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Kidney: Renal Tubule Carcinoma or Adenoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	0/39.70	1/43.10	1/40.95	2/43.09
POLY-3 PERCENT (g)	0%	2.3%	2.4%	4.6%
TERMINAL (d)	0/20 (0%)	1/29 (3%)	1/25 (4%)	0/28 (0%)
FIRST INCIDENCE	---	729 (T)	729 (T)	701
HC TUMORS SAME ROUTE	3/299 (1%)			
HC TUMORS ALL ROUTES	10/1294 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.169	P=0.516	P=0.506	P=0.256
POLY 1.5	P=0.161	P=0.509	P=0.503	P=0.246
POLY 6	P=0.184	P=0.530	P=0.514	P=0.273
COCH-ARM / FISHERS	P=0.153	P=0.500	P=0.500	P=0.247
MAX-ISO-POLY-3	P=0.150	P=0.178	P=0.166	P=0.093
HISTCONT SAME RTE	P=0.154	P=0.225	P=0.208	P=0.113
HISTCONT ALL RTEs	P=0.022*	P=0.213	P=0.197	P=0.053

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Liver				
Hepatocellular Adenoma				
TUMOR RATES				
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/39.70	0/43.10	0/40.95	0/42.88
POLY-3 PERCENT (g)	2.5%	0%	0%	0%
TERMINAL (d)	1/20 (5%)	0/29 (0%)	0/25 (0%)	0/28 (0%)
FIRST INCIDENCE	729 (T)	---	---	---
HC TUMORS SAME ROUTE	1/299 (0%)			
HC TUMORS ALL ROUTES	16/1299 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.321N	P=0.484N	P=0.494N	P=0.485N
POLY 1.5	P=0.314N	P=0.491N	P=0.497N	P=0.492N
POLY 6	P=0.334N	P=0.470N	P=0.486N	P=0.471N
COCH-ARM / FISHERS	P=0.306N	P=0.500N	P=0.500N	P=0.500N
MAX-ISO-POLY-3	P=0.123N	P=0.158N	P=0.158N	P=0.158N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Liver				
Hepatocellular Carcinoma or Hepatocellular Adenoma				
TUMOR RATES				
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/39.70	0/43.10	0/40.95	0/42.88
POLY-3 PERCENT (g)	2.5%	0%	0%	0%
TERMINAL (d)	1/20 (5%)	0/29 (0%)	0/25 (0%)	0/28 (0%)
FIRST INCIDENCE	729 (T)	---	---	---
HC TUMORS SAME ROUTE	4/299 (1%)			
HC TUMORS ALL ROUTES	21/1299 (2%)			
STATISTICAL TESTS				
POLY 3	P=0.321N	P=0.484N	P=0.494N	P=0.485N
POLY 1.5	P=0.314N	P=0.491N	P=0.497N	P=0.492N
POLY 6	P=0.334N	P=0.470N	P=0.486N	P=0.471N
COCH-ARM / FISHERS	P=0.306N	P=0.500N	P=0.500N	P=0.500N
MAX-ISO-POLY-3	P=0.123N	P=0.158N	P=0.158N	P=0.158N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Liver				
Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma				
TUMOR RATES				
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/39.70	0/43.10	0/40.95	0/42.88
POLY-3 PERCENT (g)	2.5%	0%	0%	0%
TERMINAL (d)	1/20 (5%)	0/29 (0%)	0/25 (0%)	0/28 (0%)
FIRST INCIDENCE	729 (T)	---	---	---
HC TUMORS SAME ROUTE	4/299 (1%)			
HC TUMORS ALL ROUTES	21/1299 (2%)			
STATISTICAL TESTS				
POLY 3	P=0.321N	P=0.484N	P=0.494N	P=0.485N
POLY 1.5	P=0.314N	P=0.491N	P=0.497N	P=0.492N
POLY 6	P=0.334N	P=0.470N	P=0.486N	P=0.471N
COCH-ARM / FISHERS	P=0.306N	P=0.500N	P=0.500N	P=0.500N
MAX-ISO-POLY-3	P=0.123N	P=0.158N	P=0.158N	P=0.158N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Lung				
Alveolar/Bronchiolar Adenoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	0/39.70	0/43.10	1/40.97	2/42.88
POLY-3 PERCENT (g)	0%	0%	2.4%	4.7%
TERMINAL (d)	0/20 (0%)	0/29 (0%)	0/25 (0%)	2/28 (7%)
FIRST INCIDENCE	---	---	724	729 (T)
HC TUMORS SAME ROUTE	4/299 (1%)			
HC TUMORS ALL ROUTES	30/1299 (2%)			
STATISTICAL TESTS				
POLY 3	P=0.075	(e)	P=0.506	P=0.254
POLY 1.5	P=0.072	(e)	P=0.503	P=0.246
POLY 6	P=0.079	(e)	P=0.514	P=0.270
COCH-ARM / FISHERS	P=0.070	(e)	P=0.500	P=0.247
MAX-ISO-POLY-3	P=0.099	(e)	P=0.166	P=0.092
HISTCONT SAME RTE	P=0.117	(e)	P=0.208	P=0.111
HISTCONT ALL RTEs	P=0.112	(e)	P=0.197	P=0.105

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Lung				
Alveolar/Bronchiolar Carcinoma				
TUMOR RATES				
OVERALL (a)	1/50 (2%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	1/39.70	2/43.10	1/40.95	0/42.88
POLY-3 PERCENT (g)	2.5%	4.6%	2.4%	0%
TERMINAL (d)	1/20 (5%)	2/29 (7%)	1/25 (4%)	0/28 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	---
HC TUMORS SAME ROUTE	3/299 (1%)			
HC TUMORS ALL ROUTES	11/1299 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.230N	P=0.529	P=0.754N	P=0.485N
POLY 1.5	P=0.239N	P=0.515	P=0.758N	P=0.492N
POLY 6	P=0.215N	P=0.552	P=0.746N	P=0.471N
COCH-ARM / FISHERS	P=0.247N	P=0.500	P=0.753N	P=0.500N
MAX-ISO-POLY-3	P=0.246N	P=0.311	P=0.490N	P=0.158N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Lung				
Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma				
TUMOR RATES				
OVERALL (a)	1/50 (2%)	2/50 (4%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	1/39.70	2/43.10	2/40.97	2/42.88
POLY-3 PERCENT (g)	2.5%	4.6%	4.9%	4.7%
TERMINAL (d)	1/20 (5%)	2/29 (7%)	1/25 (4%)	2/28 (7%)
FIRST INCIDENCE	729 (T)	729 (T)	724	729 (T)
HC TUMORS SAME ROUTE	7/299 (2%)			
HC TUMORS ALL ROUTES	41/1299 (3%)			
STATISTICAL TESTS				
POLY 3	P=0.453	P=0.529	P=0.511	P=0.527
POLY 1.5	P=0.438	P=0.515	P=0.505	P=0.514
POLY 6	P=0.478	P=0.552	P=0.524	P=0.550
COCH-ARM / FISHERS	P=0.423	P=0.500	P=0.500	P=0.500
MAX-ISO-POLY-3	P=0.500	P=0.311	P=0.292	P=0.309
HISTCONT SAME RTE	P=0.451	P=0.376	P=0.360	P=0.375
HISTCONT ALL RTEs	P=0.586	P=0.390	P=0.364	P=0.387

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Mammary Gland Carcinoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	0/39.70	1/43.10	2/41.39	1/42.88
POLY-3 PERCENT (g)	0%	2.3%	4.8%	2.3%
TERMINAL (d)	0/20 (0%)	1/29 (3%)	1/25 (4%)	1/28 (4%)
FIRST INCIDENCE	---	729 (T)	600	729 (T)
HC TUMORS SAME ROUTE	5/299 (2%)			
HC TUMORS ALL ROUTES	8/1299 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.398	P=0.516	P=0.246	P=0.515
POLY 1.5	P=0.382	P=0.509	P=0.241	P=0.508
POLY 6	P=0.424	P=0.530	P=0.256	P=0.529
COCH-ARM / FISHERS	P=0.366	P=0.500	P=0.247	P=0.500
MAX-ISO-POLY-3	P=0.253	P=0.178	P=0.085	P=0.177
HISTCONT SAME RTE	P=0.303	P=0.225	P=0.102	P=0.223
HISTCONT ALL RTEs	P=0.076	P=0.213	P=0.038*	P=0.212

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Mammary Gland Fibroadenoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/39.70	1/43.33	0/40.95	1/42.88
POLY-3 PERCENT (g)	2.5%	2.3%	0%	2.3%
TERMINAL (d)	1/20 (5%)	0/29 (0%)	0/25 (0%)	1/28 (4%)
FIRST INCIDENCE	729 (T)	670	---	729 (T)
HC TUMORS SAME ROUTE	7/299 (2%)			
HC TUMORS ALL ROUTES	45/1299 (4%)			
STATISTICAL TESTS				
POLY 3	P=0.613N	P=0.741N	P=0.494N	P=0.744N
POLY 1.5	P=0.614N	P=0.750N	P=0.497N	P=0.752N
POLY 6	P=0.610N	P=0.724N	P=0.486N	P=0.728N
COCH-ARM / FISHERS	P=0.616N	P=0.753N	P=0.500N	P=0.753N
MAX-ISO-POLY-3	P=0.529N	P=0.475N	P=0.158N	P=0.478N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Mammary Gland				
Fibroma, Fibroadenoma, Carcinoma, or Adenoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	1/39.70	2/43.33	2/41.39	1/42.88
POLY-3 PERCENT (g)	2.5%	4.6%	4.8%	2.3%
TERMINAL (d)	1/20 (5%)	1/29 (3%)	1/25 (4%)	1/28 (4%)
FIRST INCIDENCE	729 (T)	670	600	729 (T)
HC TUMORS SAME ROUTE	13/299 (4%)			
HC TUMORS ALL ROUTES	57/1299 (4%)			
STATISTICAL TESTS				
POLY 3	P=0.530N	P=0.530	P=0.515	P=0.744N
POLY 1.5	P=0.543N	P=0.516	P=0.507	P=0.752N
POLY 6	P=0.509N	P=0.556	P=0.531	P=0.728N
COCH-ARM / FISHERS	P=0.556N	P=0.500	P=0.500	P=0.753N
MAX-ISO-POLY-3	P=0.550N	P=0.313	P=0.296	P=0.478N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Pituitary Gland: Pars Distalis or Unspecified Site Adenoma				
TUMOR RATES				
OVERALL (a)	36/50 (72%)	35/49 (71%)	36/49 (73%)	33/49 (67%)
POLY-3 RATE (b)	36/47.71	35/46.80	36/45.95	33/45.99
POLY-3 PERCENT (g)	75.5%	74.8%	78.4%	71.8%
TERMINAL (d)	15/20 (75%)	20/28 (71%)	19/24 (79%)	19/27 (70%)
FIRST INCIDENCE	372	547	480	483
HC TUMORS SAME ROUTE	214/298 (72%)			
HC TUMORS ALL ROUTES	564/1295 (44%)			
STATISTICAL TESTS				
POLY 3	P=0.394N	P=0.567N	P=0.464	P=0.429N
POLY 1.5	P=0.380N	P=0.574N	P=0.483	P=0.420N
POLY 6	P=0.401N	P=0.528N	P=0.461	P=0.423N
COCH-ARM / FISHERS	P=0.345N	P=0.563N	P=0.525	P=0.388N
MAX-ISO-POLY-3	P=0.489N	P=0.468N	P=0.365	P=0.338N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Pituitary Gland: Pars Distalis or Unspecified Site Carcinoma or Adenoma				
TUMOR RATES				
OVERALL (a)	37/50 (74%)	35/49 (71%)	37/49 (76%)	33/49 (67%)
POLY-3 RATE (b)	37/47.71	35/46.80	37/45.95	33/45.99
POLY-3 PERCENT (g)	77.6%	74.8%	80.5%	71.8%
TERMINAL (d)	16/20 (80%)	20/28 (71%)	20/24 (83%)	19/27 (70%)
FIRST INCIDENCE	372	547	480	483
HC TUMORS SAME ROUTE	214/298 (72%)			
HC TUMORS ALL ROUTES	569/1295 (44%)			
STATISTICAL TESTS				
POLY 3	P=0.326N	P=0.469N	P=0.458	P=0.336N
POLY 1.5	P=0.316N	P=0.481N	P=0.479	P=0.331N
POLY 6	P=0.329N	P=0.424N	P=0.455	P=0.323N
COCH-ARM / FISHERS	P=0.287N	P=0.475N	P=0.523	P=0.306N
MAX-ISO-POLY-3	P=0.400N	P=0.371N	P=0.355	P=0.254N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Basal Cell Carcinoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	2/50 (4%)	3/50 (6%)
POLY-3 RATE (b)	3/39.87	1/43.10	2/41.22	3/43.40
POLY-3 PERCENT (g)	7.5%	2.3%	4.9%	6.9%
TERMINAL (d)	2/20 (10%)	1/29 (3%)	0/25 (0%)	1/28 (4%)
FIRST INCIDENCE	684	729 (T)	662	577
HC TUMORS SAME ROUTE	0/299 (0%)			
HC TUMORS ALL ROUTES	7/1299 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.495	P=0.277N	P=0.485N	P=0.623N
POLY 1.5	P=0.486	P=0.290N	P=0.493N	P=0.642N
POLY 6	P=0.509	P=0.255N	P=0.467N	P=0.590N
COCH-ARM / FISHERS	P=0.477	P=0.309N	P=0.500N	P=0.661N
MAX-ISO-POLY-3	P=0.470N	P=0.144N	P=0.312N	P=0.458N
HISTCONT SAME RTE	P=0.025*	P=0.352	P=0.162	P=0.080
HISTCONT ALL RTEs	P<0.001**	P=0.303	P=0.070	P=0.015*

