

**Experiment Number:** 20407 - 01  
**Test Type:** 90-DAY  
**Route:** RESPIRATORY EXPOSURE NASAL  
**Species/Strain:** RATS/Wistar Han

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)**  
Nanoscale material (Fullerene-C60 50 nanometers)  
**CAS Number:** 99685-96-8

**Date Report Requested:** 02/05/2013  
**Time Report Requested:** 07:56:27  
**First Dose M/F:** 11/05/07 / 11/05/07  
**Lab:** BNW

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**NTP Study Number:** C20407  
**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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<b>Wistar Han RATS MALE</b>	<b>0 mg/m3</b>	<b>0.5 mg/m3</b>	<b>2.0 mg/m3</b>
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## Disposition Summary

<b>Animals Initially In Study</b>	<b>10</b>	<b>10</b>	<b>10</b>
<b>Early Deaths</b>			
<b>Survivors</b>			
<b>Terminal Sacrifice</b>	<b>10</b>	<b>10</b>	<b>10</b>
<b>Animals Examined Microscopically</b>	<b>10</b>	<b>10</b>	<b>10</b>

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## ALIMENTARY SYSTEM

Esophagus	(10)	(0)	(10)
Intestine Large, Cecum	(10)	(0)	(10)
Intestine Large, Colon	(10)	(0)	(10)
Intestine Large, Rectum	(10)	(0)	(10)
Intestine Small, Duodenum	(10)	(0)	(10)
Intestine Small, Ileum	(10)	(0)	(10)
Intestine Small, Jejunum	(10)	(0)	(10)
Liver	(10)	(0)	(10)
Pancreas	(10)	(0)	(10)
Acinus, Atrophy	1 (10%)		
Salivary Glands	(10)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(10)
Hyperplasia, Squamous	1 (10%)		
Stomach, Glandular	(10)	(0)	(10)

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## CARDIOVASCULAR SYSTEM

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

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## ENDOCRINE SYSTEM

Adrenal Cortex	(10)	(0)	(10)
Accessory Adrenal Cortical Nodule	2 (20%)		1 (10%)

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

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Wistar Han RATS MALE	0 mg/m3	0.5 mg/m3	2.0 mg/m3
Adrenal Medulla	(10)	(0)	(10)
Islets, Pancreatic	(10)	(0)	(10)
Parathyroid Gland	(10)	(0)	(9)
Pituitary Gland	(10)	(0)	(10)
Cyst	2 (20%)		
Pars Distalis, Hyperplasia			1 (10%)
Thyroid Gland	(10)	(0)	(10)

#### GENERAL BODY SYSTEM

None

#### GENITAL SYSTEM

Epididymis	(10)	(10)	(10)
Hypospermia			2 (20%)
Preputial Gland	(10)	(0)	(10)
Inflammation, Chronic Active	2 (20%)		2 (20%)
Prostate	(10)	(0)	(10)
Inflammation, Chronic Active			3 (30%)
Seminal Vesicle	(10)	(0)	(10)
Testes	(10)	(10)	(10)
Germinal Epithelium, Degeneration			3 (30%)

#### HEMATOPOIETIC SYSTEM

Bone Marrow	(10)	(0)	(10)
Lymph Node	(0)	(1)	(0)
Lymph Node, Bronchial	(10)	(9)	(10)
Pigmentation		3 (33%)	4 (40%)
Lymph Node, Mandibular	(10)	(0)	(10)
Lymph Node, Mediastinal	(10)	(8)	(10)
Pigmentation	1 (10%)	6 (75%)	2 (20%)
Lymph Node, Mesenteric	(10)	(0)	(10)

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Wistar Han RATS MALE	0 mg/m3	0.5 mg/m3	2.0 mg/m3
Spleen	(10)	(0)	(10)
Thymus	(10)	(0)	(10)
Hemorrhage			1 (10%)
<b>INTEGUMENTARY SYSTEM</b>			
Mammary Gland	(0)	(0)	(1)
Skin	(9)	(0)	(10)
<b>MUSCULOSKELETAL SYSTEM</b>			
Bone	(10)	(0)	(10)
<b>NERVOUS SYSTEM</b>			
Brain	(10)	(0)	(10)
<b>RESPIRATORY SYSTEM</b>			
Larynx	(10)	(0)	(10)
Lung	(10)	(10)	(10)
Infiltration Cellular, Histiocyte	1 (10%)	1 (10%)	3 (30%)
Metaplasia, Osseous	1 (10%)		
Pigmentation			3 (30%)
Nose	(10)	(0)	(10)
Trachea	(10)	(0)	(10)
<b>SPECIAL SENSES SYSTEM</b>			
Eye	(10)	(0)	(10)
Harderian Gland	(10)	(0)	(10)
Inflammation, Chronic Active			3 (30%)

