

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

F1_RD

C Number: C20515
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

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Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	1	TMT:	1	SEX:	Male	DAY ON TEST:	93
		DOSE:	0 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55210

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Larynx | * Lymph Node, Mandibular | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric | * Mammary Gland | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Preputial Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Spleen | * Stomach, Forestomach |
| * Stomach, Glandular | * Testes | * Thymus | * Thyroid Gland |
| * Trachea | * Urinary Bladder | | |

MISSING

- * Lymph Node, Bronchial

OBSERVATIONS

- | | | | |
|----------|---|-------------------------------|-------------------------|
| * Kidney | | Nephropathy | Minimal |
| * Liver | | Hepatodiaphragmatic Nodule | |
| | [Hepatodiaphragmatic Nodule TGLs = 1-7] | | |
| * Lung | | Inflammation | Chronic Active, Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |

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Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	2	TMT:	1	SEX:	Male	DAY ON TEST:	93
		DOSE:	0 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55211

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|---------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Kidney | * Larynx | * Liver | * Lymph Node, Bronchial |
| * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Nose |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Preputial Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | * Skin |
| * Spleen | * Stomach, Forestomach | * Stomach, Glandular | * Testes |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |

INSUFFICIENT TISSUE

- * Mammary Gland

OBSERVATIONS

- | | | |
|---------|----------------|----------------------|
| * Heart | Cardiomyopathy | Minimal |
| * Lung | Inflammation | Chronic Active, Mild |

TDMS No. 20515 - 01

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Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	3	TMT:	1	SEX:	Male	DAY ON TEST:	93
		DOSE:	0 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55212

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Larynx | * Liver | * Lymph Node, Mandibular | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric | * Nose | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Preputial Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Spleen | * Stomach, Forestomach |
| * Stomach, Glandular | * Testes | * Thymus | * Thyroid Gland |
| * Trachea | * Urinary Bladder | | |

MISSING

- | | |
|-------------------------|-----------------|
| * Lymph Node, Bronchial | * Mammary Gland |
|-------------------------|-----------------|

OBSERVATIONS

- | | | |
|----------|----------------|----------------------|
| * Heart | Cardiomyopathy | Minimal |
| * Kidney | Nephropathy | Minimal |
| * Lung | Inflammation | Chronic Active, Mild |

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

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Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

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Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	4	TMT:	1	SEX:	Male	DAY ON TEST:	93
		DOSE:	0 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55213

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Liver | * Lymph Node, Bronchial | * Lymph Node, Mandibular | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric | * Mammary Gland | * Nose | * Pancreas |
| * Parathyroid Gland | * Pituitary Gland | * Preputial Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Testes | * Thymus |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

OBSERVATIONS

- | | | |
|----------|----------------|-------------------------|
| * Heart | Cardiomyopathy | Minimal |
| * Kidney | Nephropathy | Minimal |
| * Larynx | Inflammation | Chronic Active, Minimal |
| * Lung | Inflammation | Chronic Active, Mild |

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Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

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Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	5	TMT:	1	SEX:	Male	DAY ON TEST:	93
		DOSE:	0 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55214

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Larynx | * Liver | * Lymph Node, Bronchial | * Lymph Node, Mandibular |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland | * Nose |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Testes | * Thymus |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

OBSERVATIONS

- | | | |
|-------------------|----------------|-------------------------|
| * Heart | Cardiomyopathy | Minimal |
| * Kidney | Nephropathy | Minimal |
| * Lung | Inflammation | Chronic Active, Mild |
| * Preputial Gland | Inflammation | Chronic Active, Minimal |

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CAS Number: CIMSTAR3800

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Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	6	TMT:	1	SEX:	Male	DAY ON TEST:	93
		DOSE:	0 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55215

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Larynx | * Liver | * Lymph Node, Bronchial | * Lymph Node, Mandibular |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland | * Nose |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Preputial Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | * Skin |
| * Spleen | * Stomach, Forestomach | * Stomach, Glandular | * Testes |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |

OBSERVATIONS

- | | | |
|----------|----------------|----------------------|
| * Heart | Cardiomyopathy | Minimal |
| * Kidney | Nephropathy | Minimal |
| * Lung | Inflammation | Chronic Active, Mild |

TDMS No. 20515 - 01

Test Type: 90-DAY

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Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 7

TMT: 1

DOSE: 0 mg/m3

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 93

HISTO: 55216

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Larynx | * Liver | * Lymph Node, Bronchial | * Lymph Node, Mandibular |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland | * Nose |
| * Parathyroid Gland | * Pituitary Gland | * Preputial Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Testes | * Thymus |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

OBSERVATIONS

- | | | |
|------------|----------------|-------------------------|
| * Heart | Cardiomyopathy | Minimal |
| * Kidney | Nephropathy | Minimal |
| * Lung | Inflammation | Chronic Active, Minimal |
| * Pancreas | Atrophy | Minimal |

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Species/Strain: RATS/F344/N Tac

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Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

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Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	8	TMT:	1	SEX:	Male	DAY ON TEST:	93
		DOSE:	0 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55217

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Larynx | * Liver | * Lymph Node, Bronchial |
| * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nose | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Preputial Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| * Skin | * Spleen | * Stomach, Forestomach | * Stomach, Glandular |
| * Testes | * Thymus | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | |
|--------------------------|--------------|-------------------------|
| * Kidney | Nephropathy | Minimal |
| * Lung | Inflammation | Chronic Active, Minimal |
| Mesentery | Necrosis | Mild |
| [Necrosis TGLs = 1-14] | | |
| Fat | | |

TDMS No. 20515 - 01

Test Type: 90-DAY

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Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	9	TMT:	1	SEX:	Male	DAY ON TEST:	93
		DOSE:	0 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55218

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Larynx | * Liver | * Lymph Node, Bronchial |
| * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Nose |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Preputial Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | * Skin |
| * Spleen | * Stomach, Forestomach | * Stomach, Glandular | * Testes |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |

MISSING

- * Mammary Gland

OBSERVATIONS

- | | | |
|----------|--------------|----------------------|
| * Kidney | Nephropathy | Minimal |
| * Lung | Inflammation | Chronic Active, Mild |

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	10	TMT:	1	SEX:	Male	DAY ON TEST:	93
		DOSE:	0 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55219

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Larynx | * Liver | * Lymph Node, Bronchial |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Nose | * Pancreas |
| * Parathyroid Gland | * Pituitary Gland | * Preputial Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Testes | * Thymus |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