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma				
TUMOR RATES	#	#	#	#
OVERALL (a)	4/50 (8%)	1/50 (2%)	2/50 (4%)	3/50 (6%)
POLY-3 RATE (b)	4/39.94	1/43.10	2/41.22	3/43.40
POLY-3 PERCENT (g)	10%	2.3%	4.9%	6.9%
TERMINAL (d)	2/20 (10%)	1/29 (3%)	0/25 (0%)	1/28 (4%)
FIRST INCIDENCE	684	729 (T)	662	577
HC TUMORS SAME ROUTE	4/299 (1%)			
HC TUMORS ALL ROUTES	24/1299 (2%)			
STATISTICAL TESTS				
POLY 3	P=0.535N	P=0.155N	P=0.321N	P=0.455N
POLY 1.5	P=0.540N	P=0.166N	P=0.330N	P=0.477N
POLY 6	P=0.530N	P=0.138N	P=0.304N	P=0.418N
COCH-ARM / FISHERS	P=0.544N	P=0.181N	P=0.339N	P=0.500N
MAX-ISO-POLY-3	P=0.264N	P=0.077N	P=0.191N	P=0.313N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
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)	5/50 (10%)	3/50 (6%)	6/50 (12%)	9/50 (18%)
POLY-3 RATE (b)	5/39.94	3/43.13	6/41.27	9/43.79
POLY-3 PERCENT (g)	12.5%	7%	14.5%	20.6%
TERMINAL (d)	3/20 (15%)	2/29 (7%)	3/25 (12%)	6/28 (21%)
FIRST INCIDENCE	684	722	662	577
HC TUMORS SAME ROUTE	15/299 (5%)			
HC TUMORS ALL ROUTES	119/1299 (9%)			
STATISTICAL TESTS				
POLY 3	P=0.084	P=0.314N	P=0.523	P=0.244
POLY 1.5	P=0.078	P=0.334N	P=0.510	P=0.218
POLY 6	P=0.096	P=0.280N	P=0.551	P=0.292
COCH-ARM / FISHERS	P=0.072	P=0.357N	P=0.500	P=0.194
MAX-ISO-POLY-3	P=0.128	P=0.205N	P=0.395	P=0.173
HISTCONT SAME RTE	P=0.018*	P=0.560	P=0.169	P=0.064
HISTCONT ALL RTEs	P=0.146	P=1.000	P=0.429	P=0.173

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Fibroma				
TUMOR RATES	#	#	#	#
OVERALL (a)	3/50 (6%)	4/50 (8%)	4/50 (8%)	5/50 (10%)
POLY-3 RATE (b)	3/40.49	4/43.50	4/40.95	5/44.08
POLY-3 PERCENT (g)	7.4%	9.2%	9.8%	11.3%
TERMINAL (d)	0/20 (0%)	2/29 (7%)	4/25 (16%)	0/28 (0%)
FIRST INCIDENCE	642	633	729 (T)	577
HC TUMORS SAME ROUTE	22/299 (7%)			
HC TUMORS ALL ROUTES	123/1299 (10%)			
STATISTICAL TESTS				
POLY 3	P=0.337	P=0.539	P=0.506	P=0.404
POLY 1.5	P=0.318	P=0.521	P=0.502	P=0.380
POLY 6	P=0.370	P=0.570	P=0.516	P=0.443
COCH-ARM / FISHERS	P=0.299	P=0.500	P=0.500	P=0.357
MAX-ISO-POLY-3	P=0.447	P=0.386	P=0.352	P=0.278
HISTCONT SAME RTE	P=0.188	P=0.492	P=0.389	P=0.168
HISTCONT ALL RTEs	P=0.520	P=0.490	P=0.445	P=0.345

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	6/50 (12%)	5/50 (10%)	7/50 (14%)	5/50 (10%)
POLY-3 RATE (b)	6/40.72	5/43.50	7/41.53	5/44.08
POLY-3 PERCENT (g)	14.7%	11.5%	16.9%	11.3%
TERMINAL (d)	2/20 (10%)	3/29 (10%)	6/25 (24%)	0/28 (0%)
FIRST INCIDENCE	642	633	547	577
HC TUMORS SAME ROUTE	26/299 (9%)			
HC TUMORS ALL ROUTES	148/1299 (11%)			
STATISTICAL TESTS				
POLY 3	P=0.440N	P=0.453N	P=0.515	P=0.444N
POLY 1.5	P=0.462N	P=0.475N	P=0.507	P=0.471N
POLY 6	P=0.403N	P=0.417N	P=0.532	P=0.399N
COCH-ARM / FISHERS	P=0.485N	P=0.500N	P=0.500	P=0.500N
MAX-ISO-POLY-3	P=0.526N	P=0.334N	P=0.395	P=0.328N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Fibrosarcoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	3/39.93	1/43.10	1/41.53	0/42.88
POLY-3 PERCENT (g)	7.5%	2.3%	2.4%	0%
TERMINAL (d)	2/20 (10%)	1/29 (3%)	0/25 (0%)	0/28 (0%)
FIRST INCIDENCE	668	729 (T)	547	---
HC TUMORS SAME ROUTE	3/299 (1%)			
HC TUMORS ALL ROUTES	13/1299 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.071N	P=0.278N	P=0.290N	P=0.106N
POLY 1.5	P=0.072N	P=0.291N	P=0.298N	P=0.112N
POLY 6	P=0.070N	P=0.256N	P=0.276N	P=0.096N
COCH-ARM / FISHERS	P=0.073N	P=0.309N	P=0.309N	P=0.121N
MAX-ISO-POLY-3	P=0.041N*	P=0.144N	P=0.148N	P=0.037N*
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	3/50 (6%)	0/50 (0%)
POLY-3 RATE (b)	3/39.93	1/43.10	3/41.53	0/42.88
POLY-3 PERCENT (g)	7.5%	2.3%	7.2%	0%
TERMINAL (d)	2/20 (10%)	1/29 (3%)	2/25 (8%)	0/28 (0%)
FIRST INCIDENCE	668	729 (T)	547	---
HC TUMORS SAME ROUTE	4/299 (1%)			
HC TUMORS ALL ROUTES	26/1299 (2%)			
STATISTICAL TESTS				
POLY 3	P=0.125N	P=0.278N	P=0.645N	P=0.106N
POLY 1.5	P=0.130N	P=0.291N	P=0.654N	P=0.112N
POLY 6	P=0.119N	P=0.256N	P=0.627N	P=0.096N
COCH-ARM / FISHERS	P=0.134N	P=0.309N	P=0.661N	P=0.121N
MAX-ISO-POLY-3	P=0.078N	P=0.144N	P=0.479N	P=0.037N*
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Fibrous Histiocytoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/39.70	0/43.10	1/40.95	0/42.88
POLY-3 PERCENT (g)	0%	0%	2.4%	0%
TERMINAL (d)	0/20 (0%)	0/29 (0%)	1/25 (4%)	0/28 (0%)
FIRST INCIDENCE	---	---	729 (T)	---
HC TUMORS SAME ROUTE	1/299 (0%)			
HC TUMORS ALL ROUTES	6/1299 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.716	(e)	P=0.506	(e)
POLY 1.5	P=0.705	(e)	P=0.503	(e)
POLY 6	P=0.733	(e)	P=0.514	(e)
COCH-ARM / FISHERS	P=0.694	(e)	P=0.500	(e)
MAX-ISO-POLY-3	P=0.405	(e)	P=0.166	(e)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	(e)	(e)	(e)	(e)

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Keratoacanthoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	1/39.70	1/43.10	2/40.95	2/42.88
POLY-3 PERCENT (g)	2.5%	2.3%	4.9%	4.7%
TERMINAL (d)	1/20 (5%)	1/29 (3%)	2/25 (8%)	2/28 (7%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	729 (T)
HC TUMORS SAME ROUTE	9/299 (3%)			
HC TUMORS ALL ROUTES	75/1299 (6%)			
STATISTICAL TESTS				
POLY 3	P=0.359	P=0.742N	P=0.511	P=0.527
POLY 1.5	P=0.349	P=0.751N	P=0.505	P=0.514
POLY 6	P=0.377	P=0.727N	P=0.524	P=0.550
COCH-ARM / FISHERS	P=0.337	P=0.753N	P=0.500	P=0.500
MAX-ISO-POLY-3	P=0.469	P=0.476N	P=0.292	P=0.309
HISTCONT SAME RTE	P=0.564	P=1.000	P=0.377	P=0.401
HISTCONT ALL RTEs	P=0.548	P=1.000	P=0.364	P=0.387

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Neurofibrosarcoma, Neurofibroma, or Schwannoma (benign, malignant or NOS)				
TUMOR RATES	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/39.70	2/43.10	0/40.95	0/42.88
POLY-3 PERCENT (g)	2.5%	4.6%	0%	0%
TERMINAL (d)	1/20 (5%)	2/29 (7%)	0/25 (0%)	0/28 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	---	---
HC TUMORS SAME ROUTE	1/299 (0%)			
HC TUMORS ALL ROUTES	10/1299 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.177N	P=0.529	P=0.494N	P=0.485N
POLY 1.5	P=0.182N	P=0.515	P=0.497N	P=0.492N
POLY 6	P=0.167N	P=0.552	P=0.486N	P=0.471N
COCH-ARM / FISHERS	P=0.188N	P=0.500	P=0.500N	P=0.500N
MAX-ISO-POLY-3	P=0.188N	P=0.311	P=0.158N	P=0.158N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Squamous Cell Carcinoma, Basal Cell Carcinoma, Basosquamous Tumor (malignant or NOS), or Carcinoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	3/50 (6%)	3/50 (6%)
POLY-3 RATE (b)	3/39.87	1/43.10	3/41.22	3/43.40
POLY-3 PERCENT (g)	7.5%	2.3%	7.3%	6.9%
TERMINAL (d)	2/20 (10%)	1/29 (3%)	1/25 (4%)	1/28 (4%)
FIRST INCIDENCE	684	729 (T)	662	577
HC TUMORS SAME ROUTE	1/299 (0%)			
HC TUMORS ALL ROUTES	13/1299 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.480	P=0.277N	P=0.648N	P=0.623N
POLY 1.5	P=0.468	P=0.290N	P=0.656N	P=0.642N
POLY 6	P=0.498	P=0.255N	P=0.630N	P=0.590N
COCH-ARM / FISHERS	P=0.456	P=0.309N	P=0.661N	P=0.661N
MAX-ISO-POLY-3	P=0.537	P=0.144N	P=0.482N	P=0.458N
HISTCONT SAME RTE	P=0.030*	P=0.396	P=0.093	P=0.090
HISTCONT ALL RTEs	P=0.002**	P=0.412	P=0.026*	P=0.027*

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Squamous Cell Papilloma				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	4/50 (8%)
POLY-3 RATE (b)	0/39.70	1/43.13	1/40.99	4/43.27
POLY-3 PERCENT (g)	0%	2.3%	2.4%	9.2%
TERMINAL (d)	0/20 (0%)	0/29 (0%)	0/25 (0%)	3/28 (11%)
FIRST INCIDENCE	---	722	718	619
HC TUMORS SAME ROUTE	1/299 (0%)			
HC TUMORS ALL ROUTES	17/1299 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.019*	P=0.517	P=0.506	P=0.071
POLY 1.5	P=0.018*	P=0.509	P=0.503	P=0.066
POLY 6	P=0.022*	P=0.530	P=0.514	P=0.082
COCH-ARM / FISHERS	P=0.018*	P=0.500	P=0.500	P=0.059
MAX-ISO-POLY-3	P=0.022*	P=0.179	P=0.166	P=0.028*
HISTCONT SAME RTE	P=0.007**	P=0.121	P=0.121	P=0.025*
HISTCONT ALL RTEs	P=0.008**	P=0.214	P=0.198	P=0.020*

