

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:32:32

First Dose M/F: NA / NA

Lab: NORTHROP

C Number:	C55470B
Lock Date:	Not Entered.
Cage Range:	All
Date Range:	All
Reasons For Removal:	All
Removal Date Range:	All
Treatment Groups:	All
Study Gender:	Male
PWG Approval Date	NONE

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F 344/N Rat MALE	CONTROL	10 MG/M3 24 MO	10 MG/M3 12 MO	10 MG/M3 ASBESTOS
Disposition Summary				
Animals Initially In Study	78	78	78	78
Early Deaths				
Dead	53	19	49	45
Interval Sacrifice	12	12	12	12
Moribund	6	31	6	7
Survivors				
Terminal Sacrifice	7	12	11	13
Missing		4		
Wrong Sex				1
Animals Examined Microscopically	68	78	67	67

ALIMENTARY SYSTEM

Esophagus	(61)	(63)	(60)	(56)
Intestine Large	(0)	(1)	(0)	(0)
Intestine Large, Cecum	(58)	(57)	(51)	(53)
Intestine Large, Colon	(58)	(54)	(52)	(54)
Adenocarcinoma				1 (2%)
Intestine Large, Rectum	(60)	(58)	(53)	(56)
Intestine Small	(0)	(1)	(0)	(0)
Intestine Small, Duodenum	(60)	(58)	(55)	(56)
Intestine Small, Ileum	(60)	(54)	(52)	(55)
Intestine Small, Jejunum	(60)	(55)	(53)	(53)
Liver	(68)	(69)	(63)	(63)
Adenoma			1 (2%)	
Bile Duct, Carcinoma	1 (1%)			
Fibrous Histiocytoma, Metastatic, Skin	1 (1%)			
Hepatocellular Adenoma	1 (1%)	1 (1%)		

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Hepatocyte, Adenoma	2 (3%)			1 (2%)
Pheochromocytoma Nos, Metastatic, Adrenal Gland			1 (2%)	
Mesentery	(1)	(1)	(0)	(0)
Pancreas	(58)	(60)	(58)	(54)
Acinar Cell, Adenoma	1 (2%)			1 (2%)
Duct, Adenoma		1 (2%)		
Salivary Glands	(55)	(58)	(51)	(47)
Carcinoma, Metastatic, Zymbal'S Gland	1 (2%)			
Fibrosarcoma		1 (2%)		
Fibrous Histiocytoma, Metastatic, Skin Sarcoma	1 (2%)			1 (2%)
Stomach	(1)	(0)	(0)	(0)
Stomach, Forestomach	(62)	(61)	(63)	(63)
Fibroma			1 (2%)	
Squamous Cell Papilloma		1 (2%)		
Submucosa, Adenoma				1 (2%)
Stomach, Glandular	(61)	(62)	(60)	(61)
Tongue	(1)	(0)	(4)	(0)
Squamous Cell Papilloma			1 (25%)	
CARDIOVASCULAR SYSTEM				
Heart	(63)	(66)	(63)	(60)
ENDOCRINE SYSTEM				
Adrenal Gland	(2)	(0)	(0)	(0)
Adrenal Gland, Cortex	(67)	(65)	(63)	(63)
Adenoma	2 (3%)	1 (2%)	1 (2%)	2 (3%)
Osteosarcoma, Metastatic, Bone				1 (2%)