MISSING

- | | |
|--------------------------|-----------------|
| * Lymph Node, Mandibular | * Mammary Gland |
|--------------------------|-----------------|

OBSERVATIONS

- | | | |
|----------|--------------|----------------------|
| * Kidney | Nephropathy | Minimal |
| * Lung | Inflammation | Chronic Active, Mild |

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	201	TMT:	3	SEX:	Male	DAY ON TEST:	93
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55310

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx		Inflammation Metaplasia	Chronic Active, Minimal Squamous, Moderate
Liver	[Hepatodiaphragmatic Nodule TGLs = 1-6]	Hepatodiaphragmatic Nodule	
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Foreign Body	Mild Moderate
	Goblet Cell Olfactory Epi Respirat Epith	Hyperplasia Inflammation Inflammation	Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	202	TMT:	3	SEX:	Male	DAY ON TEST:	93
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55311

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Moderate
Liver	[Hepatodiaphragmatic Nodule TGLs = 1-7]	Hepatodiaphragmatic Nodule	
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	203	TMT:	3	SEX:	Male	DAY ON TEST:	93
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55312

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	204	TMT:	3	SEX:	Male	DAY ON TEST:	93
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55313

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx		Inflammation Metaplasia	Chronic Active, Minimal Squamous, Moderate
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Moderate
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Goblet Cell	Hyperplasia	Mild
	Olfactory Epi	Inflammation	Suppurative, Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

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

Lab: BNW

ANIMAL NUM:	205	TMT:	3	SEX:	Male	DAY ON TEST:	93
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55314

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Metaplasia	Minimal Squamous, Moderate
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Moderate
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Goblet Cell	Hyperplasia	Minimal
	Olfactory Epi	Inflammation	Suppurative, Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	206	TMT:	3	SEX:	Male	DAY ON TEST:	93
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55315

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lung	Trachea
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OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Moderate
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	207	TMT:	3	SEX:	Male	DAY ON TEST:	93
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55316

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Moderate
Lung		Inflammation	Chronic Active, Minimal
* Nose	Olfactory Epi Respirat Epith Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Minimal Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	208	TMT:	3	SEX:	Male	DAY ON TEST:	93
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55317

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx		Inflammation Metaplasia	Chronic Active, Mild Squamous, Moderate
Lung		Inflammation	Chronic Active, Mild
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Moderate
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Goblet Cell	Hyperplasia	Minimal
	Olfactory Epi	Inflammation	Suppurative, Mild
	Respirat Epith	Inflammation	Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	209	TMT:	3	SEX:	Male	DAY ON TEST:	93
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55318

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx		Inflammation Metaplasia	Chronic Active, Minimal Squamous, Moderate
Lung		Inflammation	Chronic Active, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Goblet Cell	Hyperplasia	Minimal
	Olfactory Epi	Inflammation	Suppurative, Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	210	TMT:	3	SEX:	Male	DAY ON TEST:	93
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55319

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Moderate
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	401	TMT:	5	SEX:	Male	DAY ON TEST:	93
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55290

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx		Inflammation Metaplasia	Chronic Active, Minimal Squamous, Marked
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Goblet Cell	Hyperplasia	Mild
	Olfactory Epi	Inflammation	Suppurative, Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	402	TMT:	5	SEX:	Male	DAY ON TEST:	93
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55291

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Mild Squamous, Marked
Liver	[Hepatodiaphragmatic Nodule TGLs = 1-14]	Hepatodiaphragmatic Nodule	
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Mild Moderate Mild Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	403	TMT:	5	SEX:	Male	DAY ON TEST:	93
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55292

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
Lung		Inflammation	Chronic Active, Minimal
* Nose	Olfactory Epi Respirat Epith Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Minimal Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	404	TMT:	5	SEX:	Male	DAY ON TEST:	93
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55293

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx		Inflammation Metaplasia	Chronic Active, Minimal Squamous, Marked
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Moderate
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Goblet Cell	Hyperplasia	Mild
	Olfactory Epi	Inflammation	Suppurative, Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	405	TMT:	5	SEX:	Male	DAY ON TEST:	93
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55294

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx		Inflammation Metaplasia	Chronic Active, Minimal Squamous, Marked
Lung		Inflammation	Chronic Active, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Goblet Cell	Hyperplasia	Mild
	Olfactory Epi	Inflammation	Suppurative, Mild
	Respirat Epith	Inflammation	Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	406	TMT:	5	SEX:	Male	DAY ON TEST:	93
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55295

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx		Inflammation Metaplasia	Chronic Active, Mild Squamous, Marked
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Goblet Cell	Hyperplasia	Mild
	Olfactory Epi	Inflammation	Suppurative, Mild
	Respirat Epith	Inflammation	Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	407	TMT:	5	SEX:	Male	DAY ON TEST:	93
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55296

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
Lung		Inflammation	Chronic Active, Moderate
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Minimal Moderate Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	408	TMT:	5	SEX:	Male	DAY ON TEST:	93
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55297

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
Lung		Inflammation	Chronic Active, Moderate
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	409	TMT:	5	SEX:	Male	DAY ON TEST:	93
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55298

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Mild Squamous, Marked
Lung		Inflammation	Chronic Active, Moderate
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	410	TMT:	5	SEX:	Male	DAY ON TEST:	93
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55299

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx		Inflammation Metaplasia	Chronic Active, Minimal Squamous, Moderate
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Goblet Cell	Hyperplasia	Minimal
	Olfactory Epi	Inflammation	Suppurative, Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 601 TMT: 7
DOSE: 100 mg/m3

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 93
HISTO: 55270

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
* Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 602 TMT: 7
DOSE: 100 mg/m3

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 93
HISTO: 55271

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
* Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Mild Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	603	TMT:	7	SEX:	Male	DAY ON TEST:	93
		DOSE:	100 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55272

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
* Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Mild Moderate Mild Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 604 TMT: 7
DOSE: 100 mg/m3

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 93
HISTO: 55273

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Mild Chronic Active, Mild Squamous, Marked
* Lung		Inflammation	Chronic Active, Minimal
* Nose	Olfactory Epi Respirat Epith Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Mild Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 605 TMT: 7
DOSE: 100 mg/m3

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 93
HISTO: 55274

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Mild Squamous, Marked
* Lung		Inflammation Metaplasia	Chronic Active, Minimal Osseous, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Respirat Epith Olfactory Epi	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 606 TMT: 7
DOSE: 100 mg/m3

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 93
HISTO: 55275

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Mild Chronic Active, Mild Squamous, Marked
* Lung		Inflammation	Chronic Active, Mild
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 607 TMT: 7
DOSE: 100 mg/m3