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Wistar Han RATS MALE	0 mg/m3	0.5 mg/m3	2.0 mg/m3
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URINARY SYSTEM			
Kidney	(10)	(10)	(10)
Infarct			1 (10%)
Nephropathy	1 (10%)	1 (10%)	6 (60%)
Bilateral, Pelvis, Dilatation			1 (10%)
Medulla, Inflammation, Chronic Active			1 (10%)
Pelvis, Dilatation		2 (20%)	
Urinary Bladder	(10)	(0)	(10)
Inflammation, Chronic Active			1 (10%)

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

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Wistar Han RATS FEMALE	0 mg/m3	0.5 mg/m3	2.0 mg/m3
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### Disposition Summary

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

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### ALIMENTARY SYSTEM

Esophagus	(10)	(0)	(10)
Intestine Large, Cecum	(10)	(0)	(10)
Intestine Large, Colon	(10)	(0)	(10)
Intestine Large, Rectum	(10)	(0)	(10)
Intestine Small, Duodenum	(10)	(0)	(10)
Intestine Small, Ileum	(10)	(0)	(10)
Intestine Small, Jejunum	(10)	(0)	(10)
Liver	(10)	(0)	(10)
Pancreas	(10)	(0)	(10)
Salivary Glands	(10)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(10)
Stomach, Glandular	(10)	(0)	(10)

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### CARDIOVASCULAR SYSTEM

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

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### ENDOCRINE SYSTEM

Adrenal Cortex	(10)	(0)	(10)
Accessory Adrenal Cortical Nodule	2 (20%)		2 (20%)
Adrenal Medulla	(10)	(0)	(10)
Islets, Pancreatic	(10)	(0)	(10)

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Wistar Han RATS FEMALE	0 mg/m3	0.5 mg/m3	2.0 mg/m3
Parathyroid Gland	(6)	(0)	(6)
Pituitary Gland	(10)	(0)	(10)
Pars Distalis, Hyperplasia			1 (10%)
Thyroid Gland	(10)	(0)	(10)

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**GENERAL BODY SYSTEM**

None

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**GENITAL SYSTEM**

Clitoral Gland	(10)	(0)	(10)
Inflammation, Chronic Active	4 (40%)		4 (40%)
Ovary	(10)	(0)	(10)
Bilateral, Cyst			1 (10%)
Uterus	(10)	(0)	(10)

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**HEMATOPOIETIC SYSTEM**

Bone Marrow	(10)	(0)	(10)
Lymph Node, Bronchial	(10)	(10)	(10)
Pigmentation		1 (10%)	5 (50%)
Lymph Node, Mandibular	(10)	(0)	(10)
Lymph Node, Mediastinal	(8)	(8)	(10)
Pigmentation		7 (88%)	9 (90%)
Lymph Node, Mesenteric	(10)	(0)	(10)
Spleen	(10)	(0)	(10)
Thymus	(10)	(0)	(10)
Cyst			1 (10%)

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**INTEGUMENTARY SYSTEM**

Mammary Gland	(10)	(0)	(10)
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Wistar Han RATS FEMALE	0 mg/m3	0.5 mg/m3	2.0 mg/m3
Skin	(10)	(0)	(10)
<b>MUSCULOSKELETAL SYSTEM</b>			
Bone	(10)	(0)	(10)
<b>NERVOUS SYSTEM</b>			
Brain	(10)	(0)	(10)
<b>RESPIRATORY SYSTEM</b>			
Larynx	(10)	(0)	(10)
Lung	(10)	(10)	(10)
Infiltration Cellular, Histiocyte	2 (20%)	1 (10%)	8 (80%)
Metaplasia, Osseous	2 (20%)	1 (10%)	
Pigmentation			8 (80%)
Nose	(10)	(0)	(10)
Trachea	(10)	(0)	(10)
<b>SPECIAL SENSES SYSTEM</b>			
Eye	(10)	(0)	(10)
Harderian Gland	(10)	(0)	(10)
Inflammation, Chronic Active	2 (20%)		
<b>URINARY SYSTEM</b>			
Kidney	(10)	(10)	(10)
Nephropathy	2 (20%)	3 (30%)	2 (20%)
Pelvis, Dilatation			1 (10%)
Urinary Bladder	(10)	(0)	(10)

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



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**Wistar Han RATS FEMALE**

**0 mg/m3**

**0.5 mg/m3**

**2.0 mg/m3**

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

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