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Adrenal Gland, Medulla	(67)	(61)	(60)	(61)
Bilateral, Pheochromocytoma Benign				6 (10%)
Bilateral, Pheochromocytoma Nos			5 (8%)	
Osteosarcoma, Metastatic, Bone				1 (2%)
Pheochromocytoma Benign	19 (28%)			14 (23%)
Pheochromocytoma Benign, Multiple				1 (2%)
Pheochromocytoma Malignant			3 (5%)	1 (2%)
Pheochromocytoma Nos		17 (28%)	13 (22%)	
Pheochromocytoma Nos, Multiple			2 (3%)	
Islets, Pancreatic	(7)	(13)	(8)	(8)
Adenoma	3 (43%)	11 (85%)	5 (63%)	4 (50%)
Carcinoma	2 (29%)		1 (13%)	5 (63%)
Parathyroid Gland	(54)	(55)	(52)	(50)
Adenoma	3 (6%)		1 (2%)	2 (4%)
Carcinoma	1 (2%)			
Pituitary Gland	(50)	(53)	(56)	(51)
Adenoma		30 (57%)	29 (52%)	37 (73%)
Carcinoma, Metastatic, Zymbal'S Gland			1 (2%)	
Pars Distalis, Adenoma	29 (58%)	1 (2%)	1 (2%)	
Thyroid Gland	(56)	(56)	(52)	(50)
Adenoma		1 (2%)		
C Cell, Adenoma	2 (4%)	3 (5%)	3 (6%)	
C Cell, Carcinoma	1 (2%)		2 (4%)	
Follicular Cel, Adenoma			3 (6%)	4 (8%)
Follicular Cel, Carcinoma		1 (2%)	2 (4%)	
GENERAL BODY SYSTEM				
Tissue NOS	(7)	(9)	(7)	(3)

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Carcinoma	1 (14%)			
Fibroma		3 (33%)	1 (14%)	
Fibrosarcoma	1 (14%)	3 (33%)	1 (14%)	
Hemangiosarcoma	1 (14%)			
Lipoma	1 (14%)			
Osteosarcoma, Metastatic, Bone				1 (33%)
Sarcoma			1 (14%)	
GENITAL SYSTEM				
Epididymis	(67)	(67)	(65)	(65)
Penis	(0)	(2)	(1)	(0)
Preputial Gland	(45)	(31)	(45)	(43)
Carcinoma	1 (2%)		1 (2%)	
Prostate	(62)	(64)	(62)	(65)
Seminal Vesicle	(66)	(59)	(61)	(64)
Testes	(66)	(65)	(65)	(64)
Bilateral, Interstit Cell, Adenoma				1 (2%)
Interstit Cell, Adenoma	32 (48%)	28 (43%)	44 (68%)	22 (34%)
HEMATOPOIETIC SYSTEM				
Bone Marrow	(66)	(44)	(59)	(64)
Lymph Node	(60)	(57)	(56)	(51)
Bronchial, Carcinoma, Metastatic, Parathyroid Gland	1 (2%)			
Bronchial, Pheochromocytoma Malignant, Metastatic, Adrenal Gland			1 (2%)	
Lymph Node, Mandibular	(52)	(64)	(52)	(45)
Carcinoma, Metastatic, Zymbal'S Gland	1 (2%)			
Lymph Node, Mesenteric	(54)	(27)	(48)	(43)

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Fibrous Histiocytoma, Metastatic, Skin	1 (2%)			
Spleen	(67)	(67)	(64)	(65)
Osteosarcoma, Metastatic, Bone				1 (2%)
Pheochromocytoma Malignant, Metastatic, Adrenal Gland			1 (2%)	
Pheochromocytoma Nos, Metastatic, Adrenal Gland			1 (2%)	
Thymus	(46)	(37)	(36)	(35)
Thymoma Nos		1 (3%)		
INTEGUMENTARY SYSTEM				
Mammary Gland	(29)	(29)	(36)	(22)
Adenoma			1 (3%)	
Fibroadenoma			1 (3%)	
Fibrosarcoma				1 (5%)
Skin	(56)	(66)	(55)	(59)
Dermis, Adenoma				1 (2%)
Fibroma		1 (2%)		1 (2%)
Fibrosarcoma		1 (2%)		3 (5%)
Fibrous Histiocytoma	1 (2%)			
Keratoacanthoma	1 (2%)	2 (3%)	3 (5%)	3 (5%)
Papilloma			1 (2%)	
Sarcoma				1 (2%)
Sebaceous GI, Adenoma			1 (2%)	
Squamous Cell Carcinoma		1 (2%)	1 (2%)	
Squamous Cell Papilloma			1 (2%)	
Subcut Tiss, Fibrosarcoma		1 (2%)		
Subcut Tiss, Lipoma	1 (2%)			
Trichoepithelioma	1 (2%)			

