

**Experiment Number:** 20534 - 01  
**Test Type:** 14-DAY  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** RATS/F344/N Tac

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Abrasive blasting agents (crushed glass)

**CAS Number:** CRUSHEDGLASS

**Date Report Requested:** 04/05/2018

**Time Report Requested:** 14:36:02

**First Dose M/F:** 06/12/06 / NA

**Lab:** BNW

**NTP Study Number:** C20534  
**Lock Date:** 07/19/2010  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Male  
**TDMSE Version:** 3.0.2.3\_002  
**PWG Approval Date:** NONE

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**SUMMARY OF STATISTICALLY SIGNIFICANT ( $P \leq .05$ ) RESULTS IN THE ANALYSIS OF ABRASIVE BLASTING AGENTS (CRUSHED GLASS)**

**MALE RATS**

**Organ**

Larynx: Epiglottis

Nose: Goblet Cell

**Morphology**

Hyperplasia  
Inflammation  
Metaplasia  
Hypertrophy

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN RATS(F344/N Tac)  
 TERMINAL SACRIFICE AT 3 WEEKS**

DOSE	Males			
	vehicle control	3 mg/m3	15 mg/m3	30 mg/m3
<b>Larynx: Epiglottis Hyperplasia</b>				
<b>LESION RATES</b>				
OVERALL (a)	0/5 (0%)	1/5 (20%)	5/5 (100%)	5/5 (100%)
POLY-3 RATE (b)	0/5.00	1/5.00	5/5.00	5/5.00
POLY-3 PERCENT (g)	0%	20%	100%	100%
TERMINAL (d)	0/5 (0%)	1/5 (20%)	5/5 (100%)	5/5 (100%)
FIRST INCIDENCE	---	16 (T)	16 (T)	16 (T)
<b>STATISTICAL TESTS</b>				
POLY 3	P<0.001**	P=0.500	P=0.004**	P=0.004**
POLY 1.5	P<0.001**	P=0.500	P=0.004**	P=0.004**
POLY 6	P<0.001**	P=0.500	P=0.004**	P=0.004**
COCH-ARM / FISHERS	P<0.001**	P=0.500	P=0.004**	P=0.004**
MAX-ISO-POLY-3	P<0.001**	P=0.159	(e)	(e)

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 TERMINAL SACRIFICE AT 3 WEEKS**

DOSE	Males			
	vehicle control	3 mg/m3	15 mg/m3	30 mg/m3
<b>Larynx: Epiglottis Inflammation</b>				
<b>LESION RATES</b>				
OVERALL (a)	0/5 (0%)	1/5 (20%)	5/5 (100%)	5/5 (100%)
POLY-3 RATE (b)	0/5.00	1/5.00	5/5.00	5/5.00
POLY-3 PERCENT (g)	0%	20%	100%	100%
TERMINAL (d)	0/5 (0%)	1/5 (20%)	5/5 (100%)	5/5 (100%)
FIRST INCIDENCE	---	16 (T)	16 (T)	16 (T)
<b>STATISTICAL TESTS</b>				
POLY 3	P<0.001**	P=0.500	P=0.004**	P=0.004**
POLY 1.5	P<0.001**	P=0.500	P=0.004**	P=0.004**
POLY 6	P<0.001**	P=0.500	P=0.004**	P=0.004**
COCH-ARM / FISHERS	P<0.001**	P=0.500	P=0.004**	P=0.004**
MAX-ISO-POLY-3	P<0.001**	P=0.159	(e)	(e)

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 TERMINAL SACRIFICE AT 3 WEEKS**

DOSE	Males			
	vehicle control	3 mg/m3	15 mg/m3	30 mg/m3
<b>Larynx: Epiglottis Metaplasia</b>				
<b>LESION RATES</b>				
OVERALL (a)	0/5 (0%)	0/5 (0%)	5/5 (100%)	5/5 (100%)
POLY-3 RATE (b)	0/5.00	0/5.00	5/5.00	5/5.00
POLY-3 PERCENT (g)	0%	0%	100%	100%
TERMINAL (d)	0/5 (0%)	0/5 (0%)	5/5 (100%)	5/5 (100%)
FIRST INCIDENCE	---	---	16 (T)	16 (T)
<b>STATISTICAL TESTS</b>				
POLY 3	P<0.001**	(e)	P=0.004**	P=0.004**
POLY 1.5	P<0.001**	(e)	P=0.004**	P=0.004**
POLY 6	P<0.001**	(e)	P=0.004**	P=0.004**
COCH-ARM / FISHERS	P<0.001**	(e)	P=0.004**	P=0.004**
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

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 TERMINAL SACRIFICE AT 3 WEEKS**

DOSE	Males			
	vehicle control	3 mg/m3	15 mg/m3	30 mg/m3
<b>Liver</b>				
<b>Hepatodiaphragmatic Nodule</b>				
<b>LESION RATES</b>				
OVERALL (a)	0/0 (0%)	1/1 (100%)	0/0 (0%)	0/0 (0%)
POLY-3 RATE (b)	0/0.00	1/1.00	0/0.00	0/0.00
POLY-3 PERCENT (g)	0%	100%	0%	0%
TERMINAL (d)	0/0 (0%)	1/1 (100%)	0/0 (0%)	0/0 (0%)
FIRST INCIDENCE	---	16 (T)	---	---
<b>STATISTICAL TESTS</b>				
POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)

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TERMINAL SACRIFICE AT 3 WEEKS**

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DOSE	Males			
	vehicle control	3 mg/m3	15 mg/m3	30 mg/m3
<hr/>				
Nose: Goblet Cell Hypertrophy				
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<b>LESION RATES</b>				
OVERALL (a)	1/5 (20%)	4/5 (80%)	5/5 (100%)	5/5 (100%)
POLY-3 RATE (b)	1/5.00	4/5.00	5/5.00	5/5.00
POLY-3 PERCENT (g)	20%	80%	100%	100%
TERMINAL (d)	1/5 (20%)	4/5 (80%)	5/5 (100%)	5/5 (100%)
FIRST INCIDENCE	16 (T)	16 (T)	16 (T)	16 (T)
<hr/>				
<b>STATISTICAL TESTS</b>				
POLY 3	P=0.002**	P=0.079	P<0.001**	P<0.001**
POLY 1.5	P=0.002**	P=0.079	P<0.001**	P<0.001**
POLY 6	P=0.002**	P=0.079	P<0.001**	P<0.001**
COCH-ARM / FISHERS	P=0.015*	P=0.103	P=0.024*	P=0.024*
MAX-ISO-POLY-3	P<0.001**	P=0.017*	P<0.001**	P<0.001**

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## **LEGEND**

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