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	4/50 (8%)	6/50 (12%)
POLY-3 RATE (b)	1/39.70	2/43.13	4/40.99	6/43.27
POLY-3 PERCENT (g)	2.5%	4.6%	9.8%	13.9%
TERMINAL (d)	1/20 (5%)	1/29 (3%)	3/25 (12%)	5/28 (18%)
FIRST INCIDENCE	729 (T)	722	718	619
HC TUMORS SAME ROUTE	11/299 (4%)			
HC TUMORS ALL ROUTES	99/1299 (8%)			
STATISTICAL TESTS				
POLY 3	P=0.028*	P=0.529	P=0.187	P=0.070
POLY 1.5	P=0.025*	P=0.515	P=0.182	P=0.063
POLY 6	P=0.032*	P=0.553	P=0.198	P=0.084
COCH-ARM / FISHERS	P=0.023*	P=0.500	P=0.181	P=0.056
MAX-ISO-POLY-3	P=0.042*	P=0.312	P=0.092	P=0.036*
HISTCONT SAME RTE	P=0.043*	P=0.404	P=0.110	P=0.039*
HISTCONT ALL RTEs	P=0.047*	P=0.390	P=0.104	P=0.037*

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Squamous Cell Papilloma, Papilloma, or Keratoacanthoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	3/50 (6%)	6/50 (12%)
POLY-3 RATE (b)	1/39.70	2/43.13	3/40.99	6/43.27
POLY-3 PERCENT (g)	2.5%	4.6%	7.3%	13.9%
TERMINAL (d)	1/20 (5%)	1/29 (3%)	2/25 (8%)	5/28 (18%)
FIRST INCIDENCE	729 (T)	722	718	619
HC TUMORS SAME ROUTE	10/299 (3%)			
HC TUMORS ALL ROUTES	92/1299 (7%)			
STATISTICAL TESTS				
POLY 3	P=0.025*	P=0.529	P=0.316	P=0.070
POLY 1.5	P=0.023*	P=0.515	P=0.310	P=0.063
POLY 6	P=0.029*	P=0.553	P=0.330	P=0.084
COCH-ARM / FISHERS	P=0.022*	P=0.500	P=0.309	P=0.056
MAX-ISO-POLY-3	P=0.039*	P=0.312	P=0.165	P=0.036*
HISTCONT SAME RTE	P=0.045*	P=0.404	P=0.206	P=0.039*
HISTCONT ALL RTEs	P=0.043*	P=0.390	P=0.196	P=0.037*

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

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First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin: Sebaceous Gland Adenoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	2/39.70	0/43.10	0/40.95	2/42.88
POLY-3 PERCENT (g)	5%	0%	0%	4.7%
TERMINAL (d)	2/20 (10%)	0/29 (0%)	0/25 (0%)	2/28 (7%)
FIRST INCIDENCE	729 (T)	---	---	729 (T)
HC TUMORS SAME ROUTE	3/299 (1%)			
HC TUMORS ALL ROUTES	5/1299 (0%)			
STATISTICAL TESTS				
POLY 3	P=0.496	P=0.219N	P=0.230N	P=0.666N
POLY 1.5	P=0.498	P=0.227N	P=0.234N	P=0.680N
POLY 6	P=0.491	P=0.205N	P=0.221N	P=0.642N
COCH-ARM / FISHERS	P=0.500	P=0.247N	P=0.247N	P=0.691N
MAX-ISO-POLY-3	P=0.262N	P=0.075N	P=0.075N	P=0.469N
HISTCONT SAME RTE	P=0.166	(e)	(e)	P=0.136
HISTCONT ALL RTEs	P=0.026*	(e)	(e)	P=0.020*

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

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Lab: BNW

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Testes				
Adenoma				
TUMOR RATES				
OVERALL (a)	29/50 (58%)	39/50 (78%)	31/50 (62%)	41/50 (82%)
POLY-3 RATE (b)	29/43.27	39/46.62	31/44.55	41/46.63
POLY-3 PERCENT (g)	67%	83.7%	69.6%	87.9%
TERMINAL (d)	16/20 (80%)	26/29 (90%)	19/25 (76%)	27/28 (96%)
FIRST INCIDENCE	563	513	523	566
HC TUMORS SAME ROUTE	221/299 (74%)			
HC TUMORS ALL ROUTES	1111/1299 (86%)			
STATISTICAL TESTS				
POLY 3	P=0.025*	P=0.038*	P=0.487	P=0.008**
POLY 1.5	P=0.021*	P=0.030*	P=0.448	P=0.006**
POLY 6	P=0.045*	P=0.067	P=0.580	P=0.016*
COCH-ARM / FISHERS	P=0.024*	P=0.026*	P=0.419	P=0.008**
MAX-ISO-POLY-3	P=0.008**	P=0.024*	P=0.390	P=0.004**
HISTCONT SAME RTE	P=0.009**	P=0.026*	P=0.506	P=0.004**
HISTCONT ALL RTEs	P=0.009**	P=0.024*	P=0.494	P=0.004**

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Thyroid Gland: C-Cell Adenoma				
TUMOR RATES				
OVERALL (a)	5/50 (10%)	4/50 (8%)	5/50 (10%)	4/50 (8%)
POLY-3 RATE (b)	5/40.34	4/43.13	5/41.57	4/42.91
POLY-3 PERCENT (g)	12.4%	9.3%	12%	9.3%
TERMINAL (d)	3/20 (15%)	3/29 (10%)	3/25 (12%)	3/28 (11%)
FIRST INCIDENCE	593	722	642	722
HC TUMORS SAME ROUTE	18/298 (6%)			
HC TUMORS ALL ROUTES	157/1292 (12%)			
STATISTICAL TESTS				
POLY 3	P=0.442N	P=0.458N	P=0.613N	P=0.461N
POLY 1.5	P=0.455N	P=0.478N	P=0.622N	P=0.481N
POLY 6	P=0.420N	P=0.423N	P=0.590N	P=0.427N
COCH-ARM / FISHERS	P=0.467N	P=0.500N	P=0.630N	P=0.500N
MAX-ISO-POLY-3	P=0.526N	P=0.328N	P=0.479N	P=0.331N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

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First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Thyroid Gland: C-Cell Carcinoma				
TUMOR RATES				
OVERALL (a)	2/50 (4%)	4/50 (8%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	2/39.70	4/43.13	2/41.45	2/42.88
POLY-3 PERCENT (g)	5%	9.3%	4.8%	4.7%
TERMINAL (d)	2/20 (10%)	3/29 (10%)	0/25 (0%)	2/28 (7%)
FIRST INCIDENCE	729 (T)	722	621	729 (T)
HC TUMORS SAME ROUTE	11/298 (4%)			
HC TUMORS ALL ROUTES	39/1292 (3%)			
STATISTICAL TESTS				
POLY 3	P=0.424N	P=0.375	P=0.679N	P=0.666N
POLY 1.5	P=0.440N	P=0.357	P=0.687N	P=0.680N
POLY 6	P=0.397N	P=0.409	P=0.662N	P=0.642N
COCH-ARM / FISHERS	P=0.456N	P=0.339	P=0.691N	P=0.691N
MAX-ISO-POLY-3	P=0.508N	P=0.239	P=0.482N	P=0.469N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Thyroid Gland: C-Cell Carcinoma or Adenoma				
TUMOR RATES				
OVERALL (a)	6/50 (12%)	8/50 (16%)	7/50 (14%)	6/50 (12%)
POLY-3 RATE (b)	6/40.34	8/43.16	7/42.07	6/42.91
POLY-3 PERCENT (g)	14.9%	18.5%	16.6%	14%
TERMINAL (d)	4/20 (20%)	6/29 (21%)	3/25 (12%)	5/28 (18%)
FIRST INCIDENCE	593	722	621	722
HC TUMORS SAME ROUTE	28/298 (9%)			
HC TUMORS ALL ROUTES	195/1292 (15%)			
STATISTICAL TESTS				
POLY 3	P=0.445N	P=0.439	P=0.533	P=0.578N
POLY 1.5	P=0.466N	P=0.414	P=0.515	P=0.599N
POLY 6	P=0.409N	P=0.484	P=0.571	P=0.539N
COCH-ARM / FISHERS	P=0.486N	P=0.387	P=0.500	P=0.620N
MAX-ISO-POLY-3	P=0.581N	P=0.332	P=0.413	P=0.454N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

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First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Thyroid Gland: Follicular Cell Adenoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	1/50 (2%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	0/39.70	1/43.10	2/40.99	1/43.18
POLY-3 PERCENT (g)	0%	2.3%	4.9%	2.3%
TERMINAL (d)	0/20 (0%)	1/29 (3%)	1/25 (4%)	0/28 (0%)
FIRST INCIDENCE	---	729 (T)	718	647
HC TUMORS SAME ROUTE	2/298 (1%)			
HC TUMORS ALL ROUTES	16/1292 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.401	P=0.516	P=0.244	P=0.517
POLY 1.5	P=0.384	P=0.509	P=0.240	P=0.508
POLY 6	P=0.431	P=0.530	P=0.252	P=0.531
COCH-ARM / FISHERS	P=0.366	P=0.500	P=0.247	P=0.500
MAX-ISO-POLY-3	P=0.252	P=0.178	P=0.082	P=0.179
HISTCONT SAME RTE	P=0.220	P=0.225	P=0.070	P=0.225
HISTCONT ALL RTEs	P=0.291	P=0.213	P=0.093	P=0.214

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
Thyroid Gland: Follicular Cell Carcinoma or Adenoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	2/50 (4%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	0/39.70	2/43.15	2/40.99	2/43.18
POLY-3 PERCENT (g)	0%	4.6%	4.9%	4.6%
TERMINAL (d)	0/20 (0%)	1/29 (3%)	1/25 (4%)	1/28 (4%)
FIRST INCIDENCE	---	716	718	647
HC TUMORS SAME ROUTE	5/298 (2%)			
HC TUMORS ALL ROUTES	28/1292 (2%)			
STATISTICAL TESTS				
POLY 3	P=0.274	P=0.256	P=0.244	P=0.256
POLY 1.5	P=0.258	P=0.247	P=0.240	P=0.247
POLY 6	P=0.303	P=0.272	P=0.252	P=0.273
COCH-ARM / FISHERS	P=0.242	P=0.247	P=0.247	P=0.247
MAX-ISO-POLY-3	P=0.216	P=0.094	P=0.082	P=0.094
HISTCONT SAME RTE	P=0.201	P=0.113	P=0.099	P=0.113
HISTCONT ALL RTEs	P=0.248	P=0.107	P=0.093	P=0.107

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
All Organs				
Histiocytic Sarcoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/39.70	1/43.45	0/40.95	1/42.90
POLY-3 PERCENT (g)	0%	2.3%	0%	2.3%
TERMINAL (d)	0/20 (0%)	0/29 (0%)	0/25 (0%)	0/28 (0%)
FIRST INCIDENCE	---	633	---	725
HC TUMORS SAME ROUTE	2/299 (1%)			
HC TUMORS ALL ROUTES	11/1299 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.427	P=0.518	(e)	P=0.515
POLY 1.5	P=0.416	P=0.509	(e)	P=0.508
POLY 6	P=0.446	P=0.533	(e)	P=0.529
COCH-ARM / FISHERS	P=0.405	P=0.500	(e)	P=0.500
MAX-ISO-POLY-3	P=0.286	P=0.180	(e)	P=0.177
HISTCONT SAME RTE	P=0.343	P=0.227	(e)	P=0.223
HISTCONT ALL RTEs	P=0.330	P=0.216	(e)	P=0.212

