

Experiment Number: 03038 - 01
Test Type: 90 DAY W/PN EXP
Route: DOSED WATER
Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Sodium Tungstate, Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 03/19/2012

Time Report Requested: 13:54:57

First Dose M/F: 06/30/09 / 07/01/09

Lab: BAT

F1_HSD

NTP Study Number: C03038
Lock Date: 01/10/2011
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 2.6.0.0_007
PWG Approval Date: NONE

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SUMMARY OF STATISTICALLY SIGNIFICANT ($P \leq .05$) RESULTS IN THE ANALYSIS OF SODIUM TUNGSTATE, DIHYDRATE

MALE RATS

Organ

Kidney: Renal Tubule

Testes

FEMALE RATS

Organ

Kidney

Kidney: Renal Tubule

Morphology

Regeneration

Atrophy

Morphology

Cyst Focal

Mineralization

Regeneration

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(HSD)
 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Males					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000mg/L
Kidney						
Cyst Focal						
LESION RATES						
OVERALL (a)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/10.00	0/10.00	0/10.00	0/10.00	0/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)	(n)	(n)

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 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Males					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000mg/L
Kidney						
Infiltration Cellular Lymphocyte						
LESION RATES						
OVERALL (a)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/10.00	0/10.00	0/10.00	0/10.00	0/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)	(n)	(n)

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 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Males					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000mg/L
Kidney Mineralization						
LESION RATES						
OVERALL (a)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/10.00	0/10.00	0/10.00	0/10.00	0/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)	(n)	(n)

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(HSD)
 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Males					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000mg/L
Kidney Nephropathy						
LESION RATES						
OVERALL (a)	10/10 (100%)	9/10 (90%)	8/10 (80%)	9/10 (90%)	8/10 (80%)	9/10 (90%)
POLY-3 RATE (b)	10/10.00	9/10.00	8/10.00	9/10.00	8/10.00	9/10.00
POLY-3 PERCENT (g)	100%	90%	80%	90%	80%	90%
TERMINAL (d)	10/10 (100%)	9/10 (90%)	8/10 (80%)	9/10 (90%)	8/10 (80%)	9/10 (90%)
FIRST INCIDENCE	91 (T)	91 (T)	91 (T)	91 (T)	91 (T)	91 (T)
STATISTICAL TESTS						
POLY 3	P=0.476N	P=0.500N	P=0.227N	P=0.500N	P=0.227N	P=0.500N
POLY 1.5	P=0.476N	P=0.500N	P=0.227N	P=0.500N	P=0.227N	P=0.500N
POLY 6	P=0.476N	P=0.500N	P=0.227N	P=0.500N	P=0.227N	P=0.500N
COCH-ARM / FISHERS	P=0.476N	P=0.500N	P=0.237N	P=0.500N	P=0.237N	P=0.500N
MAX-ISO-POLY-3	P=0.155N	P=0.158N	P=0.066N	P=0.158N	P=0.066N	P=0.158N

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(HSD)
 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Males					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000mg/L
Kidney: Renal Tubule Regeneration						
LESION RATES						
OVERALL (a)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	3/10 (30%)	10/10 (100%)
POLY-3 RATE (b)	0/10.00	0/10.00	0/10.00	0/10.00	3/10.00	10/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	30%	100%
TERMINAL (d)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	3/10 (30%)	10/10 (100%)
FIRST INCIDENCE	---	---	---	---	91 (T)	91 (T)
STATISTICAL TESTS						
POLY 3	P<0.001**	(e)	(e)	(e)	P=0.095	P<0.001**
POLY 1.5	P<0.001**	(e)	(e)	(e)	P=0.095	P<0.001**
POLY 6	P<0.001**	(e)	(e)	(e)	P=0.095	P<0.001**
COCH-ARM / FISHERS	P<0.001**	(e)	(e)	(e)	P=0.105	P<0.001**
MAX-ISO-POLY-3	P<0.001**	(e)	(e)	(e)	P=0.025*	(e)

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(HSD)
 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Males					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000mg/L
Liver						
Hepatodiaphragmatic Nodule						
LESION RATES						
OVERALL (a)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/10 (10%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/0.00	0/0.00	0/0.00	1/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	10%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/10 (10%)
FIRST INCIDENCE	---	---	---	---	---	91 (T)
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 1.5	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 6	(e)	(e)	(e)	(e)	(e)	P=0.500
COCH-ARM / FISHERS	P=0.304	(e)	(e)	(e)	(e)	P=0.500
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	P=0.158