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 93
HISTO: 55276

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
* Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Mild Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 608 TMT: 7
DOSE: 100 mg/m3

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 93
HISTO: 55277

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
* Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 609 TMT: 7
DOSE: 100 mg/m3

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 93
HISTO: 55278

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Mild Squamous, Marked
* Lung		Inflammation	Chronic Active, Mild
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Mild Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 610 TMT: 7
DOSE: 100 mg/m3

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 93
HISTO: 55279

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Mild Chronic Active, Mild Squamous, Marked
* Lung		Inflammation	Chronic Active, Mild
* Nose	Respirat Epith Olfactory Epi Goblet Cell Respirat Epith Olfactory Epi	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Mild Moderate Mild Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 801 TMT: 9
DOSE: 200 mg/m3

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 93
HISTO: 55250

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Chronic Active, Minimal
Mesentery	Fat	Necrosis	Mild
[Necrosis	TGLs = 1-7]		
* Nose	Respirat Epith Olfactory Epi Goblet Cell Respirat Epith Olfactory Epi	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 802 TMT: 9
DOSE: 200 mg/m3

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 93
HISTO: 55251

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Mild Chronic Active, Mild Squamous, Marked
* Lung		Inflammation	Chronic Active, Mild
* Nose	Respirat Epith Olfactory Epi Goblet Cell Respirat Epith Olfactory Epi	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 803 TMT: 9 DOSE: 200 mg/m3

SEX: Male DISP: Terminal Sacrifice

DAY ON TEST: 93 HISTO: 55252

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Mild Squamous, Marked
Liver	[Hepatodiaphragmatic Nodule TGLs = 1-7]	Hepatodiaphragmatic Nodule	
* Lung		Inflammation	Chronic Active, Mild
* Nose	Respirat Epith Olfactory Epi Goblet Cell Respirat Epith Olfactory Epi	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 804 TMT: 9
DOSE: 200 mg/m3

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 93
HISTO: 55253

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Mild Chronic Active, Mild Squamous, Marked
* Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	805	TMT:	9	SEX:	Male	DAY ON TEST:	93
		DOSE:	200 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55254

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Mild Chronic Active, Moderate Squamous, Marked
* Lung	Alveolus	Infiltration Cellular Inflammation Metaplasia	Histiocyte, Minimal Chronic Active, Minimal Osseous, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 806 TMT: 9
DOSE: 200 mg/m3

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 93
HISTO: 55255

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Mild Chronic Active, Mild Squamous, Marked
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Chronic Active, Mild
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Mild Moderate Mild Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	807	TMT:	9	SEX:	Male	DAY ON TEST:	93
		DOSE:	200 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55256

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Moderate Squamous, Marked
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 808 TMT: 9
DOSE: 200 mg/m3

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 93
HISTO: 55257

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Mild Chronic Active, Mild Squamous, Marked
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Respirat Epith Olfactory Epi	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 809 TMT: 9
DOSE: 200 mg/m3

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 93
HISTO: 55258

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Mild Chronic Active, Mild Squamous, Marked
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Mild Moderate Mild Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 810 TMT: 9
DOSE: 200 mg/m3

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 93
HISTO: 55259

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	1001	TMT:	11	SEX:	Male	DAY ON TEST:	93
		DOSE:	400 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55230

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Liver | * Lymph Node, Bronchial | * Lymph Node, Mandibular |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Preputial Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Spleen | * Stomach, Forestomach |
| * Stomach, Glandular | * Testes | * Thymus | * Thyroid Gland |
| * Urinary Bladder | | | |

MISSING

- * Mammary Gland

OBSERVATIONS

- | | | | |
|-----------|---|---|--|
| * Kidney | | Nephropathy | Minimal |
| * Larynx | Squam Epithel | Hyperplasia
Inflammation
Metaplasia | Minimal
Chronic Active, Minimal
Squamous, Marked |
| * Lung | Alveolus | Infiltration Cellular
Inflammation | Histiocyte, Minimal
Chronic Active, Minimal |
| * Nose | Respirat Epith
Olfactory Epi
Goblet Cell
Respirat Epith
Olfactory Epi | Accumulation, Hyaline Droplet
Accumulation, Hyaline Droplet
Hyperplasia
Inflammation
Inflammation | Moderate
Moderate
Mild
Suppurative, Mild
Suppurative, Mild |
| * Trachea | | Metaplasia | Squamous, Minimal |

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 1003 TMT: 11 DOSE: 400 mg/m3

SEX: Male DISP: Terminal Sacrifice

DAY ON TEST: 93 HISTO: 55232

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Lymph Node, Mediastinal
- * Pituitary Gland
- * Seminal Vesicle
- * Stomach, Glandular
- * Trachea
- * Adrenal Medulla
- * Epididymis
- * Heart
- * Intestine Small, Duodenum
- * Liver
- * Lymph Node, Mesenteric
- * Preputial Gland
- * Skin
- * Testes
- * Urinary Bladder
- * Bone
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Bronchial
- * Pancreas
- * Prostate
- * Spleen
- * Thymus
- * Bone Marrow
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Salivary Glands
- * Stomach, Forestomach
- * Thyroid Gland

MISSING

- * Mammary Gland

OBSERVATIONS

- * Kidney Nephropathy Minimal
- * Larynx Squam Epithel Hyperplasia Mild
Inflammation Chronic Active, Moderate
Metaplasia Squamous, Marked
- * Lung Alveolus Infiltration Cellular Histiocyte, Minimal
Inflammation Chronic Active, Minimal
- * Nose Respirat Epith Accumulation, Hyaline Droplet Mild
Olfactory Epi Accumulation, Hyaline Droplet Moderate
Goblet Cell Hyperplasia Mild
Olfactory Epi Inflammation Suppurative, Minimal
Respirat Epith Inflammation Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 1005 TMT: 11 DOSE: 400 mg/m3

SEX: Male DISP: Terminal Sacrifice

DAY ON TEST: 93 HISTO: 55234

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex * Adrenal Medulla * Bone * Bone Marrow
* Brain * Epididymis * Esophagus * Eye
* Harderian Gland * Heart * Intestine Large, Cecum * Intestine Large, Colon
* Intestine Large, Rectum * Intestine Small, Duodenum * Intestine Small, Ileum * Intestine Small, Jejunum
* Islets, Pancreatic * Liver * Lymph Node, Mandibular * Lymph Node, Mediastinal
* Lymph Node, Mesenteric * Mammary Gland * Pancreas * Parathyroid Gland
* Pituitary Gland * Preputial Gland * Prostate * Salivary Glands
* Seminal Vesicle * Skin * Spleen * Stomach, Forestomach
* Stomach, Glandular * Testes * Thymus * Thyroid Gland
* Trachea * Urinary Bladder