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
All Organs				
Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated				
TUMOR RATES	#	#	#	#
OVERALL (a)	25/50 (50%)	16/50 (32%)	5/50 (10%)	2/50 (4%)
POLY-3 RATE (b)	25/44.80	16/45.89	5/41.72	2/43.48
POLY-3 PERCENT (g)	55.8%	34.9%	12%	4.6%
TERMINAL (d)	8/20 (40%)	8/29 (28%)	1/25 (4%)	0/28 (0%)
FIRST INCIDENCE	557	500	621	641
HC TUMORS SAME ROUTE	149/299 (50%)			
HC TUMORS ALL ROUTES	511/1299 (39%)			
STATISTICAL TESTS				
POLY 3	P<0.001N**	P=0.032N*	P<0.001N**	P<0.001N**
POLY 1.5	P<0.001N**	P=0.038N*	P<0.001N**	P<0.001N**
POLY 6	P<0.001N**	P=0.026N*	P<0.001N**	P<0.001N**
COCH-ARM / FISHERS	P<0.001N**	P=0.052N	P<0.001N**	P<0.001N**
MAX-ISO-POLY-3	P<0.001N**	P=0.020N*	P<0.001N**	P<0.001N**
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
All Organs				
Mesothelioma: Benign, Malignant, NOS				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	1/50 (2%)	3/50 (6%)
POLY-3 RATE (b)	0/39.70	2/43.74	1/40.95	3/43.89
POLY-3 PERCENT (g)	0%	4.6%	2.4%	6.8%
TERMINAL (d)	0/20 (0%)	0/29 (0%)	1/25 (4%)	1/28 (4%)
FIRST INCIDENCE	---	547	729 (T)	566
HC TUMORS SAME ROUTE	7/299 (2%)			
HC TUMORS ALL ROUTES	35/1299 (3%)			
STATISTICAL TESTS				
POLY 3	P=0.121	P=0.259	P=0.506	P=0.137
POLY 1.5	P=0.113	P=0.249	P=0.503	P=0.128
POLY 6	P=0.137	P=0.277	P=0.514	P=0.154
COCH-ARM / FISHERS	P=0.104	P=0.247	P=0.500	P=0.121
MAX-ISO-POLY-3	P=0.086	P=0.097	P=0.166	P=0.054
HISTCONT SAME RTE	P=0.101	P=0.117	P=0.208	P=0.062
HISTCONT ALL RTEs	P=0.097	P=0.110	P=0.197	P=0.059

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
All Organs				
Mesothelioma: Malignant				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	1/50 (2%)	3/50 (6%)
POLY-3 RATE (b)	0/39.70	2/43.74	1/40.95	3/43.89
POLY-3 PERCENT (g)	0%	4.6%	2.4%	6.8%
TERMINAL (d)	0/20 (0%)	0/29 (0%)	1/25 (4%)	1/28 (4%)
FIRST INCIDENCE	---	547	729 (T)	566
HC TUMORS SAME ROUTE	7/299 (2%)			
HC TUMORS ALL ROUTES	34/1299 (3%)			
STATISTICAL TESTS				
POLY 3	P=0.121	P=0.259	P=0.506	P=0.137
POLY 1.5	P=0.113	P=0.249	P=0.503	P=0.128
POLY 6	P=0.137	P=0.277	P=0.514	P=0.154
COCH-ARM / FISHERS	P=0.104	P=0.247	P=0.500	P=0.121
MAX-ISO-POLY-3	P=0.086	P=0.097	P=0.166	P=0.054
HISTCONT SAME RTE	P=0.101	P=0.117	P=0.208	P=0.062
HISTCONT ALL RTEs	P=0.097	P=0.110	P=0.197	P=0.059

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
All Organs				
Osteosarcoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	3/40.68	1/43.10	1/40.99	1/42.96
POLY-3 PERCENT (g)	7.4%	2.3%	2.4%	2.3%
TERMINAL (d)	1/20 (5%)	1/29 (3%)	0/25 (0%)	0/28 (0%)
FIRST INCIDENCE	563	729 (T)	718	708
HC TUMORS SAME ROUTE	4/299 (1%)			
HC TUMORS ALL ROUTES	12/1299 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.241N	P=0.284N	P=0.302N	P=0.285N
POLY 1.5	P=0.242N	P=0.294N	P=0.304N	P=0.296N
POLY 6	P=0.239N	P=0.266N	P=0.293N	P=0.267N
COCH-ARM / FISHERS	P=0.242N	P=0.309N	P=0.309N	P=0.309N
MAX-ISO-POLY-3	P=0.182N	P=0.146N	P=0.152N	P=0.146N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
All Organs				
Osteosarcoma or Osteoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	3/40.68	1/43.10	1/40.99	1/42.96
POLY-3 PERCENT (g)	7.4%	2.3%	2.4%	2.3%
TERMINAL (d)	1/20 (5%)	1/29 (3%)	0/25 (0%)	0/28 (0%)
FIRST INCIDENCE	563	729 (T)	718	708
HC TUMORS SAME ROUTE	4/299 (1%)			
HC TUMORS ALL ROUTES	13/1299 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.241N	P=0.284N	P=0.302N	P=0.285N
POLY 1.5	P=0.242N	P=0.294N	P=0.304N	P=0.296N
POLY 6	P=0.239N	P=0.266N	P=0.293N	P=0.267N
COCH-ARM / FISHERS	P=0.242N	P=0.309N	P=0.309N	P=0.309N
MAX-ISO-POLY-3	P=0.182N	P=0.146N	P=0.152N	P=0.146N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

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Lab: BNW

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
All Organs				
Benign Tumors				
TUMOR RATES	#	#	#	#
OVERALL (a)	48/50 (96%)	49/50 (98%)	48/50 (96%)	49/50 (98%)
POLY-3 RATE (b)	48/49.82	49/49.32	48/49.22	49/49.14
POLY-3 PERCENT (g)	96.4%	99.4%	97.5%	99.7%
TERMINAL (d)	19/20 (95%)	29/29 (100%)	24/25 (96%)	28/28 (100%)
FIRST INCIDENCE	372	513	480	483
HC TUMORS SAME ROUTE	291/299 (97%)			
HC TUMORS ALL ROUTES	1258/1299 (97%)			
STATISTICAL TESTS				
POLY 3	P=0.236	P=0.357	P=0.600	P=0.304
POLY 1.5	P=0.290	P=0.411	P=0.630	P=0.356
POLY 6	P=0.232	P=0.322	P=0.600	P=0.297
COCH-ARM / FISHERS	P=0.444	P=0.500	P=0.691N	P=0.500
MAX-ISO-POLY-3	P=0.129	P=0.132	P=0.361	P=0.100
HISTCONT SAME RTE	P=0.154	P=0.165	P=0.468	P=0.122
HISTCONT ALL RTEs	P=0.148	P=0.157	P=0.455	P=0.115

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
All Organs				
Malignant Tumors				
TUMOR RATES	#	#	#	#
OVERALL (a)	33/50 (66%)	29/50 (58%)	21/50 (42%)	20/50 (40%)
POLY-3 RATE (b)	33/46.34	29/47.55	21/44.34	20/46.82
POLY-3 PERCENT (g)	71.2%	61%	47.4%	42.7%
TERMINAL (d)	12/20 (60%)	16/29 (55%)	10/25 (40%)	8/28 (29%)
FIRST INCIDENCE	557	500	438	381
HC TUMORS SAME ROUTE	198/299 (66%)			
HC TUMORS ALL ROUTES	739/1299 (57%)			
STATISTICAL TESTS				
POLY 3	P=0.002N**	P=0.197N	P=0.013N*	P=0.003N**
POLY 1.5	P=0.002N**	P=0.221N	P=0.012N*	P=0.004N**
POLY 6	P<0.001N**	P=0.176N	P=0.016N*	P=0.002N**
COCH-ARM / FISHERS	P=0.003N**	P=0.268N	P=0.013N*	P=0.008N**
MAX-ISO-POLY-3	P=0.003N**	P=0.143N	P=0.008N**	P=0.002N**
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

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Lab: BNW

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

DOSE	Males			
	CONTROL	30 PPM	60 PPM	120 PPM
All Organs				
Malignant and Benign Tumors				
TUMOR RATES	#	#	#	#
OVERALL (a)	50/50 (100%)	50/50 (100%)	49/50 (98%)	50/50 (100%)
POLY-3 RATE (b)	50/50.00	50/50.00	49/50.00	50/50.00
POLY-3 PERCENT (g)	100%	100%	98%	100%
TERMINAL (d)	20/20 (100%)	29/29 (100%)	24/25 (96%)	28/28 (100%)
FIRST INCIDENCE	372	500	438	381
HC TUMORS SAME ROUTE	299/299 (100%)			
HC TUMORS ALL ROUTES	1291/1299 (99%)			
STATISTICAL TESTS				
POLY 3	P=0.694N	(e)	P=0.500N	(e)
POLY 1.5	P=0.694N	(e)	P=0.500N	(e)
POLY 6	P=0.694N	(e)	P=0.500N	(e)
COCH-ARM / FISHERS	P=0.694N	(e)	P=0.500N	(e)
MAX-ISO-POLY-3	P=0.388N	(e)	P=0.159N	(e)
HISTCONT SAME RTE	(h)	(e)	(h)	(e)
HISTCONT ALL RTEs	(h)	(e)	(h)	(e)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Adrenal Cortex				
Adenoma				
TUMOR RATES				
OVERALL (a)	8/50 (16%)	5/50 (10%)	5/50 (10%)	13/50 (26%)
POLY-3 RATE (b)	8/43.66	5/44.58	5/44.05	13/46.26
POLY-3 PERCENT (g)	18.3%	11.2%	11.4%	28.1%
TERMINAL (d)	6/31 (19%)	4/36 (11%)	5/31 (16%)	12/38 (32%)
FIRST INCIDENCE	675	703	730 (T)	694
HC TUMORS SAME ROUTE	5/300 (2%)			
HC TUMORS ALL ROUTES	16/1246 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.067	P=0.261N	P=0.268N	P=0.198
POLY 1.5	P=0.066	P=0.267N	P=0.267N	P=0.188
POLY 6	P=0.069	P=0.246N	P=0.269N	P=0.214
COCH-ARM / FISHERS	P=0.060	P=0.277N	P=0.277N	P=0.163
MAX-ISO-POLY-3	P=0.057	P=0.176N	P=0.180N	P=0.143
HISTCONT SAME RTE	P=0.004**	P=0.204	P=0.204	P=0.025*
HISTCONT ALL RTEs	P<0.001**	P=0.051	P=0.051	P<0.001**

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Adrenal Medulla				
Pheochromocytoma Benign				
TUMOR RATES				
OVERALL (a)	2/50 (4%)	1/50 (2%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	2/43.32	1/44.48	0/44.05	1/46.12
POLY-3 PERCENT (g)	4.6%	2.3%	0%	2.2%
TERMINAL (d)	2/31 (7%)	1/36 (3%)	0/31 (0%)	1/38 (3%)
FIRST INCIDENCE	730 (T)	730 (T)	---	730 (T)
HC TUMORS SAME ROUTE	10/299 (3%)			
HC TUMORS ALL ROUTES	33/1238 (3%)			
STATISTICAL TESTS				
POLY 3	P=0.363N	P=0.491N	P=0.233N	P=0.478N
POLY 1.5	P=0.364N	P=0.495N	P=0.233N	P=0.485N
POLY 6	P=0.364N	P=0.481N	P=0.232N	P=0.468N
COCH-ARM / FISHERS	P=0.366N	P=0.500N	P=0.247N	P=0.500N
MAX-ISO-POLY-3	P=0.224N	P=0.275N	P=0.076N	P=0.269N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

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Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Adrenal Medulla				
Pheochromocytoma Malignant				
TUMOR RATES				
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	1/43.32	0/44.48	1/44.05	1/46.12
POLY-3 PERCENT (g)	2.3%	0%	2.3%	2.2%
TERMINAL (d)	1/31 (3%)	0/36 (0%)	1/31 (3%)	1/38 (3%)
FIRST INCIDENCE	730 (T)	---	730 (T)	730 (T)
HC TUMORS SAME ROUTE	1/299 (0%)			
HC TUMORS ALL ROUTES	7/1238 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.555	P=0.495N	P=0.757N	P=0.747N
POLY 1.5	P=0.550	P=0.497N	P=0.757N	P=0.751N
POLY 6	P=0.559	P=0.489N	P=0.756N	P=0.740N
COCH-ARM / FISHERS	P=0.539	P=0.500N	P=0.753N	P=0.753N
MAX-ISO-POLY-3	P=0.554	P=0.158N	P=0.495N	P=0.482N
HISTCONT SAME RTE	P=0.212	(e)	P=0.164	P=0.165
HISTCONT ALL RTEs	P=0.306	(e)	P=0.249	P=0.254