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 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Males					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000mg/L
Liver						
Infiltration Cellular Mixed Cell						
LESION RATES						
OVERALL (a)	1/10 (10%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	2/10 (20%)
POLY-3 RATE (b)	1/10.00	0/0.00	0/0.00	0/0.00	0/0.00	2/10.00
POLY-3 PERCENT (g)	10%	0%	0%	0%	0%	20%
TERMINAL (d)	1/10 (10%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	2/10 (20%)
FIRST INCIDENCE	91 (T)	---	---	---	---	91 (T)
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 1.5	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 6	(e)	(e)	(e)	(e)	(e)	P=0.500
COCH-ARM / FISHERS	P=0.377	(e)	(e)	(e)	(e)	P=0.500
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	P=0.274

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 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Males					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000mg/L
Lung						
Infiltration Cellular Mixed Cell						
LESION RATES						
OVERALL (a)	1/10 (10%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
POLY-3 RATE (b)	1/10.00	0/0.00	0/0.00	0/0.00	0/0.00	0/10.00
POLY-3 PERCENT (g)	10%	0%	0%	0%	0%	0%
TERMINAL (d)	1/10 (10%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
FIRST INCIDENCE	91 (T)	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	(e)	P=0.500N
POLY 1.5	(e)	(e)	(e)	(e)	(e)	P=0.500N
POLY 6	(e)	(e)	(e)	(e)	(e)	P=0.500N
COCH-ARM / FISHERS	P=0.304N	(e)	(e)	(e)	(e)	P=0.500N
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	P=0.158N

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DOSE	Males					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000mg/L
Lung						
Metaplasia Osseous						
LESION RATES						
OVERALL (a)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/0.00	0/0.00	0/0.00	0/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)	(n)	(n)

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 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Males					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000mg/L
Preputial Gland Infiltration Cellular Lymphocyte						
LESION RATES						
OVERALL (a)	2/10 (20%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	4/10 (40%)
POLY-3 RATE (b)	2/10.00	0/0.00	0/0.00	0/0.00	0/0.00	4/10.00
POLY-3 PERCENT (g)	20%	0%	0%	0%	0%	40%
TERMINAL (d)	2/10 (20%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	4/10 (40%)
FIRST INCIDENCE	91 (T)	---	---	---	---	91 (T)
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	(e)	P=0.318
POLY 1.5	(e)	(e)	(e)	(e)	(e)	P=0.318
POLY 6	(e)	(e)	(e)	(e)	(e)	P=0.318
COCH-ARM / FISHERS	P=0.232	(e)	(e)	(e)	(e)	P=0.314
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	P=0.172

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 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Males					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000mg/L
Preputial Gland Inflammation						
LESION RATES						
OVERALL (a)	1/10 (10%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
POLY-3 RATE (b)	1/10.00	0/0.00	0/0.00	0/0.00	0/0.00	0/10.00
POLY-3 PERCENT (g)	10%	0%	0%	0%	0%	0%
TERMINAL (d)	1/10 (10%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/10 (0%)
FIRST INCIDENCE	91 (T)	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	(e)	P=0.500N
POLY 1.5	(e)	(e)	(e)	(e)	(e)	P=0.500N
POLY 6	(e)	(e)	(e)	(e)	(e)	P=0.500N
COCH-ARM / FISHERS	P=0.304N	(e)	(e)	(e)	(e)	P=0.500N
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	P=0.158N

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 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Males					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000mg/L
Preputial Gland Inflammation Acute						
LESION RATES						
OVERALL (a)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/10 (10%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/0.00	0/0.00	0/0.00	1/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	10%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/10 (10%)
FIRST INCIDENCE	---	---	---	---	---	91 (T)
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 1.5	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 6	(e)	(e)	(e)	(e)	(e)	P=0.500
COCH-ARM / FISHERS	P=0.304	(e)	(e)	(e)	(e)	P=0.500
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	P=0.158

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TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Males					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000mg/L
Testes						
Atrophy						
LESION RATES						
OVERALL (a)	0/10 (0%)	0/0 (0%)	0/0 (0%)	1/1 (100%)	0/0 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/0.00	1/1.00	0/0.00	0/10.00
POLY-3 PERCENT (g)	0%	0%	0%	100%	0%	0%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/0 (0%)	1/1 (100%)	0/0 (0%)	0/10 (0%)
FIRST INCIDENCE	---	---	---	91 (T)	---	---
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	P=0.091	(e)	(e)
POLY 1.5	(e)	(e)	(e)	P=0.091	(e)	(e)
POLY 6	(e)	(e)	(e)	P=0.091	(e)	(e)
COCH-ARM / FISHERS	P=0.510N	(e)	(e)	P=0.091	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	P<0.001**	(e)	(e)