MISSING

- * Lymph Node, Bronchial

OBSERVATIONS

- * Kidney Nephropathy Minimal
* Larynx Squam Epithel Hyperplasia Mild
Inflammation Chronic Active, Moderate
Metaplasia Squamous, Marked
* Lung Alveolus Infiltration Cellular Histiocyte, Minimal
Inflammation Chronic Active, Minimal
* Nose Respirat Epith Accumulation, Hyaline Droplet Moderate
Olfactory Epi Accumulation, Hyaline Droplet Moderate
Goblet Cell Hyperplasia Mild
Respirat Epith Inflammation Suppurative, Mild
Olfactory Epi Inflammation Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	1006	TMT:	11	SEX:	Male	DAY ON TEST:	93
		DOSE:	400 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55235

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Liver | * Lymph Node, Bronchial | * Lymph Node, Mandibular | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | * Skin |
| * Spleen | * Stomach, Forestomach | * Stomach, Glandular | * Testes |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |

MISSING

- * Mammary Gland

OBSERVATIONS

- | | | | |
|-------------------|---|---|--|
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Minimal |
| * Larynx | Squam Epithel | Hyperplasia
Inflammation
Metaplasia | Mild
Chronic Active, Moderate
Squamous, Marked |
| * Lung | Alveolus | Infiltration Cellular
Inflammation | Histiocyte, Minimal
Chronic Active, Mild |
| * Nose | Respirat Epith
Olfactory Epi
Goblet Cell
Respirat Epith
Olfactory Epi | Accumulation, Hyaline Droplet
Accumulation, Hyaline Droplet
Hyperplasia
Inflammation
Inflammation | Moderate
Moderate
Mild
Suppurative, Minimal
Suppurative, Minimal |
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 1007 TMT: 11 DOSE: 400 mg/m3

SEX: Male DISP: Terminal Sacrifice

DAY ON TEST: 93 HISTO: 55236

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex * Adrenal Medulla * Bone * Bone Marrow
* Brain * Epididymis * Esophagus * Eye
* Harderian Gland * Heart * Intestine Large, Cecum * Intestine Large, Colon
* Intestine Large, Rectum * Intestine Small, Duodenum * Intestine Small, Ileum * Intestine Small, Jejunum
* Islets, Pancreatic * Liver * Lymph Node, Bronchial * Lymph Node, Mandibular
* Lymph Node, Mediastinal * Lymph Node, Mesenteric * Pancreas * Parathyroid Gland
* Pituitary Gland * Preputial Gland * Prostate * Salivary Glands
* Seminal Vesicle * Skin * Spleen * Stomach, Forestomach
* Stomach, Glandular * Testes * Thymus * Thyroid Gland
* Trachea * Urinary Bladder

MISSING

- * Mammary Gland

OBSERVATIONS

- * Kidney Nephropathy Minimal
* Larynx Squam Epithel Hyperplasia Minimal
Inflammation Chronic Active, Minimal
Metaplasia Squamous, Marked
* Lung Alveolus Infiltration Cellular Histiocyte, Minimal
Inflammation Chronic Active, Minimal
* Nose Respirat Epith Accumulation, Hyaline Droplet Mild
Olfactory Epi Accumulation, Hyaline Droplet Moderate
Goblet Cell Hyperplasia Mild
Respirat Epith Inflammation Suppurative, Minimal
Olfactory Epi Inflammation Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 1008 TMT: 11
DOSE: 400 mg/m3

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 93
HISTO: 55237

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Kidney
- * Lymph Node, Mesenteric
- * Preputial Gland
- * Skin
- * Testes
- * Urinary Bladder
- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Liver
- * Pancreas
- * Prostate
- * Spleen
- * Thymus
- * Bone
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Salivary Glands
- * Stomach, Forestomach
- * Thyroid Gland
- * Bone Marrow
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Lymph Node, Mediastinal
- * Pituitary Gland
- * Seminal Vesicle
- * Stomach, Glandular
- * Trachea

MISSING

- * Lymph Node, Bronchial
- * Mammary Gland

OBSERVATIONS

- | | | | |
|----------|---|---|--|
| * Heart | | Cardiomyopathy | Minimal |
| * Larynx | Squam Epithel | Hyperplasia
Inflammation
Metaplasia | Mild
Chronic Active, Moderate
Squamous, Marked |
| * Lung | Alveolus | Infiltration Cellular
Inflammation | Histiocyte, Minimal
Chronic Active, Minimal |
| * Nose | Respirat Epith
Olfactory Epi
Goblet Cell
Respirat Epith
Olfactory Epi | Accumulation, Hyaline Droplet
Accumulation, Hyaline Droplet
Hyperplasia
Inflammation
Inflammation | Moderate
Moderate
Mild
Suppurative, Mild
Suppurative, Mild |

ANIMAL NUM: 1009 TMT: 11
 DOSE: 400 mg/m3

SEX: Male
 DISP: Terminal Sacrifice

DAY ON TEST: 93
 HISTO: 55238

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Liver
- * Lymph Node, Mesenteric
- * Pituitary Gland
- * Seminal Vesicle
- * Stomach, Glandular
- * Trachea
- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Bronchial
- * Mammary Gland
- * Preputial Gland
- * Skin
- * Testes
- * Urinary Bladder
- * Bone
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mandibular
- * Pancreas
- * Prostate
- * Spleen
- * Thymus
- * Bone Marrow
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Lymph Node, Mediastinal
- * Parathyroid Gland
- * Salivary Glands
- * Stomach, Forestomach
- * Thyroid Gland

OBSERVATIONS

- | | | | |
|----------|---|---|---|
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Minimal |
| * Larynx | Squam Epithel | Hyperplasia
Inflammation
Metaplasia | Mild
Chronic Active, Moderate
Squamous, Marked |
| * Lung | Alveolus | Infiltration Cellular
Inflammation | Histiocyte, Minimal
Chronic Active, Mild |
| * Nose | Olfactory Epi
Respirat Epith
Goblet Cell
Olfactory Epi
Respirat Epith | Accumulation, Hyaline Droplet
Accumulation, Hyaline Droplet
Hyperplasia
Inflammation
Inflammation | Moderate
Moderate
Minimal
Suppurative, Mild
Suppurative, Mild |

