

**Experiment Number:** 20515 - 03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
Metal working fluids (CIMSTAR 3800)  
**CAS Number:** CIMSTAR3800

**Date Report Requested:** 02/18/2014  
**Time Report Requested:** 12:32:34  
**First Dose M/F:** 04/14/08 / 04/14/08  
**Lab:** BNW

F2\_RE

**NTP Study Number:** C20515  
**Lock Date:** 01/12/2011  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 3.0.2.0\_001  
**PWG Approval Date:** 02/21/2013

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**HISTORICAL CONTROL STUDIES**  
From June 2013 report

**SAME ROUTE**

**ALL ROUTES**

20203-03 -- Green tea extract (GAVAGE WATER)  
20320-03 -- Tetrabromobisphenol A (GAVAGE CORN OIL)

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

Adrenal Cortex  
Adrenal Medulla  
Brain  
Heart  
Islets, Pancreatic  
Liver  
Ovary  
Pituitary Gland  
Prostate  
Testes  
Thymus  
Thyroid Gland

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## SUMMARY OF STATISTICALLY SIGNIFICANT ( $P \leq .05$ ) RESULTS IN THE ANALYSIS OF METAL WORKING FLUIDS (CIMSTAR 3800)

### MALE RATS

#### Organ

Adrenal Medulla  
Islets, Pancreatic  
Lymph Node, Mesenteric  
All Organs

#### Morphology

Pheochromocytoma Benign  
Carcinoma or Adenoma  
Hemangiosarcoma  
Hemangiosarcoma  
Benign Tumors

### FEMALE RATS

#### Organ

Brain  
Skin  
  
  
  
  
  
  
  
  
  
  
Thyroid Gland: C-Cell  
  
  
  
  
  
  
  
  
  
  
All Organs

#### Morphology

Granular Cell Tumor Malignant  
Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma  
Squamous Cell Papilloma  
Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma  
Squamous Cell Papilloma, Papilloma, or Keratoacanthoma  
Carcinoma  
Carcinoma or Adenoma  
Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type

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**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Adrenal Cortex</b>				
<b>Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	2/50 (4%)	0/50 (0%)	2/49 (4%)	1/50 (2%)
POLY-3 RATE (b)	2/44.03	0/42.93	2/45.12	1/43.48
POLY-3 PERCENT (g)	4.5%	0%	4.4%	2.3%
TERMINAL (d)	1/33 (3%)	0/34 (0%)	1/34 (3%)	1/33 (3%)
FIRST INCIDENCE	599	---	722	729 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.591N	P=0.243N	P=0.685N	P=0.504N
POLY 1.5	P=0.593N	P=0.241N	P=0.692N	P=0.505N
POLY 6	P=0.589N	P=0.243N	P=0.678N	P=0.502N
COCH-ARM / FISHERS	P=0.593N	P=0.247N	P=0.684	P=0.500N
MAX-ISO-POLY-3	P=0.428N	P=0.081N	P=0.489N	P=0.285N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.225	P=1.000	P=0.252	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.291			

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**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Adrenal Medulla</b>				
<b>Pheochromocytoma Benign</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	4/50 (8%)	0/48 (0%)	1/49 (2%)	5/50 (10%)
POLY-3 RATE (b)	4/44.07	0/40.93	1/45.09	5/43.50
POLY-3 PERCENT (g)	9.1%	0%	2.2%	11.5%
TERMINAL (d)	2/33 (6%)	0/32 (0%)	1/34 (3%)	4/33 (12%)
FIRST INCIDENCE	612	---	729 (T)	725
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/99 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.118	P=0.070N	P=0.172N	P=0.492
POLY 1.5	P=0.118	P=0.069N	P=0.177N	P=0.492
POLY 6	P=0.120	P=0.071N	P=0.166N	P=0.494
COCH-ARM / FISHERS	P=0.120	P=0.064N	P=0.187N	P=0.500
MAX-ISO-POLY-3	P=0.100	P=0.026N*	P=0.083N	P=0.355
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	P=0.044*	P=1.000	P=1.000	P=0.087
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTEs	P=0.034*			

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**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Adrenal Medulla</b>				
<b>Pheochromocytoma: Benign, Complex, Malignant, NOS</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	4/50 (8%)	1/48 (2%)	1/49 (2%)	5/50 (10%)
POLY-3 RATE (b)	4/44.07	1/40.93	1/45.09	5/43.50
POLY-3 PERCENT (g)	9.1%	2.4%	2.2%	11.5%
TERMINAL (d)	2/33 (6%)	1/32 (3%)	1/34 (3%)	4/33 (12%)
FIRST INCIDENCE	612	729 (T)	729 (T)	725
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/99 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.177	P=0.201N	P=0.172N	P=0.492
POLY 1.5	P=0.176	P=0.198N	P=0.177N	P=0.492
POLY 6	P=0.179	P=0.204N	P=0.166N	P=0.494
COCH-ARM / FISHERS	P=0.178	P=0.194N	P=0.187N	P=0.500
MAX-ISO-POLY-3	P=0.153	P=0.103N	P=0.083N	P=0.355
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	P=0.046*	P=1.000	P=1.000	P=0.087
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTEs	P=0.034*			

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**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Bone</b>				
<b>Osteosarcoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	1/43.59	1/43.47	0/45.98	2/43.72
POLY-3 PERCENT (g)	2.3%	2.3%	0%	4.6%
TERMINAL (d)	1/33 (3%)	0/34 (0%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	729 (T)	564	---	675
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.326	P=0.760	P=0.489N	P=0.501
POLY 1.5	P=0.325	P=0.759	P=0.494N	P=0.498
POLY 6	P=0.329	P=0.759N	P=0.484N	P=0.507
COCH-ARM / FISHERS	P=0.327	P=0.753N	P=0.500N	P=0.500
MAX-ISO-POLY-3	P=0.277	P=0.498	P=0.158N	P=0.282
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.130	P=1.000	P=1.000	P=0.245
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.692			



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 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Brain</b>				
<b>Glioma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	2/50 (4%)	1/50 (2%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	2/44.05	1/43.48	1/45.98	0/43.48
POLY-3 PERCENT (g)	4.5%	2.3%	2.2%	0%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	1/34 (3%)	0/33 (0%)
FIRST INCIDENCE	612	562	729 (T)	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.202N	P=0.505N	P=0.485N	P=0.240N
POLY 1.5	P=0.202N	P=0.504N	P=0.491N	P=0.240N
POLY 6	P=0.202N	P=0.504N	P=0.479N	P=0.239N
COCH-ARM / FISHERS	P=0.200N	P=0.500N	P=0.500N	P=0.247N
MAX-ISO-POLY-3	P=0.129N	P=0.286N	P=0.272N	P=0.079N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.279	P=0.347	P=0.355	(e)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.036*			

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 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Brain</b>				
<b>Granular Cell Tumor Benign</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/43.59	2/43.03	0/45.98	1/43.48
POLY-3 PERCENT (g)	0%	4.7%	0%	2.3%
TERMINAL (d)	0/33 (0%)	1/34 (3%)	0/34 (0%)	1/33 (3%)
FIRST INCIDENCE	---	704	---	729 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	3/100 (3%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.617	P=0.234	(e)	P=0.500
POLY 1.5	P=0.616	P=0.235	(e)	P=0.498
POLY 6	P=0.620	P=0.235	(e)	P=0.502
COCH-ARM / FISHERS	P=0.619	P=0.247	(e)	P=0.500
MAX-ISO-POLY-3	P=0.334	P=0.076	(e)	P=0.158
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=1.000	P=1.000	(e)	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.148			

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**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Brain</b>				
<b>Granular Cell Tumor Malignant</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/43.59	1/42.93	1/46.15	0/43.48
POLY-3 PERCENT (g)	0%	2.3%	2.2%	0%
TERMINAL (d)	0/33 (0%)	1/34 (3%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	---	729 (T)	684	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (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)			

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DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Heart</b>				
<b>Schwannoma Benign</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	1/50 (2%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	1/43.59	0/42.93	2/46.08	0/43.48
POLY-3 PERCENT (g)	2.3%	0%	4.3%	0%
TERMINAL (d)	1/33 (3%)	0/34 (0%)	1/34 (3%)	0/33 (0%)
FIRST INCIDENCE	729 (T)	---	704	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.442N	P=0.503N	P=0.519	P=0.500N
POLY 1.5	P=0.444N	P=0.503N	P=0.511	P=0.502N
POLY 6	P=0.438N	P=0.502N	P=0.529	P=0.498N
COCH-ARM / FISHERS	P=0.444N	P=0.500N	P=0.500	P=0.500N
MAX-ISO-POLY-3	P=0.335N	P=0.162N	P=0.302	P=0.159N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	P=0.309	(e)	P=0.155	(e)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTEs	P=0.122			

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**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Islets, Pancreatic Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/49 (4%)	2/50 (4%)
POLY-3 RATE (b)	0/43.59	0/42.93	2/46.00	2/43.48
POLY-3 PERCENT (g)	0%	0%	4.4%	4.6%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	1/34 (3%)	2/33 (6%)
FIRST INCIDENCE	---	---	704	729 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.135	(e)	P=0.249	P=0.236
POLY 1.5	P=0.133	(e)	P=0.243	P=0.235
POLY 6	P=0.138	(e)	P=0.256	P=0.239
COCH-ARM / FISHERS	P=0.134	(e)	P=0.242	P=0.247
MAX-ISO-POLY-3	P=0.124	(e)	P=0.089	P=0.076
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.152	(e)	P=0.262	P=0.251
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.346			