Experiment Number: 03038 - 01
 Test Type: 90 DAY W/PN EXP
 Route: DOSED WATER
 Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS
 Sodium Tungstate, Dihydrate
 CAS Number: 10213-10-2

Date Report Requested: 03/19/2012
 Time Report Requested: 13:54:57
 First Dose M/F: 06/30/09 / 07/01/09
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(HSD)
 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Females					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Clitoral Gland Infiltration Cellular Lymphocyte						
LESION RATES						
OVERALL (a)	1/10 (10%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	2/10 (20%)
POLY-3 RATE (b)	1/10.00	0/0.00	0/0.00	0/0.00	0/0.00	2/10.00
POLY-3 PERCENT (g)	10%	0%	0%	0%	0%	20%
TERMINAL (d)	1/10 (10%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	2/10 (20%)
FIRST INCIDENCE	91 (T)	---	---	---	---	91 (T)
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 1.5	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 6	(e)	(e)	(e)	(e)	(e)	P=0.500
COCH-ARM / FISHERS	P=0.377	(e)	(e)	(e)	(e)	P=0.500
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	P=0.274

Experiment Number: 03038 - 01
 Test Type: 90 DAY W/PN EXP
 Route: DOSED WATER
 Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS
 Sodium Tungstate, Dihydrate
 CAS Number: 10213-10-2

Date Report Requested: 03/19/2012
 Time Report Requested: 13:54:57
 First Dose M/F: 06/30/09 / 07/01/09
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(HSD)
 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Females					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Kidney						
Cyst Focal						
LESION RATES						
OVERALL (a)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	1/10 (10%)
POLY-3 RATE (b)	0/10.00	0/10.00	0/10.00	0/10.00	0/10.00	1/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	10%
TERMINAL (d)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	1/10 (10%)
FIRST INCIDENCE	---	---	---	---	---	91 (T)
STATISTICAL TESTS						
POLY 3	P=0.107	(e)	(e)	(e)	(e)	P=0.500
POLY 1.5	P=0.107	(e)	(e)	(e)	(e)	P=0.500
POLY 6	P=0.107	(e)	(e)	(e)	(e)	P=0.500
COCH-ARM / FISHERS	P=0.105	(e)	(e)	(e)	(e)	P=0.500
MAX-ISO-POLY-3	P=0.041*	(e)	(e)	(e)	(e)	P=0.158

Experiment Number: 03038 - 01
 Test Type: 90 DAY W/PN EXP
 Route: DOSED WATER
 Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS
 Sodium Tungstate, Dihydrate
 CAS Number: 10213-10-2

Date Report Requested: 03/19/2012
 Time Report Requested: 13:54:57
 First Dose M/F: 06/30/09 / 07/01/09
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(HSD)
 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Females					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Kidney						
Infiltration Cellular Lymphocyte						
LESION RATES						
OVERALL (a)	0/10 (0%)	1/10 (10%)	0/10 (0%)	1/10 (10%)	0/10 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	1/10.00	0/10.00	1/10.00	0/10.00	0/10.00
POLY-3 PERCENT (g)	0%	10%	0%	10%	0%	0%
TERMINAL (d)	0/10 (0%)	1/10 (10%)	0/10 (0%)	1/10 (10%)	0/10 (0%)	0/10 (0%)
FIRST INCIDENCE	---	91 (T)	---	91 (T)	---	---
STATISTICAL TESTS						
POLY 3	P=0.432N	P=0.500	(e)	P=0.500	(e)	(e)
POLY 1.5	P=0.432N	P=0.500	(e)	P=0.500	(e)	(e)
POLY 6	P=0.432N	P=0.500	(e)	P=0.500	(e)	(e)
COCH-ARM / FISHERS	P=0.431N	P=0.500	(e)	P=0.500	(e)	(e)
MAX-ISO-POLY-3	P=0.270N	P=0.158	(e)	P=0.158	(e)	(e)

Experiment Number: 03038 - 01
 Test Type: 90 DAY W/PN EXP
 Route: DOSED WATER
 Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS
 Sodium Tungstate, Dihydrate
 CAS Number: 10213-10-2