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 1010 TMT: 11
DOSE: 400 mg/m3

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 93
HISTO: 55239

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Liver
- * Lymph Node, Mesenteric
- * Pituitary Gland
- * Seminal Vesicle
- * Stomach, Glandular
- * Trachea
- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Bronchial
- * Mammary Gland
- * Preputial Gland
- * Skin
- * Testes
- * Urinary Bladder
- * Bone
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mandibular
- * Pancreas
- * Prostate
- * Spleen
- * Thymus
- * Bone Marrow
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Lymph Node, Mediastinal
- * Parathyroid Gland
- * Salivary Glands
- * Stomach, Forestomach
- * Thyroid Gland

OBSERVATIONS

- | | | | |
|----------|---|---|--|
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Minimal |
| * Larynx | Squam Epithel | Hyperplasia
Inflammation
Metaplasia | Mild
Chronic Active, Moderate
Squamous, Marked |
| * Lung | Alveolus | Infiltration Cellular
Inflammation | Histiocyte, Minimal
Chronic Active, Minimal |
| * Nose | Respirat Epith
Olfactory Epi
Goblet Cell
Olfactory Epi
Respirat Epith | Accumulation, Hyaline Droplet
Accumulation, Hyaline Droplet
Hyperplasia
Inflammation
Inflammation | Moderate
Moderate
Mild
Suppurative, Mild
Suppurative, Mild |

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	101	TMT:	2	SEX:	Female	DAY ON TEST:	94
		DOSE:	0 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55220

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Kidney | * Larynx | * Lymph Node, Bronchial |
| * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nose | * Ovary | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Thymus | * Thyroid Gland |
| * Trachea | * Urinary Bladder | * Uterus | |

OBSERVATIONS

- | | | |
|---------|--------------|------------------------|
| * Liver | Inflammation | Granulomatous, Minimal |
| * Lung | Inflammation | Chronic Active, Mild |

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 102	TMT: 2	SEX: Female	DAY ON TEST: 94
	DOSE: 0 mg/m3	DISP: Terminal Sacrifice	HISTO: 55221

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|---------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Kidney | * Larynx | * Liver |
| * Lymph Node, Bronchial | * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric |
| * Mammary Gland | * Nose | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Thymus | * Thyroid Gland |
| * Trachea | * Urinary Bladder | * Uterus | |

OBSERVATIONS

- | | | |
|---------------------|--------------|----------------------|
| * Lung | Inflammation | Chronic Active, Mild |
| * Ovary | Cyst | Mild |
| [Cyst TGLs = 1-9] | | |

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	103	TMT:	2	SEX:	Female	DAY ON TEST:	94
		DOSE:	0 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55222

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Kidney | * Larynx | * Liver |
| * Lymph Node, Bronchial | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nose | * Ovary | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Thymus | * Thyroid Gland |
| * Trachea | * Urinary Bladder | * Uterus | |

INSUFFICIENT TISSUE

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | |
|--------|--------------|----------------------|
| * Lung | Inflammation | Chronic Active, Mild |
|--------|--------------|----------------------|

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 104	TMT: 2	SEX: Female	DAY ON TEST: 94
	DOSE: 0 mg/m3	DISP: Terminal Sacrifice	HISTO: 55223

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Kidney | * Larynx | * Liver |
| * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nose | * Ovary | * Pancreas | * Parathyroid Gland |
| * Salivary Glands | * Skin | * Spleen | * Stomach, Forestomach |
| * Stomach, Glandular | * Thymus | * Thyroid Gland | * Trachea |
| * Urinary Bladder | * Uterus | | |

MISSING

- | | |
|-------------------------|-------------------|
| * Lymph Node, Bronchial | * Pituitary Gland |
|-------------------------|-------------------|

OBSERVATIONS

- | | | |
|--------|--------------|----------------------|
| * Lung | Inflammation | Chronic Active, Mild |
|--------|--------------|----------------------|

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	105	TMT:	2	SEX:	Female	DAY ON TEST:	94
		DOSE:	0 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55224

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Kidney | * Larynx | * Lymph Node, Bronchial |
| * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nose | * Ovary | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Thymus | * Thyroid Gland |
| * Trachea | * Urinary Bladder | * Uterus | |

OBSERVATIONS

- | | | |
|-------------|--------------|-------------------------|
| * Liver | Inflammation | Granulomatous, Minimal |
| * Lung | Inflammation | Chronic Active, Minimal |
| Oral Mucosa | Inflammation | Acute, Mild |

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	106	TMT:	2	SEX:	Female	DAY ON TEST:	94
		DOSE:	0 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55225

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Kidney | * Larynx | * Liver |
| * Lymph Node, Bronchial | * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nose | * Ovary | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Thymus | * Thyroid Gland |
| * Trachea | * Urinary Bladder | * Uterus | |

MISSING

- * Lymph Node, Mediastinal

OBSERVATIONS

- | | | |
|--------|--------------|----------------------|
| * Lung | Inflammation | Chronic Active, Mild |
|--------|--------------|----------------------|

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 107	TMT: 2	SEX: Female	DAY ON TEST: 94
	DOSE: 0 mg/m3	DISP: Terminal Sacrifice	HISTO: 55226

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|---------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Kidney | * Larynx | * Liver |
| * Lymph Node, Bronchial | * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric |
| * Mammary Gland | * Nose | * Ovary | * Pancreas |
| * Parathyroid Gland | * Pituitary Gland | * Salivary Glands | * Skin |
| * Spleen | * Stomach, Forestomach | * Stomach, Glandular | * Thymus |
| * Thyroid Gland | * Trachea | * Urinary Bladder | * Uterus |

OBSERVATIONS

- | | | |
|--------|--------------|----------------------|
| * Lung | Inflammation | Chronic Active, Mild |
|--------|--------------|----------------------|

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 108	TMT: 2	SEX: Female	DAY ON TEST: 94
	DOSE: 0 mg/m3	DISP: Terminal Sacrifice	HISTO: 55227

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Kidney | * Larynx | * Liver | * Lymph Node, Bronchial |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Mammary Gland | * Nose |
| * Ovary | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Salivary Glands | * Skin | * Spleen | * Stomach, Forestomach |
| * Stomach, Glandular | * Thymus | * Thyroid Gland | * Trachea |
| * Urinary Bladder | * Uterus | | |

