

**TDMS No.** 20009 - 03  
**Test Type:** CHRONIC  
**Route:** DOSED WATER  
**Species/Strain:** RATS/F 344/N

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

beta-Picoline  
**CAS Number:** 108-99-6

**Date Report Requested:** 05/27/2011  
**Time Report Requested:** 10:09:56  
**First Dose M/F:** 11/18/04 / 11/19/04  
**Lab:** BAT

F2\_R2

**C Number:** C20009  
**Lock Date:** 06/05/2008  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 2.4.1.0\_004  
**PWG Approval Date:** 06/29/2010

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## HISTORICAL CONTROL STUDIES From March 2010 report

### SAME ROUTE

20114-07 -- Sodium dichromate dihydrate (VI) (ORAL WATER)  
96019-05 -- Water disinfection byproducts (Bromochloroacetic acid) (ORAL WATER)  
96015-05 -- Water disinfection byproducts (Dibromoacetonitrile) (ORAL WATER)

### ALL ROUTES

99024-07 -- Androstenedione (GAVAGE METHYLCELLULOSE)  
99037-05 -- alpha/beta Thujone mixture (GAVAGE METHYLCELLULOSE)  
99028-05 -- bis(2-Chloroethoxy)methane (SKIN ETHANOL)  
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)  
99017-05 -- Diethylamine (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)  
20007-05 -- Kava kava extract (GAVAGE CORN OIL)  
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)  
99020-05 -- Pulegone (GAVAGE CORN OIL)  
99032-03 -- Pyrogallol (SKIN ETHANOL)  
20114-07 -- Sodium dichromate dihydrate (VI) (ORAL WATER)  
93025-07 -- Tetralin (INHALATION AIR)  
88133-07 -- Trimethylolpropane triacrylate (SKIN ACETONE)

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**HISTORICAL CONTROL STUDIES**  
**From March 2010 report**

96019-05 -- Water disinfection byproducts (Bromochloroacetic 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  
Clitoral/Preputial Gland  
Islets, Pancreatic  
Liver  
Lung  
Ovary  
Pituitary Gland  
Testes  
Thyroid Gland

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

### MALE RATS

#### Organ

Adrenal Medulla  
Liver  
Lung  
Pituitary Gland: Pars Distalis or Unspecified Site  
Testes  
Thyroid Gland: C-Cell

All Organs

#### Morphology

Pheochromocytoma Malignant  
Hepatocellular Adenoma  
Alveolar/Bronchiolar Carcinoma  
Adenoma  
Adenoma  
Adenoma  
Carcinoma or Adenoma  
Mesothelioma: Benign, Malignant, NOS  
Mesothelioma: Malignant  
Benign Tumors

### FEMALE RATS

#### Organ

Liver  
  
Lung  
  
Mammary Gland  
  
Thyroid Gland: C-Cell

All Organs

#### Morphology

Hepatocellular Adenoma  
Hepatocellular Carcinoma or Hepatocellular Adenoma  
Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma  
Alveolar/Bronchiolar Adenoma  
Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma  
Fibroadenoma  
Fibroma, Fibroadenoma or Adenoma  
Fibroma, Fibroadenoma, Carcinoma, or Adenoma  
Adenoma  
Carcinoma or Adenoma  
Benign Tumors  
Malignant Tumors  
Malignant and Benign Tumors

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Adrenal Cortex</b>				
<b>Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	1/42.53	0/45.40	1/45.66	1/42.72
POLY-3 PERCENT (g)	2.4%	0%	2.2%	2.3%
TERMINAL (d)	1/33 (3%)	0/31 (0%)	0/32 (0%)	0/24 (0%)
FIRST INCIDENCE	726 (T)	---	569	607
HC TUMORS SAME ROUTE	0/150 (0%)			
HC TUMORS ALL ROUTES	15/1298 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			

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 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Adrenal Medulla</b>				
<b>Pheochromocytoma Benign</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	5/50 (10%)	5/49 (10%)	6/49 (12%)	5/50 (10%)
POLY-3 RATE (b)	5/42.53	5/44.44	6/44.40	5/42.96
POLY-3 PERCENT (g)	11.8%	11.3%	13.5%	11.6%
TERMINAL (d)	5/33 (15%)	5/31 (16%)	5/31 (16%)	3/24 (13%)
FIRST INCIDENCE	726 (T)	726 (T)	657	586
HC TUMORS SAME ROUTE	25/149 (17%)			
HC TUMORS ALL ROUTES	183/1295 (14%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.545	P=0.603N	P=0.530	P=0.625N
POLY 1.5	P=0.557	P=0.609N	P=0.522	P=0.616N
POLY 6	P=0.519	P=0.603N	P=0.533	P=0.617
COCH-ARM / FISHERS	P=0.550	P=0.617	P=0.486	P=0.630N
MAX-ISO-POLY-3	P=0.676	P=0.470N	P=0.404	P=0.493N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTES	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	P=0.283			
CURR VS HC ALL RTES	P=0.431			

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Adrenal Medulla</b>				
<b>Pheochromocytoma Malignant</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	0/49 (0%)	3/49 (6%)	0/50 (0%)
POLY-3 RATE (b)	0/42.53	0/44.44	3/44.46	0/42.31
POLY-3 PERCENT (g)	0%	0%	6.8%	0%
TERMINAL (d)	0/33 (0%)	0/31 (0%)	1/31 (3%)	0/24 (0%)
FIRST INCIDENCE	---	---	646	---
HC TUMORS SAME ROUTE	2/149 (1%)			
HC TUMORS ALL ROUTES	24/1295 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.520	(e)	P=0.127	(e)
POLY 1.5	P=0.537	(e)	P=0.125	(e)
POLY 6	P=0.487	(e)	P=0.127	(e)
COCH-ARM / FISHERS	P=0.540	(e)	P=0.117	(e)
MAX-ISO-POLY-3	P=0.178	(e)	P=0.045*	(e)
HISTCONT SAME RTE	P=0.402	(e)	P=0.080	(e)
HISTCONT ALL RTES	P=0.546	(e)	P=0.044*	(e)
CURR VS HC SAME RTE	P=0.340			
CURR VS HC ALL RTES	P=0.361			



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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Adrenal Medulla</b>				
<b>Pheochromocytoma: Benign, Complex, Malignant, NOS</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	6/50 (12%)	5/49 (10%)	9/49 (18%)	5/50 (10%)
POLY-3 RATE (b)	6/42.97	5/44.44	9/44.71	5/42.96
POLY-3 PERCENT (g)	14%	11.3%	20.1%	11.6%
TERMINAL (d)	5/33 (15%)	5/31 (16%)	6/31 (19%)	3/24 (13%)
FIRST INCIDENCE	600	726 (T)	646	586
HC TUMORS SAME ROUTE	27/149 (18%)			
HC TUMORS ALL ROUTES	208/1295 (16%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.525N	P=0.476N	P=0.315	P=0.500N
POLY 1.5	P=0.507N	P=0.480N	P=0.309	P=0.487N
POLY 6	P=0.554	P=0.481N	P=0.316	P=0.528N
COCH-ARM / FISHERS	P=0.511N	P=0.514N	P=0.274	P=0.500N
MAX-ISO-POLY-3	P=0.515N	P=0.354N	P=0.228	P=0.372N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	P=1.000	P=1.000	P=0.456	P=1.000
CURR VS HC SAME RTE	P=0.330			
CURR VS HC ALL RTEs	P=0.456			

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Clitoral/Preputial Gland Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	1/50 (2%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	0/42.53	1/45.40	2/45.14	0/42.31
POLY-3 PERCENT (g)	0%	2.2%	4.4%	0%
TERMINAL (d)	0/33 (0%)	1/31 (3%)	2/32 (6%)	0/24 (0%)
FIRST INCIDENCE	---	726 (T)	726 (T)	---
HC TUMORS SAME ROUTE	9/148 (6%)			
HC TUMORS ALL ROUTES	51/1295 (4%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.622N	P=0.513	P=0.251	(e)
POLY 1.5	P=0.613N	P=0.511	P=0.249	(e)
POLY 6	P=0.639N	P=0.513	P=0.250	(e)
COCH-ARM / FISHERS	P=0.616N	P=0.500	P=0.247	(e)
MAX-ISO-POLY-3	P=0.345	P=0.174	P=0.089	(e)
HISTCONT SAME RTE	(h)	(h)	(h)	(e)
HISTCONT ALL RTES	(h)	(h)	(h)	(e)
CURR VS HC SAME RTE	P=0.082			
CURR VS HC ALL RTES	P=0.165			

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 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Clitoral/Preputial Gland Carcinoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	2/50 (4%)	1/50 (2%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	2/43.13	1/45.40	2/45.27	0/42.31
POLY-3 PERCENT (g)	4.6%	2.2%	4.4%	0%
TERMINAL (d)	0/33 (0%)	1/31 (3%)	1/32 (3%)	0/24 (0%)
FIRST INCIDENCE	600	726 (T)	692	---
HC TUMORS SAME ROUTE	3/148 (2%)			
HC TUMORS ALL ROUTES	19/1295 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.210N	P=0.482N	P=0.677N	P=0.241N
POLY 1.5	P=0.203N	P=0.484N	P=0.678N	P=0.235N
POLY 6	P=0.222N	P=0.486N	P=0.679N	P=0.254N
COCH-ARM / FISHERS	P=0.200N	P=0.500N	P=0.691N	P=0.247N
MAX-ISO-POLY-3	P=0.166N	P=0.270N	P=0.480N	P=0.080N
HISTCONT SAME RTE	P=0.769	P=1.000	P=0.372	P=1.000
HISTCONT ALL RTES	P=0.644	P=1.000	P=0.124	P=1.000
CURR VS HC SAME RTE	P=0.483			
CURR VS HC ALL RTES	P=0.158			

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 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Clitoral/Preputial Gland Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	2/50 (4%)	2/50 (4%)	4/50 (8%)	0/50 (0%)
POLY-3 RATE (b)	2/43.13	2/45.40	4/45.27	0/42.31
POLY-3 PERCENT (g)	4.6%	4.4%	8.8%	0%
TERMINAL (d)	0/33 (0%)	2/31 (7%)	3/32 (9%)	0/24 (0%)
FIRST INCIDENCE	600	726 (T)	692	---
HC TUMORS SAME ROUTE	10/148 (7%)			
HC TUMORS ALL ROUTES	68/1295 (5%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.246N	P=0.676N	P=0.360	P=0.241N
POLY 1.5	P=0.234N	P=0.677N	P=0.358	P=0.235N
POLY 6	P=0.271N	P=0.679N	P=0.356	P=0.254N
COCH-ARM / FISHERS	P=0.232N	P=0.691N	P=0.339	P=0.247N
MAX-ISO-POLY-3	P=0.154N	P=0.479N	P=0.223	P=0.080N
HISTCONT SAME RTE	P=1.000	P=1.000	P=1.000	P=1.000
HISTCONT ALL RTES	P=1.000	P=1.000	P=0.291	P=1.000
CURR VS HC SAME RTE	P=0.528			
CURR VS HC ALL RTES	P=0.697			

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 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Islets, Pancreatic Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	4/50 (8%)	1/50 (2%)	3/50 (6%)	2/50 (4%)
POLY-3 RATE (b)	4/42.53	1/45.92	3/45.53	2/42.45
POLY-3 PERCENT (g)	9.4%	2.2%	6.6%	4.7%
TERMINAL (d)	4/33 (12%)	0/31 (0%)	2/32 (6%)	1/24 (4%)
FIRST INCIDENCE	726 (T)	567	615	691
HC TUMORS SAME ROUTE	12/149 (8%)			
HC TUMORS ALL ROUTES	92/1296 (7%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.388N	P=0.156N	P=0.463N	P=0.337N
POLY 1.5	P=0.378N	P=0.161N	P=0.470N	P=0.329N
POLY 6	P=0.404N	P=0.153N	P=0.459N	P=0.356N
COCH-ARM / FISHERS	P=0.371N	P=0.181N	P=0.500N	P=0.339N
MAX-ISO-POLY-3	P=0.272N	P=0.078N	P=0.319N	P=0.201N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTES	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	P=0.946			
CURR VS HC ALL RTES	P=0.796			

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 TERMINAL SACRIFICE AT 104 WEEKS**