Date Report Requested: 03/19/2012
 Time Report Requested: 13:54:57
 First Dose M/F: 06/30/09 / 07/01/09
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(HSD)
 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Females					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Kidney Mineralization						
LESION RATES						
OVERALL (a)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	1/10 (10%)
POLY-3 RATE (b)	0/10.00	0/10.00	0/10.00	0/10.00	0/10.00	1/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	10%
TERMINAL (d)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	1/10 (10%)
FIRST INCIDENCE	---	---	---	---	---	91 (T)
STATISTICAL TESTS						
POLY 3	P=0.107	(e)	(e)	(e)	(e)	P=0.500
POLY 1.5	P=0.107	(e)	(e)	(e)	(e)	P=0.500
POLY 6	P=0.107	(e)	(e)	(e)	(e)	P=0.500
COCH-ARM / FISHERS	P=0.105	(e)	(e)	(e)	(e)	P=0.500
MAX-ISO-POLY-3	P=0.041*	(e)	(e)	(e)	(e)	P=0.158

Experiment Number: 03038 - 01
 Test Type: 90 DAY W/PN EXP
 Route: DOSED WATER
 Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS
 Sodium Tungstate, Dihydrate
 CAS Number: 10213-10-2

Date Report Requested: 03/19/2012
 Time Report Requested: 13:54:57
 First Dose M/F: 06/30/09 / 07/01/09
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(HSD)
 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Females					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Kidney Nephropathy						
LESION RATES						
OVERALL (a)	6/10 (60%)	6/10 (60%)	7/10 (70%)	6/10 (60%)	5/10 (50%)	9/10 (90%)
POLY-3 RATE (b)	6/10.00	6/10.00	7/10.00	6/10.00	5/10.00	9/10.00
POLY-3 PERCENT (g)	60%	60%	70%	60%	50%	90%
TERMINAL (d)	6/10 (60%)	6/10 (60%)	7/10 (70%)	6/10 (60%)	5/10 (50%)	9/10 (90%)
FIRST INCIDENCE	91 (T)	91 (T)	91 (T)	91 (T)	91 (T)	91 (T)
STATISTICAL TESTS						
POLY 3	P=0.138	P=0.667	P=0.500	P=0.667	P=0.500N	P=0.148
POLY 1.5	P=0.138	P=0.667	P=0.500	P=0.667	P=0.500N	P=0.148
POLY 6	P=0.138	P=0.667	P=0.500	P=0.667	P=0.500N	P=0.148
COCH-ARM / FISHERS	P=0.134	P=0.675N	P=0.500	P=0.675N	P=0.500N	P=0.152
MAX-ISO-POLY-3	P=0.082	P=1.000	P=0.325	P=1.000	P=0.332N	P=0.058

Experiment Number: 03038 - 01
 Test Type: 90 DAY W/PN EXP
 Route: DOSED WATER
 Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS
 Sodium Tungstate, Dihydrate
 CAS Number: 10213-10-2

Date Report Requested: 03/19/2012
 Time Report Requested: 13:54:57
 First Dose M/F: 06/30/09 / 07/01/09
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(HSD)
 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Females					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Kidney: Renal Tubule Regeneration						
LESION RATES						
OVERALL (a)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	3/10 (30%)	10/10 (100%)
POLY-3 RATE (b)	0/10.00	0/10.00	0/10.00	0/10.00	3/10.00	10/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	30%	100%
TERMINAL (d)	0/10 (0%)	0/10 (0%)	0/10 (0%)	0/10 (0%)	3/10 (30%)	10/10 (100%)
FIRST INCIDENCE	---	---	---	---	91 (T)	91 (T)
STATISTICAL TESTS						
POLY 3	P<0.001**	(e)	(e)	(e)	P=0.095	P<0.001**
POLY 1.5	P<0.001**	(e)	(e)	(e)	P=0.095	P<0.001**
POLY 6	P<0.001**	(e)	(e)	(e)	P=0.095	P<0.001**
COCH-ARM / FISHERS	P<0.001**	(e)	(e)	(e)	P=0.105	P<0.001**
MAX-ISO-POLY-3	P<0.001**	(e)	(e)	(e)	P=0.025*	(e)

Experiment Number: 03038 - 01
 Test Type: 90 DAY W/PN EXP
 Route: DOSED WATER
 Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS
 Sodium Tungstate, Dihydrate
 CAS Number: 10213-10-2

