

TDMS No. 20519 - 01

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

Date Report Requested: 05/18/2011

Test Type: 90-DAY

Metal working fluids (Syntilo 1023)

Time Report Requested: 08:14:15

Route: RESPIRATORY EXPOSURE WHOLE BODY

CAS Number: SYNTILO1023

First Dose M/F: 11/03/08 / 11/03/08

Species/Strain: RATS/Wistar Han

Lab: BNW

F1_RE

C Number: C20519
Lock Date: 06/09/2009
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 2.4.0.0_003
PWG Approval Date: NONE

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Species/Strain: RATS/Wistar Han

Lab: BNW

Wistar Han RATS MALE	Control	25 mg/m3	50 mg/m3	100 mg/m3	200 mg/m3	400 mg/m3
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Disposition Summary

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

ALIMENTARY SYSTEM

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

CARDIOVASCULAR SYSTEM

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

ENDOCRINE SYSTEM

Adrenal Cortex	(10)	(0)	(0)	(0)	(0)	(10)
Adrenal Medulla	(10)	(0)	(0)	(0)	(0)	(10)
Islets, Pancreatic	(10)	(0)	(0)	(0)	(0)	(10)
Parathyroid Gland	(9)	(0)	(0)	(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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Lab: BNW

Wistar Han RATS MALE	Control	25 mg/m3	50 mg/m3	100 mg/m3	200 mg/m3	400 mg/m3
Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Thyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Epididymis	(10)	(0)	(0)	(0)	(0)	(10)
Preputial Gland	(10)	(0)	(0)	(0)	(0)	(10)
Prostate	(10)	(0)	(0)	(0)	(0)	(10)
Seminal Vesicle	(10)	(0)	(0)	(0)	(0)	(10)
Testes	(10)	(0)	(0)	(0)	(0)	(10)

HEMATOPOIETIC SYSTEM

Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Bronchial	(9)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Mandibular	(9)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Mediastinal	(10)	(0)	(0)	(0)	(0)	(9)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(10)
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Thymus	(10)	(0)	(0)	(0)	(0)	(10)

INTEGUMENTARY SYSTEM

Mammary Gland	(0)	(0)	(0)	(0)	(0)	(2)
Skin	(10)	(0)	(0)	(0)	(0)	(10)
Subcutaneous Tissue, Edema						1 [2.0]

MUSCULOSKELETAL 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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Lab: BNW

Wistar Han RATS MALE	Control	25 mg/m3	50 mg/m3	100 mg/m3	200 mg/m3	400 mg/m3
Bone	(10)	(0)	(0)	(0)	(0)	(10)
NERVOUS SYSTEM						
Brain	(10)	(0)	(0)	(0)	(0)	(10)
RESPIRATORY SYSTEM						
Larynx	(10)	(10)	(10)	(10)	(10)	(10)
Erosion, Focal			1 [1.0]			2 [1.0]
Inflammation, Chronic Active		10 [1.6]	10 [2.3]	10 [2.8]	10 [2.9]	10 [2.9]
Metaplasia, Squamous		10 [2.3]	10 [2.4]	10 [3.6]	10 [3.7]	10 [4.0]
Ulcer, Focal			1 [1.0]	1 [2.0]	1 [2.0]	4 [1.8]
Lung	(10)	(10)	(10)	(10)	(10)	(10)
Alveolus, Infiltration Cellular, Histiocyte					10 [1.3]	10 [2.0]
Nose	(10)	(10)	(10)	(10)	(10)	(10)
Inflammation, Suppurative				1 [1.0]		
Olfactory Epithelium, Accumulation, Hyaline Droplet	2 [1.5]	3 [1.3]	6 [1.5]	9 [1.8]	8 [2.3]	8 [3.0]
Olfactory Epithelium, Necrosis						1 [1.0]
Trachea	(10)	(10)	(10)	(10)	(10)	(10)
SPECIAL SENSES SYSTEM						
Eye	(10)	(0)	(0)	(0)	(0)	(10)
Harderian Gland	(10)	(0)	(0)	(0)	(0)	(10)
URINARY SYSTEM						
Kidney	(10)	(0)	(0)	(0)	(0)	(10)
Nephropathy	1 [1.0]					
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