MISSING

- * Lymph Node, Mediastinal

OBSERVATIONS

- | | | |
|---------|----------------|-------------------------|
| * Heart | Cardiomyopathy | Minimal |
| * Lung | Inflammation | Chronic Active, Minimal |

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 109 TMT: 2 DOSE: 0 mg/m3

SEX: Female DISP: Terminal Sacrifice

DAY ON TEST: 94 HISTO: 55228

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Lymph Node, Mediastinal
- * Pancreas
- * Skin
- * Thymus
- * Uterus
- * Adrenal Medulla
- * Clitoral Gland
- * Heart
- * Intestine Small, Duodenum
- * Kidney
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Spleen
- * Thyroid Gland
- * Bone
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Larynx
- * Mammary Gland
- * Pituitary Gland
- * Stomach, Forestomach
- * Trachea
- * Bone Marrow
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mandibular
- * Nose
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder

MISSING

- * Lymph Node, Bronchial

OBSERVATIONS

- * Liver Inflammation Granulomatous, Minimal
 - * Lung Inflammation Chronic Active, Minimal
 - * Ovary Cyst Mild
- [Cyst TGLs = 1-9]

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 110	TMT: 2	SEX: Female	DAY ON TEST: 94
	DOSE: 0 mg/m3	DISP: Terminal Sacrifice	HISTO: 55229

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|---------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Kidney | * Larynx | * Liver |
| * Lymph Node, Bronchial | * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric |
| * Mammary Gland | * Nose | * Ovary | * Pancreas |
| * Parathyroid Gland | * Pituitary Gland | * Salivary Glands | * Skin |
| * Spleen | * Stomach, Forestomach | * Stomach, Glandular | * Thymus |
| * Thyroid Gland | * Trachea | * Urinary Bladder | * Uterus |

OBSERVATIONS

- | | | |
|--------|--------------|-------------------------|
| * Lung | Inflammation | Chronic Active, Minimal |
|--------|--------------|-------------------------|

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	301	TMT:	4	SEX:	Female	DAY ON TEST:	94
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55320

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx		Inflammation Metaplasia	Chronic Active, Minimal Squamous, Mild
Liver	[Hepatodiaphragmatic Nodule TGLs = 1-7]	Hepatodiaphragmatic Nodule	
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	302	TMT:	4	SEX:	Female	DAY ON TEST:	94
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55321

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Moderate
Liver	[Hepatodiaphragmatic Nodule TGLs = 1-7]	Hepatodiaphragmatic Nodule	
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	303	TMT:	4	SEX:	Female	DAY ON TEST:	94
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55322

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Moderate
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Inflammation Inflammation	Moderate Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	304	TMT:	4	SEX:	Female	DAY ON TEST:	94
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55323

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Mild Chronic Active, Minimal Squamous, Moderate
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	305	TMT:	4	SEX:	Female	DAY ON TEST:	94
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55324

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Moderate
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia	Minimal Moderate Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	306	TMT:	4	SEX:	Female	DAY ON TEST:	94
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55325

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Moderate
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Minimal Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	307	TMT:	4	SEX:	Female	DAY ON TEST:	94
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55326

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Moderate
Liver	[Hepatodiaphragmatic Nodule TGLs = 1-7]	Hepatodiaphragmatic Nodule	
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	308	TMT:	4	SEX:	Female	DAY ON TEST:	94
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55327

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Moderate
Liver	[Hepatodiaphragmatic Nodule TGLs = 1-7]	Hepatodiaphragmatic Nodule	
Lung		Inflammation	Chronic Active, Mild
* Nose	Respirat Epith Olfactory Epi Goblet Cell Respirat Epith Olfactory Epi	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	309	TMT:	4	SEX:	Female	DAY ON TEST:	94
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55328

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Moderate
Lung		Inflammation Metaplasia	Chronic Active, Minimal Osseous, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	310	TMT:	4	SEX:	Female	DAY ON TEST:	94
		DOSE:	25 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55329

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Moderate
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Inflammation Inflammation	Moderate Moderate Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	501	TMT:	6	SEX:	Female	DAY ON TEST:	94
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55300

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx		Inflammation Metaplasia	Chronic Active, Minimal Squamous, Moderate
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Moderate
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Goblet Cell	Hyperplasia	Mild
	Olfactory Epi	Inflammation	Suppurative, Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	502	TMT:	6	SEX:	Female	DAY ON TEST:	94
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55301

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Moderate
Lung		Inflammation	Chronic Active, Mild
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	503	TMT:	6	SEX:	Female	DAY ON TEST:	94
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55302

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
Lung		Inflammation	Chronic Active, Mild
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	504	TMT:	6	SEX:	Female	DAY ON TEST:	94
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55303

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx		Inflammation Metaplasia	Chronic Active, Minimal Squamous, Moderate
Lung		Inflammation	Chronic Active, Mild
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Goblet Cell	Hyperplasia	Mild
	Olfactory Epi	Inflammation	Suppurative, Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	505	TMT:	6	SEX:	Female	DAY ON TEST:	94
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55304

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	506	TMT:	6	SEX:	Female	DAY ON TEST:	94
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55305

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Mild Squamous, Moderate
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	507	TMT:	6	SEX:	Female	DAY ON TEST:	94
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55306

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
Lung		Inflammation	Chronic Active, Mild
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	508	TMT:	6	SEX:	Female	DAY ON TEST:	94
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55307

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Moderate
Lung		Inflammation	Chronic Active, Mild
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	509	TMT:	6	SEX:	Female	DAY ON TEST:	94
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55308

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Respirat Epith Olfactory Epi	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Mild Moderate Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	510	TMT:	6	SEX:	Female	DAY ON TEST:	94
		DOSE:	50 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55309

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx		Inflammation Metaplasia	Chronic Active, Minimal Squamous, Moderate
Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Moderate
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Goblet Cell	Hyperplasia	Minimal
	Olfactory Epi	Inflammation	Suppurative, Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	701	TMT:	8	SEX:	Female	DAY ON TEST:	94
		DOSE:	100 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55280

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Mild Chronic Active, Minimal Squamous, Marked
Liver	[Hepatodiaphragmatic Nodule TGLs = 1-7]	Hepatodiaphragmatic Nodule	
* Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	702	TMT:	8	SEX:	Female	DAY ON TEST:	94
		DOSE:	100 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55281

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Mild Chronic Active, Mild Squamous, Marked
* Lung	Bronchiole Perivascular Arteriole	Hyperplasia Inflammation Inflammation	Mild Chronic Active, Minimal Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Inflammation Inflammation	Mild Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 703 TMT: 8
DOSE: 100 mg/m3

