

Experiment Number: 07062 - 01

**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH  
AVERAGE SEVERITY GRADES[b]**

Date Report Requested: 04/17/2013

Test Type: 30-day

1020 Long Multiwalled Carbon Nanotube

Time Report Requested: 07:42:27

Route: RESPIRATORY EXPOSURE WHOLE BODY

CAS Number: L-MWNT-1020

First Dose M/F: 05/23/11 / 05/23/11

Species/Strain: RATS/HSD

Lab: BNW

F1\_HSD

**NTP Study Number:** C07062  
**Lock Date:** 03/30/2012  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 3.0.1.1\_001  
**PWG Approval Date:** NONE

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Harlan Sprague Dawley RATS MALE	Control	0.1 mg/m3	0.3 mg/m3	1 mg/m3	3 mg/m3	10 mg/m3
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### Disposition Summary

Animals Initially In Study	35	35	35	35	35	35
Early Deaths						
Survivors						
Terminal Sacrifice	10	10	10	10	10	10
SSAC w/o Nec	25	25	25	25	25	25
Animals Examined Microscopically	10	10	10	10	10	10

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### ALIMENTARY SYSTEM

Liver	(0)	(1)	(0)	(0)	(0)	(0)
Necrosis, Focal		1 [2.0]				
Pharynx	(10)	(10)	(10)	(10)	(10)	(10)

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### CARDIOVASCULAR SYSTEM

None

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### ENDOCRINE SYSTEM

None

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### GENERAL BODY SYSTEM

None

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### GENITAL SYSTEM

None

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### HEMATOPOIETIC SYSTEM

a - Number of animals examined microscopically at site and number of animals with lesion

b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

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Harlan Sprague Dawley RATS MALE	Control	0.1 mg/m3	0.3 mg/m3	1 mg/m3	3 mg/m3	10 mg/m3
Lymph Node, Bronchial	(6)	(6)	(9)	(7)	(7)	(7)
Foreign Body				4 [1.0]	6 [1.0]	7 [1.0]
Hyperplasia, Lymphoid					6 [2.0]	2 [1.5]
Lymph Node, Mediastinal	(7)	(9)	(10)	(9)	(9)	(10)
Foreign Body				3 [1.0]	8 [1.0]	10 [1.1]
Hyperplasia, Lymphoid		3 [1.7]	1 [1.0]	3 [1.3]	8 [2.1]	9 [2.7]

## INTEGUMENTARY SYSTEM

None

## MUSCULOSKELETAL SYSTEM

None

## NERVOUS SYSTEM

None

## RESPIRATORY SYSTEM

Larynx	(10)	(10)	(10)	(10)	(10)	(10)
Epiglottis, Metaplasia, Squamous				1 [1.0]	9 [1.0]	9 [1.0]
Lung	(10)	(10)	(10)	(10)	(10)	(10)
Foreign Body		10 [1.0]	10 [1.0]	10 [1.9]	10 [2.2]	10 [3.0]
Inflammation, Chronic	5 [1.0]	1 [1.0]	2 [1.0]	10 [1.0]	10 [2.1]	10 [3.0]
Alveolar Epithelium, Hyperplasia				3 [1.0]	10 [1.7]	10 [1.9]
Nose	(10)	(10)	(10)	(10)	(10)	(10)
Olfactory Epithelium, Accumulation, Hyaline Droplet		1 [1.0]	3 [1.0]			3 [1.0]
Respiratory Epithelium, Accumulation, Hyaline Droplet					1 [1.0]	1 [1.0]
Trachea	(9)	(10)	(10)	(10)	(10)	(10)

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Harlan Sprague Dawley RATS MALE

Control

0.1 mg/m3

0.3 mg/m3

1 mg/m3

3 mg/m3

10 mg/m3

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SPECIAL SENSES SYSTEM

None

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URINARY SYSTEM

None

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\*\*\* END OF MALE \*\*\*

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Species/Strain: RATS/HSD

Lab: BNW

Harlan Sprague Dawley RATS FEMALE

Control

0.1 mg/m3

0.3 mg/m3

1 mg/m3

3 mg/m3

10 mg/m3

**Disposition Summary**

Animals Initially In Study	35	35	35	35	35	35
Early Deaths						
Survivors						
Terminal Sacrifice	10	10	10	10	10	10
SSAC w/o Nec	25	25	25	25	25	25
Animals Examined Microscopically	10	10	10	10	10	10

## ALIMENTARY SYSTEM

Pharynx	(10)	(10)	(10)	(10)	(10)	(10)
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## CARDIOVASCULAR SYSTEM

None

## ENDOCRINE SYSTEM

None

## GENERAL BODY SYSTEM

None

## GENITAL SYSTEM

Uterus	(0)	(0)	(0)	(1)	(0)	(0)
Endometrium, Hyperplasia, Cystic				1 [3.0]		

## HEMATOPOIETIC SYSTEM

Lymph Node	(0)	(0)	(0)	(0)	(0)	(1)
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Harlan Sprague Dawley RATS FEMALE	Control	0.1 mg/m3	0.3 mg/m3	1 mg/m3	3 mg/m3	10 mg/m3
Iliac, Pigmentation						1 [2.0]
Lymph Node, Bronchial Foreign Body	(7)	(6)	(4)	(6)	(7)	(9)
Hyperplasia, Lymphoid		1 [1.0]		2 [1.5]	6 [1.7]	7 [2.6]
Lymph Node, Mediastinal Foreign Body	(10)	(10)	(9)	(10)	(10)	(10)
Hyperplasia, Lymphoid Pigmentation	2 [1.0]	3 [1.0]	3 [1.7]	7 [2.0]	9 [2.8]	10 [3.4]

## INTEGUMENTARY SYSTEM

None

## MUSCULOSKELETAL SYSTEM

None

## NERVOUS SYSTEM

None

## RESPIRATORY SYSTEM

Larynx	(10)	(10)	(10)	(10)	(10)	(10)
Epiglottis, Metaplasia, Squamous		1 [1.0]		6 [1.0]	9 [1.0]	7 [1.0]
Lung	(10)	(10)	(10)	(10)	(10)	(10)
Foreign Body		10 [1.0]	10 [1.0]	10 [1.9]	10 [2.1]	10 [3.0]
Inflammation, Chronic		3 [1.0]	2 [1.0]	6 [1.0]	10 [1.8]	10 [3.0]
Alveolar Epithelium, Hyperplasia				2 [1.0]	10 [1.1]	10 [1.4]
Nose	(10)	(10)	(10)	(10)	(10)	(10)
Olfactory Epithelium, Accumulation, Hyaline Droplet	1 [1.0]		1 [1.0]	1 [1.0]		4 [1.0]
Respiratory Epithelium, Accumulation, Hyaline Droplet						1 [1.0]

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**Harlan Sprague Dawley RATS FEMALE**

**Control**

**0.1 mg/m3**

**0.3 mg/m3**

**1 mg/m3**

**3 mg/m3**

**10 mg/m3**

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Trachea

(8)

(10)

(10)

(10)

(10)

(10)

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**SPECIAL SENSES SYSTEM**

None

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**URINARY SYSTEM**

None

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

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