

Experiment Number: 20701 - 01

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

Date Report Requested: 02/22/2013

Test Type: 90-DAY

Nanoscale material (Fullerene-C60 1 micron)

Time Report Requested: 07:58:31

Route: RESPIRATORY EXPOSURE NASAL

CAS Number: 99685-96-8

First Dose M/F: 11/05/07 / 11/05/07

Species/Strain: RATS/Wistar Han

Lab: BNW

F2_Rev.1_RE

NTP Study Number: C20701
Lock Date: 02/24/2009
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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Wistar Han RATS MALE	0 mg/m3	2 mg/m3	15 mg/m3	30 mg/m3
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Disposition Summary

Animals Initially In Study	10	10	10	10
Early Deaths				
Survivors				
Terminal Sacrifice	10	10	10	10
Animals Examined Microscopically	10	10	10	10

ALIMENTARY SYSTEM

Esophagus	(10)	(0)	(0)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(10)
Intestine Large, Colon	(10)	(0)	(0)	(10)
Intestine Large, Rectum	(10)	(0)	(0)	(10)
Intestine Small, Duodenum	(10)	(0)	(0)	(10)
Intestine Small, Ileum	(10)	(0)	(0)	(10)
Intestine Small, Jejunum	(10)	(0)	(0)	(10)
Liver	(10)	(1)	(0)	(10)
Inflammation, Chronic		1 [2.0]		
Inflammation, Chronic Active				1 [1.0]
Pancreas	(10)	(0)	(0)	(10)
Salivary Glands	(10)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(10)
Stomach, Glandular	(10)	(0)	(0)	(10)

CARDIOVASCULAR SYSTEM

Blood Vessel	(10)	(0)	(0)	(10)
Heart	(10)	(0)	(0)	(10)
Cardiomyopathy	1 [1.0]			1 [1.0]

ENDOCRINE SYSTEM

Adrenal Cortex	(10)	(0)	(0)	(10)
Adrenal Medulla	(10)	(0)	(0)	(10)

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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Wistar Han RATS MALE	0 mg/m3	2 mg/m3	15 mg/m3	30 mg/m3
Islets, Pancreatic	(10)	(0)	(0)	(10)
Parathyroid Gland	(9)	(0)	(0)	(7)
Pituitary Gland	(10)	(0)	(0)	(10)
Thyroid Gland	(10)	(0)	(0)	(10)

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Epididymis	(10)	(10)	(10)	(10)
Hypospermia			1 [4.0]	
Preputial Gland	(10)	(0)	(0)	(10)
Inflammation, Chronic Active	3 [1.0]			5 [1.0]
Prostate	(10)	(0)	(0)	(10)
Inflammation, Chronic				1 [2.0]
Seminal Vesicle	(10)	(0)	(0)	(10)
Testes	(10)	(10)	(10)	(10)
Germinal Epithelium, Degeneration		1 [1.0]	3 [2.0]	1 [1.0]
Interstitial Cell, Hyperplasia			1 [2.0]	

HEMATOPOIETIC SYSTEM

Bone Marrow	(10)	(0)	(0)	(10)
Lymph Node, Bronchial	(7)	(5)	(6)	(8)
Pigmentation		1 [1.0]	3 [1.0]	7 [1.9]
Lymph Node, Mandibular	(10)	(0)	(0)	(10)
Lymph Node, Mediastinal	(8)	(9)	(8)	(9)
Pigmentation	4 [1.0]	4 [1.0]	3 [1.7]	5 [1.6]
Lymph Node, Mesenteric	(10)	(0)	(0)	(10)
Spleen	(10)	(0)	(0)	(10)
Thymus	(10)	(0)	(0)	(10)

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Lab: BNW

Wistar Han RATS MALE	0 mg/m3	2 mg/m3	15 mg/m3	30 mg/m3
INTEGUMENTARY SYSTEM				
Mammary Gland	(5)	(0)	(0)	(3)
Skin	(10)	(0)	(0)	(9)
MUSCULOSKELETAL SYSTEM				
Bone	(10)	(0)	(0)	(10)
NERVOUS SYSTEM				
Brain	(10)	(0)	(0)	(10)
RESPIRATORY SYSTEM				
Larynx	(10)	(0)	(0)	(10)
Lung	(10)	(10)	(9)	(10)
Congestion		1 [2.0]		
Hemorrhage		1 [1.0]	1 [2.0]	3 [1.7]
Infiltration Cellular, Histiocyte	1 [1.0]	1 [1.0]	8 [1.4]	10 [3.8]
Inflammation, Chronic Active	1 [1.0]	4 [1.0]	8 [1.8]	10 [2.0]
Pigmentation		1 [1.0]	8 [2.1]	10 [3.2]
Nose	(10)	(0)	(0)	(10)
Goblet Cell, Hyperplasia				1 [1.0]
Trachea	(10)	(0)	(0)	(10)
SPECIAL SENSES SYSTEM				
Eye	(10)	(0)	(0)	(10)
Inflammation, Chronic Active				1 [1.0]
Harderian Gland	(10)	(0)	(0)	(10)
Inflammation, Chronic Active	2 [1.0]			

