Test Type: 90-DAY

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

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

F1\_RD

C Number: C20515

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

**Lock Date:** 04/04/2007

Cage Range: ALL

Date Range: ALL

**Reasons For Removal:** ALL

Removal Date Range: ALL

Treatment Groups: Include ALL

Study Gender: Both

**TDMSE Version:** 2.0.0

**Date Report Requested:** 10/21/2008

Time Report Requested: 07:18:15 First Dose M/F: 06/12/06 / 06/12/06

Lab: BNW

Test Type: 90-DAY

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

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Lab: BNW

Date Report Requested: 10/21/2008

Time Report Requested: 07:18:15

First Dose M/F: 06/12/06 / 06/12/06

Species/Strain: RATS/F344/N Tac

Route: RESPIRATORY EXPOSURE WHOLE BODY

Fischer 344-Taconic RATS MALE	0 mg/m3	25 mg/m3	50 mg/m3	100 mg/m3	200 mg/m3	400 mg/m3
Disposition Summary						
Animals Initially in Study Early Deaths Survivors	10	10	10	10	10	10
Terminal Sacrifice Animals Examined Microscopically	10 10	10 10	10 10	10 10	10 10	10 10
ALIMENTARY SYSTEM						
Liver	(10)	(2) 2	(1)	(0)	(1)	(10)
Hepatodiaphragmatic Nodule Mesentery	1 (1)	(0)	1 (0)	(0)	1 (1)	(0)
Fat, Necrosis Pancreas	1 [2.0] (10)	(0)	(0)	(0)	1 [2.0] (0)	(10)
Atrophy	1 [1.0]	(-)	(-)	(-)	(-)	(1-5)
CARDIOVASCULAR SYSTEM						
Heart Cardiomyopathy	(10) 6 [1.0]	(0)	(0)	(0)	(0)	(10) 6 [1.0]
ENDOCRINE SYSTEM						
None						
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Preputial Gland Inflammation, Chronic Active	(10) 1 [1.0]	(0)	(0)	(0)	(0)	(10) 2 [1.0]

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)

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

Suppurative

Hyaline Droplet

Olfactory Epithelium, Necrosis

Respiratory Epithelium, Accumulation,

Respiratory Epithelium, Hyperplasia

Respiratory Epithelium, Inflammation,

Test Type: 90-DAY

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

Metal working fluids (CIMSTAR 3800)

**CAS Number: CIMSTAR3800** 

Date Report Requested: 10/21/2008

Time Report Requested: 07:18:15 First Dose M/F: 06/12/06 / 06/12/06

Lab: BNW

10 [2.8]

10 [1.6]

1 [1.0]

10 [2.8]

1 [1.0]

10 [1.7]

Fischer 344-Taconic RATS MALE	0 mg/m3	25 mg/m3	50 mg/m3	100 mg/m3	200 mg/m3	400 mg/m3
HEMATOPOIETIC SYSTEM						
None						
INTEGUMENTARY SYSTEM						
None						
MUSCULOSKELETAL SYSTEM						
None						
NERVOUS SYSTEM						
None						
RESPIRATORY SYSTEM						
Larynx Inflammation, Chronic Active Metaplasia, Squamous Squamous Epithelium, Hyperplasia	(10) 1 [1.0]	(10) 9 [1.1] 10 [3.1] 6 [1.0]	(10) 10 [1.3] 10 [3.9] 5 [1.0]	(10) 10 [1.5] 10 [4.0] 10 [1.3]	(10) 10 [2.0] 10 [4.0] 10 [1.6]	(10) 10 [2.5] 10 [4.0] 10 [1.7]
Lung Inflammation, Chronic Active Metaplasia, Osseous Alveolus, Infiltration Cellular, Histiocyte	(10) 10 [1.7]	(10) 9 [1.1]	(10) 10 [1.6]	(10) 10 [1.3] 1 [1.0]	(10) 10 [1.3] 1 [1.0] 7 [1.0]	(10) 10 [1.3] 10 [1.0]
Nose Foreign Body	(10)	(10) 1	(10)	(10)	(10)	(10) 1
Goblet Cell, Hyperplasia Olfactory Epithelium, Accumulation, Hyaline Droplet	1 [1.0]	10 [1.3] 10 [3.0]	10 [1.6] 10 [3.0]	10 [1.7] 10 [3.0]	10 [1.8] 10 [3.0]	10 [1.9] 10 [3.0]
Olfactory Epithelium, Inflammation,		10 [1.2]	10 [1.3]	10 [1.3]	10 [1.6]	10 [1.7]

10 [1.8]

10 [1.3]

10 [2.4]

10 [1.3]

10 [2.6]

10 [1.2]

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)

