

**Experiment Number:** 61427-03

**Test Type:** 90-DAY

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a)**

**Test Compound:** Vanadium pentoxide

**CAS Number:** 1314-62-1

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 02:30:04

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

**Lab:** IIT

<b>C Number:</b>	C61427
<b>Lock Date:</b>	05/20/1992
<b>Cage Range:</b>	All
<b>Date Range:</b>	All
<b>Reasons For Removal:</b>	All
<b>Removal Date Range:</b>	All
<b>Treatment Groups:</b>	All
<b>Study Gender:</b>	Both
<b>PWG Approval Date</b>	NONE

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F 344/N Rat MALE	CONTROL	1.00 MG/M3	2.00 MG/M3	4.00 MG/M3	8.00 MG/M3	16.00 MG/M3
<b>Disposition Summary</b>						
Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Natural Death						7
Survivors						
Terminal Sacrifice	10	10	10	10	10	3
Animals Examined Microscopically	10	10	10	10	10	10
<b>ALIMENTARY SYSTEM</b>						
Esophagus	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Large, Colon	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Large, Rectum	(10)	(0)	(0)	(0)	(9)	(10)
Intestine Small, Duodenum	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Small, Ileum	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Small, Jejunum	(10)	(0)	(0)	(0)	(10)	(10)
Liver	(10)	(0)	(2)	(1)	(10)	(10)
Hepatocyte, Necrosis	2 (20%)					
Hepatodiaphragmatic Nodule				1 (100%)		2 (20%)
Pancreas	(10)	(0)	(0)	(0)	(10)	(10)
Salivary Glands	(10)	(0)	(0)	(0)	(10)	(9)
<b>CARDIOVASCULAR SYSTEM</b>						
Heart	(10)	(0)	(0)	(0)	(10)	(10)
Cardiomyopathy	8 (80%)				5 (50%)	
<b>ENDOCRINE SYSTEM</b>						
Adrenal Cortex	(10)	(0)	(0)	(0)	(10)	(10)
Hemorrhage	1 (10%)					
Adrenal Medulla	(10)	(0)	(0)	(0)	(10)	(10)
Parathyroid Gland	(10)	(0)	(0)	(0)	(7)	(6)

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

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Lab: IIT

F 344/N Rat MALE	CONTROL	1.00 MG/M3	2.00 MG/M3	4.00 MG/M3	8.00 MG/M3	16.00 MG/M3
Pituitary Gland	(10)	(0)	(0)	(0)	(10)	(7)
Thyroid Gland	(10)	(0)	(0)	(0)	(10)	(10)
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Epididymis	(10)	(0)	(0)	(0)	(10)	(10)
Atypia Cellular						10 (100%)
Preputial Gland	(10)	(0)	(0)	(0)	(10)	(10)
Atrophy						5 (50%)
Inflammation, Chronic	1 (10%)					
Prostate	(10)	(0)	(0)	(0)	(10)	(10)
Atrophy						9 (90%)
Seminal Vesicle	(10)	(0)	(0)	(0)	(10)	(10)
Atrophy						10 (100%)
Testes	(10)	(0)	(0)	(0)	(10)	(10)
Degeneration					1 (10%)	6 (60%)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(10)	(0)	(0)	(0)	(10)	(10)
Hypocellularity						2 (20%)
Lymph Node, Bronchial	(8)	(0)	(0)	(0)	(9)	(5)
Congestion	1 (13%)					
Depletion Lymphoid						1 (20%)
Hyperplasia						1 (20%)
Lymph Node, Mandibular	(10)	(0)	(0)	(0)	(10)	(8)
Depletion Lymphoid						3 (38%)
Lymph Node, Mediastinal	(10)	(0)	(4)	(1)	(9)	(7)
Congestion	7 (70%)		1 (25%)	1 (100%)		
Depletion Lymphoid						4 (57%)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(10)	(10)