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Species/Strain: RATS/Wistar Han

Lab: BNW

Wistar Han RATS MALE	0 mg/m3	2 mg/m3	15 mg/m3	30 mg/m3
<hr/>				
URINARY SYSTEM				
Kidney	(10)	(0)	(0)	(10)
Infarct	1 [1.0]			
Nephropathy				2 [1.0]
Pelvis, Dilatation				1 [2.0]
Urinary Bladder	(10)	(0)	(0)	(10)

*** END OF MALE ***

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Species/Strain: RATS/Wistar Han

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Wistar Han RATS FEMALE	0 mg/m3	2 mg/m3	15 mg/m3	30 mg/m3
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Disposition Summary

Animals Initially In Study	10	10	10	10
Early Deaths				
Moribund Sacrifice		1		
Survivors				
Terminal Sacrifice	10	9	10	10
Animals Examined Microscopically	10	10	10	10

ALIMENTARY SYSTEM

Esophagus	(10)	(1)	(0)	(10)
Intestine Large, Cecum	(10)	(1)	(0)	(10)
Intestine Large, Colon	(10)	(1)	(0)	(10)
Intestine Large, Rectum	(10)	(1)	(0)	(10)
Intestine Small, Duodenum	(10)	(1)	(0)	(10)
Intestine Small, Ileum	(10)	(1)	(0)	(10)
Intestine Small, Jejunum	(10)	(1)	(0)	(10)
Liver	(10)	(1)	(0)	(10)
Hepatocyte, Pigmentation				1 [3.0]
Pancreas	(10)	(1)	(0)	(10)
Salivary Glands	(10)	(1)	(0)	(10)
Stomach, Forestomach	(10)	(1)	(0)	(10)
Hyperplasia, Squamous	1 [2.0]			
Stomach, Glandular	(10)	(1)	(0)	(10)

CARDIOVASCULAR SYSTEM

Blood Vessel	(10)	(0)	(0)	(10)
Heart	(10)	(1)	(0)	(10)

ENDOCRINE SYSTEM

Adrenal Cortex	(10)	(1)	(0)	(10)
Adrenal Medulla	(10)	(1)	(0)	(9)

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Islets, Pancreatic	(10)	(1)	(0)	(10)
Parathyroid Gland	(9)	(1)	(0)	(9)
Pituitary Gland	(10)	(1)	(0)	(10)
Thyroid Gland	(10)	(1)	(0)	(10)

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Clitoral Gland	(10)	(1)	(0)	(10)
Inflammation, Chronic Active	2 [1.0]	1 [1.0]		3 [1.0]
Ovary	(10)	(1)	(0)	(10)
Uterus	(10)	(1)	(0)	(10)

HEMATOPOIETIC SYSTEM

Bone Marrow	(10)	(1)	(0)	(10)
Lymph Node, Bronchial	(6)	(5)	(7)	(5)
Pigmentation	1 [1.0]	1 [1.0]	3 [1.3]	4 [1.5]
Lymph Node, Mandibular	(10)	(1)	(0)	(10)
Lymph Node, Mediastinal	(8)	(10)	(8)	(9)
Pigmentation	3 [1.0]	9 [1.1]	7 [1.3]	7 [1.6]
Lymph Node, Mesenteric	(10)	(1)	(0)	(10)
Infiltration Cellular, Histiocyte	1 [2.0]			
Spleen	(10)	(1)	(0)	(10)
Thymus	(10)	(1)	(0)	(10)
Necrosis		1 [3.0]		

INTEGUMENTARY SYSTEM

Mammary Gland	(10)	(1)	(0)	(10)
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Skin	(10)	(1)	(0)	(10)
MUSCULOSKELETAL SYSTEM				
Bone Inflammation, Chronic Active	(10)	(1) 1 [4.0]	(0)	(10)
NERVOUS SYSTEM				
Brain	(10)	(1)	(0)	(10)
RESPIRATORY SYSTEM				
Larynx	(10)	(1)	(0)	(10)
Lung	(10)	(10)	(10)	(10)
Infiltration Cellular, Histiocyte Inflammation, Chronic Active Pigmentation	1 [1.0]	1 [1.0]	8 [1.0] 1 [1.0] 8 [2.3]	10 [4.0] 10 [2.0] 10 [3.2]
Nose	(10)	(1)	(0)	(10)
Trachea	(10)	(1)	(0)	(10)
SPECIAL SENSES SYSTEM				
Eye	(10)	(1)	(0)	(10)
Harderian Gland	(10)	(1)	(0)	(10)
URINARY SYSTEM				
Kidney	(10)	(1)	(0)	(10)
Mineralization				1 [1.0]
Nephropathy	1 [1.0]			1 [1.0]
Pelvis, Dilatation				1 [2.0]
Urinary Bladder	(10)	(1)	(0)	(10)

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Wistar Han RATS FEMALE

0 mg/m3

2 mg/m3

15 mg/m3

30 mg/m3

*** END OF REPORT ***

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

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