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 94
HISTO: 55282

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Mild Chronic Active, Mild Squamous, Marked
* Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 704 TMT: 8
DOSE: 100 mg/m3

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 94
HISTO: 55283

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
* Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	705	TMT:	8	SEX:	Female	DAY ON TEST:	94
		DOSE:	100 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55284

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Mild Squamous, Marked
Liver	[Hepatodiaphragmatic Nodule TGLs = 1-14]	Hepatodiaphragmatic Nodule	
* Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	706	TMT:	8	SEX:	Female	DAY ON TEST:	94
		DOSE:	100 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55285

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
* Lung		Inflammation	Chronic Active, Mild
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Mild Moderate Mild Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 707 TMT: 8
DOSE: 100 mg/m3

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 94
HISTO: 55286

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Mild Squamous, Marked
* Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 708 TMT: 8
DOSE: 100 mg/m3

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 94
HISTO: 55287

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Mild Chronic Active, Mild Squamous, Marked
* Lung		Inflammation	Chronic Active, Mild
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Mild Moderate Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	709	TMT:	8	SEX:	Female	DAY ON TEST:	94
		DOSE:	100 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55288

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
Liver	[Hepatodiaphragmatic Nodule TGLs = 1-7]	Hepatodiaphragmatic Nodule	
* Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Mild Moderate Mild Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 710 TMT: 8
DOSE: 100 mg/m3

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 94
HISTO: 55289

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Mild Squamous, Marked
* Lung		Inflammation	Chronic Active, Minimal
Mesentery	Fat	Hemorrhage	Mild
	[Hemorrhage TGLs = 1-14]		
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	901	TMT:	10	SEX:	Female	DAY ON TEST:	94
		DOSE:	200 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55260

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Mild Chronic Active, Mild Squamous, Marked
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Respirat Epith Olfactory Epi	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	902	TMT:	10	SEX:	Female	DAY ON TEST:	94
		DOSE:	200 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55261

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Mild Squamous, Marked
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Respirat Epith Olfactory Epi	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 903 TMT: 10 DOSE: 200 mg/m3

SEX: Female DISP: Terminal Sacrifice

DAY ON TEST: 94 HISTO: 55262

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Mild Chronic Active, Minimal Squamous, Marked
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	904	TMT:	10	SEX:	Female	DAY ON TEST:	94
		DOSE:	200 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55263

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Mild Squamous, Marked
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	905	TMT:	10	SEX:	Female	DAY ON TEST:	94
		DOSE:	200 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55264

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	906	TMT:	10	SEX:	Female	DAY ON TEST:	94
		DOSE:	200 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55265

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Mild Chronic Active, Moderate Squamous, Marked
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Chronic Active, Mild
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Minimal Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	907	TMT:	10	SEX:	Female	DAY ON TEST:	94
		DOSE:	200 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55266

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
Liver	[Hepatodiaphragmatic Nodule TGLs = 2-7]	Hepatodiaphragmatic Nodule	
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Respirat Epith Olfactory Epi	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Mild Suppurative, Mild
Ovary	[Cyst TGLs = 1-9]	Cyst	Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	908	TMT:	10	SEX:	Female	DAY ON TEST:	94
		DOSE:	200 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55267

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Minimal Squamous, Marked
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Chronic Active, Mild
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Mild Moderate Mild Suppurative, Minimal Suppurative, Minimal

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	909	TMT:	10	SEX:	Female	DAY ON TEST:	94
		DOSE:	200 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55268

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Minimal Chronic Active, Mild Squamous, Marked
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	910	TMT:	10	SEX:	Female	DAY ON TEST:	94
		DOSE:	200 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55269

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

* Larynx		Inflammation Metaplasia	Chronic Active, Mild Squamous, Marked
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Chronic Active, Mild
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Mild Moderate Mild Suppurative, Mild Suppurative, Mild
Ovary	[Cyst TGLs = 1-9]	Cyst	Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 1101 TMT: 12
DOSE: 400 mg/m3

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 94
HISTO: 55240

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Mammary Gland
- * Pituitary Gland
- * Stomach, Forestomach
- * Trachea
- * Adrenal Medulla
- * Clitoral Gland
- * Heart
- * Intestine Small, Duodenum
- * Kidney
- * Ovary
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Bronchial
- * Pancreas
- * Skin
- * Thymus
- * Uterus
- * Bone Marrow
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Spleen
- * Thyroid Gland

MISSING

- * Lymph Node, Mandibular
- * Lymph Node, Mediastinal

OBSERVATIONS

- | | | | |
|----------|---|---|--|
| * Larynx | Squam Epithel | Hyperplasia
Inflammation
Metaplasia | Mild
Chronic Active, Moderate
Squamous, Marked |
| * Liver | | Inflammation | Granulomatous, Minimal |
| * Lung | Alveolus | Infiltration Cellular
Inflammation | Histiocyte, Minimal
Chronic Active, Minimal |
| * Nose | Respirat Epith
Olfactory Epi
Goblet Cell
Respirat Epith
Olfactory Epi | Accumulation, Hyaline Droplet
Accumulation, Hyaline Droplet
Hyperplasia
Inflammation
Inflammation | Moderate
Moderate
Mild
Suppurative, Minimal
Suppurative, Minimal |

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 1102 TMT: 12
DOSE: 400 mg/m3

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 94
HISTO: 55241

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Spleen
- * Thyroid Gland
- * Adrenal Medulla
- * Clitoral Gland
- * Heart
- * Intestine Small, Duodenum
- * Kidney
- * Mammary Gland
- * Pituitary Gland
- * Stomach, Forestomach
- * Trachea
- * Bone
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Ovary
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder
- * Bone Marrow
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mediastinal
- * Pancreas
- * Skin
- * Thymus
- * Uterus

MISSING

- * Lymph Node, Bronchial

OBSERVATIONS

- | | | | |
|----------|---|---|---|
| * Larynx | Squam Epithel | Hyperplasia
Inflammation
Metaplasia | Mild
Chronic Active, Moderate
Squamous, Marked |
| * Liver | | Inflammation | Granulomatous, Mild |
| * Lung | Alveolus | Infiltration Cellular
Inflammation | Histiocyte, Minimal
Chronic Active, Minimal |
| * Nose | Respirat Epith
Olfactory Epi
Goblet Cell
Olfactory Epi
Respirat Epith | Accumulation, Hyaline Droplet
Accumulation, Hyaline Droplet
Hyperplasia
Inflammation
Inflammation | Moderate
Moderate
Minimal
Suppurative, Mild
Suppurative, Mild |