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Species/Strain: RATS/Wistar Han

Lab: BNW

Wistar Han RATS MALE

Control

25 mg/m3

50 mg/m3

100 mg/m3

200 mg/m3

400 mg/m3

*** END OF MALE ***

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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Species/Strain: RATS/Wistar Han

Lab: BNW

Wistar Han RATS FEMALE	Control	25 mg/m3	50 mg/m3	100 mg/m3	200 mg/m3	400 mg/m3
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Disposition Summary

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

ALIMENTARY SYSTEM

Esophagus	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Colon	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Rectum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Duodenum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Ileum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Jejunum	(10)	(0)	(0)	(0)	(0)	(10)
Liver	(10)	(0)	(0)	(1)	(0)	(10)
Bile Duct, Cyst				1 [3.0]		
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(10)

CARDIOVASCULAR SYSTEM

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

ENDOCRINE SYSTEM

Adrenal Cortex	(10)	(0)	(0)	(0)	(0)	(10)
Adrenal Medulla	(10)	(0)	(0)	(0)	(0)	(10)
Islets, Pancreatic	(10)	(0)	(0)	(0)	(0)	(10)
Parathyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)

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Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Thyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Clitoral Gland	(10)	(0)	(0)	(0)	(0)	(9)
Ovary	(10)	(0)	(1)	(0)	(0)	(10)
Cyst			1 [3.0]			
Uterus	(10)	(0)	(0)	(0)	(0)	(10)

HEMATOPOIETIC SYSTEM

Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Bronchial	(9)	(0)	(0)	(0)	(0)	(6)
Lymph Node, Mandibular	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Mediastinal	(8)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(10)
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Thymus	(10)	(0)	(0)	(0)	(0)	(10)

INTEGUMENTARY SYSTEM

Mammary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Skin	(10)	(0)	(0)	(1)	(0)	(10)
Inflammation, Chronic Active				1 [2.0]		

MUSCULOSKELETAL SYSTEM

Bone	(10)	(0)	(0)	(0)	(0)	(10)
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a - Number of animals examined microscopically at site and number of animals with lesion

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Wistar Han RATS FEMALE	Control	25 mg/m3	50 mg/m3	100 mg/m3	200 mg/m3	400 mg/m3
NERVOUS SYSTEM						
Brain	(10)	(0)	(0)	(0)	(0)	(10)
RESPIRATORY SYSTEM						
Larynx	(10)	(10)	(10)	(10)	(10)	(10)
Erosion, Focal					2 [1.5]	
Inflammation, Chronic Active		10 [1.4]	10 [2.4]	10 [2.4]	10 [3.1]	10 [2.9]
Metaplasia, Squamous		10 [1.7]	10 [2.6]	10 [2.0]	10 [3.9]	10 [4.0]
Ulcer, Focal				1 [1.0]	5 [2.6]	5 [1.8]
Lung	(10)	(10)	(10)	(10)	(10)	(9)
Alveolus, Infiltration Cellular, Histiocyte				4 [1.5]	7 [1.3]	9 [2.0]
Nose	(10)	(10)	(10)	(10)	(10)	(10)
Olfactory Epithelium, Accumulation, Hyaline Droplet	4 [1.5]	1 [1.0]	5 [1.4]	7 [1.7]	9 [1.7]	10 [2.5]
Trachea	(10)	(10)	(10)	(10)	(10)	(10)
Inflammation, Chronic Active						1 [1.0]
SPECIAL SENSES SYSTEM						
Eye	(10)	(0)	(0)	(0)	(0)	(10)
Harderian Gland	(10)	(0)	(0)	(0)	(0)	(10)
URINARY SYSTEM						
Kidney	(10)	(0)	(0)	(0)	(0)	(10)
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

*** END OF REPORT ***

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)