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

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First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Adrenal Medulla				
Pheochromocytoma: Benign, Complex, Malignant, NOS				
TUMOR RATES				
OVERALL (a)	3/50 (6%)	1/50 (2%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	3/43.32	1/44.48	1/44.05	2/46.12
POLY-3 PERCENT (g)	6.9%	2.3%	2.3%	4.3%
TERMINAL (d)	3/31 (10%)	1/36 (3%)	1/31 (3%)	2/38 (5%)
FIRST INCIDENCE	730 (T)	730 (T)	730 (T)	730 (T)
HC TUMORS SAME ROUTE	13/299 (4%)			
HC TUMORS ALL ROUTES	44/1238 (4%)			
STATISTICAL TESTS				
POLY 3	P=0.464N	P=0.296N	P=0.299N	P=0.471N
POLY 1.5	P=0.466N	P=0.300N	P=0.299N	P=0.480N
POLY 6	P=0.463N	P=0.286N	P=0.297N	P=0.458N
COCH-ARM / FISHERS	P=0.474N	P=0.309N	P=0.309N	P=0.500N
MAX-ISO-POLY-3	P=0.284N	P=0.150N	P=0.151N	P=0.304N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Bone				
Osteosarcoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/43.32	0/44.48	1/44.70	0/46.12
POLY-3 PERCENT (g)	0%	0%	2.2%	0%
TERMINAL (d)	0/31 (0%)	0/36 (0%)	0/31 (0%)	0/38 (0%)
FIRST INCIDENCE	---	---	515	---
HC TUMORS SAME ROUTE	1/300 (0%)			
HC TUMORS ALL ROUTES	5/1250 (0%)			
STATISTICAL TESTS				
POLY 3	P=0.716	(e)	P=0.506	(e)
POLY 1.5	P=0.709	(e)	P=0.505	(e)
POLY 6	P=0.724	(e)	P=0.508	(e)
COCH-ARM / FISHERS	P=0.694	(e)	P=0.500	(e)
MAX-ISO-POLY-3	P=0.403	(e)	P=0.166	(e)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	(e)	(e)	(e)	(e)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

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First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Clitoral/Preputial Gland Carcinoma				
TUMOR RATES				
OVERALL (a)	4/50 (8%)	2/50 (4%)	3/50 (6%)	4/50 (8%)
POLY-3 RATE (b)	4/43.72	2/44.48	3/45.18	4/46.23
POLY-3 PERCENT (g)	9.2%	4.5%	6.6%	8.7%
TERMINAL (d)	2/31 (7%)	2/36 (6%)	1/31 (3%)	3/38 (8%)
FIRST INCIDENCE	675	730 (T)	425	703
HC TUMORS SAME ROUTE	5/299 (2%)			
HC TUMORS ALL ROUTES	32/1247 (3%)			
STATISTICAL TESTS				
POLY 3	P=0.508	P=0.329N	P=0.482N	P=0.612N
POLY 1.5	P=0.501	P=0.333N	P=0.485N	P=0.621N
POLY 6	P=0.515	P=0.320N	P=0.479N	P=0.600N
COCH-ARM / FISHERS	P=0.481	P=0.339N	P=0.500N	P=0.643N
MAX-ISO-POLY-3	P=0.520N	P=0.196N	P=0.333N	P=0.467N
HISTCONT SAME RTE	P=0.038*	P=0.358	P=0.184	P=0.099
HISTCONT ALL RTEs	P=0.092	P=0.488	P=0.304	P=0.170

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

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Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Clitoral/Preputial Gland Carcinoma or Adenoma				
TUMOR RATES				
OVERALL (a)	4/50 (8%)	2/50 (4%)	3/50 (6%)	5/50 (10%)
POLY-3 RATE (b)	4/43.72	2/44.48	3/45.18	5/46.23
POLY-3 PERCENT (g)	9.2%	4.5%	6.6%	10.8%
TERMINAL (d)	2/31 (7%)	2/36 (6%)	1/31 (3%)	4/38 (11%)
FIRST INCIDENCE	675	730 (T)	425	703
HC TUMORS SAME ROUTE	13/299 (4%)			
HC TUMORS ALL ROUTES	155/1247 (12%)			
STATISTICAL TESTS				
POLY 3	P=0.344	P=0.329N	P=0.482N	P=0.535
POLY 1.5	P=0.338	P=0.333N	P=0.485N	P=0.525
POLY 6	P=0.351	P=0.320N	P=0.479N	P=0.549
COCH-ARM / FISHERS	P=0.320	P=0.339N	P=0.500N	P=0.500
MAX-ISO-POLY-3	P=0.392	P=0.196N	P=0.333N	P=0.398
HISTCONT SAME RTE	P=0.177	P=1.000	P=0.490	P=0.179
HISTCONT ALL RTEs	P=0.456	P=1.000	P=1.000	P=0.505

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

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First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Islets, Pancreatic Adenoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/43.32	1/44.48	1/44.05	0/46.12
POLY-3 PERCENT (g)	0%	2.3%	2.3%	0%
TERMINAL (d)	0/31 (0%)	1/36 (3%)	1/31 (3%)	0/38 (0%)
FIRST INCIDENCE	---	730 (T)	730 (T)	---
HC TUMORS SAME ROUTE	6/300 (2%)			
HC TUMORS ALL ROUTES	21/1240 (2%)			
STATISTICAL TESTS				
POLY 3	P=0.577N	P=0.505	P=0.503	(e)
POLY 1.5	P=0.583N	P=0.503	P=0.503	(e)
POLY 6	P=0.569N	P=0.511	P=0.504	(e)
COCH-ARM / FISHERS	P=0.595N	P=0.500	P=0.500	(e)
MAX-ISO-POLY-3	P=0.412N	P=0.165	P=0.163	(e)
HISTCONT SAME RTE	(h)	(h)	(h)	(e)
HISTCONT ALL RTEs	(h)	(h)	(h)	(e)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

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Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Islets, Pancreatic Carcinoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.32	1/44.48	0/44.05	0/46.12
POLY-3 PERCENT (g)	0%	2.3%	0%	0%
TERMINAL (d)	0/31 (0%)	1/36 (3%)	0/31 (0%)	0/38 (0%)
FIRST INCIDENCE	---	730 (T)	---	---
HC TUMORS SAME ROUTE	2/300 (1%)			
HC TUMORS ALL ROUTES	3/1240 (0%)			
STATISTICAL TESTS				
POLY 3	P=0.561N	P=0.505	(e)	(e)
POLY 1.5	P=0.563N	P=0.503	(e)	(e)
POLY 6	P=0.556N	P=0.511	(e)	(e)
COCH-ARM / FISHERS	P=0.567N	P=0.500	(e)	(e)
MAX-ISO-POLY-3	P=0.392N	P=0.165	(e)	(e)
HISTCONT SAME RTE	(h)	(h)	(e)	(e)
HISTCONT ALL RTEs	(h)	(h)	(e)	(e)

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Islets, Pancreatic Carcinoma or Adenoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/43.32	2/44.48	1/44.05	0/46.12
POLY-3 PERCENT (g)	0%	4.5%	2.3%	0%
TERMINAL (d)	0/31 (0%)	2/36 (6%)	1/31 (3%)	0/38 (0%)
FIRST INCIDENCE	---	730 (T)	730 (T)	---
HC TUMORS SAME ROUTE	8/300 (3%)			
HC TUMORS ALL ROUTES	24/1240 (2%)			
STATISTICAL TESTS				
POLY 3	P=0.438N	P=0.243	P=0.503	(e)
POLY 1.5	P=0.445N	P=0.240	P=0.503	(e)
POLY 6	P=0.427N	P=0.249	P=0.504	(e)
COCH-ARM / FISHERS	P=0.461N	P=0.247	P=0.500	(e)
MAX-ISO-POLY-3	P=0.337N	P=0.081	P=0.163	(e)
HISTCONT SAME RTE	(h)	(h)	(h)	(e)
HISTCONT ALL RTEs	(h)	(h)	(h)	(e)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

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Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Kidney: Renal Tubule Adenoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/43.32	0/44.48	0/44.05	1/46.12
POLY-3 PERCENT (g)	0%	0%	0%	2.2%
TERMINAL (d)	0/31 (0%)	0/36 (0%)	0/31 (0%)	1/38 (3%)
FIRST INCIDENCE	---	---	---	7/30 (T)
HC TUMORS SAME ROUTE	0/298 (0%)			
HC TUMORS ALL ROUTES	1/1240 (0%)			
STATISTICAL TESTS				
POLY 3	P=0.206	(e)	(e)	P=0.513
POLY 1.5	P=0.204	(e)	(e)	P=0.509
POLY 6	P=0.209	(e)	(e)	P=0.518
COCH-ARM / FISHERS	P=0.198	(e)	(e)	P=0.500
MAX-ISO-POLY-3	P=0.146	(e)	(e)	P=0.174
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	(e)	(e)	(e)	(e)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

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Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Kidney: Renal Tubule Carcinoma or Adenoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/43.32	0/44.48	0/44.05	2/46.90
POLY-3 PERCENT (g)	0%	0%	0%	4.3%
TERMINAL (d)	0/31 (0%)	0/36 (0%)	0/31 (0%)	1/38 (3%)
FIRST INCIDENCE	---	---	---	442
HC TUMORS SAME ROUTE	1/298 (0%)			
HC TUMORS ALL ROUTES	2/1240 (0%)			
STATISTICAL TESTS				
POLY 3	P=0.048*	(e)	(e)	P=0.255
POLY 1.5	P=0.048*	(e)	(e)	P=0.250
POLY 6	P=0.049*	(e)	(e)	P=0.263
COCH-ARM / FISHERS	P=0.046*	(e)	(e)	P=0.247
MAX-ISO-POLY-3	P=0.047*	(e)	(e)	P=0.093
HISTCONT SAME RTE	P=0.036*	(e)	(e)	P=0.038*
HISTCONT ALL RTEs	P<0.001**	(e)	(e)	P<0.001**

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

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Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Liver				
Hepatocellular Adenoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	3/50 (6%)
POLY-3 RATE (b)	0/43.32	0/44.48	0/44.05	3/46.30
POLY-3 PERCENT (g)	0%	0%	0%	6.5%
TERMINAL (d)	0/31 (0%)	0/36 (0%)	0/31 (0%)	2/38 (5%)
FIRST INCIDENCE	---	---	---	685
HC TUMORS SAME ROUTE	0/300 (0%)			
HC TUMORS ALL ROUTES	16/1250 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.012*	(e)	(e)	P=0.131
POLY 1.5	P=0.011*	(e)	(e)	P=0.127
POLY 6	P=0.012*	(e)	(e)	P=0.137
COCH-ARM / FISHERS	P=0.012*	(e)	(e)	P=0.121
MAX-ISO-POLY-3	P=0.014*	(e)	(e)	P=0.048*
HISTCONT SAME RTE	P=0.012*	(e)	(e)	P=0.018*
HISTCONT ALL RTEs	P=0.015*	(e)	(e)	P=0.052

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Liver				
Hepatocellular Carcinoma or Hepatocellular Adenoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	4/50 (8%)
POLY-3 RATE (b)	0/43.32	0/44.48	1/44.05	4/46.30
POLY-3 PERCENT (g)	0%	0%	2.3%	8.6%
TERMINAL (d)	0/31 (0%)	0/36 (0%)	1/31 (3%)	3/38 (8%)
FIRST INCIDENCE	---	---	730 (T)	685
HC TUMORS SAME ROUTE	1/300 (0%)			
HC TUMORS ALL ROUTES	17/1250 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.006**	(e)	P=0.503	P=0.069
POLY 1.5	P=0.006**	(e)	P=0.503	P=0.066
POLY 6	P=0.006**	(e)	P=0.504	P=0.074
COCH-ARM / FISHERS	P=0.006**	(e)	P=0.500	P=0.059
MAX-ISO-POLY-3	P=0.009**	(e)	P=0.163	P=0.026*
HISTCONT SAME RTE	P=0.008**	(e)	P=0.117	P=0.022*
HISTCONT ALL RTEs	P=0.009**	(e)	P=0.194	P=0.027*

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Liver				
Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	4/50 (8%)
POLY-3 RATE (b)	0/43.32	0/44.48	1/44.05	4/46.30
POLY-3 PERCENT (g)	0%	0%	2.3%	8.6%
TERMINAL (d)	0/31 (0%)	0/36 (0%)	1/31 (3%)	3/38 (8%)
FIRST INCIDENCE	---	---	730 (T)	685
HC TUMORS SAME ROUTE	1/300 (0%)			
HC TUMORS ALL ROUTES	17/1250 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.006**	(e)	P=0.503	P=0.069
POLY 1.5	P=0.006**	(e)	P=0.503	P=0.066
POLY 6	P=0.006**	(e)	P=0.504	P=0.074
COCH-ARM / FISHERS	P=0.006**	(e)	P=0.500	P=0.059
MAX-ISO-POLY-3	P=0.009**	(e)	P=0.163	P=0.026*
HISTCONT SAME RTE	P=0.008**	(e)	P=0.117	P=0.022*
HISTCONT ALL RTEs	P=0.009**	(e)	P=0.194	P=0.027*

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Lung				
Alveolar/Bronchiolar Adenoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.32	0/44.48	0/44.05	0/46.12
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/31 (0%)	0/36 (0%)	0/31 (0%)	0/38 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	2/300 (1%)			
HC TUMORS ALL ROUTES	28/1250 (2%)			
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)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	(e)	(e)	(e)	(e)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