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

Test Type: 90-DAY

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

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

**Date Report Requested:** 10/21/2008

Time Report Requested: 07:18:15 First Dose M/F: 06/12/06 / 06/12/06

Lab: BNW

Fischer 344-Taconic RATS MALE	0 mg/m3	25 mg/m3	50 mg/m3	100 mg/m3	200 mg/m3	400 mg/m3
Suppurative Trachea Metaplasia, Squamous	(10)	(10)	(10)	(10)	(10)	(10) 1 [1.0]
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
Kidney Nephropathy	(10) 9 [1.0]	(0)	(0)	(0)	(0)	(10) 7 [1.0]

\*\*\* 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)

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

Test Type: 90-DAY

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

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Time Bound Boundary 074045

Time Report Requested: 07:18:15 First Dose M/F: 06/12/06 / 06/12/06

Date Report Requested: 10/21/2008

Lab: BNW

Fischer 344-Taconic RATS FEMALE	0 mg/m3	25 mg/m3	50 mg/m3	100 mg/m3	200 mg/m3	400 mg/m3
Disposition Summary						
Animals Initially in Study Early Deaths Survivors	10	10	10	10	10	10
Terminal Sacrifice Animals Examined Microscopically	10 10	10 10	10 10	10 10	10 10	10 10
ALIMENTARY SYSTEM						
Liver Hepatodiaphragmatic Nodule	(10)	(4) 4	(0)	(3) 3	(1) 1	(10) 1
Inflammation, Granulomatous	3 [1.0]		(2)			6 [1.2]
Mesentery Fat, Hemorrhage	(0)	(0)	(0)	(1) 1 [2.0]	(0)	(0)
Oral Mucosa Inflammation, Acute	(1) 1 [2.0]	(0)	(0)	(0)	(0)	(0)
CARDIOVASCULAR SYSTEM						
Heart Cardiomyopathy	(10) 1 [1.0]	(0)	(0)	(0)	(0)	(10) 2 [1.0]
ENDOCRINE SYSTEM						
None						
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Ovary Cyst	(10) 2 [2.0]	(0)	(0)	(0)	(2) 2 [2.0]	(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)

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

Test Type: 90-DAY

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

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

First Dose M/F: 06/12/06 / 06/12/06

Date Report Requested: 10/21/2008

10 [1.4]

Time Report Requested: 07:18:15

Lab: BNW

10 [1.6]

Fischer 344-Taconic RATS FEMALE 0 mg/m3 25 mg/m3 50 mg/m3 100 mg/m3 200 mg/m3 400 mg/m3 HEMATOPOIETIC SYSTEM None INTEGUMENTARY SYSTEM None MUSCULOSKELETAL SYSTEM None **NERVOUS SYSTEM** None RESPIRATORY SYSTEM Larynx (10)(10)(10)(10)(10)(10)Inflammation, Chronic Active 10 [1.0] 10 [1.1] 10 [1.6] 10 [1.7] 10 [2.2] Metaplasia, Squamous 10 [2.9] 10 [3.4] 10 [4.0] 10 [4.0] 10 [4.0] Squamous Epithelium, Hyperplasia 9 [1.1] 7 [1.0] 10 [1.4] 9 [1.3] 10 [1.7] Lung (10)(10)(10)(10)(10)(10)Inflammation, Chronic Active 10 [1.6] 10 [1.1] 10 [1.5] 9 [1.2] 10 [1.3] 10 [1.3] Metaplasia, Osseous 1 [1.0] Alveolus, Infiltration Cellular, Histiocyte 10 [1.0] 10 [1.0] Arteriole, Inflammation, Chronic Active 1 [1.0] Bronchiole, Hyperplasia 1 [2.0] Perivascular, Inflammation, Chronic 1 [1.0] Active (10)(10)(10)(10)(10)(10)Nose Goblet Cell, Hyperplasia 10 [1.8] 8 [1.5] 10 [1.5] 9 [1.6] 10 [1.7] Olfactory Epithelium, Accumulation, 10 [2.8] 10 [3.0] 10 [2.9] 10 [3.0] 10 [3.0] **Hyaline Droplet** 

Olfactory Epithelium, Inflammation,

Suppurative

10 [1.1]

10 [1.3]

9 [1.0]

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)

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

Test Type: 90-DAY

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Lab: BNW

Fischer 344-Taconic RATS FEMALE	0 mg/m3	25 mg/m3	50 mg/m3	100 mg/m3	200 mg/m3	400 mg/m3
Respiratory Epithelium, Accumulation, Hyaline Droplet		10 [2.6]	10 [2.8]	10 [2.6]	10 [2.8]	10 [2.7]
Respiratory Epithelium, Inflammation,		9 [1.0]	10 [1.1]	10 [1.3]	10 [1.6]	10 [1.4]
Suppurative Respiratory Epithelium, Metaplasia, Squamous						1 [1.0]
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
Kidney Pelvis, Inflammation, Acute Transitional Epithelium, Hyperplasia	(10)	(0)	(0)	(0)	(0)	(10) 1 [1.0] 1 [2.0]

\*\*\* 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)