

**TDMS No.** 20523 - 02

**Test Type:** 90-DAY

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

**CAS Number:** TRIMVX

**Date Report Requested:** 03/18/2011

**Time Report Requested:** 12:52:30

**First Dose M/F:** 07/14/08 / 07/14/08

**Lab:** BNW

F1\_M3

**C Number:** C20523  
**Lock Date:** 02/24/2009  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 2.3.1  
**PWG Approval Date:** NONE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

**ANIMAL ID:** 1

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 95

**DOSE:** 0 mg/m3

**DISP:** Terminal Sacrifice

**HISTO:** 57742

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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                    | * Lung                    | * Lymph Node, Bronchial     |
| * Lymph Node, Mandibular | * 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, Mediastinal | * Mammary Gland |
|---------------------------|-----------------|

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 2

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: 0 mg/m3

DISP: Terminal Sacrifice

HISTO: 57743

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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                    | * Lung                    | * Lymph Node, Bronchial     |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Nose                    | * Pancreas                  |
| * 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, Mediastinal | * Mammary Gland | * Parathyroid Gland |
|---------------------------|-----------------|---------------------|

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

**ANIMAL ID:** 3

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 95

**DOSE:** 0 mg/m3

**DISP:** Terminal Sacrifice

**HISTO:** 57744

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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                  | * Lung                     | * Lymph Node, Bronchial   | * Lymph Node, Mandibular    |
| * 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, Mediastinal | * Mammary Gland |
|---------------------------|-----------------|

**OBSERVATIONS**

- |          |             |         |
|----------|-------------|---------|
| * Kidney | Nephropathy | Minimal |
|----------|-------------|---------|

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 4

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: 0 mg/m3

DISP: Terminal Sacrifice

HISTO: 57745

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel              | * Bone                      | * Bone Marrow            |
| * Brain                    | * Epididymis              | * Esophagus                 | * Eye                    |
| * Gallbladder              | * 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                  |
| * Lung                     | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric |
| * Nose                     | * Pancreas                | * 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 | * Parathyroid Gland |
|-------------------------|-----------------|---------------------|

**OBSERVATIONS**

- |                  |             |              |                  |
|------------------|-------------|--------------|------------------|
| * Adrenal Cortex | Subcapsular | Hyperplasia  | Minimal          |
| * Kidney         |             | Inflammation | Chronic, Minimal |

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 5

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: 0 mg/m3

DISP: Terminal Sacrifice

HISTO: 57746

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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                    | * Lung                    | * Lymph Node, Bronchial     |
| * Lymph Node, Mandibular | * Lymph Node, Mediastinal  | * Lymph Node, Mesenteric  | * Nose                      |
| * Pancreas               | * 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 | * Parathyroid Gland |
|-----------------|---------------------|

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 6

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: 0 mg/m3

DISP: Terminal Sacrifice

HISTO: 57747

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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                    | * Lung                    | * Lymph Node, Bronchial     |
| * Lymph Node, Mandibular | * 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, Mediastinal | * Mammary Gland |
|---------------------------|-----------------|

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 7

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: 0 mg/m3

DISP: Terminal Sacrifice

HISTO: 57748

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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                    | * Lung                    | * Lymph Node, Bronchial     |
| * 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 | * Lymph Node, Mediastinal | * Mammary Gland |
|--------------------------|---------------------------|-----------------|



TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 8

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: 0 mg/m3

DISP: Terminal Sacrifice

HISTO: 57749

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

- \* Mammary Gland
- \* Parathyroid Gland

OBSERVATIONS

- \* Adrenal Cortex
- Subcapsular
- Hyperplasia
- Mild

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 9

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: 0 mg/m3

DISP: Terminal Sacrifice

HISTO: 57750

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

- \* Lymph Node, Mandibular
- \* Lymph Node, Mediastinal
- \* Mammary Gland
- \* Parathyroid Gland

OBSERVATIONS

- \* Adrenal Cortex
- \* Kidney
- \* Testes
- Accessory Adrenal Cortical Nodule
- Inflammation
- Degeneration
- Chronic, Minimal
- Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

**ANIMAL ID:** 10

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 95

**DOSE:** 0 mg/m3

**DISP:** Terminal Sacrifice

**HISTO:** 57751

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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                    | * Lung                    | * Lymph Node, Mandibular    |
| * 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 | * Lymph Node, Mediastinal | * Mammary Gland |
|-------------------------|---------------------------|-----------------|

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 201

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57842

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung Trachea

**OBSERVATIONS**

* Larynx		Inflammation	Chronic, Minimal
		Metaplasia	Squamous, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
		Inflammation	Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 202

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57843

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung

Trachea

**OBSERVATIONS**

\* Larynx

\* Nose

Respirat Epith

Olfactory Epi

Metaplasia

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Mild

Minimal

Minimal

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 203

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57844

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung Trachea

**OBSERVATIONS**

* Larynx		Metaplasia	Squamous, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
		Inflammation	Suppurative, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 204

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57845

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung Trachea

**OBSERVATIONS**

* Larynx		Inflammation	Chronic, Minimal
		Metaplasia	Squamous, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Mild
		Inflammation	Suppurative, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 205

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57846

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung Trachea

**OBSERVATIONS**

* Larynx		Metaplasia	Squamous, Mild
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild



TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 206

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57847

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung Trachea

**OBSERVATIONS**

* Larynx		Metaplasia	Squamous, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
		Inflammation	Suppurative, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 207

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57848

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung

Trachea

**OBSERVATIONS**

\* Larynx

\* Nose

Respirat Epith

Olfactory Epi

Metaplasia

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Marked

Minimal

Minimal

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 208

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57849

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung Trachea

**OBSERVATIONS**

* Larynx		Metaplasia	Squamous, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 209