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Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Lung				
Alveolar/Bronchiolar Carcinoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.32	0/44.48	0/44.05	0/46.12
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/31 (0%)	0/36 (0%)	0/31 (0%)	0/38 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	3/300 (1%)			
HC TUMORS ALL ROUTES	7/1250 (1%)			
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)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	(e)	(e)	(e)	(e)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

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First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Lung				
Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.32	0/44.48	0/44.05	0/46.12
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/31 (0%)	0/36 (0%)	0/31 (0%)	0/38 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	5/300 (2%)			
HC TUMORS ALL ROUTES	34/1250 (3%)			
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)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	(e)	(e)	(e)	(e)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

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First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Mammary Gland Carcinoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	3/50 (6%)	3/50 (6%)	5/50 (10%)	4/50 (8%)
POLY-3 RATE (b)	3/43.56	3/44.67	5/44.62	4/46.82
POLY-3 PERCENT (g)	6.9%	6.7%	11.2%	8.5%
TERMINAL (d)	1/31 (3%)	2/36 (6%)	3/31 (10%)	3/38 (8%)
FIRST INCIDENCE	682	680	591	488
HC TUMORS SAME ROUTE	32/300 (11%)			
HC TUMORS ALL ROUTES	63/1250 (5%)			
STATISTICAL TESTS				
POLY 3	P=0.422	P=0.651N	P=0.369	P=0.539
POLY 1.5	P=0.408	P=0.656N	P=0.368	P=0.527
POLY 6	P=0.436	P=0.639N	P=0.373	P=0.555
COCH-ARM / FISHERS	P=0.375	P=0.661N	P=0.357	P=0.500
MAX-ISO-POLY-3	P=0.492	P=0.487N	P=0.244	P=0.387
HISTCONT SAME RTE	P=0.591	P=1.000	P=0.314	P=0.504
HISTCONT ALL RTEs	P=0.388	P=0.565	P=0.289	P=0.437

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

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First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Mammary Gland Fibroadenoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	14/50 (28%)	23/50 (46%)	23/50 (46%)	16/50 (32%)
POLY-3 RATE (b)	14/44.14	23/44.97	23/45.89	16/46.42
POLY-3 PERCENT (g)	31.7%	51.1%	50.1%	34.5%
TERMINAL (d)	10/31 (32%)	18/36 (50%)	15/31 (48%)	14/38 (37%)
FIRST INCIDENCE	624	680	509	681
HC TUMORS SAME ROUTE	139/300 (46%)			
HC TUMORS ALL ROUTES	667/1250 (53%)			
STATISTICAL TESTS				
POLY 3	P=0.442N	P=0.046*	P=0.055	P=0.478
POLY 1.5	P=0.468N	P=0.045*	P=0.054	P=0.461
POLY 6	P=0.412N	P=0.052	P=0.058	P=0.503
COCH-ARM / FISHERS	P=0.539	P=0.048*	P=0.048*	P=0.414
MAX-ISO-POLY-3	P=0.156	P=0.029*	P=0.037*	P=0.391
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Mammary Gland				
Fibroma, Fibroadenoma, Carcinoma, or Adenoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	16/50 (32%)	24/50 (48%)	25/50 (50%)	17/50 (34%)
POLY-3 RATE (b)	16/44.33	24/44.97	25/46.35	17/47.12
POLY-3 PERCENT (g)	36.1%	53.4%	53.9%	36.1%
TERMINAL (d)	11/31 (36%)	19/36 (53%)	16/31 (52%)	14/38 (37%)
FIRST INCIDENCE	624	680	509	488
HC TUMORS SAME ROUTE	161/300 (54%)			
HC TUMORS ALL ROUTES	709/1250 (57%)			
STATISTICAL TESTS				
POLY 3	P=0.352N	P=0.072	P=0.063	P=0.586N
POLY 1.5	P=0.387N	P=0.072	P=0.060	P=0.562
POLY 6	P=0.316N	P=0.080	P=0.069	P=0.558N
COCH-ARM / FISHERS	P=0.481N	P=0.076	P=0.052	P=0.500
MAX-ISO-POLY-3	P=0.209N	P=0.047*	P=0.043*	P=0.499N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Ovary				
Granulosa Cell Tumor: Benign, Malignant, NOS				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/43.32	1/44.48	0/44.05	2/46.12
POLY-3 PERCENT (g)	0%	2.3%	0%	4.3%
TERMINAL (d)	0/31 (0%)	1/36 (3%)	0/31 (0%)	2/38 (5%)
FIRST INCIDENCE	---	730 (T)	---	730 (T)
HC TUMORS SAME ROUTE	1/300 (0%)			
HC TUMORS ALL ROUTES	4/1248 (0%)			
STATISTICAL TESTS				
POLY 3	P=0.149	P=0.505	(e)	P=0.251
POLY 1.5	P=0.146	P=0.503	(e)	P=0.247
POLY 6	P=0.153	P=0.511	(e)	P=0.258
COCH-ARM / FISHERS	P=0.140	P=0.500	(e)	P=0.247
MAX-ISO-POLY-3	P=0.095	P=0.165	(e)	P=0.090
HISTCONT SAME RTE	P=0.053	P=0.129	(e)	P=0.042*
HISTCONT ALL RTEs	P=0.009**	P=0.123	(e)	P=0.011*

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Pituitary Gland: Pars Distalis or Unspecified Site Adenoma				
TUMOR RATES				
OVERALL (a)	36/49 (73%)	29/50 (58%)	32/50 (64%)	37/50 (74%)
POLY-3 RATE (b)	36/46.18	29/46.62	32/47.85	37/49.05
POLY-3 PERCENT (g)	78%	62.2%	66.9%	75.4%
TERMINAL (d)	22/31 (71%)	22/36 (61%)	19/31 (61%)	27/38 (71%)
FIRST INCIDENCE	522	438	515	488
HC TUMORS SAME ROUTE	196/299 (66%)			
HC TUMORS ALL ROUTES	682/1245 (55%)			
STATISTICAL TESTS				
POLY 3	P=0.457	P=0.071N	P=0.162N	P=0.481N
POLY 1.5	P=0.424	P=0.067N	P=0.162N	P=0.507N
POLY 6	P=0.493	P=0.080N	P=0.168N	P=0.455N
COCH-ARM / FISHERS	P=0.329	P=0.079N	P=0.212N	P=0.567
MAX-ISO-POLY-3	P=0.243N	P=0.044N*	P=0.113N	P=0.386N
HISTCONT SAME RTE	P=0.475	P=1.000	P=1.000	P=0.468
HISTCONT ALL RTEs	P=0.132	P=0.541	P=0.408	P=0.203

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

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Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Pituitary Gland: Pars Distalis or Unspecified Site Carcinoma or Adenoma				
TUMOR RATES				
OVERALL (a)	36/49 (73%)	30/50 (60%)	33/50 (66%)	38/50 (76%)
POLY-3 RATE (b)	36/46.18	30/47.24	33/47.85	38/49.05
POLY-3 PERCENT (g)	78%	63.5%	69%	77.5%
TERMINAL (d)	22/31 (71%)	22/36 (61%)	20/31 (65%)	28/38 (74%)
FIRST INCIDENCE	522	438	515	488
HC TUMORS SAME ROUTE	197/299 (66%)			
HC TUMORS ALL ROUTES	693/1245 (56%)			
STATISTICAL TESTS				
POLY 3	P=0.369	P=0.091N	P=0.222N	P=0.576N
POLY 1.5	P=0.345	P=0.091N	P=0.221N	P=0.591
POLY 6	P=0.397	P=0.095N	P=0.231N	P=0.551N
COCH-ARM / FISHERS	P=0.266	P=0.113N	P=0.278N	P=0.477
MAX-ISO-POLY-3	P=0.319N	P=0.059N	P=0.161N	P=0.477N
HISTCONT SAME RTE	P=0.412	P=1.000	P=1.000	P=0.403
HISTCONT ALL RTEs	P=0.104	P=0.528	P=0.377	P=0.183

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Basal Cell Carcinoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/43.32	2/45.04	0/44.05	1/46.12
POLY-3 PERCENT (g)	0%	4.4%	0%	2.2%
TERMINAL (d)	0/31 (0%)	1/36 (3%)	0/31 (0%)	1/38 (3%)
FIRST INCIDENCE	---	556	---	730 (T)
HC TUMORS SAME ROUTE	0/300 (0%)			
HC TUMORS ALL ROUTES	1/1250 (0%)			
STATISTICAL TESTS				
POLY 3	P=0.563	P=0.246	(e)	P=0.513
POLY 1.5	P=0.555	P=0.242	(e)	P=0.509
POLY 6	P=0.574	P=0.253	(e)	P=0.518
COCH-ARM / FISHERS	P=0.539	P=0.247	(e)	P=0.500
MAX-ISO-POLY-3	P=0.347	P=0.084	(e)	P=0.174
HISTCONT SAME RTE	P=0.259	P=0.020*	(e)	P=0.020*
HISTCONT ALL RTEs	P=0.031*	P<0.001**	(e)	P=0.004**

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/43.32	2/45.04	0/44.05	1/46.12
POLY-3 PERCENT (g)	0%	4.4%	0%	2.2%
TERMINAL (d)	0/31 (0%)	1/36 (3%)	0/31 (0%)	1/38 (3%)
FIRST INCIDENCE	---	556	---	730 (T)
HC TUMORS SAME ROUTE	1/300 (0%)			
HC TUMORS ALL ROUTES	9/1250 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.563	P=0.246	(e)	P=0.513
POLY 1.5	P=0.555	P=0.242	(e)	P=0.509
POLY 6	P=0.574	P=0.253	(e)	P=0.518
COCH-ARM / FISHERS	P=0.539	P=0.247	(e)	P=0.500
MAX-ISO-POLY-3	P=0.347	P=0.084	(e)	P=0.174
HISTCONT SAME RTE	P=0.374	P=0.042*	(e)	P=0.124
HISTCONT ALL RTEs	P=0.403	P=0.047*	(e)	P=0.208

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
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%)	4/50 (8%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	1/43.37	4/45.68	0/44.05	2/46.12
POLY-3 PERCENT (g)	2.3%	8.8%	0%	4.3%
TERMINAL (d)	0/31 (0%)	2/36 (6%)	0/31 (0%)	2/38 (5%)
FIRST INCIDENCE	717	516	---	730 (T)
HC TUMORS SAME ROUTE	2/300 (1%)			
HC TUMORS ALL ROUTES	25/1250 (2%)			

STATISTICAL TESTS

POLY 3	P=0.557N	P=0.195	P=0.497N	P=0.521
POLY 1.5	P=0.563N	P=0.188	P=0.497N	P=0.515
POLY 6	P=0.547N	P=0.207	P=0.496N	P=0.531
COCH-ARM / FISHERS	P=0.577N	P=0.181	P=0.500N	P=0.500
MAX-ISO-POLY-3	P=0.340N	P=0.099	P=0.158N	P=0.304
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Fibroma				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.32	1/44.48	0/44.05	0/46.12
POLY-3 PERCENT (g)	0%	2.3%	0%	0%
TERMINAL (d)	0/31 (0%)	1/36 (3%)	0/31 (0%)	0/38 (0%)
FIRST INCIDENCE	---	730 (T)	---	---
HC TUMORS SAME ROUTE	4/300 (1%)			
HC TUMORS ALL ROUTES	24/1250 (2%)			
STATISTICAL TESTS				
POLY 3	P=0.561N	P=0.505	(e)	(e)
POLY 1.5	P=0.563N	P=0.503	(e)	(e)
POLY 6	P=0.556N	P=0.511	(e)	(e)
COCH-ARM / FISHERS	P=0.567N	P=0.500	(e)	(e)
MAX-ISO-POLY-3	P=0.392N	P=0.165	(e)	(e)
HISTCONT SAME RTE	(h)	(h)	(e)	(e)
HISTCONT ALL RTEs	(h)	(h)	(e)	(e)