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 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Islets, Pancreatic Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	0/50 (0%)	3/49 (6%)	2/50 (4%)
POLY-3 RATE (b)	0/43.59	0/42.93	3/46.07	2/43.48
POLY-3 PERCENT (g)	0%	0%	6.5%	4.6%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	1/34 (3%)	2/33 (6%)
FIRST INCIDENCE	---	---	704	729 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.175	(e)	P=0.129	P=0.236
POLY 1.5	P=0.172	(e)	P=0.124	P=0.235
POLY 6	P=0.179	(e)	P=0.135	P=0.239
COCH-ARM / FISHERS	P=0.174	(e)	P=0.117	P=0.247
MAX-ISO-POLY-3	P=0.095	(e)	P=0.047*	P=0.076
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	P=0.159	(e)	P=0.146	P=0.251
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTEs	P=0.346			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Liver</b>				
<b>Hepatocellular Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.59	1/42.93	0/45.98	0/43.48
POLY-3 PERCENT (g)	0%	2.3%	0%	0%
TERMINAL (d)	0/33 (0%)	1/34 (3%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	---	729 (T)	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Liver</b>				
<b>Hepatocellular Carcinoma or Hepatocellular Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.59	2/42.93	0/45.98	0/43.48
POLY-3 PERCENT (g)	0%	4.7%	0%	0%
TERMINAL (d)	0/33 (0%)	2/34 (6%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	---	729 (T)	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.391N	P=0.234	(e)	(e)
POLY 1.5	P=0.391N	P=0.234	(e)	(e)
POLY 6	P=0.391N	P=0.234	(e)	(e)
COCH-ARM / FISHERS	P=0.387N	P=0.247	(e)	(e)
MAX-ISO-POLY-3	P=0.252N	P=0.076	(e)	(e)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.460	P=0.154	(e)	(e)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=1.000			



Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Liver</b>				
<b>Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.59	2/42.93	0/45.98	0/43.48
POLY-3 PERCENT (g)	0%	4.7%	0%	0%
TERMINAL (d)	0/33 (0%)	2/34 (6%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	---	729 (T)	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.391N	P=0.234	(e)	(e)
POLY 1.5	P=0.391N	P=0.234	(e)	(e)
POLY 6	P=0.391N	P=0.234	(e)	(e)
COCH-ARM / FISHERS	P=0.387N	P=0.247	(e)	(e)
MAX-ISO-POLY-3	P=0.252N	P=0.076	(e)	(e)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	P=0.460	P=0.154	(e)	(e)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTEs	P=1.000			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Lymph Node, Mesenteric Hemangiosarcoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	3/44.93	1/43.03	0/45.98	2/43.48
POLY-3 PERCENT (g)	6.7%	2.3%	0%	4.6%
TERMINAL (d)	1/33 (3%)	0/34 (0%)	0/34 (0%)	2/33 (6%)
FIRST INCIDENCE	345	704	---	729 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.642N	P=0.321N	P=0.115N	P=0.515N
POLY 1.5	P=0.642N	P=0.317N	P=0.117N	P=0.513N
POLY 6	P=0.642N	P=0.322N	P=0.112N	P=0.514N
COCH-ARM / FISHERS	P=0.641N	P=0.309N	P=0.121N	P=0.500N
MAX-ISO-POLY-3	P=0.209N	P=0.170N	P=0.038N*	P=0.339N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.137	P=1.000	P=1.000	P=0.251
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.116			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Mammary Gland Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.59	0/42.93	0/45.98	0/43.48
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Mammary Gland Carcinoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.59	0/42.93	0/45.98	0/43.48
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Mammary Gland Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.59	0/42.93	0/45.98	0/43.48
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Mammary Gland Fibroadenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.59	0/42.93	0/45.98	0/43.48
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Mammary Gland</b>				
<b>Fibroma, Fibroadenoma or Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.59	0/42.93	0/45.98	0/43.48
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Mammary Gland</b>				
<b>Fibroma, Fibroadenoma, Carcinoma, or Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.59	0/42.93	0/45.98	0/43.48
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (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)			



Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Pituitary Gland: Pars Distalis or Unspecified Site Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	16/49 (33%)	18/50 (36%)	11/50 (22%)	17/50 (34%)
POLY-3 RATE (b)	16/45.42	18/44.81	11/47.16	17/45.30
POLY-3 PERCENT (g)	35.2%	40.2%	23.3%	37.5%
TERMINAL (d)	8/32 (25%)	13/34 (38%)	6/34 (18%)	10/33 (30%)
FIRST INCIDENCE	520	505	620	504
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	38/100 (38%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.494	P=0.395	P=0.150N	P=0.496
POLY 1.5	P=0.495	P=0.411	P=0.157N	P=0.501
POLY 6	P=0.497	P=0.380	P=0.143N	P=0.496
COCH-ARM / FISHERS	P=0.513	P=0.445	P=0.168N	P=0.528
MAX-ISO-POLY-3	P=0.371N	P=0.316	P=0.105N	P=0.408
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.430			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Pituitary Gland: Pars Distalis or Unspecified Site Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	16/49 (33%)	18/50 (36%)	12/50 (24%)	17/50 (34%)
POLY-3 RATE (b)	16/45.42	18/44.81	12/47.23	17/45.30
POLY-3 PERCENT (g)	35.2%	40.2%	25.4%	37.5%
TERMINAL (d)	8/32 (25%)	13/34 (38%)	6/34 (18%)	10/33 (30%)
FIRST INCIDENCE	520	505	620	504
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	38/100 (38%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.501	P=0.395	P=0.211N	P=0.496
POLY 1.5	P=0.502	P=0.411	P=0.220N	P=0.501
POLY 6	P=0.505	P=0.380	P=0.201N	P=0.496
COCH-ARM / FISHERS	P=0.521	P=0.445	P=0.232N	P=0.528
MAX-ISO-POLY-3	P=0.425N	P=0.316	P=0.155N	P=0.408
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.430			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Pituitary Gland: Pars Intermedia Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	2/49 (4%)	1/50 (2%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	2/42.59	1/43.03	2/45.98	0/43.48
POLY-3 PERCENT (g)	4.7%	2.3%	4.4%	0%
TERMINAL (d)	2/32 (6%)	0/34 (0%)	2/34 (6%)	0/33 (0%)
FIRST INCIDENCE	729 (T)	704	729 (T)	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	3/100 (3%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.206N	P=0.496N	P=0.666N	P=0.232N
POLY 1.5	P=0.208N	P=0.496N	P=0.675N	P=0.234N
POLY 6	P=0.204N	P=0.494N	P=0.656N	P=0.229N
COCH-ARM / FISHERS	P=0.206N	P=0.492N	P=0.684N	P=0.242N
MAX-ISO-POLY-3	P=0.160N	P=0.277N	P=0.469N	P=0.075N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=1.000	P=1.000	P=1.000	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.771			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Prostate Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	3/50 (6%)
POLY-3 RATE (b)	1/43.59	1/42.93	1/45.98	3/43.48
POLY-3 PERCENT (g)	2.3%	2.3%	2.2%	6.9%
TERMINAL (d)	1/33 (3%)	1/34 (3%)	1/34 (3%)	3/33 (9%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	729 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.157	P=0.757	P=0.749N	P=0.304
POLY 1.5	P=0.156	P=0.758	P=0.754N	P=0.302
POLY 6	P=0.159	P=0.758	P=0.743N	P=0.308
COCH-ARM / FISHERS	P=0.156	P=0.753N	P=0.753N	P=0.309
MAX-ISO-POLY-3	P=0.193	P=0.495	P=0.484N	P=0.153
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	P=0.042*	P=0.345	P=0.355	P=0.107
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTEs	P=0.114			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Prostate Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	1/50 (2%)	1/50 (2%)	2/50 (4%)	3/50 (6%)
POLY-3 RATE (b)	1/43.59	1/42.93	2/46.15	3/43.48
POLY-3 PERCENT (g)	2.3%	2.3%	4.3%	6.9%
TERMINAL (d)	1/33 (3%)	1/34 (3%)	1/34 (3%)	3/33 (9%)
FIRST INCIDENCE	729 (T)	729 (T)	684	729 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.187	P=0.757	P=0.520	P=0.304
POLY 1.5	P=0.186	P=0.758	P=0.511	P=0.302
POLY 6	P=0.190	P=0.758	P=0.530	P=0.308
COCH-ARM / FISHERS	P=0.186	P=0.753N	P=0.500	P=0.309
MAX-ISO-POLY-3	P=0.225	P=0.495	P=0.302	P=0.153
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	P=0.052	P=0.345	P=0.156	P=0.107
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTEs	P=0.114			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<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)	2/50 (4%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	2/44.00	0/42.93	2/45.98	0/43.48
POLY-3 PERCENT (g)	4.6%	0%	4.4%	0%
TERMINAL (d)	1/33 (3%)	0/34 (0%)	2/34 (6%)	0/33 (0%)
FIRST INCIDENCE	612	---	729 (T)	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	13/100 (13%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.280N	P=0.242N	P=0.678N	P=0.240N
POLY 1.5	P=0.282N	P=0.241N	P=0.684N	P=0.240N
POLY 6	P=0.278N	P=0.243N	P=0.671N	P=0.238N
COCH-ARM / FISHERS	P=0.283N	P=0.247N	P=0.691N	P=0.247N
MAX-ISO-POLY-3	P=0.127N	P=0.081N	P=0.482N	P=0.078N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.047*			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Skin</b>				
<b>Fibroma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	2/50 (4%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	1/43.59	2/42.93	1/45.98	1/43.48
POLY-3 PERCENT (g)	2.3%	4.7%	2.2%	2.3%
TERMINAL (d)	1/33 (3%)	2/34 (6%)	1/34 (3%)	1/33 (3%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	729 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.546N	P=0.495	P=0.749N	P=0.760
POLY 1.5	P=0.547N	P=0.496	P=0.754N	P=0.759
POLY 6	P=0.543N	P=0.496	P=0.743N	P=0.759N
COCH-ARM / FISHERS	P=0.544N	P=0.500	P=0.753N	P=0.753N
MAX-ISO-POLY-3	P=0.577N	P=0.277	P=0.484N	P=0.499
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.311	P=0.243	P=1.000	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.707			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Skin</b>				
Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	2/50 (4%)	2/50 (4%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	2/43.65	2/42.93	1/45.98	1/43.48
POLY-3 PERCENT (g)	4.6%	4.7%	2.2%	2.3%
TERMINAL (d)	1/33 (3%)	2/34 (6%)	1/34 (3%)	1/33 (3%)
FIRST INCIDENCE	715	729 (T)	729 (T)	729 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.395N	P=0.688	P=0.482N	P=0.501N
POLY 1.5	P=0.396N	P=0.689	P=0.489N	P=0.503N
POLY 6	P=0.393N	P=0.689	P=0.473N	P=0.497N
COCH-ARM / FISHERS	P=0.393N	P=0.691N	P=0.500N	P=0.500N
MAX-ISO-POLY-3	P=0.439N	P=0.493	P=0.270N	P=0.282N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.311	P=0.243	P=1.000	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.282			



Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Skin</b>				
Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/43.65	0/42.93	0/45.98	0/43.48
POLY-3 PERCENT (g)	2.3%	0%	0%	0%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	715	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Skin</b>				
<b>Sarcoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.59	0/42.93	0/45.98	0/43.48
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Skin</b>				
<b>Schwannoma Malignant</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.59	2/43.72	0/45.98	0/43.48
POLY-3 PERCENT (g)	0%	4.6%	0%	0%
TERMINAL (d)	0/33 (0%)	1/34 (3%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	---	439	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	4/100 (4%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.388N	P=0.238	(e)	(e)
POLY 1.5	P=0.389N	P=0.237	(e)	(e)
POLY 6	P=0.386N	P=0.239	(e)	(e)
COCH-ARM / FISHERS	P=0.387N	P=0.247	(e)	(e)
MAX-ISO-POLY-3	P=0.255N	P=0.076	(e)	(e)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	(h)	(h)	(e)	(e)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.076			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Skin</b>				
<b>Squamous Cell Papilloma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/43.59	0/42.93	1/45.98	0/43.48
POLY-3 PERCENT (g)	0%	0%	2.2%	0%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	1/34 (3%)	0/33 (0%)
FIRST INCIDENCE	---	---	729 (T)	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	2/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Skin</b>				
<b>Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	1/44.00	0/42.93	1/45.98	0/43.48
POLY-3 PERCENT (g)	2.3%	0%	2.2%	0%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	1/34 (3%)	0/33 (0%)
FIRST INCIDENCE	612	---	729 (T)	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	9/100 (9%)			
<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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Skin</b>				
<b>Squamous Cell Papilloma, Papilloma, or Keratoacanthoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	1/44.00	0/42.93	1/45.98	0/43.48
POLY-3 PERCENT (g)	2.3%	0%	2.2%	0%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	1/34 (3%)	0/33 (0%)
FIRST INCIDENCE	612	---	729 (T)	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	8/100 (8%)			
<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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Testes</b>				
<b>Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	2/50 (4%)	1/50 (2%)	2/50 (4%)	2/50 (4%)
POLY-3 RATE (b)	2/43.59	1/42.93	2/45.98	2/43.58
POLY-3 PERCENT (g)	4.6%	2.3%	4.4%	4.6%
TERMINAL (d)	2/33 (6%)	1/34 (3%)	2/34 (6%)	1/33 (3%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	704
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	2/100 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.539	P=0.505N	P=0.675N	P=0.694
POLY 1.5	P=0.536	P=0.504N	P=0.683N	P=0.691
POLY 6	P=0.545	P=0.504N	P=0.666N	P=0.689N
COCH-ARM / FISHERS	P=0.537	P=0.500N	P=0.691N	P=0.691N
MAX-ISO-POLY-3	P=0.617	P=0.286N	P=0.478N	P=0.499
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	P=0.312	P=1.000	P=0.458	P=0.434
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTEs	P=0.588			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Thymus</b>				
<b>Thymoma Benign</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	1/40 (3%)	0/43 (0%)	2/44 (5%)	1/46 (2%)
POLY-3 RATE (b)	1/35.60	0/35.93	2/40.54	1/40.15
POLY-3 PERCENT (g)	2.8%	0%	4.9%	2.5%
TERMINAL (d)	1/27 (4%)	0/27 (0%)	1/29 (3%)	1/30 (3%)
FIRST INCIDENCE	729 (T)	---	722	729 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	3/98 (3%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.613	P=0.498N	P=0.545	P=0.734N
POLY 1.5	P=0.608	P=0.494N	P=0.540	P=0.734N
POLY 6	P=0.621	P=0.502N	P=0.552	P=0.733N
COCH-ARM / FISHERS	P=0.605	P=0.482N	P=0.536	P=0.717N
MAX-ISO-POLY-3	P=0.436	P=0.160N	P=0.325	P=0.466N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	P=0.519	P=1.000	P=1.000	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTEs	P=0.774			



Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Thymus</b>				
<b>Thymoma: Benign, Malignant, NOS</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	1/40 (3%)	0/43 (0%)	2/44 (5%)	2/46 (4%)
POLY-3 RATE (b)	1/35.60	0/35.93	2/40.54	2/40.91
POLY-3 PERCENT (g)	2.8%	0%	4.9%	4.9%
TERMINAL (d)	1/27 (4%)	0/27 (0%)	1/29 (3%)	1/30 (3%)
FIRST INCIDENCE	729 (T)	---	722	457
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	3/98 (3%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.329	P=0.498N	P=0.545	P=0.548
POLY 1.5	P=0.322	P=0.494N	P=0.540	P=0.546
POLY 6	P=0.339	P=0.502N	P=0.552	P=0.553
COCH-ARM / FISHERS	P=0.314	P=0.482N	P=0.536	P=0.553
MAX-ISO-POLY-3	P=0.330	P=0.160N	P=0.325	P=0.327
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.304	P=1.000	P=1.000	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.774			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Thyroid Gland: C-Cell Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	7/50 (14%)	5/50 (10%)	3/49 (6%)	5/50 (10%)
POLY-3 RATE (b)	7/43.69	5/42.98	3/45.19	5/43.50
POLY-3 PERCENT (g)	16%	11.6%	6.6%	11.5%
TERMINAL (d)	6/33 (18%)	4/34 (12%)	2/34 (6%)	4/33 (12%)
FIRST INCIDENCE	704	717	704	725
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	9/100 (9%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.438N	P=0.390N	P=0.143N	P=0.381N
POLY 1.5	P=0.440N	P=0.388N	P=0.153N	P=0.385N
POLY 6	P=0.434N	P=0.388N	P=0.132N	P=0.373N
COCH-ARM / FISHERS	P=0.436N	P=0.380N	P=0.167N	P=0.380N
MAX-ISO-POLY-3	P=0.251N	P=0.280N	P=0.085N	P=0.271N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.476	P=1.000	P=1.000	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.322			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Thyroid Gland: C-Cell Carcinoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/49 (2%)	1/50 (2%)
POLY-3 RATE (b)	0/43.59	0/42.93	1/45.09	1/43.48
POLY-3 PERCENT (g)	0%	0%	2.2%	2.3%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	1/34 (3%)	1/33 (3%)
FIRST INCIDENCE	---	---	729 (T)	729 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Thyroid Gland: C-Cell Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	7/50 (14%)	5/50 (10%)	4/49 (8%)	6/50 (12%)
POLY-3 RATE (b)	7/43.69	5/42.98	4/45.19	6/43.50
POLY-3 PERCENT (g)	16%	11.6%	8.9%	13.8%
TERMINAL (d)	6/33 (18%)	4/34 (12%)	3/34 (9%)	5/33 (15%)
FIRST INCIDENCE	704	717	704	725
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	9/100 (9%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.579N	P=0.390N	P=0.241N	P=0.503N
POLY 1.5	P=0.578	P=0.388N	P=0.255N	P=0.507N
POLY 6	P=0.575N	P=0.388N	P=0.225N	P=0.495N
COCH-ARM / FISHERS	P=0.577N	P=0.380N	P=0.274N	P=0.500N
MAX-ISO-POLY-3	P=0.411N	P=0.280N	P=0.158N	P=0.384N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.178	P=1.000	P=1.000	P=0.288
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.322			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Thyroid Gland: Follicular Cell Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/43.65	0/42.93	0/45.09	0/43.48
POLY-3 PERCENT (g)	2.3%	0%	0%	0%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	715	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	3/100 (3%)			
<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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Thyroid Gland: Follicular Cell Carcinoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/49 (2%)	2/50 (4%)
POLY-3 RATE (b)	0/43.59	1/43.03	1/45.48	2/43.48
POLY-3 PERCENT (g)	0%	2.3%	2.2%	4.6%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	0/34 (0%)	2/33 (6%)
FIRST INCIDENCE	---	704	620	729 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.201	P=0.497	P=0.508	P=0.236
POLY 1.5	P=0.200	P=0.498	P=0.503	P=0.235
POLY 6	P=0.203	P=0.498	P=0.515	P=0.239
COCH-ARM / FISHERS	P=0.200	P=0.500	P=0.495	P=0.247
MAX-ISO-POLY-3	P=0.125	P=0.158	P=0.170	P=0.076
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.047*	P=0.346	P=0.353	P=0.154
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=1.000			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Thyroid Gland: Follicular Cell Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	1/50 (2%)	1/50 (2%)	1/49 (2%)	2/50 (4%)
POLY-3 RATE (b)	1/43.65	1/43.03	1/45.48	2/43.48
POLY-3 PERCENT (g)	2.3%	2.3%	2.2%	4.6%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	0/34 (0%)	2/33 (6%)
FIRST INCIDENCE	715	704	620	729 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	3/100 (3%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.364	P=0.758	P=0.751N	P=0.499
POLY 1.5	P=0.363	P=0.758	P=0.757N	P=0.497
POLY 6	P=0.367	P=0.759	P=0.744N	P=0.503
COCH-ARM / FISHERS	P=0.364	P=0.753N	P=0.747	P=0.500
MAX-ISO-POLY-3	P=0.420	P=0.495	P=0.488N	P=0.280
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.514	P=1.000	P=1.000	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.801			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Zymbal's Gland Carcinoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	2/50 (4%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/44.14	2/43.88	0/45.98	0/43.48
POLY-3 PERCENT (g)	4.5%	4.6%	0%	0%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	597	505	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.135N	P=0.692	P=0.228N	P=0.240N
POLY 1.5	P=0.135N	P=0.691	P=0.232N	P=0.240N
POLY 6	P=0.135N	P=0.694	P=0.224N	P=0.239N
COCH-ARM / FISHERS	P=0.133N	P=0.691N	P=0.247N	P=0.247N
MAX-ISO-POLY-3	P=0.127N	P=0.497	P=0.076N	P=0.079N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.708	P=0.246	P=1.000	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.280			



Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>All Organs</b>				
<b>Hemangiosarcoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	0/50 (0%)	4/50 (8%)
POLY-3 RATE (b)	3/44.93	1/43.03	0/45.98	4/43.48
POLY-3 PERCENT (g)	6.7%	2.3%	0%	9.2%
TERMINAL (d)	1/33 (3%)	0/34 (0%)	0/34 (0%)	4/33 (12%)
FIRST INCIDENCE	345	704	---	729 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	3/100 (3%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.188	P=0.321N	P=0.115N	P=0.482
POLY 1.5	P=0.188	P=0.317N	P=0.117N	P=0.485
POLY 6	P=0.188	P=0.322N	P=0.112N	P=0.483
COCH-ARM / FISHERS	P=0.191	P=0.309N	P=0.121N	P=0.500
MAX-ISO-POLY-3	P=0.133	P=0.170N	P=0.038N*	P=0.333
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.167	P=1.000	P=1.000	P=0.229
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.589			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>All Organs</b>				
<b>Hemangiosarcoma or Hemangioma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	1/50 (2%)	4/50 (8%)
POLY-3 RATE (b)	3/44.93	1/43.03	1/46.01	4/43.48
POLY-3 PERCENT (g)	6.7%	2.3%	2.2%	9.2%
TERMINAL (d)	1/33 (3%)	0/34 (0%)	0/34 (0%)	4/33 (12%)
FIRST INCIDENCE	345	704	722	729 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	4/100 (4%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.213	P=0.321N	P=0.297N	P=0.482
POLY 1.5	P=0.213	P=0.317N	P=0.301N	P=0.485
POLY 6	P=0.213	P=0.322N	P=0.291N	P=0.483
COCH-ARM / FISHERS	P=0.216	P=0.309N	P=0.309N	P=0.500
MAX-ISO-POLY-3	P=0.203	P=0.170N	P=0.151N	P=0.333
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.256	P=1.000	P=1.000	P=0.319
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.781			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>All Organs</b>				
<b>Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	0/43.59	2/44.45	1/46.90	1/43.58
POLY-3 PERCENT (g)	0%	4.5%	2.1%	2.3%
TERMINAL (d)	0/33 (0%)	0/34 (0%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	---	286	309	704
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.625	P=0.241	P=0.515	P=0.500
POLY 1.5	P=0.623	P=0.240	P=0.509	P=0.499
POLY 6	P=0.630	P=0.244	P=0.520	P=0.503
COCH-ARM / FISHERS	P=0.627	P=0.247	P=0.500	P=0.500
MAX-ISO-POLY-3	P=0.291	P=0.080	P=0.177	P=0.158
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.177	P=0.155	P=0.358	P=0.347
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=1.000			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>All Organs</b>				
<b>Osteosarcoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	1/43.59	1/43.47	0/45.98	2/43.72
POLY-3 PERCENT (g)	2.3%	2.3%	0%	4.6%
TERMINAL (d)	1/33 (3%)	0/34 (0%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	729 (T)	564	---	675
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.326	P=0.760	P=0.489N	P=0.501
POLY 1.5	P=0.325	P=0.759	P=0.494N	P=0.498
POLY 6	P=0.329	P=0.759N	P=0.484N	P=0.507
COCH-ARM / FISHERS	P=0.327	P=0.753N	P=0.500N	P=0.500
MAX-ISO-POLY-3	P=0.277	P=0.498	P=0.158N	P=0.282
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.130	P=1.000	P=1.000	P=0.245
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.692			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>All Organs</b>				
<b>Osteosarcoma or Osteoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	1/43.59	1/43.47	0/45.98	2/43.72
POLY-3 PERCENT (g)	2.3%	2.3%	0%	4.6%
TERMINAL (d)	1/33 (3%)	0/34 (0%)	0/34 (0%)	0/33 (0%)
FIRST INCIDENCE	729 (T)	564	---	675
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	2/100 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.326	P=0.760	P=0.489N	P=0.501
POLY 1.5	P=0.325	P=0.759	P=0.494N	P=0.498
POLY 6	P=0.329	P=0.759N	P=0.484N	P=0.507
COCH-ARM / FISHERS	P=0.327	P=0.753N	P=0.500N	P=0.500
MAX-ISO-POLY-3	P=0.277	P=0.498	P=0.158N	P=0.282
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.269	P=1.000	P=1.000	P=0.432
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.901			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>All Organs</b>				
<b>Benign Tumors</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	32/50 (64%)	27/50 (54%)	24/50 (48%)	31/50 (62%)
POLY-3 RATE (b)	32/47.37	27/45.49	24/47.33	31/45.70
POLY-3 PERCENT (g)	67.6%	59.4%	50.7%	67.8%
TERMINAL (d)	21/33 (64%)	20/34 (59%)	15/34 (44%)	22/33 (67%)
FIRST INCIDENCE	520	505	620	504
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	56/100 (56%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.351	P=0.269N	P=0.068N	P=0.577
POLY 1.5	P=0.363	P=0.245N	P=0.071N	P=0.574N
POLY 6	P=0.347	P=0.298N	P=0.068N	P=0.560
COCH-ARM / FISHERS	P=0.408	P=0.208N	P=0.079N	P=0.500N
MAX-ISO-POLY-3	P=0.317	P=0.207N	P=0.044N*	P=0.487
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.229	P=1.000	P=1.000	P=0.228
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.473			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>All Organs</b>				
<b>Malignant Tumors</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	13/50 (26%)	15/50 (30%)	9/50 (18%)	16/50 (32%)
POLY-3 RATE (b)	13/45.95	15/47.61	9/48.07	16/46.20
POLY-3 PERCENT (g)	28.3%	31.5%	18.7%	34.6%
TERMINAL (d)	7/33 (21%)	7/34 (21%)	4/34 (12%)	8/33 (24%)
FIRST INCIDENCE	345	286	309	457
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	20/100 (20%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.284	P=0.455	P=0.197N	P=0.333
POLY 1.5	P=0.282	P=0.438	P=0.212N	P=0.323
POLY 6	P=0.295	P=0.473	P=0.182N	P=0.354
COCH-ARM / FISHERS	P=0.300	P=0.412	P=0.235N	P=0.330
MAX-ISO-POLY-3	P=0.299	P=0.368	P=0.142N	P=0.257
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.145	P=0.119	P=1.000	P=0.096
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.410			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Males			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>All Organs</b>				
<b>Malignant and Benign Tumors</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	37/50 (74%)	36/50 (72%)	30/50 (60%)	39/50 (78%)
POLY-3 RATE (b)	37/49.17	36/49.47	30/49.04	39/48.18
POLY-3 PERCENT (g)	75.3%	72.8%	61.2%	81%
TERMINAL (d)	23/33 (70%)	22/34 (65%)	17/34 (50%)	24/33 (73%)
FIRST INCIDENCE	345	286	309	457
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	70/100 (70%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.201	P=0.480N	P=0.098N	P=0.332
POLY 1.5	P=0.207	P=0.485N	P=0.097N	P=0.337
POLY 6	P=0.211	P=0.482N	P=0.101N	P=0.344
COCH-ARM / FISHERS	P=0.272	P=0.500N	P=0.101N	P=0.408
MAX-ISO-POLY-3	P=0.175	P=0.388N	P=0.065N	P=0.251
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.160	P=1.000	P=1.000	P=0.089
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.561			



Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Adrenal Cortex</b>				
<b>Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	2/50 (4%)	2/50 (4%)	2/50 (4%)	1/50 (2%)
POLY-3 RATE (b)	2/44.94	2/43.71	2/46.67	1/45.76
POLY-3 PERCENT (g)	4.5%	4.6%	4.3%	2.2%
TERMINAL (d)	2/35 (6%)	2/32 (6%)	1/36 (3%)	0/29 (0%)
FIRST INCIDENCE	731 (T)	731 (T)	684	703
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.374N	P=0.684	P=0.680N	P=0.494N
POLY 1.5	P=0.377N	P=0.689	P=0.685N	P=0.495N
POLY 6	P=0.372N	P=0.677	P=0.676N	P=0.494N
COCH-ARM / FISHERS	P=0.383N	P=0.691N	P=0.691N	P=0.500N
MAX-ISO-POLY-3	P=0.460N	P=0.488	P=0.484N	P=0.277N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.223	P=0.247	P=0.261	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.299			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Adrenal Medulla</b>				
<b>Pheochromocytoma Benign</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	1/49 (2%)	0/50 (0%)	1/49 (2%)	0/49 (0%)
POLY-3 RATE (b)	1/43.94	0/43.71	1/45.68	0/44.65
POLY-3 PERCENT (g)	2.3%	0%	2.2%	0%
TERMINAL (d)	1/34 (3%)	0/32 (0%)	0/35 (0%)	0/28 (0%)
FIRST INCIDENCE	731 (T)	---	683	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	3/99 (3%)			
<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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Adrenal Medulla</b>				
<b>Pheochromocytoma: Benign, Complex, Malignant, NOS</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	2/49 (4%)	1/50 (2%)	1/49 (2%)	0/49 (0%)
POLY-3 RATE (b)	2/44.10	1/43.71	1/45.68	0/44.65
POLY-3 PERCENT (g)	4.5%	2.3%	2.2%	0%
TERMINAL (d)	1/34 (3%)	1/32 (3%)	0/35 (0%)	0/28 (0%)
FIRST INCIDENCE	690	731 (T)	683	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	3/99 (3%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.197N	P=0.503N	P=0.488N	P=0.234N
POLY 1.5	P=0.199N	P=0.498N	P=0.492N	P=0.235N
POLY 6	P=0.196N	P=0.511N	P=0.485N	P=0.236N
COCH-ARM / FISHERS	P=0.201N	P=0.492N	P=0.500N	P=0.247N
MAX-ISO-POLY-3	P=0.124N	P=0.285N	P=0.273N	P=0.076N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTEs	P=0.809			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Bone</b>				
<b>Osteosarcoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.94	0/43.71	0/46.49	0/45.65
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/35 (0%)	0/32 (0%)	0/36 (0%)	0/29 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Brain</b>				
<b>Glioma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.94	0/43.71	0/46.49	0/45.65
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/35 (0%)	0/32 (0%)	0/36 (0%)	0/29 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Brain</b>				
<b>Granular Cell Tumor Benign</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	2/50 (4%)	1/50 (2%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	2/44.94	1/43.72	0/46.49	1/45.65
POLY-3 PERCENT (g)	4.5%	2.3%	0%	2.2%
TERMINAL (d)	2/35 (6%)	0/32 (0%)	0/36 (0%)	1/29 (3%)
FIRST INCIDENCE	731 (T)	729	---	731 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.518N	P=0.510N	P=0.230N	P=0.495N
POLY 1.5	P=0.519N	P=0.505N	P=0.232N	P=0.496N
POLY 6	P=0.517N	P=0.517N	P=0.228N	P=0.496N
COCH-ARM / FISHERS	P=0.522N	P=0.500N	P=0.247N	P=0.500N
MAX-ISO-POLY-3	P=0.229N	P=0.291N	P=0.076N	P=0.277N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.121	P=0.347	(e)	P=0.353
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.036*			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Brain</b>				
<b>Granular Cell Tumor Malignant</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/44.94	0/43.71	0/46.49	2/45.84
POLY-3 PERCENT (g)	0%	0%	0%	4.4%
TERMINAL (d)	0/35 (0%)	0/32 (0%)	0/36 (0%)	1/29 (3%)
FIRST INCIDENCE	---	---	---	681
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.043*	(e)	(e)	P=0.242
POLY 1.5	P=0.042*	(e)	(e)	P=0.241
POLY 6	P=0.043*	(e)	(e)	P=0.241
COCH-ARM / FISHERS	P=0.042*	(e)	(e)	P=0.247
MAX-ISO-POLY-3	P=0.038*	(e)	(e)	P=0.080
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.056	(e)	(e)	P=0.155
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=1.000			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Heart</b>				
<b>Schwannoma Benign</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.94	0/43.71	0/46.49	0/45.65
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/35 (0%)	0/32 (0%)	0/36 (0%)	0/29 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (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)			



Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Islets, Pancreatic Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	1/49 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/44.10	0/43.71	0/46.49	0/45.65
POLY-3 PERCENT (g)	2.3%	0%	0%	0%
TERMINAL (d)	1/35 (3%)	0/32 (0%)	0/36 (0%)	0/29 (0%)
FIRST INCIDENCE	731 (T)	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Islets, Pancreatic Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	1/49 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	1/44.10	0/43.71	0/46.49	0/45.65
POLY-3 PERCENT (g)	2.3%	0%	0%	0%
TERMINAL (d)	1/35 (3%)	0/32 (0%)	0/36 (0%)	0/29 (0%)
FIRST INCIDENCE	731 (T)	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Liver</b>				
<b>Hepatocellular Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/44.94	2/43.82	1/46.49	0/45.65
POLY-3 PERCENT (g)	0%	4.6%	2.2%	0%
TERMINAL (d)	0/35 (0%)	1/32 (3%)	1/36 (3%)	0/29 (0%)
FIRST INCIDENCE	---	703	731 (T)	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	2/100 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.379N	P=0.231	P=0.507	(e)
POLY 1.5	P=0.378N	P=0.234	P=0.504	(e)
POLY 6	P=0.381N	P=0.227	P=0.508	(e)
COCH-ARM / FISHERS	P=0.381N	P=0.247	P=0.500	(e)
MAX-ISO-POLY-3	P=0.329N	P=0.076	P=0.167	(e)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=1.000	P=0.371	P=1.000	(e)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.198			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Liver</b>				
<b>Hepatocellular Carcinoma or Hepatocellular Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/44.94	2/43.82	1/46.49	0/45.65
POLY-3 PERCENT (g)	0%	4.6%	2.2%	0%
TERMINAL (d)	0/35 (0%)	1/32 (3%)	1/36 (3%)	0/29 (0%)
FIRST INCIDENCE	---	703	731 (T)	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	2/100 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.379N	P=0.231	P=0.507	(e)
POLY 1.5	P=0.378N	P=0.234	P=0.504	(e)
POLY 6	P=0.381N	P=0.227	P=0.508	(e)
COCH-ARM / FISHERS	P=0.381N	P=0.247	P=0.500	(e)
MAX-ISO-POLY-3	P=0.329N	P=0.076	P=0.167	(e)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=1.000	P=0.371	P=1.000	(e)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.198			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Liver</b>				
<b>Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/44.94	2/43.82	1/46.49	0/45.65
POLY-3 PERCENT (g)	0%	4.6%	2.2%	0%
TERMINAL (d)	0/35 (0%)	1/32 (3%)	1/36 (3%)	0/29 (0%)
FIRST INCIDENCE	---	703	731 (T)	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	2/100 (2%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.379N	P=0.231	P=0.507	(e)
POLY 1.5	P=0.378N	P=0.234	P=0.504	(e)
POLY 6	P=0.381N	P=0.227	P=0.508	(e)
COCH-ARM / FISHERS	P=0.381N	P=0.247	P=0.500	(e)
MAX-ISO-POLY-3	P=0.329N	P=0.076	P=0.167	(e)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=1.000	P=0.371	P=1.000	(e)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.198			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Lymph Node, Mesenteric Hemangiosarcoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	1/44.94	1/43.71	1/46.49	0/45.65
POLY-3 PERCENT (g)	2.2%	2.3%	2.2%	0%
TERMINAL (d)	1/35 (3%)	1/32 (3%)	1/36 (3%)	0/29 (0%)
FIRST INCIDENCE	731 (T)	731 (T)	731 (T)	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	2/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Mammary Gland Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	2/50 (4%)	1/50 (2%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	2/45.25	1/43.71	1/46.49	1/45.65
POLY-3 PERCENT (g)	4.4%	2.3%	2.2%	2.2%
TERMINAL (d)	1/35 (3%)	1/32 (3%)	1/36 (3%)	1/29 (3%)
FIRST INCIDENCE	645	731 (T)	731 (T)	731 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	6/100 (6%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.491N	P=0.512N	P=0.491N	P=0.497N
POLY 1.5	P=0.494N	P=0.506N	P=0.493N	P=0.497N
POLY 6	P=0.490N	P=0.521N	P=0.490N	P=0.501N
COCH-ARM / FISHERS	P=0.499N	P=0.500N	P=0.500N	P=0.500N
MAX-ISO-POLY-3	P=0.418N	P=0.294N	P=0.275N	P=0.279N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.521			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Mammary Gland Carcinoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	4/50 (8%)	5/50 (10%)	9/50 (18%)	4/50 (8%)
POLY-3 RATE (b)	4/45.07	5/44.01	9/46.90	4/46.26
POLY-3 PERCENT (g)	8.9%	11.4%	19.2%	8.7%
TERMINAL (d)	3/35 (9%)	3/32 (9%)	7/36 (19%)	1/29 (3%)
FIRST INCIDENCE	698	683	673	639
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	7/100 (7%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.437N	P=0.485	P=0.130	P=0.629N
POLY 1.5	P=0.448N	P=0.492	P=0.125	P=0.633N
POLY 6	P=0.428N	P=0.474	P=0.135	P=0.627N
COCH-ARM / FISHERS	P=0.469N	P=0.500	P=0.117	P=0.643N
MAX-ISO-POLY-3	P=0.374	P=0.350	P=0.081	P=0.484N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.383	P=0.419	P=0.150	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.936			



Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Mammary Gland Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	6/50 (12%)	6/50 (12%)	10/50 (20%)	5/50 (10%)
POLY-3 RATE (b)	6/45.38	6/44.01	10/46.90	5/46.26
POLY-3 PERCENT (g)	13.2%	13.6%	21.3%	10.8%
TERMINAL (d)	4/35 (11%)	4/32 (13%)	8/36 (22%)	2/29 (7%)
FIRST INCIDENCE	645	683	673	639
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	12/100 (12%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.368N	P=0.599	P=0.226	P=0.487N
POLY 1.5	P=0.379N	P=0.609	P=0.220	P=0.490N
POLY 6	P=0.362N	P=0.584	P=0.230	P=0.488N
COCH-ARM / FISHERS	P=0.399N	P=0.620N	P=0.207	P=0.500N
MAX-ISO-POLY-3	P=0.386N	P=0.476	P=0.156	P=0.362N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.602	P=1.000	P=0.207	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.880			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Mammary Gland Fibroadenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	9/50 (18%)	10/50 (20%)	13/50 (26%)	10/50 (20%)
POLY-3 RATE (b)	9/45.57	10/45.13	13/47.19	10/46.84
POLY-3 PERCENT (g)	19.8%	22.2%	27.6%	21.4%
TERMINAL (d)	6/35 (17%)	5/32 (16%)	10/36 (28%)	4/29 (14%)
FIRST INCIDENCE	619	627	642	633
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	19/100 (19%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.563	P=0.490	P=0.261	P=0.527
POLY 1.5	P=0.549	P=0.495	P=0.252	P=0.518
POLY 6	P=0.555N	P=0.484	P=0.268	P=0.531
COCH-ARM / FISHERS	P=0.524	P=0.500	P=0.235	P=0.500
MAX-ISO-POLY-3	P=0.476	P=0.388	P=0.192	P=0.424
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.511	P=1.000	P=0.237	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.718			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Mammary Gland Fibroma, Fibroadenoma or Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	11/50 (22%)	11/50 (22%)	13/50 (26%)	10/50 (20%)
POLY-3 RATE (b)	11/45.89	11/45.13	13/47.19	10/46.84
POLY-3 PERCENT (g)	24%	24.4%	27.6%	21.4%
TERMINAL (d)	7/35 (20%)	6/32 (19%)	10/36 (28%)	4/29 (14%)
FIRST INCIDENCE	619	627	642	633
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	23/100 (23%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.399N	P=0.579	P=0.438	P=0.479N
POLY 1.5	P=0.410N	P=0.587	P=0.428	P=0.485N
POLY 6	P=0.394N	P=0.568	P=0.442	P=0.479N
COCH-ARM / FISHERS	P=0.432N	P=0.595N	P=0.408	P=0.500N
MAX-ISO-POLY-3	P=0.524N	P=0.481	P=0.348	P=0.381N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=1.000	P=1.000	P=1.000	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.634			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Mammary Gland</b>				
<b>Fibroma, Fibroadenoma, Carcinoma, or Adenoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	13/50 (26%)	16/50 (32%)	21/50 (42%)	14/50 (28%)
POLY-3 RATE (b)	13/45.89	16/45.43	21/47.59	14/47.45
POLY-3 PERCENT (g)	28.3%	35.2%	44.1%	29.5%
TERMINAL (d)	9/35 (26%)	9/32 (28%)	16/36 (44%)	5/29 (17%)
FIRST INCIDENCE	619	627	642	633
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	27/100 (27%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.417N	P=0.314	P=0.082	P=0.541
POLY 1.5	P=0.440N	P=0.322	P=0.077	P=0.527
POLY 6	P=0.397N	P=0.306	P=0.086	P=0.553
COCH-ARM / FISHERS	P=0.480N	P=0.330	P=0.069	P=0.500
MAX-ISO-POLY-3	P=0.318	P=0.241	P=0.057	P=0.450
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.419	P=0.338	P=0.096	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.662			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Ovary</b>				
<b>Granulosa Cell Tumor Malignant</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/44.94	2/44.10	0/46.49	1/45.68
POLY-3 PERCENT (g)	0%	4.5%	0%	2.2%
TERMINAL (d)	0/35 (0%)	1/32 (3%)	0/36 (0%)	0/29 (0%)
FIRST INCIDENCE	---	619	---	725
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.622	P=0.233	(e)	P=0.503
POLY 1.5	P=0.622	P=0.235	(e)	P=0.503
POLY 6	P=0.620	P=0.230	(e)	P=0.502
COCH-ARM / FISHERS	P=0.619	P=0.247	(e)	P=0.500
MAX-ISO-POLY-3	P=0.338	P=0.076	(e)	P=0.163
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.538	P=0.247	(e)	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.271			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Ovary</b>				
<b>Granulosa Cell Tumor: Benign, Malignant, NOS</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	1/50 (2%)	2/50 (4%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	1/44.94	2/44.10	1/46.49	1/45.68
POLY-3 PERCENT (g)	2.2%	4.5%	2.2%	2.2%
TERMINAL (d)	1/35 (3%)	1/32 (3%)	1/36 (3%)	0/29 (0%)
FIRST INCIDENCE	731 (T)	619	731 (T)	725
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.539N	P=0.493	P=0.753N	P=0.757N
POLY 1.5	P=0.540N	P=0.497	P=0.755N	P=0.758N
POLY 6	P=0.540N	P=0.489	P=0.751N	P=0.758N
COCH-ARM / FISHERS	P=0.544N	P=0.500	P=0.753N	P=0.753N
MAX-ISO-POLY-3	P=0.576N	P=0.277	P=0.490N	P=0.495N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.307	P=0.247	P=1.000	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.721			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Pituitary Gland: Pars Distalis or Unspecified Site Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	35/50 (70%)	33/50 (66%)	36/50 (72%)	30/50 (60%)
POLY-3 RATE (b)	35/48.14	33/48.93	36/49.16	30/48.06
POLY-3 PERCENT (g)	72.7%	67.4%	73.2%	62.4%
TERMINAL (d)	24/35 (69%)	17/32 (53%)	25/36 (69%)	15/29 (52%)
FIRST INCIDENCE	499	530	563	586
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	53/100 (53%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.186N	P=0.365N	P=0.568	P=0.192N
POLY 1.5	P=0.177N	P=0.383N	P=0.546	P=0.190N
POLY 6	P=0.210N	P=0.346N	P=0.580	P=0.204N
COCH-ARM / FISHERS	P=0.174N	P=0.415N	P=0.500	P=0.201N
MAX-ISO-POLY-3	P=0.222N	P=0.287N	P=0.475	P=0.137N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.343	P=0.251	P=0.167	P=0.368
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.248			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Pituitary Gland: Pars Distalis or Unspecified Site Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	35/50 (70%)	33/50 (66%)	36/50 (72%)	30/50 (60%)
POLY-3 RATE (b)	35/48.14	33/48.93	36/49.16	30/48.06
POLY-3 PERCENT (g)	72.7%	67.4%	73.2%	62.4%
TERMINAL (d)	24/35 (69%)	17/32 (53%)	25/36 (69%)	15/29 (52%)
FIRST INCIDENCE	499	530	563	586
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	53/100 (53%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.186N	P=0.365N	P=0.568	P=0.192N
POLY 1.5	P=0.177N	P=0.383N	P=0.546	P=0.190N
POLY 6	P=0.210N	P=0.346N	P=0.580	P=0.204N
COCH-ARM / FISHERS	P=0.174N	P=0.415N	P=0.500	P=0.201N
MAX-ISO-POLY-3	P=0.222N	P=0.287N	P=0.475	P=0.137N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.343	P=0.251	P=0.167	P=0.368
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.248			



Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Pituitary Gland: Pars Intermedia Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	1/44.94	0/43.71	0/46.49	2/45.65
POLY-3 PERCENT (g)	2.2%	0%	0%	4.4%
TERMINAL (d)	1/35 (3%)	0/32 (0%)	0/36 (0%)	2/29 (7%)
FIRST INCIDENCE	731 (T)	---	---	731 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	6/100 (6%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.191	P=0.506N	P=0.493N	P=0.505
POLY 1.5	P=0.189	P=0.503N	P=0.496N	P=0.504
POLY 6	P=0.192	P=0.510N	P=0.492N	P=0.504
COCH-ARM / FISHERS	P=0.186	P=0.500N	P=0.500N	P=0.500
MAX-ISO-POLY-3	P=0.144	P=0.165N	P=0.158N	P=0.287
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.230			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<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)	0/50 (0%)	0/50 (0%)	0/50 (0%)	4/50 (8%)
POLY-3 RATE (b)	0/44.94	0/43.71	0/46.49	4/46.03
POLY-3 PERCENT (g)	0%	0%	0%	8.7%
TERMINAL (d)	0/35 (0%)	0/32 (0%)	0/36 (0%)	2/29 (7%)
FIRST INCIDENCE	---	---	---	673
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.002**	(e)	(e)	P=0.063
POLY 1.5	P=0.002**	(e)	(e)	P=0.063
POLY 6	P=0.002**	(e)	(e)	P=0.063
COCH-ARM / FISHERS	P=0.002**	(e)	(e)	P=0.059
MAX-ISO-POLY-3	P=0.003**	(e)	(e)	P=0.022*
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.044*	(e)	(e)	P=0.087
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=1.000			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Skin</b>				
<b>Fibroma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.94	0/43.71	0/46.49	0/45.65
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/35 (0%)	0/32 (0%)	0/36 (0%)	0/29 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Skin</b>				
Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.94	2/44.71	0/46.49	0/45.65
POLY-3 PERCENT (g)	0%	4.5%	0%	0%
TERMINAL (d)	0/35 (0%)	0/32 (0%)	0/36 (0%)	0/29 (0%)
FIRST INCIDENCE	---	481	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.386N	P=0.236	(e)	(e)
POLY 1.5	P=0.385N	P=0.237	(e)	(e)
POLY 6	P=0.389N	P=0.234	(e)	(e)
COCH-ARM / FISHERS	P=0.387N	P=0.247	(e)	(e)
MAX-ISO-POLY-3	P=0.253N	P=0.076	(e)	(e)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.452	P=0.154	(e)	(e)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=1.000			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Skin</b>				
Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.94	2/44.71	0/46.49	0/45.65
POLY-3 PERCENT (g)	0%	4.5%	0%	0%
TERMINAL (d)	0/35 (0%)	0/32 (0%)	0/36 (0%)	0/29 (0%)
FIRST INCIDENCE	---	481	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.386N	P=0.236	(e)	(e)
POLY 1.5	P=0.385N	P=0.237	(e)	(e)
POLY 6	P=0.389N	P=0.234	(e)	(e)
COCH-ARM / FISHERS	P=0.387N	P=0.247	(e)	(e)
MAX-ISO-POLY-3	P=0.253N	P=0.076	(e)	(e)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.452	P=0.154	(e)	(e)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=1.000			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Skin</b>				
<b>Sarcoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.94	2/44.71	0/46.49	0/45.65
POLY-3 PERCENT (g)	0%	4.5%	0%	0%
TERMINAL (d)	0/35 (0%)	0/32 (0%)	0/36 (0%)	0/29 (0%)
FIRST INCIDENCE	---	481	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.386N	P=0.236	(e)	(e)
POLY 1.5	P=0.385N	P=0.237	(e)	(e)
POLY 6	P=0.389N	P=0.234	(e)	(e)
COCH-ARM / FISHERS	P=0.387N	P=0.247	(e)	(e)
MAX-ISO-POLY-3	P=0.253N	P=0.076	(e)	(e)
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.452	P=0.154	(e)	(e)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=1.000			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Skin</b>				
<b>Schwannoma Malignant</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.94	0/43.71	0/46.49	0/45.65
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/35 (0%)	0/32 (0%)	0/36 (0%)	0/29 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	2/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Skin</b>				
<b>Squamous Cell Papilloma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	3/50 (6%)
POLY-3 RATE (b)	0/44.94	0/43.71	0/46.49	3/45.87
POLY-3 PERCENT (g)	0%	0%	0%	6.5%
TERMINAL (d)	0/35 (0%)	0/32 (0%)	0/36 (0%)	2/29 (7%)
FIRST INCIDENCE	---	---	---	673
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.008**	(e)	(e)	P=0.122
POLY 1.5	P=0.008**	(e)	(e)	P=0.122
POLY 6	P=0.008**	(e)	(e)	P=0.122
COCH-ARM / FISHERS	P=0.009**	(e)	(e)	P=0.121
MAX-ISO-POLY-3	P=0.012*	(e)	(e)	P=0.041*
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.054	(e)	(e)	P=0.107
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=1.000			



Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<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%)	4/50 (8%)
POLY-3 RATE (b)	0/44.94	0/43.71	0/46.49	4/46.03
POLY-3 PERCENT (g)	0%	0%	0%	8.7%
TERMINAL (d)	0/35 (0%)	0/32 (0%)	0/36 (0%)	2/29 (7%)
FIRST INCIDENCE	---	---	---	673
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.002**	(e)	(e)	P=0.063
POLY 1.5	P=0.002**	(e)	(e)	P=0.063
POLY 6	P=0.002**	(e)	(e)	P=0.063
COCH-ARM / FISHERS	P=0.002**	(e)	(e)	P=0.059
MAX-ISO-POLY-3	P=0.003**	(e)	(e)	P=0.022*
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.044*	(e)	(e)	P=0.087
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=1.000			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<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%)	4/50 (8%)
POLY-3 RATE (b)	0/44.94	0/43.71	0/46.49	4/46.03
POLY-3 PERCENT (g)	0%	0%	0%	8.7%
TERMINAL (d)	0/35 (0%)	0/32 (0%)	0/36 (0%)	2/29 (7%)
FIRST INCIDENCE	---	---	---	673
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (0%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.002**	(e)	(e)	P=0.063
POLY 1.5	P=0.002**	(e)	(e)	P=0.063
POLY 6	P=0.002**	(e)	(e)	P=0.063
COCH-ARM / FISHERS	P=0.002**	(e)	(e)	P=0.059
MAX-ISO-POLY-3	P=0.003**	(e)	(e)	P=0.022*
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.044*	(e)	(e)	P=0.087
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=1.000			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Thymus</b>				
<b>Thymoma Benign</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	5/48 (10%)	4/48 (8%)	7/45 (16%)	3/45 (7%)
POLY-3 RATE (b)	5/43.89	4/41.72	7/41.63	3/41.04
POLY-3 PERCENT (g)	11.4%	9.6%	16.8%	7.3%
TERMINAL (d)	3/34 (9%)	3/30 (10%)	5/31 (16%)	1/24 (4%)
FIRST INCIDENCE	610	729	708	639
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	4/99 (4%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.338N	P=0.532N	P=0.341	P=0.393N
POLY 1.5	P=0.342N	P=0.517N	P=0.341	P=0.391N
POLY 6	P=0.339N	P=0.555N	P=0.336	P=0.403N
COCH-ARM / FISHERS	P=0.353N	P=0.500N	P=0.334	P=0.394N
MAX-ISO-POLY-3	P=0.366N	P=0.394N	P=0.239	P=0.265N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.223	P=0.226	P=0.090	P=0.410
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.203			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Thymus</b>				
<b>Thymoma: Benign, Malignant, NOS</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	5/48 (10%)	4/48 (8%)	7/45 (16%)	3/45 (7%)
POLY-3 RATE (b)	5/43.89	4/41.72	7/41.63	3/41.04
POLY-3 PERCENT (g)	11.4%	9.6%	16.8%	7.3%
TERMINAL (d)	3/34 (9%)	3/30 (10%)	5/31 (16%)	1/24 (4%)
FIRST INCIDENCE	610	729	708	639
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	4/99 (4%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.338N	P=0.532N	P=0.341	P=0.393N
POLY 1.5	P=0.342N	P=0.517N	P=0.341	P=0.391N
POLY 6	P=0.339N	P=0.555N	P=0.336	P=0.403N
COCH-ARM / FISHERS	P=0.353N	P=0.500N	P=0.334	P=0.394N
MAX-ISO-POLY-3	P=0.366N	P=0.394N	P=0.239	P=0.265N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.223	P=0.226	P=0.090	P=0.410
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.203			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Thyroid Gland: C-Cell Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	3/50 (6%)	2/50 (4%)	4/50 (8%)	4/49 (8%)
POLY-3 RATE (b)	3/45.49	2/44.59	4/46.49	4/45.24
POLY-3 PERCENT (g)	6.6%	4.5%	8.6%	8.8%
TERMINAL (d)	1/35 (3%)	0/32 (0%)	4/36 (11%)	3/29 (10%)
FIRST INCIDENCE	619	568	731 (T)	670
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	10/100 (10%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.357	P=0.509N	P=0.512	P=0.497
POLY 1.5	P=0.353	P=0.504N	P=0.509	P=0.495
POLY 6	P=0.358	P=0.517N	P=0.511	P=0.494
COCH-ARM / FISHERS	P=0.342	P=0.500N	P=0.500	P=0.489
MAX-ISO-POLY-3	P=0.440	P=0.333N	P=0.359	P=0.345
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.406			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Thyroid Gland: C-Cell Carcinoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	3/49 (6%)
POLY-3 RATE (b)	0/44.94	0/43.71	0/46.49	3/45.17
POLY-3 PERCENT (g)	0%	0%	0%	6.6%
TERMINAL (d)	0/35 (0%)	0/32 (0%)	0/36 (0%)	2/29 (7%)
FIRST INCIDENCE	---	---	---	691
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.008**	(e)	(e)	P=0.119
POLY 1.5	P=0.008**	(e)	(e)	P=0.118
POLY 6	P=0.008**	(e)	(e)	P=0.120
COCH-ARM / FISHERS	P=0.008**	(e)	(e)	P=0.117
MAX-ISO-POLY-3	P=0.010**	(e)	(e)	P=0.039*
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.072	(e)	(e)	P=0.144
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.287			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Thyroid Gland: C-Cell Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	3/50 (6%)	2/50 (4%)	4/50 (8%)	7/49 (14%)
POLY-3 RATE (b)	3/45.49	2/44.59	4/46.49	7/45.40
POLY-3 PERCENT (g)	6.6%	4.5%	8.6%	15.4%
TERMINAL (d)	1/35 (3%)	0/32 (0%)	4/36 (11%)	5/29 (17%)
FIRST INCIDENCE	619	568	731 (T)	670
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	11/100 (11%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.050*	P=0.509N	P=0.512	P=0.156
POLY 1.5	P=0.049*	P=0.504N	P=0.509	P=0.155
POLY 6	P=0.050*	P=0.517N	P=0.511	P=0.154
COCH-ARM / FISHERS	P=0.046*	P=0.500N	P=0.500	P=0.151
MAX-ISO-POLY-3	P=0.078	P=0.333N	P=0.359	P=0.090
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.290	P=1.000	P=1.000	P=0.436
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.254			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Thyroid Gland: Follicular Cell Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	1/50 (2%)	0/50 (0%)	3/50 (6%)	1/49 (2%)
POLY-3 RATE (b)	1/44.94	0/43.71	3/46.81	1/45.01
POLY-3 PERCENT (g)	2.2%	0%	6.4%	2.2%
TERMINAL (d)	1/35 (3%)	0/32 (0%)	2/36 (6%)	1/29 (3%)
FIRST INCIDENCE	731 (T)	---	642	731 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	4/100 (4%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.599	P=0.506N	P=0.320	P=0.760N
POLY 1.5	P=0.591	P=0.503N	P=0.315	P=0.759
POLY 6	P=0.605	P=0.510N	P=0.325	P=0.761N
COCH-ARM / FISHERS	P=0.578	P=0.500N	P=0.309	P=0.747
MAX-ISO-POLY-3	P=0.288	P=0.165N	P=0.170	P=0.499N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	P=0.594	P=1.000	P=1.000	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTEs	P=0.495			



Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Thyroid Gland: Follicular Cell Carcinoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/49 (0%)
POLY-3 RATE (b)	1/44.94	1/43.71	0/46.49	0/45.01
POLY-3 PERCENT (g)	2.2%	2.3%	0%	0%
TERMINAL (d)	1/35 (3%)	1/32 (3%)	0/36 (0%)	0/29 (0%)
FIRST INCIDENCE	731 (T)	731 (T)	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Thyroid Gland: Follicular Cell Carcinoma or Adenoma</b>				
<b>TUMOR RATES</b>				
OVERALL (a)	2/50 (4%)	1/50 (2%)	3/50 (6%)	1/49 (2%)
POLY-3 RATE (b)	2/44.94	1/43.71	3/46.81	1/45.01
POLY-3 PERCENT (g)	4.5%	2.3%	6.4%	2.2%
TERMINAL (d)	2/35 (6%)	1/32 (3%)	2/36 (6%)	1/29 (3%)
FIRST INCIDENCE	731 (T)	731 (T)	642	731 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	4/100 (4%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.455N	P=0.510N	P=0.519	P=0.499N
POLY 1.5	P=0.461N	P=0.505N	P=0.512	P=0.502N
POLY 6	P=0.451N	P=0.517N	P=0.525	P=0.500N
COCH-ARM / FISHERS	P=0.472N	P=0.500N	P=0.500	P=0.508N
MAX-ISO-POLY-3	P=0.472N	P=0.291N	P=0.343	P=0.281N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	P=0.694	P=1.000	P=1.000	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTEs	P=0.898			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Uterus Carcinoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	1/44.94	1/43.71	1/46.80	2/45.65
POLY-3 PERCENT (g)	2.2%	2.3%	2.1%	4.4%
TERMINAL (d)	1/35 (3%)	1/32 (3%)	0/36 (0%)	2/29 (7%)
FIRST INCIDENCE	731 (T)	731 (T)	646	731 (T)
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	6/100 (6%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.373	P=0.755	P=0.752N	P=0.505
POLY 1.5	P=0.370	P=0.757	P=0.755N	P=0.504
POLY 6	P=0.374	P=0.750	P=0.749N	P=0.504
COCH-ARM / FISHERS	P=0.363	P=0.753N	P=0.753N	P=0.500
MAX-ISO-POLY-3	P=0.432	P=0.491	P=0.488N	P=0.287
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.165			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Uterus</b>				
<b>Polyp Stromal</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	5/50 (10%)	6/50 (12%)	3/50 (6%)	4/50 (8%)
POLY-3 RATE (b)	5/45.03	6/44.06	3/46.80	4/45.70
POLY-3 PERCENT (g)	11.1%	13.6%	6.4%	8.8%
TERMINAL (d)	4/35 (11%)	5/32 (16%)	2/36 (6%)	2/29 (7%)
FIRST INCIDENCE	709	633	646	725
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	5/100 (5%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.374N	P=0.485	P=0.335N	P=0.491N
POLY 1.5	P=0.377N	P=0.492	P=0.343N	P=0.493N
POLY 6	P=0.375N	P=0.473	P=0.329N	P=0.494N
COCH-ARM / FISHERS	P=0.385N	P=0.500	P=0.357N	P=0.500N
MAX-ISO-POLY-3	P=0.366N	P=0.360	P=0.219N	P=0.355N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.324	P=0.110	P=1.000	P=0.300
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.235			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Uterus</b>				
<b>Sarcoma Stromal</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	2/45.51	0/43.71	0/46.49	1/45.72
POLY-3 PERCENT (g)	4.4%	0%	0%	2.2%
TERMINAL (d)	0/35 (0%)	0/32 (0%)	0/36 (0%)	0/29 (0%)
FIRST INCIDENCE	586	---	---	715
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.663N	P=0.246N	P=0.232N	P=0.498N
POLY 1.5	P=0.666N	P=0.242N	P=0.234N	P=0.498N
POLY 6	P=0.660N	P=0.253N	P=0.232N	P=0.503N
COCH-ARM / FISHERS	P=0.670N	P=0.247N	P=0.247N	P=0.500N
MAX-ISO-POLY-3	P=0.138N	P=0.085N	P=0.076N	P=0.280N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.246	P=1.000	P=1.000	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.312			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Uterus</b>				
<b>Sarcoma Stromal or Polyp Stromal</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	6/50 (12%)	6/50 (12%)	3/50 (6%)	5/50 (10%)
POLY-3 RATE (b)	6/45.51	6/44.06	3/46.80	5/45.76
POLY-3 PERCENT (g)	13.2%	13.6%	6.4%	10.9%
TERMINAL (d)	4/35 (11%)	5/32 (16%)	2/36 (6%)	2/29 (7%)
FIRST INCIDENCE	586	633	646	715
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	6/100 (6%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.452N	P=0.598	P=0.228N	P=0.496N
POLY 1.5	P=0.454N	P=0.609	P=0.233N	P=0.495N
POLY 6	P=0.454N	P=0.582	P=0.225N	P=0.504N
COCH-ARM / FISHERS	P=0.460N	P=0.620N	P=0.243N	P=0.500N
MAX-ISO-POLY-3	P=0.381N	P=0.475	P=0.140N	P=0.370N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.316	P=0.154	P=1.000	P=0.263
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.243			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>Zymbal's Gland Carcinoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.94	0/43.71	0/46.49	0/45.65
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/35 (0%)	0/32 (0%)	0/36 (0%)	0/29 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>All Organs</b>				
<b>Hemangiosarcoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	1/44.94	1/43.71	1/46.49	0/45.65
POLY-3 PERCENT (g)	2.2%	2.3%	2.2%	0%
TERMINAL (d)	1/35 (3%)	1/32 (3%)	1/36 (3%)	0/29 (0%)
FIRST INCIDENCE	731 (T)	731 (T)	731 (T)	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	4/100 (4%)			
<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)			



Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>All Organs</b>				
<b>Hemangiosarcoma or Hemangioma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	1/44.94	1/43.71	2/46.49	0/45.65
POLY-3 PERCENT (g)	2.2%	2.3%	4.3%	0%
TERMINAL (d)	1/35 (3%)	1/32 (3%)	2/36 (6%)	0/29 (0%)
FIRST INCIDENCE	731 (T)	731 (T)	731 (T)	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	4/100 (4%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.319N	P=0.755	P=0.512	P=0.497N
POLY 1.5	P=0.321N	P=0.757	P=0.508	P=0.498N
POLY 6	P=0.318N	P=0.750	P=0.515	P=0.498N
COCH-ARM / FISHERS	P=0.327N	P=0.753N	P=0.500	P=0.500N
MAX-ISO-POLY-3	P=0.280N	P=0.491	P=0.294	P=0.158N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTEs	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTEs	P=0.418			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>All Organs</b>				
<b>Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/44.94	0/43.71	0/46.49	0/45.65
POLY-3 PERCENT (g)	4.5%	0%	0%	0%
TERMINAL (d)	2/35 (6%)	0/32 (0%)	0/36 (0%)	0/29 (0%)
FIRST INCIDENCE	731 (T)	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	1/100 (1%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.255N	P=0.243N	P=0.230N	P=0.234N
POLY 1.5	P=0.257N	P=0.240N	P=0.232N	P=0.234N
POLY 6	P=0.252N	P=0.248N	P=0.228N	P=0.234N
COCH-ARM / FISHERS	P=0.260N	P=0.247N	P=0.247N	P=0.247N
MAX-ISO-POLY-3	P=0.035N*	P=0.082N	P=0.076N	P=0.076N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	(h)	(h)	(h)	(h)
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.304			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>All Organs</b>				
<b>Osteosarcoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.94	0/43.71	0/46.49	0/45.65
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/35 (0%)	0/32 (0%)	0/36 (0%)	0/29 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>All Organs</b>				
<b>Osteosarcoma or Osteoma</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/44.94	0/43.71	0/46.49	0/45.65
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/35 (0%)	0/32 (0%)	0/36 (0%)	0/29 (0%)
FIRST INCIDENCE	---	---	---	---
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	0/100 (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)			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>All Organs</b>				
<b>Benign Tumors</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	42/50 (84%)	39/50 (78%)	43/50 (86%)	40/50 (80%)
POLY-3 RATE (b)	42/48.23	39/49.29	43/49.34	40/48.75
POLY-3 PERCENT (g)	87.1%	79.1%	87.2%	82.1%
TERMINAL (d)	30/35 (86%)	22/32 (69%)	31/36 (86%)	23/29 (79%)
FIRST INCIDENCE	499	530	563	586
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	76/100 (76%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.451N	P=0.215N	P=0.618	P=0.338N
POLY 1.5	P=0.445N	P=0.247N	P=0.578	P=0.355N
POLY 6	P=0.477N	P=0.183N	P=0.605N	P=0.336N
COCH-ARM / FISHERS	P=0.455N	P=0.306N	P=0.500	P=0.398N
MAX-ISO-POLY-3	P=0.402N	P=0.146N	P=0.495	P=0.242N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.217	P=1.000	P=0.105	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.259			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
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Date Report Requested: 02/18/2014  
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 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>All Organs</b>				
<b>Malignant Tumors</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	11/50 (22%)	15/50 (30%)	11/50 (22%)	13/50 (26%)
POLY-3 RATE (b)	11/45.80	15/46.19	11/47.21	13/47.31
POLY-3 PERCENT (g)	24%	32.5%	23.3%	27.5%
TERMINAL (d)	7/35 (20%)	8/32 (25%)	8/36 (22%)	6/29 (21%)
FIRST INCIDENCE	586	481	646	523
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	26/100 (26%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.547	P=0.251	P=0.564N	P=0.442
POLY 1.5	P=0.535	P=0.252	P=0.574N	P=0.431
POLY 6	P=0.555	P=0.248	P=0.558N	P=0.448
COCH-ARM / FISHERS	P=0.510	P=0.247	P=0.595N	P=0.408
MAX-ISO-POLY-3	P=0.547	P=0.184	P=0.467N	P=0.352
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=1.000	P=0.421	P=1.000	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.582			

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(Wistar Han)  
 TERMINAL SACRIFICE AT 105 WEEKS**

DOSE	Females			
	Control	10 mg/m3	30 mg/m3	100 mg/m3
<b>All Organs</b>				
<b>Malignant and Benign Tumors</b>				
<b>TUMOR RATES</b>	#	#	#	#
OVERALL (a)	43/50 (86%)	40/50 (80%)	44/50 (88%)	43/50 (86%)
POLY-3 RATE (b)	43/48.72	40/50.00	44/49.56	43/49.64
POLY-3 PERCENT (g)	88.3%	80%	88.8%	86.6%
TERMINAL (d)	30/35 (86%)	22/32 (69%)	31/36 (86%)	23/29 (79%)
FIRST INCIDENCE	499	481	563	523
HC TUMORS SAME ROUTE	0/0 (0%)			
HC TUMORS ALL ROUTES	83/100 (83%)			
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.463	P=0.197N	P=0.595	P=0.524N
POLY 1.5	P=0.455	P=0.229N	P=0.566	P=0.552N
POLY 6	P=0.461	P=0.171N	P=0.613	P=0.506N
COCH-ARM / FISHERS	P=0.426	P=0.298N	P=0.500	P=0.613N
MAX-ISO-POLY-3	P=0.486	P=0.132N	P=0.467	P=0.400N
HISTCONT SAME RTE	(e)	(e)	(e)	(e)
HISTCONT ALL RTES	P=0.381	P=1.000	P=0.383	P=1.000
CURR VS HC SAME RTE	(e)			
CURR VS HC ALL RTES	P=0.734			

**Experiment Number:** 20515 - 03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** RATS/Wistar Han

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
Metal working fluids (CIMSTAR 3800)  
**CAS Number:** CIMSTAR3800

**Date Report Requested:** 02/18/2014  
**Time Report Requested:** 12:32:34  
**First Dose M/F:** 04/14/08 / 04/14/08  
**Lab:** BNW

## **LEGEND**

- (a) Number of tumor-bearing animals/number of animals examined at site.
- (b) Number of tumor-bearing animals/Poly-3 number
- (d) Observed incidence at terminal kill.
- (e) Value of statistic cannot be computed.
- (f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group.
- (g) Poly-3 adjusted lifetime tumor incidence.
- (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 \*\*\*