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Liver</b>				
<b>Hepatocellular Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	3/50 (6%)	1/50 (2%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	3/42.53	1/45.44	0/45.14	2/42.33
POLY-3 PERCENT (g)	7.1%	2.2%	0%	4.7%
TERMINAL (d)	3/33 (9%)	0/31 (0%)	0/32 (0%)	1/24 (4%)
FIRST INCIDENCE	726 (T)	717	---	720
HC TUMORS SAME ROUTE	2/150 (1%)			
HC TUMORS ALL ROUTES	15/1298 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.450N	P=0.282N	P=0.108N	P=0.502N
POLY 1.5	P=0.448N	P=0.286N	P=0.110N	P=0.493N
POLY 6	P=0.452N	P=0.281N	P=0.108N	P=0.522N
COCH-ARM / FISHERS	P=0.444N	P=0.309N	P=0.121N	P=0.500N
MAX-ISO-POLY-3	P=0.185N	P=0.146N	P=0.038N*	P=0.325N
HISTCONT SAME RTE	P=0.198	P=1.000	P=1.000	P=0.262
HISTCONT ALL RTES	P=0.092	P=1.000	P=1.000	P=0.067
CURR VS HC SAME RTE	P=0.087			
CURR VS HC ALL RTES	P=0.003**			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Liver</b>				
<b>Hepatocellular Carcinoma or Hepatocellular Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	3/50 (6%)	1/50 (2%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	3/42.53	1/45.44	1/45.14	2/42.33
POLY-3 PERCENT (g)	7.1%	2.2%	2.2%	4.7%
TERMINAL (d)	3/33 (9%)	0/31 (0%)	1/32 (3%)	1/24 (4%)
FIRST INCIDENCE	726 (T)	717	726 (T)	720
HC TUMORS SAME ROUTE	2/150 (1%)			
HC TUMORS ALL ROUTES	21/1298 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.483N	P=0.282N	P=0.284N	P=0.502N
POLY 1.5	P=0.478N	P=0.286N	P=0.288N	P=0.493N
POLY 6	P=0.491N	P=0.281N	P=0.284N	P=0.522N
COCH-ARM / FISHERS	P=0.474N	P=0.309N	P=0.309N	P=0.500N
MAX-ISO-POLY-3	P=0.284N	P=0.146N	P=0.146N	P=0.325N
HISTCONT SAME RTE	P=0.184	P=1.000	P=1.000	P=0.262
HISTCONT ALL RTES	P=0.143	P=1.000	P=1.000	P=0.140
CURR VS HC SAME RTE	P=0.087			
CURR VS HC ALL RTES	P=0.021*			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Liver</b>				
<b>Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	3/50 (6%)	1/50 (2%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	3/42.53	1/45.44	1/45.14	2/42.33
POLY-3 PERCENT (g)	7.1%	2.2%	2.2%	4.7%
TERMINAL (d)	3/33 (9%)	0/31 (0%)	1/32 (3%)	1/24 (4%)
FIRST INCIDENCE	726 (T)	717	726 (T)	720
HC TUMORS SAME ROUTE	2/150 (1%)			
HC TUMORS ALL ROUTES	21/1298 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.483N	P=0.282N	P=0.284N	P=0.502N
POLY 1.5	P=0.478N	P=0.286N	P=0.288N	P=0.493N
POLY 6	P=0.491N	P=0.281N	P=0.284N	P=0.522N
COCH-ARM / FISHERS	P=0.474N	P=0.309N	P=0.309N	P=0.500N
MAX-ISO-POLY-3	P=0.284N	P=0.146N	P=0.146N	P=0.325N
HISTCONT SAME RTE	P=0.184	P=1.000	P=1.000	P=0.262
HISTCONT ALL RTES	P=0.143	P=1.000	P=1.000	P=0.140
CURR VS HC SAME RTE	P=0.087			
CURR VS HC ALL RTES	P=0.021*			



TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Lung</b>				
<b>Alveolar/Bronchiolar Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	3/50 (6%)	5/50 (10%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	3/42.97	5/45.40	1/45.14	2/42.66
POLY-3 PERCENT (g)	7%	11%	2.2%	4.7%
TERMINAL (d)	2/33 (6%)	5/31 (16%)	1/32 (3%)	1/24 (4%)
FIRST INCIDENCE	600	726 (T)	726 (T)	628
HC TUMORS SAME ROUTE	9/150 (6%)			
HC TUMORS ALL ROUTES	31/1298 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.247N	P=0.387	P=0.288N	P=0.503N
POLY 1.5	P=0.241N	P=0.384	P=0.290N	P=0.493N
POLY 6	P=0.260N	P=0.383	P=0.290N	P=0.524N
COCH-ARM / FISHERS	P=0.248N	P=0.357	P=0.309N	P=0.500N
MAX-ISO-POLY-3	P=0.233N	P=0.262	P=0.147N	P=0.327N
HISTCONT SAME RTE	P=1.000	P=0.144	P=1.000	P=1.000
HISTCONT ALL RTES	P=0.282	P<0.001**	P=1.000	P=0.374
CURR VS HC SAME RTE	P=0.957			
CURR VS HC ALL RTES	P=0.108			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Lung</b>				
<b>Alveolar/Bronchiolar Carcinoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	0/50 (0%)	4/50 (8%)	2/50 (4%)
POLY-3 RATE (b)	0/42.53	0/45.40	4/45.53	2/42.72
POLY-3 PERCENT (g)	0%	0%	8.8%	4.7%
TERMINAL (d)	0/33 (0%)	0/31 (0%)	3/32 (9%)	1/24 (4%)
FIRST INCIDENCE	---	---	615	607
HC TUMORS SAME ROUTE	2/150 (1%)			
HC TUMORS ALL ROUTES	19/1298 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.095	(e)	P=0.069	P=0.238
POLY 1.5	P=0.101	(e)	P=0.068	P=0.242
POLY 6	P=0.084	(e)	P=0.070	P=0.229
COCH-ARM / FISHERS	P=0.104	(e)	P=0.059	P=0.247
MAX-ISO-POLY-3	P=0.067	(e)	P=0.027*	P=0.077
HISTCONT SAME RTE	P=0.144	(e)	P=0.050*	P=0.190
HISTCONT ALL RTES	P=0.004**	(e)	P<0.001**	P=0.079
CURR VS HC SAME RTE	P=0.354			
CURR VS HC ALL RTES	P=0.373			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Lung</b>				
<b>Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	3/50 (6%)	5/50 (10%)	5/50 (10%)	4/50 (8%)
POLY-3 RATE (b)	3/42.97	5/45.40	5/45.53	4/43.08
POLY-3 PERCENT (g)	7%	11%	11%	9.3%
TERMINAL (d)	2/33 (6%)	5/31 (16%)	4/32 (13%)	2/24 (8%)
FIRST INCIDENCE	600	726 (T)	615	607
HC TUMORS SAME ROUTE	11/150 (7%)			
HC TUMORS ALL ROUTES	49/1298 (4%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.478	P=0.387	P=0.389	P=0.501
POLY 1.5	P=0.491	P=0.384	P=0.384	P=0.511
POLY 6	P=0.451	P=0.383	P=0.388	P=0.481
COCH-ARM / FISHERS	P=0.483	P=0.357	P=0.357	P=0.500
MAX-ISO-POLY-3	P=0.475	P=0.262	P=0.263	P=0.348
HISTCONT SAME RTE	P=0.217	P=0.214	P=0.218	P=1.000
HISTCONT ALL RTEs	P=0.007**	P=0.014*	P=0.014*	P=0.071
CURR VS HC SAME RTE	P=0.765			
CURR VS HC ALL RTEs	P=0.430			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Mammary Gland Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/42.53	0/45.40	1/45.14	0/42.31
POLY-3 PERCENT (g)	0%	0%	2.2%	0%
TERMINAL (d)	0/33 (0%)	0/31 (0%)	1/32 (3%)	0/24 (0%)
FIRST INCIDENCE	---	---	726 (T)	---
HC TUMORS SAME ROUTE	0/150 (0%)			
HC TUMORS ALL ROUTES	4/1298 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Mammary Gland Carcinoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/42.53	1/45.40	0/45.14	0/42.31
POLY-3 PERCENT (g)	0%	2.2%	0%	0%
TERMINAL (d)	0/33 (0%)	1/31 (3%)	0/32 (0%)	0/24 (0%)
FIRST INCIDENCE	---	726 (T)	---	---
HC TUMORS SAME ROUTE	2/150 (1%)			
HC TUMORS ALL ROUTES	5/1298 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Mammary Gland Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/42.53	1/45.40	1/45.14	0/42.31
POLY-3 PERCENT (g)	0%	2.2%	2.2%	0%
TERMINAL (d)	0/33 (0%)	1/31 (3%)	1/32 (3%)	0/24 (0%)
FIRST INCIDENCE	---	726 (T)	726 (T)	---
HC TUMORS SAME ROUTE	2/150 (1%)			
HC TUMORS ALL ROUTES	9/1298 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTEs	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTEs	(n)			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Mammary Gland Fibroadenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	1/42.53	1/45.56	2/45.14	0/42.31
POLY-3 PERCENT (g)	2.4%	2.2%	4.4%	0%
TERMINAL (d)	1/33 (3%)	0/31 (0%)	2/32 (6%)	0/24 (0%)
FIRST INCIDENCE	726 (T)	684	726 (T)	---
HC TUMORS SAME ROUTE	11/150 (7%)			
HC TUMORS ALL ROUTES	41/1298 (3%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.375N	P=0.745N	P=0.521	P=0.501N
POLY 1.5	P=0.367N	P=0.748N	P=0.517	P=0.497N
POLY 6	P=0.391N	P=0.744N	P=0.521	P=0.510N
COCH-ARM / FISHERS	P=0.366N	P=0.753N	P=0.500	P=0.500N
MAX-ISO-POLY-3	P=0.295N	P=0.480N	P=0.303	P=0.160N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTES	P=1.000	P=1.000	P=1.000	P=1.000
CURR VS HC SAME RTE	P=0.211			
CURR VS HC ALL RTES	P=0.654			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Mammary Gland</b>				
<b>Fibroma, Fibroadenoma or Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	3/50 (6%)	0/50 (0%)
POLY-3 RATE (b)	1/42.53	1/45.56	3/45.14	0/42.31
POLY-3 PERCENT (g)	2.4%	2.2%	6.7%	0%
TERMINAL (d)	1/33 (3%)	0/31 (0%)	3/32 (9%)	0/24 (0%)
FIRST INCIDENCE	726 (T)	684	726 (T)	---
HC TUMORS SAME ROUTE	11/150 (7%)			
HC TUMORS ALL ROUTES	47/1298 (4%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.422N	P=0.745N	P=0.327	P=0.501N
POLY 1.5	P=0.410N	P=0.748N	P=0.323	P=0.497N
POLY 6	P=0.444N	P=0.744N	P=0.326	P=0.510N
COCH-ARM / FISHERS	P=0.409N	P=0.753N	P=0.309	P=0.500N
MAX-ISO-POLY-3	P=0.248N	P=0.480N	P=0.176	P=0.160N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTES	P=1.000	P=1.000	P=0.295	P=1.000
CURR VS HC SAME RTE	P=0.211			
CURR VS HC ALL RTES	P=0.555			



TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Mammary Gland</b>				
<b>Fibroma, Fibroadenoma, Carcinoma, or Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	3/50 (6%)	0/50 (0%)
POLY-3 RATE (b)	1/42.53	2/45.56	3/45.14	0/42.31
POLY-3 PERCENT (g)	2.4%	4.4%	6.7%	0%
TERMINAL (d)	1/33 (3%)	1/31 (3%)	3/32 (9%)	0/24 (0%)
FIRST INCIDENCE	726 (T)	684	726 (T)	---
HC TUMORS SAME ROUTE	12/150 (8%)			
HC TUMORS ALL ROUTES	51/1298 (4%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.345N	P=0.524	P=0.327	P=0.501N
POLY 1.5	P=0.334N	P=0.520	P=0.323	P=0.497N
POLY 6	P=0.367N	P=0.525	P=0.326	P=0.510N
COCH-ARM / FISHERS	P=0.337N	P=0.500	P=0.309	P=0.500N
MAX-ISO-POLY-3	P=0.212N	P=0.306	P=0.176	P=0.160N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTES	P=1.000	P=1.000	P=0.342	P=1.000
CURR VS HC SAME RTE	P=0.147			
CURR VS HC ALL RTES	P=0.498			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva)</b>				
<b>Papilloma Squamous or Papilloma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/42.53	0/45.40	1/45.14	0/42.31
POLY-3 PERCENT (g)	0%	0%	2.2%	0%
TERMINAL (d)	0/33 (0%)	0/31 (0%)	1/32 (3%)	0/24 (0%)
FIRST INCIDENCE	---	---	726 (T)	---
HC TUMORS SAME ROUTE	0/150 (0%)			
HC TUMORS ALL ROUTES	7/1298 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva) Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	0/42.53	0/45.40	2/45.98	1/42.65
POLY-3 PERCENT (g)	0%	0%	4.4%	2.3%
TERMINAL (d)	0/33 (0%)	0/31 (0%)	1/32 (3%)	0/24 (0%)
FIRST INCIDENCE	---	---	393	631
HC TUMORS SAME ROUTE	0/150 (0%)			
HC TUMORS ALL ROUTES	11/1298 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.236	(e)	P=0.255	P=0.501
POLY 1.5	P=0.245	(e)	P=0.252	P=0.504
POLY 6	P=0.221	(e)	P=0.256	P=0.493
COCH-ARM / FISHERS	P=0.246	(e)	P=0.247	P=0.500
MAX-ISO-POLY-3	P=0.188	(e)	P=0.093	P=0.159
HISTCONT SAME RTE	P=0.119	(e)	P=0.077	P=0.239
HISTCONT ALL RTES	P=0.071	(e)	P=0.014*	P=0.443
CURR VS HC SAME RTE	P=1.000			
CURR VS HC ALL RTES	P=0.572			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Pituitary Gland: Pars Distalis or Unspecified Site Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	28/50 (56%)	35/49 (71%)	28/50 (56%)	36/49 (73%)
POLY-3 RATE (b)	28/45.59	35/47.51	28/46.98	36/45.30
POLY-3 PERCENT (g)	61.4%	73.7%	59.6%	79.5%
TERMINAL (d)	19/33 (58%)	25/31 (81%)	19/32 (59%)	18/23 (78%)
FIRST INCIDENCE	499	498	615	499
HC TUMORS SAME ROUTE	63/148 (43%)			
HC TUMORS ALL ROUTES	604/1293 (47%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.078	P=0.144	P=0.513N	P=0.041*
POLY 1.5	P=0.100	P=0.135	P=0.509N	P=0.055
POLY 6	P=0.053	P=0.135	P=0.539N	P=0.026*
COCH-ARM / FISHERS	P=0.101	P=0.083	P=0.580N	P=0.054
MAX-ISO-POLY-3	P=0.044*	P=0.104	P=0.427N	P=0.024*
HISTCONT SAME RTE	P=0.029*	P=0.030*	P=0.099	P=0.024*
HISTCONT ALL RTES	P=0.031*	P=0.055	P=0.290	P=0.028*
CURR VS HC SAME RTE	P=0.102			
CURR VS HC ALL RTES	P=0.180			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Skin</b>				
<b>Basal Cell Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	1/42.97	2/45.52	2/45.14	0/42.31
POLY-3 PERCENT (g)	2.3%	4.4%	4.4%	0%
TERMINAL (d)	0/33 (0%)	1/31 (3%)	2/32 (6%)	0/24 (0%)
FIRST INCIDENCE	600	694	726 (T)	---
HC TUMORS SAME ROUTE	4/150 (3%)			
HC TUMORS ALL ROUTES	15/1298 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.304N	P=0.520	P=0.517	P=0.503N
POLY 1.5	P=0.295N	P=0.518	P=0.516	P=0.498N
POLY 6	P=0.323N	P=0.519	P=0.515	P=0.513N
COCH-ARM / FISHERS	P=0.296N	P=0.500	P=0.500	P=0.500N
MAX-ISO-POLY-3	P=0.251N	P=0.302	P=0.299	P=0.162N
HISTCONT SAME RTE	P=1.000	P=1.000	P=1.000	P=1.000
HISTCONT ALL RTES	P=0.334	P=0.054	P=0.053	P=1.000
CURR VS HC SAME RTE	P=0.841			
CURR VS HC ALL RTES	P=0.596			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Skin</b>				
Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	6/50 (12%)	8/50 (16%)	9/50 (18%)	5/50 (10%)
POLY-3 RATE (b)	6/43.13	8/46.10	9/45.47	5/42.67
POLY-3 PERCENT (g)	13.9%	17.4%	19.8%	11.7%
TERMINAL (d)	4/33 (12%)	6/31 (19%)	6/32 (19%)	3/24 (13%)
FIRST INCIDENCE	600	544	646	664
HC TUMORS SAME ROUTE	22/150 (15%)			
HC TUMORS ALL ROUTES	112/1298 (9%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.414N	P=0.439	P=0.325	P=0.508N
POLY 1.5	P=0.390N	P=0.430	P=0.321	P=0.491N
POLY 6	P=0.457N	P=0.438	P=0.321	P=0.541N
COCH-ARM / FISHERS	P=0.391N	P=0.387	P=0.288	P=0.500N
MAX-ISO-POLY-3	P=0.408N	P=0.333	P=0.237	P=0.380N
HISTCONT SAME RTE	P=1.000	P=1.000	P=0.379	P=1.000
HISTCONT ALL RTES	P=0.150	P=0.077	P=0.028*	P=0.455
CURR VS HC SAME RTE	P=0.701			
CURR VS HC ALL RTES	P=0.412			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Skin</b>				
<b>Fibroma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	3/50 (6%)	4/50 (8%)	2/50 (4%)	5/50 (10%)
POLY-3 RATE (b)	3/43.37	4/45.56	2/45.49	5/42.69
POLY-3 PERCENT (g)	6.9%	8.8%	4.4%	11.7%
TERMINAL (d)	2/33 (6%)	3/31 (10%)	0/32 (0%)	4/24 (17%)
FIRST INCIDENCE	391	684	646	618
HC TUMORS SAME ROUTE	23/150 (15%)			
HC TUMORS ALL ROUTES	113/1298 (9%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.309	P=0.527	P=0.478N	P=0.347
POLY 1.5	P=0.320	P=0.523	P=0.482N	P=0.360
POLY 6	P=0.291	P=0.527	P=0.477N	P=0.323
COCH-ARM / FISHERS	P=0.320	P=0.500	P=0.500N	P=0.357
MAX-ISO-POLY-3	P=0.324	P=0.375	P=0.308N	P=0.225
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTES	P=0.624	P=1.000	P=1.000	P=0.459
CURR VS HC SAME RTE	P=0.065			
CURR VS HC ALL RTES	P=0.499			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Skin</b>				
Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	4/50 (8%)	4/50 (8%)	3/50 (6%)	5/50 (10%)
POLY-3 RATE (b)	4/43.37	4/45.56	3/45.49	5/42.69
POLY-3 PERCENT (g)	9.2%	8.8%	6.6%	11.7%
TERMINAL (d)	3/33 (9%)	3/31 (10%)	1/32 (3%)	4/24 (17%)
FIRST INCIDENCE	391	684	646	618
HC TUMORS SAME ROUTE	28/150 (19%)			
HC TUMORS ALL ROUTES	143/1298 (11%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.415	P=0.616N	P=0.474N	P=0.490
POLY 1.5	P=0.429	P=0.619N	P=0.478N	P=0.504
POLY 6	P=0.393	P=0.617N	P=0.473N	P=0.463
COCH-ARM / FISHERS	P=0.430	P=0.643N	P=0.500N	P=0.500
MAX-ISO-POLY-3	P=0.464	P=0.471N	P=0.328N	P=0.354
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTES	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	P=0.065			
CURR VS HC ALL RTES	P=0.504			



TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Skin</b>				
<b>Keratoacanthoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	5/50 (10%)	5/50 (10%)	7/50 (14%)	5/50 (10%)
POLY-3 RATE (b)	5/42.70	5/45.98	7/45.47	5/42.67
POLY-3 PERCENT (g)	11.7%	10.9%	15.4%	11.7%
TERMINAL (d)	4/33 (12%)	4/31 (13%)	4/32 (13%)	3/24 (13%)
FIRST INCIDENCE	683	544	646	664
HC TUMORS SAME ROUTE	9/150 (6%)			
HC TUMORS ALL ROUTES	67/1298 (5%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.512	P=0.583N	P=0.424	P=0.631
POLY 1.5	P=0.531	P=0.592N	P=0.416	P=0.619N
POLY 6	P=0.478	P=0.581N	P=0.425	P=0.606
COCH-ARM / FISHERS	P=0.530	P=0.630N	P=0.380	P=0.630N
MAX-ISO-POLY-3	P=0.588	P=0.451N	P=0.313	P=0.499
HISTCONT SAME RTE	P=0.202	P=0.294	P=0.117	P=0.259
HISTCONT ALL RTES	P=0.020*	P=0.138	P=0.012*	P=0.112
CURR VS HC SAME RTE	P=0.392			
CURR VS HC ALL RTES	P=0.133			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Skin</b>				
<b>Lipoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	0/42.53	0/45.40	2/45.34	0/42.31
POLY-3 PERCENT (g)	0%	0%	4.4%	0%
TERMINAL (d)	0/33 (0%)	0/31 (0%)	1/32 (3%)	0/24 (0%)
FIRST INCIDENCE	---	---	673	---
HC TUMORS SAME ROUTE	1/150 (1%)			
HC TUMORS ALL ROUTES	16/1298 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.578	(e)	P=0.252	(e)
POLY 1.5	P=0.592	(e)	P=0.249	(e)
POLY 6	P=0.550	(e)	P=0.252	(e)
COCH-ARM / FISHERS	P=0.595	(e)	P=0.247	(e)
MAX-ISO-POLY-3	P=0.265	(e)	P=0.090	(e)
HISTCONT SAME RTE	P=0.387	(e)	P=0.136	(e)
HISTCONT ALL RTES	P=0.540	(e)	P=0.074	(e)
CURR VS HC SAME RTE	P=0.543			
CURR VS HC ALL RTES	P=0.412			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Skin</b>				
<b>Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	5/50 (10%)	6/50 (12%)	7/50 (14%)	5/50 (10%)
POLY-3 RATE (b)	5/42.70	6/45.98	7/45.47	5/42.67
POLY-3 PERCENT (g)	11.7%	13.1%	15.4%	11.7%
TERMINAL (d)	4/33 (12%)	5/31 (16%)	4/32 (13%)	3/24 (13%)
FIRST INCIDENCE	683	544	646	664
HC TUMORS SAME ROUTE	15/150 (10%)			
HC TUMORS ALL ROUTES	83/1298 (6%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.559	P=0.552	P=0.424	P=0.631
POLY 1.5	P=0.541N	P=0.542	P=0.416	P=0.619N
POLY 6	P=0.524	P=0.554	P=0.425	P=0.606
COCH-ARM / FISHERS	P=0.545N	P=0.500	P=0.380	P=0.630N
MAX-ISO-POLY-3	P=0.622	P=0.425	P=0.313	P=0.499
HISTCONT SAME RTE	P=0.447	P=0.460	P=0.230	P=1.000
HISTCONT ALL RTES	P=0.055	P=0.108	P=0.034*	P=0.212
CURR VS HC SAME RTE	P=0.939			
CURR VS HC ALL RTES	P=0.306			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Skin</b>				
<b>Squamous Cell Papilloma, Papilloma, or Keratoacanthoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	5/50 (10%)	5/50 (10%)	7/50 (14%)	5/50 (10%)
POLY-3 RATE (b)	5/42.70	5/45.98	7/45.47	5/42.67
POLY-3 PERCENT (g)	11.7%	10.9%	15.4%	11.7%
TERMINAL (d)	4/33 (12%)	4/31 (13%)	4/32 (13%)	3/24 (13%)
FIRST INCIDENCE	683	544	646	664
HC TUMORS SAME ROUTE	14/150 (9%)			
HC TUMORS ALL ROUTES	77/1298 (6%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.512	P=0.583N	P=0.424	P=0.631
POLY 1.5	P=0.531	P=0.592N	P=0.416	P=0.619N
POLY 6	P=0.478	P=0.581N	P=0.425	P=0.606
COCH-ARM / FISHERS	P=0.530	P=0.630N	P=0.380	P=0.630N
MAX-ISO-POLY-3	P=0.588	P=0.451N	P=0.313	P=0.499
HISTCONT SAME RTE	P=0.413	P=1.000	P=0.214	P=1.000
HISTCONT ALL RTES	P=0.053	P=0.222	P=0.030*	P=0.186
CURR VS HC SAME RTE	P=0.838			
CURR VS HC ALL RTES	P=0.238			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Testes</b>				
<b>Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	35/50 (70%)	38/50 (76%)	42/50 (84%)	42/50 (84%)
POLY-3 RATE (b)	35/45.05	38/47.82	42/48.02	42/48.01
POLY-3 PERCENT (g)	77.7%	79.5%	87.5%	87.5%
TERMINAL (d)	27/33 (82%)	25/31 (81%)	31/32 (97%)	23/24 (96%)
FIRST INCIDENCE	504	589	569	543
HC TUMORS SAME ROUTE	143/150 (95%)			
HC TUMORS ALL ROUTES	1053/1298 (81%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.088	P=0.519	P=0.152	P=0.150
POLY 1.5	P=0.085	P=0.483	P=0.136	P=0.140
POLY 6	P=0.077	P=0.540	P=0.152	P=0.142
COCH-ARM / FISHERS	P=0.049*	P=0.326	P=0.077	P=0.077
MAX-ISO-POLY-3	P=0.138	P=0.415	P=0.100	P=0.099
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTES	P=0.732	P=1.000	P=1.000	P=1.000
CURR VS HC SAME RTE	P<0.001**			
CURR VS HC ALL RTES	P=0.064			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Thyroid Gland: C-Cell Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	12/50 (24%)	10/50 (20%)	4/50 (8%)	8/50 (16%)
POLY-3 RATE (b)	12/42.89	10/46.19	4/45.31	8/42.88
POLY-3 PERCENT (g)	28%	21.7%	8.8%	18.7%
TERMINAL (d)	10/33 (30%)	7/31 (23%)	3/32 (9%)	6/24 (25%)
FIRST INCIDENCE	676	638	681	568
HC TUMORS SAME ROUTE	18/149 (12%)			
HC TUMORS ALL ROUTES	169/1290 (13%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.141N	P=0.328N	P=0.018N*	P=0.220N
POLY 1.5	P=0.134N	P=0.344N	P=0.019N*	P=0.209N
POLY 6	P=0.157N	P=0.319N	P=0.017N*	P=0.252N
COCH-ARM / FISHERS	P=0.140N	P=0.405N	P=0.027N*	P=0.227N
MAX-ISO-POLY-3	P=0.072N	P=0.253N	P=0.010N**	P=0.152N
HISTCONT SAME RTE	P=0.465	P=0.182	P=1.000	P=0.307
HISTCONT ALL RTES	P=0.511	P=0.112	P=1.000	P=0.309
CURR VS HC SAME RTE	P=0.068			
CURR VS HC ALL RTES	P=0.023*			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Thyroid Gland: C-Cell Carcinoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	1/50 (2%)	3/50 (6%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	1/42.58	3/45.92	1/45.14	0/42.31
POLY-3 PERCENT (g)	2.4%	6.5%	2.2%	0%
TERMINAL (d)	0/33 (0%)	2/31 (7%)	1/32 (3%)	0/24 (0%)
FIRST INCIDENCE	713	567	726 (T)	---
HC TUMORS SAME ROUTE	3/149 (2%)			
HC TUMORS ALL ROUTES	32/1290 (3%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.197N	P=0.333	P=0.748N	P=0.501N
POLY 1.5	P=0.193N	P=0.327	P=0.749N	P=0.497N
POLY 6	P=0.208N	P=0.335	P=0.748N	P=0.511N
COCH-ARM / FISHERS	P=0.200N	P=0.309	P=0.753N	P=0.500N
MAX-ISO-POLY-3	P=0.175N	P=0.182	P=0.483N	P=0.160N
HISTCONT SAME RTE	P=0.639	P=0.082	P=1.000	P=1.000
HISTCONT ALL RTES	P=0.774	P=0.142	P=1.000	P=1.000
CURR VS HC SAME RTE	P=0.940			
CURR VS HC ALL RTES	P=0.836			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Thyroid Gland: C-Cell Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	13/50 (26%)	12/50 (24%)	5/50 (10%)	8/50 (16%)
POLY-3 RATE (b)	13/42.94	12/46.71	5/45.31	8/42.88
POLY-3 PERCENT (g)	30.3%	25.7%	11%	18.7%
TERMINAL (d)	10/33 (30%)	8/31 (26%)	4/32 (13%)	6/24 (25%)
FIRST INCIDENCE	676	567	681	568
HC TUMORS SAME ROUTE	21/149 (14%)			
HC TUMORS ALL ROUTES	198/1290 (15%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.081N	P=0.402N	P=0.022N*	P=0.156N
POLY 1.5	P=0.076N	P=0.425N	P=0.023N*	P=0.147N
POLY 6	P=0.095N	P=0.387N	P=0.021N*	P=0.183N
COCH-ARM / FISHERS	P=0.081N	P=0.500N	P=0.033N*	P=0.163N
MAX-ISO-POLY-3	P=0.062N	P=0.321N	P=0.013N*	P=0.103N
HISTCONT SAME RTE	P=0.616	P=0.138	P=1.000	P=0.428
HISTCONT ALL RTES	P=0.724	P=0.078	P=1.000	P=1.000
CURR VS HC SAME RTE	P=0.077			
CURR VS HC ALL RTES	P=0.036*			



TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Tongue</b>				
<b>Squamous Cell Carcinoma or Papilloma Squamous</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	0/42.53	0/45.40	2/45.98	1/42.65
POLY-3 PERCENT (g)	0%	0%	4.4%	2.3%
TERMINAL (d)	0/33 (0%)	0/31 (0%)	1/32 (3%)	0/24 (0%)
FIRST INCIDENCE	---	---	393	631
HC TUMORS SAME ROUTE	0/150 (0%)			
HC TUMORS ALL ROUTES	6/1298 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.236	(e)	P=0.255	P=0.501
POLY 1.5	P=0.245	(e)	P=0.252	P=0.504
POLY 6	P=0.221	(e)	P=0.256	P=0.493
COCH-ARM / FISHERS	P=0.246	(e)	P=0.247	P=0.500
MAX-ISO-POLY-3	P=0.188	(e)	P=0.093	P=0.159
HISTCONT SAME RTE	P=0.119	(e)	P=0.077	P=0.239
HISTCONT ALL RTES	P=0.007**	(e)	P<0.001**	P=0.223
CURR VS HC SAME RTE	P=1.000			
CURR VS HC ALL RTES	P=0.553			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Zymbal's Gland Carcinoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	1/42.53	0/45.40	1/45.40	0/42.31
POLY-3 PERCENT (g)	2.4%	0%	2.2%	0%
TERMINAL (d)	1/33 (3%)	0/31 (0%)	0/32 (0%)	0/24 (0%)
FIRST INCIDENCE	726 (T)	---	657	---
HC TUMORS SAME ROUTE	1/150 (1%)			
HC TUMORS ALL ROUTES	6/1298 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Zymbal's Gland Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	1/42.53	0/45.40	1/45.40	1/42.66
POLY-3 PERCENT (g)	2.4%	0%	2.2%	2.3%
TERMINAL (d)	1/33 (3%)	0/31 (0%)	0/32 (0%)	0/24 (0%)
FIRST INCIDENCE	726 (T)	---	657	628
HC TUMORS SAME ROUTE	1/150 (1%)			
HC TUMORS ALL ROUTES	10/1298 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>All Organs</b>				
<b>Hemangiosarcoma or Hemangioma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/42.53	2/45.63	0/45.14	0/42.31
POLY-3 PERCENT (g)	0%	4.4%	0%	0%
TERMINAL (d)	0/33 (0%)	1/31 (3%)	0/32 (0%)	0/24 (0%)
FIRST INCIDENCE	---	664	---	---
HC TUMORS SAME ROUTE	1/150 (1%)			
HC TUMORS ALL ROUTES	10/1298 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.392N	P=0.253	(e)	(e)
POLY 1.5	P=0.391N	P=0.250	(e)	(e)
POLY 6	P=0.397N	P=0.254	(e)	(e)
COCH-ARM / FISHERS	P=0.405N	P=0.247	(e)	(e)
MAX-ISO-POLY-3	P=0.267N	P=0.091	(e)	(e)
HISTCONT SAME RTE	P=0.607	P=0.136	(e)	(e)
HISTCONT ALL RTES	P=0.581	P=0.010**	(e)	(e)
CURR VS HC SAME RTE	P=0.529			
CURR VS HC ALL RTES	P=0.592			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>All Organs</b>				
<b>Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	14/50 (28%)	19/50 (38%)	16/50 (32%)	14/50 (28%)
POLY-3 RATE (b)	14/44.63	19/48.31	16/47.43	14/45.92
POLY-3 PERCENT (g)	31.4%	39.3%	33.7%	30.5%
TERMINAL (d)	9/33 (27%)	8/31 (26%)	8/32 (25%)	4/24 (17%)
FIRST INCIDENCE	467	544	569	499
HC TUMORS SAME ROUTE	68/150 (45%)			
HC TUMORS ALL ROUTES	502/1298 (39%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.388N	P=0.280	P=0.492	P=0.554N
POLY 1.5	P=0.376N	P=0.259	P=0.476	P=0.548N
POLY 6	P=0.420N	P=0.302	P=0.507	P=0.578N
COCH-ARM / FISHERS	P=0.408N	P=0.198	P=0.414	P=0.588N
MAX-ISO-POLY-3	P=0.497N	P=0.221	P=0.405	P=0.463N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTES	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	P=0.055			
CURR VS HC ALL RTES	P=0.159			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>All Organs</b>				
<b>Mesothelioma: Benign, Malignant, NOS</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	4/50 (8%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	4/44.36	2/45.53	1/45.14	0/42.31
POLY-3 PERCENT (g)	9%	4.4%	2.2%	0%
TERMINAL (d)	0/33 (0%)	1/31 (3%)	1/32 (3%)	0/24 (0%)
FIRST INCIDENCE	273	693	726 (T)	---
HC TUMORS SAME ROUTE	3/150 (2%)			
HC TUMORS ALL ROUTES	32/1298 (3%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.031N*	P=0.325N	P=0.173N	P=0.066N
POLY 1.5	P=0.030N*	P=0.324N	P=0.172N	P=0.062N
POLY 6	P=0.034N*	P=0.331N	P=0.178N	P=0.075N
COCH-ARM / FISHERS	P=0.030N*	P=0.339N	P=0.181N	P=0.059N
MAX-ISO-POLY-3	P=0.028N*	P=0.194N	P=0.082N	P=0.024N*
HISTCONT SAME RTE	P=1.000	P=0.368	P=1.000	P=1.000
HISTCONT ALL RTES	P=1.000	P=0.410	P=1.000	P=1.000
CURR VS HC SAME RTE	P=0.035*			
CURR VS HC ALL RTES	P=0.019*			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>All Organs</b>				
<b>Mesothelioma: Malignant</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	4/50 (8%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	4/44.36	2/45.53	1/45.14	0/42.31
POLY-3 PERCENT (g)	9%	4.4%	2.2%	0%
TERMINAL (d)	0/33 (0%)	1/31 (3%)	1/32 (3%)	0/24 (0%)
FIRST INCIDENCE	273	693	726 (T)	---
HC TUMORS SAME ROUTE	3/150 (2%)			
HC TUMORS ALL ROUTES	31/1298 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.031N*	P=0.325N	P=0.173N	P=0.066N
POLY 1.5	P=0.030N*	P=0.324N	P=0.172N	P=0.062N
POLY 6	P=0.034N*	P=0.331N	P=0.178N	P=0.075N
COCH-ARM / FISHERS	P=0.030N*	P=0.339N	P=0.181N	P=0.059N
MAX-ISO-POLY-3	P=0.028N*	P=0.194N	P=0.082N	P=0.024N*
HISTCONT SAME RTE	P=1.000	P=0.368	P=1.000	P=1.000
HISTCONT ALL RTES	P=1.000	P=0.392	P=1.000	P=1.000
CURR VS HC SAME RTE	P=0.035*			
CURR VS HC ALL RTES	P=0.016*			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>All Organs</b>				
<b>Benign Tumors</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	45/50 (90%)	48/50 (96%)	49/50 (98%)	50/50 (100%)
POLY-3 RATE (b)	45/47.13	48/49.97	49/49.16	50/50.00
POLY-3 PERCENT (g)	95.5%	96.1%	99.7%	100%
TERMINAL (d)	32/33 (97%)	30/31 (97%)	32/32 (100%)	24/24 (100%)
FIRST INCIDENCE	391	498	569	499
HC TUMORS SAME ROUTE	149/150 (99%)			
HC TUMORS ALL ROUTES	1248/1298 (96%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.066	P=0.648	P=0.218	P=0.179
POLY 1.5	P=0.046*	P=0.545	P=0.191	P=0.116
POLY 6	P=0.091	P=0.692N	P=0.265	P=0.253
COCH-ARM / FISHERS	P=0.014*	P=0.218	P=0.102	P=0.028*
MAX-ISO-POLY-3	P=0.088	P=0.442	P=0.066	P=0.050*
HISTCONT SAME RTE	P=0.422	P=1.000	P=1.000	P=1.000
HISTCONT ALL RTES	P=0.228	P=1.000	P=0.412	P=0.286
CURR VS HC SAME RTE	P=0.008**			
CURR VS HC ALL RTES	P=0.051			



TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>All Organs</b>				
<b>Malignant Tumors</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	23/50 (46%)	26/50 (52%)	30/50 (60%)	19/50 (38%)
POLY-3 RATE (b)	23/46.62	26/48.60	30/49.24	19/47.38
POLY-3 PERCENT (g)	49.3%	53.5%	60.9%	40.1%
TERMINAL (d)	13/33 (39%)	13/31 (42%)	17/32 (53%)	5/24 (21%)
FIRST INCIDENCE	273	544	393	499
HC TUMORS SAME ROUTE	83/150 (55%)			
HC TUMORS ALL ROUTES	721/1298 (56%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.187N	P=0.420	P=0.173	P=0.243N
POLY 1.5	P=0.179N	P=0.407	P=0.160	P=0.238N
POLY 6	P=0.213N	P=0.430	P=0.184	P=0.264N
COCH-ARM / FISHERS	P=0.208N	P=0.345	P=0.115	P=0.272N
MAX-ISO-POLY-3	P=0.125N	P=0.344	P=0.132	P=0.185N
HISTCONT SAME RTE	P=1.000	P=1.000	P=0.119	P=1.000
HISTCONT ALL RTES	P=1.000	P=1.000	P=0.432	P=1.000
CURR VS HC SAME RTE	P=0.281			
CURR VS HC ALL RTES	P=0.224			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Males			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>All Organs</b>				
<b>Malignant and Benign Tumors</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	48/50 (96%)	50/50 (100%)	50/50 (100%)	50/50 (100%)
POLY-3 RATE (b)	48/49.00	50/50.00	50/50.00	50/50.00
POLY-3 PERCENT (g)	98%	100%	100%	100%
TERMINAL (d)	32/33 (97%)	31/31 (100%)	32/32 (100%)	24/24 (100%)
FIRST INCIDENCE	273	498	393	499
HC TUMORS SAME ROUTE	150/150 (100%)			
HC TUMORS ALL ROUTES	1286/1298 (99%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.309	P=0.496	P=0.496	P=0.496
POLY 1.5	P=0.308	P=0.495	P=0.495	P=0.495
POLY 6	P=0.309	P=0.496	P=0.496	P=0.496
COCH-ARM / FISHERS	P=0.115	P=0.247	P=0.247	P=0.247
MAX-ISO-POLY-3	P=0.124	P=0.159	P=0.159	P=0.159
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTES	P=0.289	P=1.000	P=1.000	P=1.000
CURR VS HC SAME RTE	P=0.027*			
CURR VS HC ALL RTES	P<0.001**			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Adrenal Cortex</b>				
<b>Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	2/50 (4%)	4/50 (8%)	2/50 (4%)	3/50 (6%)
POLY-3 RATE (b)	2/43.81	4/43.58	2/45.47	3/43.37
POLY-3 PERCENT (g)	4.6%	9.2%	4.4%	6.9%
TERMINAL (d)	1/30 (3%)	4/32 (13%)	1/33 (3%)	2/30 (7%)
FIRST INCIDENCE	691	727 (T)	666	656
HC TUMORS SAME ROUTE	1/150 (1%)			
HC TUMORS ALL ROUTES	24/1245 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.518	P=0.334	P=0.681N	P=0.495
POLY 1.5	P=0.520	P=0.336	P=0.685N	P=0.498
POLY 6	P=0.514	P=0.331	P=0.677N	P=0.490
COCH-ARM / FISHERS	P=0.521	P=0.339	P=0.691N	P=0.500
MAX-ISO-POLY-3	P=0.521	P=0.199	P=0.484N	P=0.320
HISTCONT SAME RTE	P=0.115	P=0.044*	P=0.137	P=0.065
HISTCONT ALL RTEs	P=0.071	P=0.030*	P=0.355	P=0.121
CURR VS HC SAME RTE	P=0.088			
CURR VS HC ALL RTEs	P=0.324			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Adrenal Medulla</b>				
<b>Pheochromocytoma Benign</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	2/50 (4%)	0/50 (0%)	3/50 (6%)	0/50 (0%)
POLY-3 RATE (b)	2/43.67	0/43.58	3/45.41	0/43.11
POLY-3 PERCENT (g)	4.6%	0%	6.6%	0%
TERMINAL (d)	2/30 (7%)	0/32 (0%)	2/33 (6%)	0/30 (0%)
FIRST INCIDENCE	727 (T)	---	683	---
HC TUMORS SAME ROUTE	5/147 (3%)			
HC TUMORS ALL ROUTES	32/1238 (3%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.299N	P=0.237N	P=0.518	P=0.240N
POLY 1.5	P=0.297N	P=0.237N	P=0.511	P=0.238N
POLY 6	P=0.303N	P=0.238N	P=0.523	P=0.243N
COCH-ARM / FISHERS	P=0.296N	P=0.247N	P=0.500	P=0.247N
MAX-ISO-POLY-3	P=0.161N	P=0.076N	P=0.342	P=0.079N
HISTCONT SAME RTE	P=0.697	P=1.000	P=0.219	P=1.000
HISTCONT ALL RTES	P=0.674	P=1.000	P=0.054	P=1.000
CURR VS HC SAME RTE	P=0.834			
CURR VS HC ALL RTES	P=0.541			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Adrenal Medulla</b>				
<b>Pheochromocytoma Malignant</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/43.67	0/43.58	0/45.24	1/43.11
POLY-3 PERCENT (g)	0%	0%	0%	2.3%
TERMINAL (d)	0/30 (0%)	0/32 (0%)	0/33 (0%)	1/30 (3%)
FIRST INCIDENCE	---	---	---	727 (T)
HC TUMORS SAME ROUTE	3/147 (2%)			
HC TUMORS ALL ROUTES	7/1238 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Adrenal Medulla</b>				
<b>Pheochromocytoma: Benign, Complex, Malignant, NOS</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	2/50 (4%)	0/50 (0%)	3/50 (6%)	1/50 (2%)
POLY-3 RATE (b)	2/43.67	0/43.58	3/45.41	1/43.11
POLY-3 PERCENT (g)	4.6%	0%	6.6%	2.3%
TERMINAL (d)	2/30 (7%)	0/32 (0%)	2/33 (6%)	1/30 (3%)
FIRST INCIDENCE	727 (T)	---	683	727 (T)
HC TUMORS SAME ROUTE	8/147 (5%)			
HC TUMORS ALL ROUTES	44/1238 (4%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.560N	P=0.237N	P=0.518	P=0.505N
POLY 1.5	P=0.558N	P=0.237N	P=0.511	P=0.502N
POLY 6	P=0.564N	P=0.238N	P=0.523	P=0.509N
COCH-ARM / FISHERS	P=0.556N	P=0.247N	P=0.500	P=0.500N
MAX-ISO-POLY-3	P=0.455N	P=0.076N	P=0.342	P=0.285N
HISTCONT SAME RTE	P=1.000	P=1.000	P=1.000	P=1.000
HISTCONT ALL RTES	P=0.692	P=1.000	P=0.254	P=1.000
CURR VS HC SAME RTE	P=0.709			
CURR VS HC ALL RTES	P=0.868			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Clitoral/Preputial Gland Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	7/50 (14%)	9/50 (18%)	12/50 (24%)	8/50 (16%)
POLY-3 RATE (b)	7/43.81	9/44.70	12/45.27	8/44.05
POLY-3 PERCENT (g)	16%	20.1%	26.5%	18.2%
TERMINAL (d)	6/30 (20%)	7/32 (22%)	11/33 (33%)	5/30 (17%)
FIRST INCIDENCE	691	474	721	515
HC TUMORS SAME ROUTE	24/150 (16%)			
HC TUMORS ALL ROUTES	119/1247 (10%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.452	P=0.408	P=0.168	P=0.505
POLY 1.5	P=0.453	P=0.403	P=0.164	P=0.504
POLY 6	P=0.446	P=0.414	P=0.169	P=0.502
COCH-ARM / FISHERS	P=0.450	P=0.393	P=0.154	P=0.500
MAX-ISO-POLY-3	P=0.369	P=0.307	P=0.114	P=0.391
HISTCONT SAME RTE	P=0.615	P=0.483	P=0.304	P=1.000
HISTCONT ALL RTES	P=0.054	P=0.116	P=0.018*	P=0.186
CURR VS HC SAME RTE	P=0.844			
CURR VS HC ALL RTES	P=0.311			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Clitoral/Preputial Gland Carcinoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	0/43.67	1/43.58	1/45.24	2/43.14
POLY-3 PERCENT (g)	0%	2.3%	2.2%	4.6%
TERMINAL (d)	0/30 (0%)	1/32 (3%)	1/33 (3%)	1/30 (3%)
FIRST INCIDENCE	---	727 (T)	727 (T)	719
HC TUMORS SAME ROUTE	9/150 (6%)			
HC TUMORS ALL ROUTES	40/1247 (3%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.151	P=0.500	P=0.507	P=0.234
POLY 1.5	P=0.153	P=0.500	P=0.505	P=0.236
POLY 6	P=0.148	P=0.499	P=0.509	P=0.231
COCH-ARM / FISHERS	P=0.153	P=0.500	P=0.500	P=0.247
MAX-ISO-POLY-3	P=0.121	P=0.158	P=0.167	P=0.076
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	P=0.677	P=1.000	P=1.000	P=1.000
CURR VS HC SAME RTE	P=0.244			
CURR VS HC ALL RTEs	P=0.203			



TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Clitoral/Preputial Gland Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	7/50 (14%)	10/50 (20%)	12/50 (24%)	10/50 (20%)
POLY-3 RATE (b)	7/43.81	10/44.70	12/45.27	10/44.09
POLY-3 PERCENT (g)	16%	22.4%	26.5%	22.7%
TERMINAL (d)	6/30 (20%)	8/32 (25%)	11/33 (33%)	6/30 (20%)
FIRST INCIDENCE	691	474	721	515
HC TUMORS SAME ROUTE	33/150 (22%)			
HC TUMORS ALL ROUTES	158/1247 (13%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.283	P=0.311	P=0.168	P=0.299
POLY 1.5	P=0.285	P=0.306	P=0.164	P=0.300
POLY 6	P=0.277	P=0.315	P=0.169	P=0.296
COCH-ARM / FISHERS	P=0.283	P=0.298	P=0.154	P=0.298
MAX-ISO-POLY-3	P=0.266	P=0.225	P=0.114	P=0.214
HISTCONT SAME RTE	P=0.753	P=1.000	P=0.490	P=1.000
HISTCONT ALL RTES	P=0.074	P=0.168	P=0.060	P=0.160
CURR VS HC SAME RTE	P=0.334			
CURR VS HC ALL RTES	P=0.784			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Islets, Pancreatic Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	1/49 (2%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/43.67	1/43.28	0/45.24	1/43.11
POLY-3 PERCENT (g)	0%	2.3%	0%	2.3%
TERMINAL (d)	0/30 (0%)	1/32 (3%)	0/33 (0%)	1/30 (3%)
FIRST INCIDENCE	---	727 (T)	---	727 (T)
HC TUMORS SAME ROUTE	6/149 (4%)			
HC TUMORS ALL ROUTES	27/1244 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Liver</b>				
<b>Hepatocellular Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/43.78	0/43.58	0/45.24	0/43.11
POLY-3 PERCENT (g)	4.6%	0%	0%	0%
TERMINAL (d)	1/30 (3%)	0/32 (0%)	0/33 (0%)	0/30 (0%)
FIRST INCIDENCE	700	---	---	---
HC TUMORS SAME ROUTE	1/150 (1%)			
HC TUMORS ALL ROUTES	11/1250 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.111N	P=0.238N	P=0.230N	P=0.240N
POLY 1.5	P=0.112N	P=0.238N	P=0.232N	P=0.239N
POLY 6	P=0.110N	P=0.239N	P=0.228N	P=0.244N
COCH-ARM / FISHERS	P=0.115N	P=0.247N	P=0.247N	P=0.247N
MAX-ISO-POLY-3	P=0.035N*	P=0.077N	P=0.076N	P=0.079N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTES	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	P=0.093			
CURR VS HC ALL RTES	P=0.031*			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Liver</b>				
<b>Hepatocellular Carcinoma or Hepatocellular Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/43.78	0/43.58	0/45.24	0/43.11
POLY-3 PERCENT (g)	4.6%	0%	0%	0%
TERMINAL (d)	1/30 (3%)	0/32 (0%)	0/33 (0%)	0/30 (0%)
FIRST INCIDENCE	700	---	---	---
HC TUMORS SAME ROUTE	1/150 (1%)			
HC TUMORS ALL ROUTES	12/1250 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.111N	P=0.238N	P=0.230N	P=0.240N
POLY 1.5	P=0.112N	P=0.238N	P=0.232N	P=0.239N
POLY 6	P=0.110N	P=0.239N	P=0.228N	P=0.244N
COCH-ARM / FISHERS	P=0.115N	P=0.247N	P=0.247N	P=0.247N
MAX-ISO-POLY-3	P=0.035N*	P=0.077N	P=0.076N	P=0.079N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTES	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	P=0.093			
CURR VS HC ALL RTES	P=0.040*			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Liver</b>				
<b>Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/43.78	0/43.58	0/45.24	0/43.11
POLY-3 PERCENT (g)	4.6%	0%	0%	0%
TERMINAL (d)	1/30 (3%)	0/32 (0%)	0/33 (0%)	0/30 (0%)
FIRST INCIDENCE	700	---	---	---
HC TUMORS SAME ROUTE	1/150 (1%)			
HC TUMORS ALL ROUTES	12/1250 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.111N	P=0.238N	P=0.230N	P=0.240N
POLY 1.5	P=0.112N	P=0.238N	P=0.232N	P=0.239N
POLY 6	P=0.110N	P=0.239N	P=0.228N	P=0.244N
COCH-ARM / FISHERS	P=0.115N	P=0.247N	P=0.247N	P=0.247N
MAX-ISO-POLY-3	P=0.035N*	P=0.077N	P=0.076N	P=0.079N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTES	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	P=0.093			
CURR VS HC ALL RTES	P=0.040*			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Lung</b>				
<b>Alveolar/Bronchiolar Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	3/50 (6%)	2/50 (4%)	5/50 (10%)
POLY-3 RATE (b)	0/43.67	3/44.59	2/45.24	5/43.43
POLY-3 PERCENT (g)	0%	6.7%	4.4%	11.5%
TERMINAL (d)	0/30 (0%)	1/32 (3%)	2/33 (6%)	4/30 (13%)
FIRST INCIDENCE	---	526	727 (T)	638
HC TUMORS SAME ROUTE	6/150 (4%)			
HC TUMORS ALL ROUTES	22/1250 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.029*	P=0.122	P=0.245	P=0.030*
POLY 1.5	P=0.030*	P=0.121	P=0.242	P=0.030*
POLY 6	P=0.028*	P=0.124	P=0.247	P=0.029*
COCH-ARM / FISHERS	P=0.031*	P=0.121	P=0.247	P=0.028*
MAX-ISO-POLY-3	P=0.015*	P=0.041*	P=0.083	P=0.009**
HISTCONT SAME RTE	P=0.103	P=0.415	P=1.000	P=0.111
HISTCONT ALL RTES	P<0.001**	P=0.053	P=0.274	P<0.001**
CURR VS HC SAME RTE	P=0.172			
CURR VS HC ALL RTES	P=0.362			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Lung</b>				
<b>Alveolar/Bronchiolar Carcinoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.67	1/43.58	0/45.24	0/43.11
POLY-3 PERCENT (g)	0%	2.3%	0%	0%
TERMINAL (d)	0/30 (0%)	1/32 (3%)	0/33 (0%)	0/30 (0%)
FIRST INCIDENCE	---	727 (T)	---	---
HC TUMORS SAME ROUTE	0/150 (0%)			
HC TUMORS ALL ROUTES	6/1250 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Lung</b>				
<b>Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	4/50 (8%)	2/50 (4%)	5/50 (10%)
POLY-3 RATE (b)	0/43.67	4/44.59	2/45.24	5/43.43
POLY-3 PERCENT (g)	0%	9%	4.4%	11.5%
TERMINAL (d)	0/30 (0%)	2/32 (6%)	2/33 (6%)	4/30 (13%)
FIRST INCIDENCE	---	526	727 (T)	638
HC TUMORS SAME ROUTE	6/150 (4%)			
HC TUMORS ALL ROUTES	27/1250 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.050*	P=0.063	P=0.245	P=0.030*
POLY 1.5	P=0.051	P=0.062	P=0.242	P=0.030*
POLY 6	P=0.048*	P=0.064	P=0.247	P=0.029*
COCH-ARM / FISHERS	P=0.052	P=0.059	P=0.247	P=0.028*
MAX-ISO-POLY-3	P=0.020*	P=0.021*	P=0.083	P=0.009**
HISTCONT SAME RTE	P=0.120	P=0.211	P=1.000	P=0.111
HISTCONT ALL RTES	P<0.001**	P=0.009**	P=0.350	P<0.001**
CURR VS HC SAME RTE	P=0.172			
CURR VS HC ALL RTES	P=0.290			



TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Mammary Gland Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	0/43.67	0/43.58	2/45.38	1/43.83
POLY-3 PERCENT (g)	0%	0%	4.4%	2.3%
TERMINAL (d)	0/30 (0%)	0/32 (0%)	1/33 (3%)	0/30 (0%)
FIRST INCIDENCE	---	---	691	474
HC TUMORS SAME ROUTE	2/150 (1%)			
HC TUMORS ALL ROUTES	26/1250 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.246	(e)	P=0.246	P=0.501
POLY 1.5	P=0.247	(e)	P=0.243	P=0.501
POLY 6	P=0.243	(e)	P=0.248	P=0.499
COCH-ARM / FISHERS	P=0.246	(e)	P=0.247	P=0.500
MAX-ISO-POLY-3	P=0.180	(e)	P=0.084	P=0.159
HISTCONT SAME RTE	P=0.339	(e)	P=0.278	P=1.000
HISTCONT ALL RTES	P=0.576	(e)	P=0.314	P=1.000
CURR VS HC SAME RTE	P=0.496			
CURR VS HC ALL RTES	P=0.305			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Mammary Gland Carcinoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	2/43.67	0/43.58	1/45.55	0/43.11
POLY-3 PERCENT (g)	4.6%	0%	2.2%	0%
TERMINAL (d)	2/30 (7%)	0/32 (0%)	0/33 (0%)	0/30 (0%)
FIRST INCIDENCE	727 (T)	---	642	---
HC TUMORS SAME ROUTE	3/150 (2%)			
HC TUMORS ALL ROUTES	65/1250 (5%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.188N	P=0.237N	P=0.485N	P=0.240N
POLY 1.5	P=0.188N	P=0.237N	P=0.491N	P=0.238N
POLY 6	P=0.188N	P=0.238N	P=0.480N	P=0.243N
COCH-ARM / FISHERS	P=0.188N	P=0.247N	P=0.500N	P=0.247N
MAX-ISO-POLY-3	P=0.081N	P=0.076N	P=0.272N	P=0.079N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTES	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	P=0.492			
CURR VS HC ALL RTES	P=0.713			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Mammary Gland Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	3/50 (6%)	1/50 (2%)
POLY-3 RATE (b)	2/43.67	0/43.58	3/45.70	1/43.83
POLY-3 PERCENT (g)	4.6%	0%	6.6%	2.3%
TERMINAL (d)	2/30 (7%)	0/32 (0%)	1/33 (3%)	0/30 (0%)
FIRST INCIDENCE	727 (T)	---	642	474
HC TUMORS SAME ROUTE	5/150 (3%)			
HC TUMORS ALL ROUTES	90/1250 (7%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.553N	P=0.237N	P=0.521	P=0.499N
POLY 1.5	P=0.553N	P=0.237N	P=0.513	P=0.498N
POLY 6	P=0.555N	P=0.238N	P=0.528	P=0.501N
COCH-ARM / FISHERS	P=0.556N	P=0.247N	P=0.500	P=0.500N
MAX-ISO-POLY-3	P=0.447N	P=0.076N	P=0.345	P=0.280N
HISTCONT SAME RTE	P=0.470	P=1.000	P=0.213	P=1.000
HISTCONT ALL RTES	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	P=0.812			
CURR VS HC ALL RTES	P=0.398			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Mammary Gland Fibroadenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	34/50 (68%)	31/50 (62%)	28/50 (56%)	23/50 (46%)
POLY-3 RATE (b)	34/45.60	31/45.73	28/46.34	23/45.83
POLY-3 PERCENT (g)	74.6%	67.8%	60.4%	50.2%
TERMINAL (d)	23/30 (77%)	23/32 (72%)	22/33 (67%)	13/30 (43%)
FIRST INCIDENCE	579	526	642	540
HC TUMORS SAME ROUTE	111/150 (74%)			
HC TUMORS ALL ROUTES	655/1250 (52%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.006N**	P=0.306N	P=0.100N	P=0.010N**
POLY 1.5	P=0.008N**	P=0.315N	P=0.115N	P=0.013N*
POLY 6	P=0.005N**	P=0.307N	P=0.095N	P=0.009N**
COCH-ARM / FISHERS	P=0.013N*	P=0.338N	P=0.151N	P=0.021N*
MAX-ISO-POLY-3	P=0.008N**	P=0.228N	P=0.066N	P=0.005N**
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTES	P=0.730	P=0.176	P=0.438	P=1.000
CURR VS HC SAME RTE	P=0.572			
CURR VS HC ALL RTES	P=0.023*			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Mammary Gland</b>				
<b>Fibroma, Fibroadenoma or Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	34/50 (68%)	31/50 (62%)	29/50 (58%)	24/50 (48%)
POLY-3 RATE (b)	34/45.60	31/45.73	29/46.48	24/46.55
POLY-3 PERCENT (g)	74.6%	67.8%	62.4%	51.6%
TERMINAL (d)	23/30 (77%)	23/32 (72%)	22/33 (67%)	13/30 (43%)
FIRST INCIDENCE	579	526	642	474
HC TUMORS SAME ROUTE	111/150 (74%)			
HC TUMORS ALL ROUTES	670/1250 (54%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.009N**	P=0.306N	P=0.140N	P=0.014N*
POLY 1.5	P=0.013N*	P=0.315N	P=0.160N	P=0.019N*
POLY 6	P=0.007N**	P=0.307N	P=0.132N	P=0.012N*
COCH-ARM / FISHERS	P=0.023N*	P=0.338N	P=0.204N	P=0.034N*
MAX-ISO-POLY-3	P=0.013N*	P=0.228N	P=0.097N	P=0.008N**
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTES	P=0.732	P=0.207	P=0.403	P=1.000
CURR VS HC SAME RTE	P=0.572			
CURR VS HC ALL RTES	P=0.034*			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Mammary Gland</b>				
<b>Fibroma, Fibroadenoma, Carcinoma, or Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	34/50 (68%)	31/50 (62%)	29/50 (58%)	24/50 (48%)
POLY-3 RATE (b)	34/45.60	31/45.73	29/46.48	24/46.55
POLY-3 PERCENT (g)	74.6%	67.8%	62.4%	51.6%
TERMINAL (d)	23/30 (77%)	23/32 (72%)	22/33 (67%)	13/30 (43%)
FIRST INCIDENCE	579	526	642	474
HC TUMORS SAME ROUTE	111/150 (74%)			
HC TUMORS ALL ROUTES	702/1250 (56%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.009N**	P=0.306N	P=0.140N	P=0.014N*
POLY 1.5	P=0.013N*	P=0.315N	P=0.160N	P=0.019N*
POLY 6	P=0.007N**	P=0.307N	P=0.132N	P=0.012N*
COCH-ARM / FISHERS	P=0.023N*	P=0.338N	P=0.204N	P=0.034N*
MAX-ISO-POLY-3	P=0.013N*	P=0.228N	P=0.097N	P=0.008N**
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTES	P=1.000	P=0.287	P=1.000	P=1.000
CURR VS HC SAME RTE	P=0.572			
CURR VS HC ALL RTES	P=0.069			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva)</b>				
<b>Papilloma Squamous or Papilloma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	0/43.67	0/43.58	1/45.44	2/43.11
POLY-3 PERCENT (g)	0%	0%	2.2%	4.6%
TERMINAL (d)	0/30 (0%)	0/32 (0%)	0/33 (0%)	2/30 (7%)
FIRST INCIDENCE	---	---	677	727 (T)
HC TUMORS SAME ROUTE	3/150 (2%)			
HC TUMORS ALL ROUTES	6/1250 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.069	(e)	P=0.508	P=0.234
POLY 1.5	P=0.069	(e)	P=0.505	P=0.236
POLY 6	P=0.067	(e)	P=0.510	P=0.231
COCH-ARM / FISHERS	P=0.070	(e)	P=0.500	P=0.247
MAX-ISO-POLY-3	P=0.077	(e)	P=0.168	P=0.076
HISTCONT SAME RTE	P=0.085	(e)	P=1.000	P=0.233
HISTCONT ALL RTEs	P<0.001**	(e)	P=0.248	P<0.001**
CURR VS HC SAME RTE	P=0.218			
CURR VS HC ALL RTEs	P=0.545			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva) Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	0/43.67	0/43.58	1/45.44	2/43.11
POLY-3 PERCENT (g)	0%	0%	2.2%	4.6%
TERMINAL (d)	0/30 (0%)	0/32 (0%)	0/33 (0%)	2/30 (7%)
FIRST INCIDENCE	---	---	677	727 (T)
HC TUMORS SAME ROUTE	3/150 (2%)			
HC TUMORS ALL ROUTES	9/1250 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.069	(e)	P=0.508	P=0.234
POLY 1.5	P=0.069	(e)	P=0.505	P=0.236
POLY 6	P=0.067	(e)	P=0.510	P=0.231
COCH-ARM / FISHERS	P=0.070	(e)	P=0.500	P=0.247
MAX-ISO-POLY-3	P=0.077	(e)	P=0.168	P=0.076
HISTCONT SAME RTE	P=0.085	(e)	P=1.000	P=0.233
HISTCONT ALL RTEs	P=0.006**	(e)	P=0.403	P=0.009**
CURR VS HC SAME RTE	P=0.218			
CURR VS HC ALL RTEs	P=0.574			



TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Ovary</b>				
<b>Granulosa Cell Tumor Malignant</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.67	2/43.58	0/45.24	0/43.11
POLY-3 PERCENT (g)	0%	4.6%	0%	0%
TERMINAL (d)	0/30 (0%)	2/32 (6%)	0/33 (0%)	0/30 (0%)
FIRST INCIDENCE	---	727 (T)	---	---
HC TUMORS SAME ROUTE	0/149 (0%)			
HC TUMORS ALL ROUTES	6/1248 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.404N	P=0.236	(e)	(e)
POLY 1.5	P=0.404N	P=0.237	(e)	(e)
POLY 6	P=0.406N	P=0.236	(e)	(e)
COCH-ARM / FISHERS	P=0.405N	P=0.247	(e)	(e)
MAX-ISO-POLY-3	P=0.256N	P=0.076	(e)	(e)
HISTCONT SAME RTE	P=0.420	P=0.078	(e)	(e)
HISTCONT ALL RTES	P=0.440	P=0.003**	(e)	(e)
CURR VS HC SAME RTE	P=1.000			
CURR VS HC ALL RTES	P=0.541			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Ovary</b>				
<b>Granulosa Cell Tumor: Benign, Malignant, NOS</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/43.67	2/43.58	1/45.24	0/43.11
POLY-3 PERCENT (g)	0%	4.6%	2.2%	0%
TERMINAL (d)	0/30 (0%)	2/32 (6%)	1/33 (3%)	0/30 (0%)
FIRST INCIDENCE	---	727 (T)	727 (T)	---
HC TUMORS SAME ROUTE	0/149 (0%)			
HC TUMORS ALL ROUTES	8/1248 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.464N	P=0.236	P=0.507	(e)
POLY 1.5	P=0.462N	P=0.237	P=0.505	(e)
POLY 6	P=0.468N	P=0.236	P=0.509	(e)
COCH-ARM / FISHERS	P=0.461N	P=0.247	P=0.500	(e)
MAX-ISO-POLY-3	P=0.336N	P=0.076	P=0.167	(e)
HISTCONT SAME RTE	P=0.277	P=0.078	P=0.243	(e)
HISTCONT ALL RTES	P=0.285	P=0.007**	P=0.362	(e)
CURR VS HC SAME RTE	P=1.000			
CURR VS HC ALL RTES	P=0.564			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Pituitary Gland: Pars Distalis or Unspecified Site Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	30/50 (60%)	27/49 (55%)	29/49 (59%)	26/50 (52%)
POLY-3 RATE (b)	30/48.34	27/45.28	29/46.00	26/46.59
POLY-3 PERCENT (g)	62.1%	59.6%	63%	55.8%
TERMINAL (d)	15/30 (50%)	19/32 (59%)	23/33 (70%)	14/30 (47%)
FIRST INCIDENCE	454	474	527	474
HC TUMORS SAME ROUTE	83/149 (56%)			
HC TUMORS ALL ROUTES	682/1247 (55%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.316N	P=0.488N	P=0.546	P=0.339N
POLY 1.5	P=0.297N	P=0.444N	P=0.578	P=0.310N
POLY 6	P=0.343N	P=0.546N	P=0.495	P=0.376N
COCH-ARM / FISHERS	P=0.272N	P=0.386N	P=0.548N	P=0.273N
MAX-ISO-POLY-3	P=0.428N	P=0.404N	P=0.460	P=0.269N
HISTCONT SAME RTE	P=1.000	P=1.000	P=0.130	P=1.000
HISTCONT ALL RTES	P=0.764	P=1.000	P=0.358	P=1.000
CURR VS HC SAME RTE	P=0.759			
CURR VS HC ALL RTES	P=0.660			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Skin</b>				
<b>Basal Cell Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/43.67	0/43.58	0/45.24	0/43.11
POLY-3 PERCENT (g)	2.3%	0%	0%	0%
TERMINAL (d)	1/30 (3%)	0/32 (0%)	0/33 (0%)	0/30 (0%)
FIRST INCIDENCE	727 (T)	---	---	---
HC TUMORS SAME ROUTE	0/150 (0%)			
HC TUMORS ALL ROUTES	5/1250 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Skin</b>				
Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/43.67	0/43.58	0/45.24	1/43.11
POLY-3 PERCENT (g)	2.3%	0%	0%	2.3%
TERMINAL (d)	1/30 (3%)	0/32 (0%)	0/33 (0%)	1/30 (3%)
FIRST INCIDENCE	727 (T)	---	---	727 (T)
HC TUMORS SAME ROUTE	1/150 (1%)			
HC TUMORS ALL ROUTES	21/1250 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Skin</b>				
<b>Fibroma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	2/50 (4%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	2/43.73	2/43.58	1/45.74	0/43.11
POLY-3 PERCENT (g)	4.6%	4.6%	2.2%	0%
TERMINAL (d)	1/30 (3%)	2/32 (6%)	0/33 (0%)	0/30 (0%)
FIRST INCIDENCE	712	727 (T)	579	---
HC TUMORS SAME ROUTE	2/150 (1%)			
HC TUMORS ALL ROUTES	25/1250 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.126N	P=0.693	P=0.484N	P=0.240N
POLY 1.5	P=0.126N	P=0.693	P=0.490N	P=0.239N
POLY 6	P=0.127N	P=0.692	P=0.480N	P=0.243N
COCH-ARM / FISHERS	P=0.125N	P=0.691N	P=0.500N	P=0.247N
MAX-ISO-POLY-3	P=0.164N	P=0.498	P=0.272N	P=0.079N
HISTCONT SAME RTE	P=0.591	P=0.193	P=1.000	P=1.000
HISTCONT ALL RTES	P=1.000	P=0.238	P=1.000	P=1.000
CURR VS HC SAME RTE	P=0.194			
CURR VS HC ALL RTES	P=0.338			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Skin</b>				
Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	2/50 (4%)	3/50 (6%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	2/43.73	3/43.58	2/45.74	1/43.11
POLY-3 PERCENT (g)	4.6%	6.9%	4.4%	2.3%
TERMINAL (d)	1/30 (3%)	3/32 (9%)	1/33 (3%)	1/30 (3%)
FIRST INCIDENCE	712	727 (T)	579	727 (T)
HC TUMORS SAME ROUTE	3/150 (2%)			
HC TUMORS ALL ROUTES	31/1250 (3%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.316N	P=0.498	P=0.678N	P=0.505N
POLY 1.5	P=0.314N	P=0.499	P=0.684N	P=0.502N
POLY 6	P=0.320N	P=0.497	P=0.673N	P=0.510N
COCH-ARM / FISHERS	P=0.313N	P=0.500	P=0.691N	P=0.500N
MAX-ISO-POLY-3	P=0.368N	P=0.322	P=0.481N	P=0.286N
HISTCONT SAME RTE	P=0.283	P=0.079	P=0.266	P=1.000
HISTCONT ALL RTES	P=0.431	P=0.054	P=0.404	P=1.000
CURR VS HC SAME RTE	P=0.393			
CURR VS HC ALL RTES	P=0.509			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Skin</b>				
<b>Keratoacanthoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/43.67	0/43.58	0/45.24	1/43.11
POLY-3 PERCENT (g)	0%	0%	0%	2.3%
TERMINAL (d)	0/30 (0%)	0/32 (0%)	0/33 (0%)	1/30 (3%)
FIRST INCIDENCE	---	---	---	727 (T)
HC TUMORS SAME ROUTE	1/150 (1%)			
HC TUMORS ALL ROUTES	7/1250 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			



TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Skin</b>				
<b>Lipoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/43.67	0/43.58	0/45.24	1/43.11
POLY-3 PERCENT (g)	0%	0%	0%	2.3%
TERMINAL (d)	0/30 (0%)	0/32 (0%)	0/33 (0%)	1/30 (3%)
FIRST INCIDENCE	---	---	---	727 (T)
HC TUMORS SAME ROUTE	0/150 (0%)			
HC TUMORS ALL ROUTES	0/1250 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Skin</b>				
<b>Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/43.67	0/43.58	0/45.24	1/43.11
POLY-3 PERCENT (g)	0%	0%	0%	2.3%
TERMINAL (d)	0/30 (0%)	0/32 (0%)	0/33 (0%)	1/30 (3%)
FIRST INCIDENCE	---	---	---	727 (T)
HC TUMORS SAME ROUTE	1/150 (1%)			
HC TUMORS ALL ROUTES	12/1250 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Skin</b>				
<b>Squamous Cell Papilloma, Papilloma, or Keratoacanthoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/43.67	0/43.58	0/45.24	1/43.11
POLY-3 PERCENT (g)	0%	0%	0%	2.3%
TERMINAL (d)	0/30 (0%)	0/32 (0%)	0/33 (0%)	1/30 (3%)
FIRST INCIDENCE	---	---	---	727 (T)
HC TUMORS SAME ROUTE	1/150 (1%)			
HC TUMORS ALL ROUTES	9/1250 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Thyroid Gland: C-Cell Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	10/50 (20%)	3/48 (6%)	3/50 (6%)	6/50 (12%)
POLY-3 RATE (b)	10/44.37	3/42.44	3/45.47	6/43.66
POLY-3 PERCENT (g)	22.5%	7.1%	6.6%	13.7%
TERMINAL (d)	9/30 (30%)	3/32 (9%)	2/33 (6%)	4/30 (13%)
FIRST INCIDENCE	488	727 (T)	666	638
HC TUMORS SAME ROUTE	20/145 (14%)			
HC TUMORS ALL ROUTES	126/1233 (10%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.236N	P=0.040N*	P=0.030N*	P=0.213N
POLY 1.5	P=0.236N	P=0.041N*	P=0.032N*	P=0.210N
POLY 6	P=0.237N	P=0.039N*	P=0.028N*	P=0.216N
COCH-ARM / FISHERS	P=0.239N	P=0.042N*	P=0.036N*	P=0.207N
MAX-ISO-POLY-3	P=0.044N*	P=0.021N*	P=0.015N*	P=0.143N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	P=0.542	P=1.000	P=1.000	P=0.402
CURR VS HC SAME RTE	P=0.243			
CURR VS HC ALL RTEs	P=0.029*			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Thyroid Gland: C-Cell Carcinoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	1/50 (2%)	1/48 (2%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	1/43.67	1/42.44	2/45.24	1/43.11
POLY-3 PERCENT (g)	2.3%	2.4%	4.4%	2.3%
TERMINAL (d)	1/30 (3%)	1/32 (3%)	2/33 (6%)	1/30 (3%)
FIRST INCIDENCE	727 (T)	727 (T)	727 (T)	727 (T)
HC TUMORS SAME ROUTE	3/145 (2%)			
HC TUMORS ALL ROUTES	16/1233 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.587	P=0.754	P=0.512	P=0.758
POLY 1.5	P=0.591	P=0.753	P=0.508	P=0.759
POLY 6	P=0.579	P=0.756	P=0.515	P=0.755
COCH-ARM / FISHERS	P=0.595	P=0.742	P=0.500	P=0.753N
MAX-ISO-POLY-3	P=0.597	P=0.491	P=0.294	P=0.495
HISTCONT SAME RTE	P=0.498	P=1.000	P=0.381	P=1.000
HISTCONT ALL RTEs	P=0.285	P=1.000	P=0.131	P=1.000
CURR VS HC SAME RTE	P=0.955			
CURR VS HC ALL RTEs	P=0.675			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Thyroid Gland: C-Cell Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	11/50 (22%)	4/48 (8%)	5/50 (10%)	7/50 (14%)
POLY-3 RATE (b)	11/44.37	4/42.44	5/45.47	7/43.66
POLY-3 PERCENT (g)	24.8%	9.4%	11%	16%
TERMINAL (d)	10/30 (33%)	4/32 (13%)	4/33 (12%)	5/30 (17%)
FIRST INCIDENCE	488	727 (T)	666	638
HC TUMORS SAME ROUTE	23/145 (16%)			
HC TUMORS ALL ROUTES	141/1233 (11%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.268N	P=0.051N	P=0.074N	P=0.224N
POLY 1.5	P=0.267N	P=0.052N	P=0.078N	P=0.221N
POLY 6	P=0.270N	P=0.049N*	P=0.070N	P=0.228N
COCH-ARM / FISHERS	P=0.267N	P=0.054N	P=0.086N	P=0.218N
MAX-ISO-POLY-3	P=0.079N	P=0.029N*	P=0.043N*	P=0.155N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTEs	P=0.482	P=1.000	P=1.000	P=0.324
CURR VS HC SAME RTE	P=0.284			
CURR VS HC ALL RTEs	P=0.024*			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Tongue</b>				
<b>Squamous Cell Carcinoma or Papilloma Squamous</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/43.67	0/43.58	0/45.24	1/43.11
POLY-3 PERCENT (g)	0%	0%	0%	2.3%
TERMINAL (d)	0/30 (0%)	0/32 (0%)	0/33 (0%)	1/30 (3%)
FIRST INCIDENCE	---	---	---	727 (T)
HC TUMORS SAME ROUTE	2/150 (1%)			
HC TUMORS ALL ROUTES	5/1250 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Uterus</b>				
<b>Polyp Stromal</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	8/50 (16%)	13/50 (26%)	13/50 (26%)	6/50 (12%)
POLY-3 RATE (b)	8/43.67	13/44.73	13/46.34	6/43.53
POLY-3 PERCENT (g)	18.3%	29.1%	28.1%	13.8%
TERMINAL (d)	8/30 (27%)	10/32 (31%)	8/33 (24%)	5/30 (17%)
FIRST INCIDENCE	727 (T)	526	642	607
HC TUMORS SAME ROUTE	32/150 (21%)			
HC TUMORS ALL ROUTES	219/1250 (18%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.235N	P=0.173	P=0.199	P=0.388N
POLY 1.5	P=0.234N	P=0.169	P=0.184	P=0.387N
POLY 6	P=0.239N	P=0.178	P=0.219	P=0.392N
COCH-ARM / FISHERS	P=0.237N	P=0.163	P=0.163	P=0.387N
MAX-ISO-POLY-3	P=0.159N	P=0.119	P=0.143	P=0.283N
HISTCONT SAME RTE	P=1.000	P=0.194	P=0.247	P=1.000
HISTCONT ALL RTES	P=0.506	P=0.054	P=0.070	P=1.000
CURR VS HC SAME RTE	P=0.416			
CURR VS HC ALL RTES	P=0.812			



TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Vagina</b>				
<b>Polyp</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	1/43.67	1/43.98	0/45.24	2/43.99
POLY-3 PERCENT (g)	2.3%	2.3%	0%	4.6%
TERMINAL (d)	1/30 (3%)	0/32 (0%)	0/33 (0%)	0/30 (0%)
FIRST INCIDENCE	727 (T)	614	---	589
HC TUMORS SAME ROUTE	0/150 (0%)			
HC TUMORS ALL ROUTES	4/1250 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.369	P=0.759N	P=0.493N	P=0.503
POLY 1.5	P=0.369	P=0.760N	P=0.495N	P=0.502
POLY 6	P=0.370	P=0.758N	P=0.491N	P=0.503
COCH-ARM / FISHERS	P=0.366	P=0.753N	P=0.500N	P=0.500
MAX-ISO-POLY-3	P=0.277	P=0.497N	P=0.158N	P=0.283
HISTCONT SAME RTE	P=0.038*	P=0.240	(e)	P=0.077
HISTCONT ALL RTES	P=0.002**	P=0.190	P=1.000	P<0.001**
CURR VS HC SAME RTE	P=0.053			
CURR VS HC ALL RTES	P=0.058			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Zymbal's Gland Carcinoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	0/43.67	0/43.58	2/45.63	0/43.11
POLY-3 PERCENT (g)	0%	0%	4.4%	0%
TERMINAL (d)	0/30 (0%)	0/32 (0%)	0/33 (0%)	0/30 (0%)
FIRST INCIDENCE	---	---	670	---
HC TUMORS SAME ROUTE	1/150 (1%)			
HC TUMORS ALL ROUTES	6/1250 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.585	(e)	P=0.247	(e)
POLY 1.5	P=0.590	(e)	P=0.243	(e)
POLY 6	P=0.576	(e)	P=0.251	(e)
COCH-ARM / FISHERS	P=0.595	(e)	P=0.247	(e)
MAX-ISO-POLY-3	P=0.263	(e)	P=0.085	(e)
HISTCONT SAME RTE	P=0.385	(e)	P=0.137	(e)
HISTCONT ALL RTES	P=0.167	(e)	P<0.001**	(e)
CURR VS HC SAME RTE	P=0.457			
CURR VS HC ALL RTES	P=0.541			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>Zymbal's Gland Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	0/43.67	0/43.58	2/45.63	0/43.11
POLY-3 PERCENT (g)	0%	0%	4.4%	0%
TERMINAL (d)	0/30 (0%)	0/32 (0%)	0/33 (0%)	0/30 (0%)
FIRST INCIDENCE	---	---	670	---
HC TUMORS SAME ROUTE	1/150 (1%)			
HC TUMORS ALL ROUTES	6/1250 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.585	(e)	P=0.247	(e)
POLY 1.5	P=0.590	(e)	P=0.243	(e)
POLY 6	P=0.576	(e)	P=0.251	(e)
COCH-ARM / FISHERS	P=0.595	(e)	P=0.247	(e)
MAX-ISO-POLY-3	P=0.263	(e)	P=0.085	(e)
HISTCONT SAME RTE	P=0.385	(e)	P=0.137	(e)
HISTCONT ALL RTES	P=0.167	(e)	P<0.001**	(e)
CURR VS HC SAME RTE	P=0.457			
CURR VS HC ALL RTES	P=0.541			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>All Organs</b>				
<b>Hemangiosarcoma or Hemangioma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/43.67	0/43.58	1/45.24	0/43.11
POLY-3 PERCENT (g)	0%	0%	2.2%	0%
TERMINAL (d)	0/30 (0%)	0/32 (0%)	1/33 (3%)	0/30 (0%)
FIRST INCIDENCE	---	---	727 (T)	---
HC TUMORS SAME ROUTE	1/150 (1%)			
HC TUMORS ALL ROUTES	7/1250 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>All Organs</b>				
<b>Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	12/50 (24%)	15/50 (30%)	18/50 (36%)	10/50 (20%)
POLY-3 RATE (b)	12/45.62	15/45.26	18/46.92	10/44.91
POLY-3 PERCENT (g)	26.3%	33.1%	38.4%	22.3%
TERMINAL (d)	5/30 (17%)	7/32 (22%)	10/33 (30%)	6/30 (20%)
FIRST INCIDENCE	454	614	527	515
HC TUMORS SAME ROUTE	37/150 (25%)			
HC TUMORS ALL ROUTES	263/1250 (21%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.336N	P=0.314	P=0.153	P=0.420N
POLY 1.5	P=0.329N	P=0.318	P=0.147	P=0.412N
POLY 6	P=0.354N	P=0.313	P=0.157	P=0.434N
COCH-ARM / FISHERS	P=0.325N	P=0.326	P=0.138	P=0.405N
MAX-ISO-POLY-3	P=0.227N	P=0.239	P=0.108	P=0.328N
HISTCONT SAME RTE	P=0.528	P=0.253	P=0.113	P=1.000
HISTCONT ALL RTES	P=0.325	P=0.116	P=0.026*	P=1.000
CURR VS HC SAME RTE	P=0.933			
CURR VS HC ALL RTES	P=0.654			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>All Organs</b>				
<b>Mesothelioma: Benign, Malignant, NOS</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.67	1/44.28	0/45.24	0/43.11
POLY-3 PERCENT (g)	0%	2.3%	0%	0%
TERMINAL (d)	0/30 (0%)	0/32 (0%)	0/33 (0%)	0/30 (0%)
FIRST INCIDENCE	---	488	---	---
HC TUMORS SAME ROUTE	0/150 (0%)			
HC TUMORS ALL ROUTES	5/1250 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>All Organs</b>				
<b>Mesothelioma: Malignant</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.67	1/44.28	0/45.24	0/43.11
POLY-3 PERCENT (g)	0%	2.3%	0%	0%
TERMINAL (d)	0/30 (0%)	0/32 (0%)	0/33 (0%)	0/30 (0%)
FIRST INCIDENCE	---	488	---	---
HC TUMORS SAME ROUTE	0/150 (0%)			
HC TUMORS ALL ROUTES	4/1250 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)
HISTCONT SAME RTE	(n)	(n)	(n)	(n)
HISTCONT ALL RTES	(n)	(n)	(n)	(n)
CURR VS HC SAME RTE	(n)			
CURR VS HC ALL RTES	(n)			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>All Organs</b>				
<b>Benign Tumors</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	47/50 (94%)	45/50 (90%)	44/50 (88%)	43/50 (86%)
POLY-3 RATE (b)	47/48.94	45/47.95	44/48.13	43/48.77
POLY-3 PERCENT (g)	96%	93.9%	91.4%	88.2%
TERMINAL (d)	29/30 (97%)	32/32 (100%)	32/33 (97%)	26/30 (87%)
FIRST INCIDENCE	454	474	527	474
HC TUMORS SAME ROUTE	140/150 (93%)			
HC TUMORS ALL ROUTES	1083/1250 (87%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.067N	P=0.487N	P=0.278N	P=0.125N
POLY 1.5	P=0.089N	P=0.419N	P=0.254N	P=0.136N
POLY 6	P=0.048N*	P=0.605N	P=0.346N	P=0.121N
COCH-ARM / FISHERS	P=0.129N	P=0.357N	P=0.243N	P=0.159N
MAX-ISO-POLY-3	P=0.080N	P=0.286N	P=0.145N	P=0.060N
HISTCONT SAME RTE	(h)	(h)	(h)	(h)
HISTCONT ALL RTES	P=0.698	P=0.211	P=1.000	P=1.000
CURR VS HC SAME RTE	P=0.937			
CURR VS HC ALL RTES	P=0.151			



TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>All Organs</b>				
<b>Malignant Tumors</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	17/50 (34%)	18/50 (36%)	27/50 (54%)	18/50 (36%)
POLY-3 RATE (b)	17/46.65	18/45.96	27/48.12	18/45.73
POLY-3 PERCENT (g)	36.5%	39.2%	56.1%	39.4%
TERMINAL (d)	8/30 (27%)	9/32 (28%)	15/33 (46%)	11/30 (37%)
FIRST INCIDENCE	454	488	527	515
HC TUMORS SAME ROUTE	58/150 (39%)			
HC TUMORS ALL ROUTES	446/1250 (36%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.354	P=0.478	P=0.040*	P=0.470
POLY 1.5	P=0.369	P=0.487	P=0.037*	P=0.485
POLY 6	P=0.328	P=0.470	P=0.044*	P=0.447
COCH-ARM / FISHERS	P=0.385	P=0.500	P=0.035*	P=0.500
MAX-ISO-POLY-3	P=0.212	P=0.392	P=0.027*	P=0.386
HISTCONT SAME RTE	P=0.317	P=1.000	P=0.026*	P=1.000
HISTCONT ALL RTES	P=0.316	P=1.000	P=0.025*	P=1.000
CURR VS HC SAME RTE	P=0.490			
CURR VS HC ALL RTES	P=0.772			

TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
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 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:56  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

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

DOSE	Females			
	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
<b>All Organs</b>				
<b>Malignant and Benign Tumors</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	49/50 (98%)	49/50 (98%)	48/50 (96%)	45/50 (90%)
POLY-3 RATE (b)	49/50.00	49/49.39	48/48.95	45/49.39
POLY-3 PERCENT (g)	98%	99.2%	98.1%	91.1%
TERMINAL (d)	29/30 (97%)	32/32 (100%)	33/33 (100%)	27/30 (90%)
FIRST INCIDENCE	454	474	527	474
HC TUMORS SAME ROUTE	146/150 (97%)			
HC TUMORS ALL ROUTES	1175/1250 (94%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.019N*	P=0.644	P=0.787	P=0.132N
POLY 1.5	P=0.021N*	P=0.703	P=0.670N	P=0.117N
POLY 6	P=0.023N*	P=0.563	P=0.678	P=0.162N
COCH-ARM / FISHERS	P=0.029N*	P=0.753N	P=0.500N	P=0.102N
MAX-ISO-POLY-3	P=0.018N*	P=0.290	P=0.489	P=0.059N
HISTCONT SAME RTE	P=1.000	P=1.000	P=1.000	P=1.000
HISTCONT ALL RTES	P=0.665	P=0.081	P=0.208	P=1.000
CURR VS HC SAME RTE	P=0.939			
CURR VS HC ALL RTES	P=0.371			

TDMS No. 20009 - 03  
Test Type: CHRONIC  
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Species/Strain: RATS/F 344/N

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## LEGEND

- (a) Number of tumor-bearing animals/number of animals examined at site.
- (b) Number of tumor-bearing animals/Poly-3 number
- (d) Observed incidence at terminal kill.
- (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) Historical Controls statistic is not calculated when the HC Poly-3 rate is higher than the Poly-3 rates for all dose groups.
- (n) No statistics are calculated if all dose groups have fewer than two tumors.
- (I) Interim sacrifice
- (T) Terminal sacrifice
- # Tumor rates based on numbers of animals necropsied.
- \* To the right of any statistical result, indicates significance at ( $P \leq 0.05$ ).
- \*\* To the right of any statistical result, indicates significance at ( $P \leq 0.01$ ).
- N Indicates a negative trend for all tests  
The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates.

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