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 1103 TMT: 12
DOSE: 400 mg/m3

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 94
HISTO: 55242

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Kidney | * Lymph Node, Bronchial | * Lymph Node, Mandibular |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland | * Ovary |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Salivary Glands |
| * Skin | * Spleen | * Stomach, Forestomach | * Stomach, Glandular |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |
| * Uterus | | | |

OBSERVATIONS

- | | | | |
|----------|---|---|--|
| * Larynx | Squam Epithel | Hyperplasia
Inflammation
Metaplasia | Minimal
Chronic Active, Moderate
Squamous, Marked |
| * Liver | | Inflammation | Granulomatous, Minimal |
| * Lung | Alveolus | Infiltration Cellular
Inflammation | Histiocyte, Minimal
Chronic Active, Mild |
| * Nose | Respirat Epith
Olfactory Epi
Goblet Cell
Olfactory Epi
Respirat Epith | Accumulation, Hyaline Droplet
Accumulation, Hyaline Droplet
Hyperplasia
Inflammation
Inflammation | Mild
Moderate
Mild
Suppurative, Minimal
Suppurative, Minimal |

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 1104 TMT: 12
DOSE: 400 mg/m3

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 94
HISTO: 55243

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Lymph Node, Mandibular
- * Ovary
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder

- * Adrenal Medulla
- * Clitoral Gland
- * Heart
- * Intestine Small, Duodenum
- * Kidney
- * Lymph Node, Mediastinal
- * Pancreas
- * Skin
- * Thymus
- * Uterus

- * Bone
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Liver
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Spleen
- * Thyroid Gland

- * Bone Marrow
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Bronchial
- * Mammary Gland
- * Pituitary Gland
- * Stomach, Forestomach
- * Trachea

OBSERVATIONS

* Larynx	Squam Epithel	Hyperplasia Inflammation Metaplasia	Mild Chronic Active, Moderate Squamous, Marked
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Chronic Active, Minimal
* Nose	Respirat Epith Olfactory Epi Goblet Cell Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Inflammation	Moderate Moderate Mild Suppurative, Mild Suppurative, Mild

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM:	1105	TMT:	12	SEX:	Female	DAY ON TEST:	94
		DOSE:	400 mg/m3	DISP:	Terminal Sacrifice	HISTO:	55244

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Bronchial | * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric |
| * Mammary Gland | * Ovary | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Thymus | * Thyroid Gland |
| * Trachea | * Urinary Bladder | * Uterus | |

OBSERVATIONS

- | | | | |
|----------|---|---|--|
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | Transit Epithe
Pelvis | Hyperplasia
Inflammation | Mild
Acute, Minimal |
| * Larynx | Squam Epithel | Hyperplasia
Inflammation
Metaplasia | Minimal
Chronic Active, Mild
Squamous, Marked |
| * Liver | | Inflammation | Granulomatous, Minimal |
| * Lung | Alveolus | Infiltration Cellular
Inflammation | Histiocyte, Minimal
Chronic Active, Minimal |
| * Nose | Respirat Epith
Olfactory Epi
Goblet Cell
Olfactory Epi
Respirat Epith | Accumulation, Hyaline Droplet
Accumulation, Hyaline Droplet
Hyperplasia
Inflammation
Inflammation | Moderate
Moderate
Mild
Suppurative, Minimal
Suppurative, Minimal |

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 1106 TMT: 12
DOSE: 400 mg/m3

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 94
HISTO: 55245

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Lymph Node, Mediastinal
- * Pancreas
- * Skin
- * Thymus
- * Uterus
- * Adrenal Medulla
- * Clitoral Gland
- * Heart
- * Intestine Small, Duodenum
- * Kidney
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Spleen
- * Thyroid Gland
- * Bone
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Liver
- * Mammary Gland
- * Pituitary Gland
- * Stomach, Forestomach
- * Trachea
- * Bone Marrow
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mandibular
- * Ovary
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder

MISSING

- * Lymph Node, Bronchial

OBSERVATIONS

- | | | | |
|----------|---|---|---|
| * Larynx | Squam Epithel | Hyperplasia
Inflammation
Metaplasia | Mild
Chronic Active, Mild
Squamous, Marked |
| * Lung | Alveolus | Infiltration Cellular
Inflammation | Histiocyte, Minimal
Chronic Active, Mild |
| * Nose | Respirat Epith
Olfactory Epi
Goblet Cell
Olfactory Epi
Respirat Epith | Accumulation, Hyaline Droplet
Accumulation, Hyaline Droplet
Hyperplasia
Inflammation
Inflammation | Mild
Moderate
Minimal
Suppurative, Mild
Suppurative, Mild |

TDMS No. 20515 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F344/N Tac

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (CIMSTAR 3800)

CAS Number: CIMSTAR3800

Date Report Requested: 10/20/2008

Time Report Requested: 13:54:11

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

Lab: BNW

ANIMAL NUM: 1109 TMT: 12 DOSE: 400 mg/m3

SEX: Female DISP: Terminal Sacrifice

DAY ON TEST: 94 HISTO: 55248

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex * Adrenal Medulla * Bone * Bone Marrow * Brain * Clitoral Gland * Esophagus * Eye * Harderian Gland * Heart * Intestine Large, Cecum * Intestine Large, Colon * Intestine Large, Rectum * Intestine Small, Duodenum * Intestine Small, Ileum * Intestine Small, Jejunum * Islets, Pancreatic * Kidney * Liver * Lymph Node, Mandibular * Lymph Node, Mesenteric * Lymph Node, Bronchial * Mammary Gland * Ovary * Pancreas * Parathyroid Gland * Pituitary Gland * Salivary Glands * Skin * Spleen * Stomach, Glandular * Thymus * Stomach, Forestomach * Urinary Bladder * Uterus * Thyroid Gland * Trachea

OBSERVATIONS

- * Larynx Squam Epithel Hyperplasia Inflammation Metaplasia Mild Chronic Active, Mild Squamous, Marked * Lung Alveolus Infiltration Cellular Inflammation Histiocyte, Minimal Chronic Active, Minimal * Nose Respirat Epith Accumulation, Hyaline Droplet Moderate Olfactory Epi Accumulation, Hyaline Droplet Moderate Goblet Cell Hyperplasia Mild Olfactory Epi Inflammation Suppurative, Mild Respirat Epith Inflammation Suppurative, Mild