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	0/43.32	1/44.48	2/44.16	0/46.12
POLY-3 PERCENT (g)	0%	2.3%	4.5%	0%
TERMINAL (d)	0/31 (0%)	1/36 (3%)	0/31 (0%)	0/38 (0%)
FIRST INCIDENCE	---	730 (T)	715	---
HC TUMORS SAME ROUTE	6/300 (2%)			
HC TUMORS ALL ROUTES	32/1250 (3%)			
STATISTICAL TESTS				
POLY 3	P=0.592N	P=0.505	P=0.241	(e)
POLY 1.5	P=0.599N	P=0.503	P=0.241	(e)
POLY 6	P=0.581N	P=0.511	P=0.243	(e)
COCH-ARM / FISHERS	P=0.616N	P=0.500	P=0.247	(e)
MAX-ISO-POLY-3	P=0.338N	P=0.165	P=0.080	(e)
HISTCONT SAME RTE	(h)	(h)	(h)	(e)
HISTCONT ALL RTEs	(h)	(h)	(h)	(e)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Fibrosarcoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.32	0/44.48	0/44.05	0/46.12
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/31 (0%)	0/36 (0%)	0/31 (0%)	0/38 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	1/300 (0%)			
HC TUMORS ALL ROUTES	6/1250 (1%)			
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)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	(e)	(e)	(e)	(e)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	0/43.32	0/44.48	2/44.16	0/46.12
POLY-3 PERCENT (g)	0%	0%	4.5%	0%
TERMINAL (d)	0/31 (0%)	0/36 (0%)	0/31 (0%)	0/38 (0%)
FIRST INCIDENCE	---	---	715	---
HC TUMORS SAME ROUTE	2/300 (1%)			
HC TUMORS ALL ROUTES	9/1250 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.626	(e)	P=0.241	(e)
POLY 1.5	P=0.617	(e)	P=0.241	(e)
POLY 6	P=0.637	(e)	P=0.243	(e)
COCH-ARM / FISHERS	P=0.595	(e)	P=0.247	(e)
MAX-ISO-POLY-3	P=0.267	(e)	P=0.080	(e)
HISTCONT SAME RTE	P=0.321	(e)	P=0.069	(e)
HISTCONT ALL RTEs	P=0.309	(e)	P=0.034*	(e)

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Fibrous Histiocytoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	0/43.32	0/44.48	2/44.16	0/46.12
POLY-3 PERCENT (g)	0%	0%	4.5%	0%
TERMINAL (d)	0/31 (0%)	0/36 (0%)	0/31 (0%)	0/38 (0%)
FIRST INCIDENCE	---	---	715	---
HC TUMORS SAME ROUTE	1/300 (0%)			
HC TUMORS ALL ROUTES	1/1250 (0%)			
STATISTICAL TESTS				
POLY 3	P=0.626	(e)	P=0.241	(e)
POLY 1.5	P=0.617	(e)	P=0.241	(e)
POLY 6	P=0.637	(e)	P=0.243	(e)
COCH-ARM / FISHERS	P=0.595	(e)	P=0.247	(e)
MAX-ISO-POLY-3	P=0.267	(e)	P=0.080	(e)
HISTCONT SAME RTE	P=0.321	(e)	P=0.043*	(e)
HISTCONT ALL RTEs	P=0.076	(e)	P<0.001**	(e)

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Keratoacanthoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/43.32	2/45.12	0/44.05	1/46.12
POLY-3 PERCENT (g)	0%	4.4%	0%	2.2%
TERMINAL (d)	0/31 (0%)	1/36 (3%)	0/31 (0%)	1/38 (3%)
FIRST INCIDENCE	---	516	---	730 (T)
HC TUMORS SAME ROUTE	1/300 (0%)			
HC TUMORS ALL ROUTES	10/1250 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.563	P=0.246	(e)	P=0.513
POLY 1.5	P=0.555	P=0.242	(e)	P=0.509
POLY 6	P=0.574	P=0.254	(e)	P=0.518
COCH-ARM / FISHERS	P=0.539	P=0.247	(e)	P=0.500
MAX-ISO-POLY-3	P=0.347	P=0.085	(e)	P=0.174
HISTCONT SAME RTE	P=0.370	P=0.040*	(e)	P=0.117
HISTCONT ALL RTEs	P=0.403	P=0.097	(e)	P=0.208

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Neurofibrosarcoma, Neurofibroma, or Schwannoma (benign, malignant or NOS)				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.32	0/44.48	0/44.05	0/46.12
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/31 (0%)	0/36 (0%)	0/31 (0%)	0/38 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/300 (0%)			
HC TUMORS ALL ROUTES	3/1250 (0%)			
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)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	(e)	(e)	(e)	(e)

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Squamous Cell Carcinoma, Basal Cell Carcinoma, Basosquamous Tumor (malignant or NOS), or Carcinoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/43.37	2/45.04	0/44.05	1/46.12
POLY-3 PERCENT (g)	2.3%	4.4%	0%	2.2%
TERMINAL (d)	0/31 (0%)	1/36 (3%)	0/31 (0%)	1/38 (3%)
FIRST INCIDENCE	717	556	---	730 (T)
HC TUMORS SAME ROUTE	0/300 (0%)			
HC TUMORS ALL ROUTES	3/1250 (0%)			
STATISTICAL TESTS				
POLY 3	P=0.489N	P=0.513	P=0.497N	P=0.747N
POLY 1.5	P=0.492N	P=0.507	P=0.497N	P=0.751N
POLY 6	P=0.484N	P=0.524	P=0.496N	P=0.741N
COCH-ARM / FISHERS	P=0.500N	P=0.500	P=0.500N	P=0.753N
MAX-ISO-POLY-3	P=0.388N	P=0.295	P=0.158N	P=0.482N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Squamous Cell Papilloma				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.32	0/44.48	0/44.05	0/46.12
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/31 (0%)	0/36 (0%)	0/31 (0%)	0/38 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/300 (0%)			
HC TUMORS ALL ROUTES	5/1250 (0%)			
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)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	(e)	(e)	(e)	(e)

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/43.37	2/45.12	0/44.05	1/46.12
POLY-3 PERCENT (g)	2.3%	4.4%	0%	2.2%
TERMINAL (d)	0/31 (0%)	1/36 (3%)	0/31 (0%)	1/38 (3%)
FIRST INCIDENCE	717	516	---	730 (T)
HC TUMORS SAME ROUTE	1/300 (0%)			
HC TUMORS ALL ROUTES	17/1250 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.489N	P=0.514	P=0.497N	P=0.747N
POLY 1.5	P=0.492N	P=0.508	P=0.497N	P=0.751N
POLY 6	P=0.484N	P=0.525	P=0.496N	P=0.741N
COCH-ARM / FISHERS	P=0.500N	P=0.500	P=0.500N	P=0.753N
MAX-ISO-POLY-3	P=0.389N	P=0.296	P=0.158N	P=0.482N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin				
Squamous Cell Papilloma, Papilloma, or Keratoacanthoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/43.32	2/45.12	0/44.05	1/46.12
POLY-3 PERCENT (g)	0%	4.4%	0%	2.2%
TERMINAL (d)	0/31 (0%)	1/36 (3%)	0/31 (0%)	1/38 (3%)
FIRST INCIDENCE	---	516	---	730 (T)
HC TUMORS SAME ROUTE	1/300 (0%)			
HC TUMORS ALL ROUTES	15/1250 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.563	P=0.246	(e)	P=0.513
POLY 1.5	P=0.555	P=0.242	(e)	P=0.509
POLY 6	P=0.574	P=0.254	(e)	P=0.518
COCH-ARM / FISHERS	P=0.539	P=0.247	(e)	P=0.500
MAX-ISO-POLY-3	P=0.347	P=0.085	(e)	P=0.174
HISTCONT SAME RTE	P=0.370	P=0.040*	(e)	P=0.117
HISTCONT ALL RTEs	P=0.403	P=0.097	(e)	P=0.208

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Skin: Sebaceous Gland Adenoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.32	0/44.48	0/44.05	0/46.12
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/31 (0%)	0/36 (0%)	0/31 (0%)	0/38 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/300 (0%)			
HC TUMORS ALL ROUTES	1/1250 (0%)			
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)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	(e)	(e)	(e)	(e)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

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Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Thyroid Gland: C-Cell Adenoma				
TUMOR RATES				
OVERALL (a)	3/50 (6%)	3/50 (6%)	4/50 (8%)	5/49 (10%)
POLY-3 RATE (b)	3/43.32	3/44.48	4/44.15	5/46.06
POLY-3 PERCENT (g)	6.9%	6.8%	9.1%	10.9%
TERMINAL (d)	3/31 (10%)	3/36 (8%)	3/31 (10%)	2/38 (5%)
FIRST INCIDENCE	730 (T)	730 (T)	704	648
HC TUMORS SAME ROUTE	14/300 (5%)			
HC TUMORS ALL ROUTES	127/1238 (10%)			
STATISTICAL TESTS				
POLY 3	P=0.277	P=0.650N	P=0.510	P=0.391
POLY 1.5	P=0.264	P=0.655N	P=0.510	P=0.375
POLY 6	P=0.296	P=0.638N	P=0.514	P=0.416
COCH-ARM / FISHERS	P=0.238	P=0.661N	P=0.500	P=0.346
MAX-ISO-POLY-3	P=0.411	P=0.486N	P=0.358	P=0.267
HISTCONT SAME RTE	P=0.059	P=0.456	P=0.208	P=0.107
HISTCONT ALL RTEs	P=0.478	P=1.000	P=0.453	P=0.330

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Thyroid Gland: C-Cell Carcinoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/49 (2%)
POLY-3 RATE (b)	0/43.32	2/44.79	0/44.05	1/45.43
POLY-3 PERCENT (g)	0%	4.5%	0%	2.2%
TERMINAL (d)	0/31 (0%)	1/36 (3%)	0/31 (0%)	1/38 (3%)
FIRST INCIDENCE	---	644	---	730 (T)
HC TUMORS SAME ROUTE	6/300 (2%)			
HC TUMORS ALL ROUTES	18/1238 (2%)			
STATISTICAL TESTS				
POLY 3	P=0.559	P=0.245	(e)	P=0.509
POLY 1.5	P=0.551	P=0.241	(e)	P=0.505
POLY 6	P=0.572	P=0.252	(e)	P=0.516
COCH-ARM / FISHERS	P=0.534	P=0.247	(e)	P=0.495
MAX-ISO-POLY-3	P=0.345	P=0.083	(e)	P=0.172
HISTCONT SAME RTE	P=0.416	P=0.100	(e)	P=0.215
HISTCONT ALL RTEs	P=0.401	P=0.094	(e)	P=0.205

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

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First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Thyroid Gland: C-Cell Carcinoma or Adenoma				
TUMOR RATES				
OVERALL (a)	3/50 (6%)	5/50 (10%)	4/50 (8%)	6/49 (12%)
POLY-3 RATE (b)	3/43.32	5/44.79	4/44.15	6/46.06
POLY-3 PERCENT (g)	6.9%	11.2%	9.1%	13%
TERMINAL (d)	3/31 (10%)	4/36 (11%)	3/31 (10%)	3/38 (8%)
FIRST INCIDENCE	730 (T)	644	704	648
HC TUMORS SAME ROUTE	20/300 (7%)			
HC TUMORS ALL ROUTES	144/1238 (12%)			
STATISTICAL TESTS				
POLY 3	P=0.256	P=0.375	P=0.510	P=0.273
POLY 1.5	P=0.242	P=0.367	P=0.510	P=0.259
POLY 6	P=0.277	P=0.393	P=0.514	P=0.296
COCH-ARM / FISHERS	P=0.215	P=0.357	P=0.500	P=0.233
MAX-ISO-POLY-3	P=0.288	P=0.249	P=0.358	P=0.178
HISTCONT SAME RTE	P=0.132	P=0.253	P=0.466	P=0.137
HISTCONT ALL RTEs	P=0.332	P=0.307	P=0.453	P=0.213

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

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Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Thyroid Gland: Follicular Cell Adenoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	0/43.32	1/44.48	0/44.05	0/45.43
POLY-3 PERCENT (g)	0%	2.3%	0%	0%
TERMINAL (d)	0/31 (0%)	1/36 (3%)	0/31 (0%)	0/38 (0%)
FIRST INCIDENCE	---	730 (T)	---	---
HC TUMORS SAME ROUTE	1/300 (0%)			
HC TUMORS ALL ROUTES	5/1238 (0%)			
STATISTICAL TESTS				
POLY 3	P=0.564N	P=0.505	(e)	(e)
POLY 1.5	P=0.566N	P=0.503	(e)	(e)
POLY 6	P=0.559N	P=0.511	(e)	(e)
COCH-ARM / FISHERS	P=0.571N	P=0.500	(e)	(e)
MAX-ISO-POLY-3	P=0.393N	P=0.165	(e)	(e)
HISTCONT SAME RTE	(h)	(h)	(e)	(e)
HISTCONT ALL RTEs	(h)	(h)	(e)	(e)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Thyroid Gland: Follicular Cell Carcinoma or Adenoma				
TUMOR RATES				
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	1/49 (2%)
POLY-3 RATE (b)	0/43.32	1/44.48	1/44.05	1/45.43
POLY-3 PERCENT (g)	0%	2.3%	2.3%	2.2%
TERMINAL (d)	0/31 (0%)	1/36 (3%)	1/31 (3%)	1/38 (3%)
FIRST INCIDENCE	---	730 (T)	730 (T)	730 (T)
HC TUMORS SAME ROUTE	1/300 (0%)			
HC TUMORS ALL ROUTES	9/1238 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.405	P=0.505	P=0.503	P=0.509
POLY 1.5	P=0.397	P=0.503	P=0.503	P=0.505
POLY 6	P=0.417	P=0.511	P=0.504	P=0.516
COCH-ARM / FISHERS	P=0.379	P=0.500	P=0.500	P=0.495
MAX-ISO-POLY-3	P=0.347	P=0.165	P=0.163	P=0.172
HISTCONT SAME RTE	P=0.168	P=0.118	P=0.118	P=0.116
HISTCONT ALL RTEs	P=0.280	P=0.196	P=0.194	P=0.205