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F 344/N Rat MALE	CONTROL	1.00 MG/M3	2.00 MG/M3	4.00 MG/M3	8.00 MG/M3	16.00 MG/M3
Depletion Lymphoid						3 (30%)
Spleen	(10)	(0)	(0)	(0)	(10)	(10)
Depletion Lymphoid						10 (100%)
Thymus	(10)	(0)	(0)	(0)	(10)	(9)
Depletion Lymphoid						9 (100%)
<b>INTEGUMENTARY SYSTEM</b>						
Mammary Gland	(10)	(0)	(0)	(0)	(7)	(8)
Skin	(10)	(0)	(0)	(0)	(10)	(10)
<b>MUSCULOSKELETAL SYSTEM</b>						
Bone	(10)	(0)	(0)	(0)	(10)	(10)
Metaphysis, Atrophy					1 (10%)	10 (100%)
<b>NERVOUS SYSTEM</b>						
Brain	(10)	(0)	(0)	(1)	(10)	(10)
<b>RESPIRATORY SYSTEM</b>						
Larynx	(10)	(10)	(10)	(10)	(10)	(10)
Lung	(10)	(10)	(10)	(10)	(10)	(10)
Bronchiole, Exudate					7 (70%)	8 (80%)
Epithelium, Hyperplasia			10 (100%)	10 (100%)	10 (100%)	10 (100%)
Fibrosis			2 (20%)	10 (100%)	10 (100%)	10 (100%)
Hemorrhage	5 (50%)		1 (10%)		8 (80%)	
Inflammation			9 (90%)	10 (100%)	10 (100%)	10 (100%)
Perivascular, Inflammation	9 (90%)	7 (70%)	9 (90%)			
Nose	(10)	(10)	(10)	(10)	(10)	(10)
Inflammation						7 (70%)
Respirat Epith, Hyperplasia				1 (10%)	10 (100%)	10 (100%)
Respirat Epith, Metaplasia				1 (10%)	10 (100%)	10 (100%)
Trachea	(10)	(0)	(0)	(0)	(10)	(10)
<b>SPECIAL SENSES SYSTEM</b>						

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Species/Strain: Rat/F 344/N

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First Dose M/F: NA / NA

Lab: IIT

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<b>F 344/N Rat MALE</b>	<b>CONTROL</b>	<b>1.00 MG/M3</b>	<b>2.00 MG/M3</b>	<b>4.00 MG/M3</b>	<b>8.00 MG/M3</b>	<b>16.00 MG/M3</b>
None						
URINARY SYSTEM						
Kidney	(10)	(0)	(0)	(0)	(10)	(10)
Papilla, Degeneration						1 (10%)
Urinary Bladder	(10)	(0)	(0)	(0)	(10)	(10)

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

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Species/Strain: Rat/F 344/N

Lab: IIT

F 344/N Rat FEMALE	CONTROL	1.00 MG/M3	2.00 MG/M3	4.00 MG/M3	8.00 MG/M3	16.00 MG/M3
<b>Disposition Summary</b>						
Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Moribund Sacrifice						1
Natural Death						2
Survivors						
Terminal Sacrifice	10	10	10	10	10	7
Animals Examined Microscopically	10	10	10	10	10	10
<b>ALIMENTARY SYSTEM</b>						
Esophagus	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Large, Colon	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Large, Rectum	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Small, Duodenum	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Small, Ileum	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Small, Jejunum	(10)	(0)	(0)	(0)	(10)	(10)
Liver	(10)	(1)	(2)	(1)	(10)	(10)
Hepatodiaphragmatic Nodule	1 (10%)		2 (100%)	1 (100%)	3 (30%)	
Inflammation					1 (10%)	
Pancreas	(10)	(0)	(1)	(0)	(10)	(10)
Ectopic Tissue			1 (100%)			
Salivary Glands	(10)	(0)	(0)	(0)	(10)	(10)
<b>CARDIOVASCULAR SYSTEM</b>						
Heart	(10)	(0)	(0)	(0)	(10)	(10)
Cardiomyopathy	2 (20%)					
<b>ENDOCRINE SYSTEM</b>						
Adrenal Cortex	(10)	(0)	(0)	(0)	(10)	(10)
Adrenal Medulla	(10)	(0)	(0)	(0)	(10)	(10)