Date Report Requested: 03/19/2012
 Time Report Requested: 13:54:57
 First Dose M/F: 06/30/09 / 07/01/09
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(HSD)
 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Females					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Liver						
Hepatodiaphragmatic Nodule						
LESION RATES						
OVERALL (a)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/10 (10%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/0.00	0/0.00	0/0.00	1/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	10%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	1/10 (10%)
FIRST INCIDENCE	---	---	---	---	---	91 (T)
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 1.5	(e)	(e)	(e)	(e)	(e)	P=0.500
POLY 6	(e)	(e)	(e)	(e)	(e)	P=0.500
COCH-ARM / FISHERS	P=0.304	(e)	(e)	(e)	(e)	P=0.500
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	P=0.158

Experiment Number: 03038 - 01
 Test Type: 90 DAY W/PN EXP
 Route: DOSED WATER
 Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS
 Sodium Tungstate, Dihydrate
 CAS Number: 10213-10-2

Date Report Requested: 03/19/2012
 Time Report Requested: 13:54:57
 First Dose M/F: 06/30/09 / 07/01/09
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(HSD)
 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Females					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Liver						
Infiltration Cellular Mixed Cell						
LESION RATES						
OVERALL (a)	3/10 (30%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	2/10 (20%)
POLY-3 RATE (b)	3/10.00	0/0.00	0/0.00	0/0.00	0/0.00	2/10.00
POLY-3 PERCENT (g)	30%	0%	0%	0%	0%	20%
TERMINAL (d)	3/10 (30%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	2/10 (20%)
FIRST INCIDENCE	91 (T)	---	---	---	---	91 (T)
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	(e)	P=0.500N
POLY 1.5	(e)	(e)	(e)	(e)	(e)	P=0.500N
POLY 6	(e)	(e)	(e)	(e)	(e)	P=0.500N
COCH-ARM / FISHERS	P=0.398N	(e)	(e)	(e)	(e)	P=0.500N
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	P=0.310N

Experiment Number: 03038 - 01
 Test Type: 90 DAY W/PN EXP
 Route: DOSED WATER
 Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS
 Sodium Tungstate, Dihydrate
 CAS Number: 10213-10-2

Date Report Requested: 03/19/2012
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 First Dose M/F: 06/30/09 / 07/01/09
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(HSD)
 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Females					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Lung						
Infiltration Cellular Mixed Cell						
LESION RATES						
OVERALL (a)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/1 (0%)	0/10 (0%)
POLY-3 RATE (b)	0/10.00	0/0.00	0/0.00	0/0.00	0/1.00	0/10.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/10 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/1 (0%)	0/10 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)	(n)	(n)
COCH-ARM / FISHERS	(n)	(n)	(n)	(n)	(n)	(n)
MAX-ISO-POLY-3	(n)	(n)	(n)	(n)	(n)	(n)

Experiment Number: 03038 - 01
 Test Type: 90 DAY W/PN EXP
 Route: DOSED WATER
 Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS
 Sodium Tungstate, Dihydrate
 CAS Number: 10213-10-2

Date Report Requested: 03/19/2012
 Time Report Requested: 13:54:57
 First Dose M/F: 06/30/09 / 07/01/09
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(HSD)
 TERMINAL SACRIFICE AT 13 WEEKS**

DOSE	Females					
	0 mg/L	125 mg/L	250 mg/L	500 mg/L	1000 mg/L	2000 mg/L
Lung						
Metaplasia Osseous						
LESION RATES						
OVERALL (a)	1/10 (10%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/1 (0%)	0/10 (0%)
POLY-3 RATE (b)	1/10.00	0/0.00	0/0.00	0/0.00	0/1.00	0/10.00
POLY-3 PERCENT (g)	10%	0%	0%	0%	0%	0%
TERMINAL (d)	1/10 (10%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/1 (0%)	0/10 (0%)
FIRST INCIDENCE	91 (T)	---	---	---	---	---
STATISTICAL TESTS						
POLY 3	(e)	(e)	(e)	(e)	P=0.913N	P=0.500N
POLY 1.5	(e)	(e)	(e)	(e)	P=0.913N	P=0.500N
POLY 6	(e)	(e)	(e)	(e)	P=0.913N	P=0.500N
COCH-ARM / FISHERS	P=0.300N	(e)	(e)	(e)	P=0.909N	P=0.500N
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	P=0.409N	P=0.158N

Experiment Number: 03038 - 01

Test Type: 90 DAY W/PN EXP

Route: DOSED WATER

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Sodium Tungstate, Dihydrate

CAS Number: 10213-10-2

Date Report Requested: 03/19/2012

Time Report Requested: 13:54:57

First Dose M/F: 06/30/09 / 07/01/09

Lab: BAT

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.
 - (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 ***