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

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First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Uterus				
Polyp Stromal				
TUMOR RATES	#	#	#	#
OVERALL (a)	6/50 (12%)	10/50 (20%)	9/50 (18%)	17/50 (34%)
POLY-3 RATE (b)	6/43.45	10/45.15	9/45.36	17/46.57
POLY-3 PERCENT (g)	13.8%	22.2%	19.8%	36.5%
TERMINAL (d)	5/31 (16%)	7/36 (19%)	4/31 (13%)	15/38 (40%)
FIRST INCIDENCE	697	644	591	647
HC TUMORS SAME ROUTE	60/300 (20%)			
HC TUMORS ALL ROUTES	230/1250 (18%)			
STATISTICAL TESTS				
POLY 3	P=0.008**	P=0.228	P=0.318	P=0.011*
POLY 1.5	P=0.007**	P=0.218	P=0.310	P=0.010**
POLY 6	P=0.009**	P=0.252	P=0.333	P=0.013*
COCH-ARM / FISHERS	P=0.006**	P=0.207	P=0.288	P=0.008**
MAX-ISO-POLY-3	P=0.009**	P=0.158	P=0.230	P=0.007**
HISTCONT SAME RTE	P=0.010**	P=0.197	P=0.293	P=0.007**
HISTCONT ALL RTEs	P=0.009**	P=0.187	P=0.281	P=0.007**

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
Uterus				
Sarcoma Stromal or Polyp Stromal				
TUMOR RATES	#	#	#	#
OVERALL (a)	6/50 (12%)	11/50 (22%)	10/50 (20%)	17/50 (34%)
POLY-3 RATE (b)	6/43.45	11/45.15	10/45.53	17/46.57
POLY-3 PERCENT (g)	13.8%	24.4%	22%	36.5%
TERMINAL (d)	5/31 (16%)	8/36 (22%)	4/31 (13%)	15/38 (40%)
FIRST INCIDENCE	697	644	591	647
HC TUMORS SAME ROUTE	64/300 (21%)			
HC TUMORS ALL ROUTES	238/1250 (19%)			
STATISTICAL TESTS				
POLY 3	P=0.010**	P=0.160	P=0.234	P=0.011*
POLY 1.5	P=0.009**	P=0.152	P=0.226	P=0.010**
POLY 6	P=0.012*	P=0.180	P=0.250	P=0.013*
COCH-ARM / FISHERS	P=0.008**	P=0.143	P=0.207	P=0.008**
MAX-ISO-POLY-3	P=0.011*	P=0.107	P=0.164	P=0.007**
HISTCONT SAME RTE	P=0.011*	P=0.130	P=0.205	P=0.007**
HISTCONT ALL RTEs	P=0.011*	P=0.123	P=0.195	P=0.007**

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
All Organs				
Histiocytic Sarcoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	2/50 (4%)	2/50 (4%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	2/43.60	2/45.28	1/44.06	1/46.12
POLY-3 PERCENT (g)	4.6%	4.4%	2.3%	2.2%
TERMINAL (d)	0/31 (0%)	0/36 (0%)	0/31 (0%)	1/38 (3%)
FIRST INCIDENCE	691	474	727	730 (T)
HC TUMORS SAME ROUTE	4/300 (1%)			
HC TUMORS ALL ROUTES	10/1250 (1%)			
STATISTICAL TESTS				
POLY 3	P=0.326N	P=0.680N	P=0.496N	P=0.480N
POLY 1.5	P=0.329N	P=0.686N	P=0.495N	P=0.486N
POLY 6	P=0.323N	P=0.670N	P=0.497N	P=0.473N
COCH-ARM / FISHERS	P=0.337N	P=0.691N	P=0.500N	P=0.500N
MAX-ISO-POLY-3	P=0.433N	P=0.484N	P=0.278N	P=0.270N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
All Organs				
Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated				
TUMOR RATES	#	#	#	#
OVERALL (a)	17/50 (34%)	2/50 (4%)	0/50 (0%)	4/50 (8%)
POLY-3 RATE (b)	17/45.94	2/44.90	0/44.05	4/46.34
POLY-3 PERCENT (g)	37%	4.5%	0%	8.6%
TERMINAL (d)	9/31 (29%)	0/36 (0%)	0/31 (0%)	2/38 (5%)
FIRST INCIDENCE	420	644	---	703
HC TUMORS SAME ROUTE	90/300 (30%)			
HC TUMORS ALL ROUTES	268/1250 (21%)			
STATISTICAL TESTS				
POLY 3	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
POLY 1.5	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
POLY 6	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
COCH-ARM / FISHERS	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
MAX-ISO-POLY-3	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
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)	0/43.32	0/44.48	0/44.05	0/46.12
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/31 (0%)	0/36 (0%)	0/31 (0%)	0/38 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	1/300 (0%)			
HC TUMORS ALL ROUTES	5/1250 (0%)			
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)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	(e)	(e)	(e)	(e)

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
All Organs				
Mesothelioma: Malignant				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.32	0/44.48	0/44.05	0/46.12
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/31 (0%)	0/36 (0%)	0/31 (0%)	0/38 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/300 (0%)			
HC TUMORS ALL ROUTES	4/1250 (0%)			
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)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	(e)	(e)	(e)	(e)

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
All Organs				
Osteosarcoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/43.32	1/44.48	1/44.70	0/46.12
POLY-3 PERCENT (g)	0%	2.3%	2.2%	0%
TERMINAL (d)	0/31 (0%)	1/36 (3%)	0/31 (0%)	0/38 (0%)
FIRST INCIDENCE	---	730 (T)	515	---
HC TUMORS SAME ROUTE	1/300 (0%)			
HC TUMORS ALL ROUTES	5/1250 (0%)			
STATISTICAL TESTS				
POLY 3	P=0.577N	P=0.505	P=0.506	(e)
POLY 1.5	P=0.582N	P=0.503	P=0.505	(e)
POLY 6	P=0.569N	P=0.511	P=0.508	(e)
COCH-ARM / FISHERS	P=0.595N	P=0.500	P=0.500	(e)
MAX-ISO-POLY-3	P=0.413N	P=0.165	P=0.166	(e)
HISTCONT SAME RTE	(h)	(h)	(h)	(e)
HISTCONT ALL RTEs	(h)	(h)	(h)	(e)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

Date Report Requested: 11/17/2008

Time Report Requested: 08:56:08

First Dose M/F: 06/16/03 / 06/16/03

Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
All Organs				
Osteosarcoma or Osteoma				
TUMOR RATES	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/43.32	1/44.48	1/44.70	0/46.12
POLY-3 PERCENT (g)	0%	2.3%	2.2%	0%
TERMINAL (d)	0/31 (0%)	1/36 (3%)	0/31 (0%)	0/38 (0%)
FIRST INCIDENCE	---	730 (T)	515	---
HC TUMORS SAME ROUTE	1/300 (0%)			
HC TUMORS ALL ROUTES	5/1250 (0%)			
STATISTICAL TESTS				
POLY 3	P=0.577N	P=0.505	P=0.506	(e)
POLY 1.5	P=0.582N	P=0.503	P=0.505	(e)
POLY 6	P=0.569N	P=0.511	P=0.508	(e)
COCH-ARM / FISHERS	P=0.595N	P=0.500	P=0.500	(e)
MAX-ISO-POLY-3	P=0.413N	P=0.165	P=0.166	(e)
HISTCONT SAME RTE	(h)	(h)	(h)	(e)
HISTCONT ALL RTEs	(h)	(h)	(h)	(e)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
All Organs				
Benign Tumors				
TUMOR RATES	#	#	#	#
OVERALL (a)	40/50 (80%)	43/50 (86%)	44/50 (88%)	48/50 (96%)
POLY-3 RATE (b)	40/47.37	43/47.84	44/49.20	48/49.22
POLY-3 PERCENT (g)	84.4%	89.9%	89.4%	97.5%
TERMINAL (d)	25/31 (81%)	32/36 (89%)	26/31 (84%)	37/38 (97%)
FIRST INCIDENCE	522	438	509	488
HC TUMORS SAME ROUTE	261/300 (87%)			
HC TUMORS ALL ROUTES	1098/1250 (88%)			
STATISTICAL TESTS				
POLY 3	P=0.021*	P=0.307	P=0.332	P=0.022*
POLY 1.5	P=0.018*	P=0.313	P=0.303	P=0.020*
POLY 6	P=0.027*	P=0.307	P=0.370	P=0.027*
COCH-ARM / FISHERS	P=0.011*	P=0.298	P=0.207	P=0.014*
MAX-ISO-POLY-3	P=0.020*	P=0.208	P=0.234	P=0.010**
HISTCONT SAME RTE	P=0.022*	P=0.264	P=0.298	P=0.010**
HISTCONT ALL RTEs	P=0.021*	P=0.252	P=0.285	P=0.010**

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

CAS Number: 119-64-2

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Lab: BNW

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
All Organs				
Malignant Tumors				
TUMOR RATES	#	#	#	#
OVERALL (a)	25/50 (50%)	19/50 (38%)	16/50 (32%)	19/50 (38%)
POLY-3 RATE (b)	25/47.10	19/48.05	16/46.70	19/47.82
POLY-3 PERCENT (g)	53.1%	39.5%	34.3%	39.7%
TERMINAL (d)	13/31 (42%)	11/36 (31%)	7/31 (23%)	15/38 (40%)
FIRST INCIDENCE	420	196	425	442
HC TUMORS SAME ROUTE	140/300 (47%)			
HC TUMORS ALL ROUTES	449/1250 (36%)			
STATISTICAL TESTS				
POLY 3	P=0.146N	P=0.130N	P=0.048N*	P=0.134N
POLY 1.5	P=0.144N	P=0.135N	P=0.046N*	P=0.134N
POLY 6	P=0.153N	P=0.118N	P=0.051N	P=0.134N
COCH-ARM / FISHERS	P=0.158N	P=0.157N	P=0.052N	P=0.157N
MAX-ISO-POLY-3	P=0.087N	P=0.093N	P=0.031N*	P=0.095N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)

TDMS No. 93025 - 07

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS

Tetralin

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

DOSE	Females			
	CONTROL	30 PPM	60 PPM	120 PPM
All Organs				
Malignant and Benign Tumors				
TUMOR RATES	#	#	#	#
OVERALL (a)	46/50 (92%)	47/50 (94%)	47/50 (94%)	49/50 (98%)
POLY-3 RATE (b)	46/49.00	47/50.00	47/50.00	49/50.00
POLY-3 PERCENT (g)	93.9%	94%	94%	98%
TERMINAL (d)	28/31 (90%)	33/36 (92%)	28/31 (90%)	37/38 (97%)
FIRST INCIDENCE	420	196	425	442
HC TUMORS SAME ROUTE	284/300 (95%)			
HC TUMORS ALL ROUTES	1179/1250 (94%)			
STATISTICAL TESTS				
POLY 3	P=0.217	P=0.652	P=0.652	P=0.299
POLY 1.5	P=0.216	P=0.651	P=0.651	P=0.297
POLY 6	P=0.217	P=0.652	P=0.652	P=0.299
COCH-ARM / FISHERS	P=0.135	P=0.500	P=0.500	P=0.181
MAX-ISO-POLY-3	P=0.288	P=0.489	P=0.489	P=0.152
HISTCONT SAME RTE	P=0.347	P=0.627	P=0.627	P=0.191
HISTCONT ALL RTEs	P=0.335	P=0.618	P=0.618	P=0.181

LEGEND

- (a) Number of tumor-bearing animals/number of animals examined at site.
 - (b) Number of tumor-bearing animals/Poly-3 number
 - (d) Observed incidence at terminal kill.
 - (e) Value of Statistic cannot be computed.
 - (f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group.
 - (g) Poly-3 adjusted lifetime tumor incidence.
 - (h) Value of Historical Controls statistic is only calculated when Poly-3 trend is positive and when there is more than one tumor in the treatment groups.
 - (I) Interim sacrifice
 - (T) Terminal sacrifice
 - # Tumor rates based on numbers of animals necropsied.
 - * To the right of any statistical result, indicates significance at ($P \leq 0.05$).
 - ** To the right of any statistical result, indicates significance at ($P \leq 0.01$).
 - N Indicates a negative trend for all tests
- The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates.

*** END OF REPORT ***