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MUSCULOSKELETAL SYSTEM				
Bone	(67)	(67)	(61)	(64)
Fibrous Histiocytoma, Metastatic, Skin	1 (1%)			
Osteoma				1 (2%)
Osteosarcoma				1 (2%)
Skeletal Muscle	(48)	(56)	(55)	(56)
Fibrous Histiocytoma, Metastatic, Skin	1 (2%)			
Rhabdomyosarcoma				1 (2%)
NERVOUS SYSTEM				
Brain	(66)	(68)	(61)	(63)
Adenoma	1 (2%)			
Fibrous Histiocytoma				1 (2%)
Oligodendroglioma Benign	1 (2%)			
Brain, Brain Stem	(1)	(0)	(0)	(0)
Brain, Cerebrum	(0)	(1)	(0)	(0)
Medulloblastoma Nos		1 (100%)		
RESPIRATORY SYSTEM				
Larynx	(52)	(55)	(50)	(53)
Carcinoma, Metastatic, Thyroid Gland		1 (2%)		
Lung	(56)	(54)	(54)	(54)
Alveolar/Bronchiolar Adenoma				10 (19%)
Alveolar/Bronchiolar Adenoma, Multiple				1 (2%)
Alveolar/Bronchiolar Carcinoma		1 (2%)		9 (17%)
Alveolar/Bronchiolar Carcinoma, Multiple				1 (2%)
Bronchiole, Carcinoma				1 (2%)
Carcinoma, Metastatic, Zymbal'S Gland			1 (2%)	

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Carcinosarcoma			1 (2%)	
Osteosarcoma, Metastatic, Bone				1 (2%)
Osteosarcoma, Metastatic, Tissue Nos			1 (2%)	
Pheochromocytoma Malignant, Metastatic, Adrenal Gland			1 (2%)	
Sarcoma, Metastatic, Skin				1 (2%)
Squamous Cell Carcinoma	1 (2%)			
Squamous Cell Carcinoma, Metastatic, Skin			1 (2%)	
Nose	(63)	(63)	(60)	(58)
Fibrosarcoma	1 (2%)			
Septum, Polyp		1 (2%)		
Trachea	(56)	(58)	(52)	(53)
SPECIAL SENSES SYSTEM				
Eye	(66)	(66)	(65)	(62)
Carcinoma, Metastatic, Zymbal'S Gland			1 (2%)	
Harderian Gland	(39)	(16)	(46)	(34)
Lacrimal Gland	(63)	(67)	(60)	(61)
Zymbal's Gland	(0)	(0)	(1)	(0)
Carcinoma			1 (100%)	
URINARY SYSTEM				
Kidney	(65)	(66)	(62)	(65)
Sarcoma	1 (2%)			1 (2%)
Urethra	(0)	(2)	(0)	(0)
Urinary Bladder	(62)	(60)	(63)	(65)
Transit Epithe, Papilloma	1 (2%)			
SYSTEMIC LESIONS				
Multiple Organ	*(68)	*(78)	*(67)	*(67)

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Leukemia Mononuclear	40 (59%)	39 (50%)	37 (55%)	33 (49%)
Mesothelioma Benign	1 (1%)			1 (1%)
Mesothelioma Malignant	4 (6%)			

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Tumor Summary for MALE				
Total Animals with Primary Neoplasms (b)	60	70	63	62
Total Primary Neoplasms	159	152	170	175
Total Animals with Benign Neoplasms	53	52	57	57
Total Benign Neoplasms	101	85	99	113
Total Animals with Malignant Neoplasms	47	43	44	45
Total Malignant Neoplasms	57	48	51	61
Total Animals with Metastatic Neoplasms	3	1	5	2
Total Metastatic Neoplasms	8	1	10	6
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain - Benign or Malignant		19	20	
Total Uncertain Neoplasms		19	20	

**** END OF REPORT ****

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