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Lab: IIT

F 344/N Rat FEMALE	CONTROL	1.00 MG/M3	2.00 MG/M3	4.00 MG/M3	8.00 MG/M3	16.00 MG/M3
Parathyroid Gland	(7)	(0)	(0)	(0)	(2)	(9)
Pituitary Gland	(10)	(0)	(0)	(0)	(10)	(9)
Thyroid Gland	(10)	(0)	(0)	(0)	(10)	(10)
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Clitoral Gland	(10)	(0)	(0)	(0)	(10)	(10)
Ovary	(10)	(1)	(0)	(0)	(10)	(10)
Cyst	1 (10%)	1 (100%)				
Uterus	(10)	(0)	(0)	(0)	(10)	(10)
Atrophy						7 (70%)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(10)	(0)	(0)	(0)	(10)	(10)
Lymph Node, Bronchial	(10)	(0)	(0)	(0)	(10)	(9)
Depletion Lymphoid						5 (56%)
Lymph Node, Mandibular	(10)	(1)	(1)	(1)	(10)	(8)
Depletion Lymphoid						3 (38%)
Lymph Node, Mediastinal	(8)	(1)	(2)	(0)	(10)	(7)
Congestion	1 (13%)					
Depletion Lymphoid						3 (43%)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(10)	(10)
Depletion Lymphoid						2 (20%)
Spleen	(10)	(0)	(0)	(0)	(10)	(10)
Depletion Lymphoid						9 (90%)
Thymus	(10)	(0)	(0)	(0)	(10)	(9)
Depletion Lymphoid						8 (89%)
INTEGUMENTARY SYSTEM						
Mammary Gland	(10)	(0)	(0)	(0)	(10)	(9)

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Lab: IIT

F 344/N Rat FEMALE	CONTROL	1.00 MG/M3	2.00 MG/M3	4.00 MG/M3	8.00 MG/M3	16.00 MG/M3
Skin	(10)	(0)	(0)	(0)	(10)	(10)
<b>MUSCULOSKELETAL SYSTEM</b>						
Bone	(10)	(0)	(0)	(0)	(10)	(10)
Metaphysis, Atrophy					1 (10%)	10 (100%)
<b>NERVOUS SYSTEM</b>						
Brain	(10)	(0)	(0)	(0)	(10)	(10)
<b>RESPIRATORY SYSTEM</b>						
Larynx	(10)	(10)	(10)	(10)	(9)	(10)
Lung	(10)	(10)	(10)	(10)	(10)	(10)
Bronchiole, Exudate					10 (100%)	8 (80%)
Epithelium, Hyperplasia			10 (100%)	10 (100%)	10 (100%)	10 (100%)
Epithelium, Metaplasia, Squamous						1 (10%)
Fibrosis				10 (100%)	10 (100%)	10 (100%)
Hemorrhage						1 (10%)
Inflammation				10 (100%)	10 (100%)	10 (100%)
Perivascular, Inflammation	10 (100%)	10 (100%)	8 (80%)			
Nose	(10)	(10)	(10)	(10)	(10)	(10)
Inflammation					1 (10%)	9 (90%)
Respirat Epith, Hyperplasia				10 (100%)	10 (100%)	10 (100%)
Respirat Epith, Metaplasia				8 (80%)	10 (100%)	10 (100%)
Trachea	(10)	(0)	(0)	(0)	(10)	(10)
<b>SPECIAL SENSES SYSTEM</b>						
None						
<b>URINARY SYSTEM</b>						
Kidney	(10)	(0)	(0)	(0)	(10)	(10)
Inflammation					1 (10%)	
Mineralization	7 (70%)				6 (60%)	4 (40%)
Urinary Bladder	(10)	(0)	(0)	(0)	(7)	(10)

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**Lab:** IIT

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**F 344/N Rat FEMALE**

**CONTROL**

**1.00 MG/M3**

**2.00 MG/M3**

**4.00 MG/M3**

**8.00 MG/M3**

**16.00 MG/M3**

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