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57850

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung Trachea

**OBSERVATIONS**

\* Larynx Inflammation Chronic, Minimal  
Metaplasia Squamous, Mild

\* Nose Respirat Epith Accumulation, Hyaline Droplet Minimal  
Olfactory Epi Accumulation, Hyaline Droplet Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 210

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57851

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Lung Trachea

OBSERVATIONS

\* Larynx Inflammation Chronic, Minimal  
Metaplasia Squamous, Mild

\* Nose Olfactory Epi Accumulation, Hyaline Droplet Mild  
Respirat Epith Accumulation, Hyaline Droplet Minimal  
Inflammation Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 401

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57822

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Minimal

Metaplasia

Squamous, Marked

\* Lung

Fibrosis

Minimal

Bronchiole

Hyperplasia

Minimal

Infiltration Cellular

Histiocyte, Minimal

Inflammation

Chronic Active, Minimal

\* Nose

Respirat Epith

Accumulation, Hyaline Droplet

Minimal

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 402

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57823

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi

Respirat Epith

Metaplasia

Hyperplasia

Infiltration Cellular

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Squamous, Marked

Minimal

Histiocyte, Minimal

Chronic Active, Minimal

Minimal

Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 403

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57824

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi

Respirat Epith

Metaplasia

Hyperplasia

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Marked

Minimal

Mild

Minimal

Suppurative, Minimal



TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 404

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57825

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi

Respirat Epith

Metaplasia

Hyperplasia

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Marked

Minimal

Minimal

Minimal

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 405

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57826

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi

Respirat Epith

Metaplasia

Hyperplasia

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Marked

Minimal

Minimal

Minimal

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 406

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57827

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Trachea

**OBSERVATIONS**

\* Larynx

Hyperplasia

Squamous, Mild

Metaplasia

Squamous, Marked

\* Lung

Bronchiole

Hyperplasia

Minimal

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Minimal

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 407

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57828

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi

Respirat Epith

Metaplasia

Hyperplasia

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Squamous, Marked

Minimal

Chronic Active, Minimal

Mild

Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 408

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57829

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi

Respirat Epith

Metaplasia

Hyperplasia

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Marked

Minimal

Mild

Minimal

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 409

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57830

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi

Respirat Epith

Metaplasia

Hyperplasia

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Marked

Minimal

Chronic Active, Minimal

Mild

Minimal

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 410

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57831

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Nose

Olfactory Epi

Respirat Epith

Metaplasia

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Marked

Minimal

Minimal

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 601

TRT#: 7

SEX: Male

DAY ON TEST: 95

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57802

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Mild

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Marked

Fibrosis

Minimal

\* Lung

Bronchiole

Hyperplasia

Minimal

Infiltration Cellular

Histiocyte, Minimal

Inflammation

Chronic Active, Minimal

\* Nose

Respirat Epith

Accumulation, Hyaline Droplet

Minimal

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Inflammation

Suppurative, Minimal



TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 602

TRT#: 7

SEX: Male

DAY ON TEST: 95

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57803

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Minimal

Metaplasia

Squamous, Marked

\* Lung

Fibrosis

Minimal

Bronchiole

Hyperplasia

Minimal

Infiltration Cellular

Histiocyte, Minimal

Inflammation

Chronic Active, Minimal

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 603

TRT#: 7

SEX: Male

DAY ON TEST: 95

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57804

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Minimal

Metaplasia

Squamous, Marked

\* Lung

Bronchiole

Hyperplasia

Minimal

Infiltration Cellular

Histiocyte, Minimal

Inflammation

Chronic Active, Minimal

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Minimal

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 604

TRT#: 7

SEX: Male

DAY ON TEST: 95

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57805

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Mild

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Marked

\* Lung

Fibrosis

Minimal

Bronchiole

Hyperplasia

Minimal

Inflammation

Chronic Active, Minimal

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Minimal

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 605

TRT#: 7

SEX: Male

DAY ON TEST: 95

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57806

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Marked

Fibrosis

Minimal

\* Lung

Bronchiole

Hyperplasia

Mild

Infiltration Cellular

Histiocyte, Mild

Inflammation

Chronic Active, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Minimal

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 606

TRT#: 7

SEX: Male

DAY ON TEST: 95

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57807

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi  
Respirat Epith

Hyperplasia

Metaplasia

Fibrosis

Hyperplasia

Infiltration Cellular

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Minimal

Squamous, Marked

Minimal

Minimal

Histiocyte, Minimal

Chronic Active, Minimal

Mild

Minimal

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 607

TRT#: 7

SEX: Male

DAY ON TEST: 95

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57808

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi  
Respirat Epith

Hyperplasia

Metaplasia

Fibrosis

Hyperplasia

Infiltration Cellular

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Mild

Squamous, Marked

Minimal

Minimal

Histiocyte, Minimal

Chronic Active, Minimal

Mild

Minimal

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 608

TRT#: 7

SEX: Male

DAY ON TEST: 95

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57809

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi  
Respirat Epith

Hyperplasia

Metaplasia

Hyperplasia

Infiltration Cellular

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Mild

Squamous, Marked

Minimal

Histiocyte, Minimal

Chronic Active, Minimal

Mild

Minimal

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 609

TRT#: 7

SEX: Male

DAY ON TEST: 95

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57810

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi  
Respirat Epith

Hyperplasia

Metaplasia

Fibrosis

Hyperplasia

Infiltration Cellular

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Squamous, Mild

Squamous, Marked

Minimal

Minimal

Histiocyte, Minimal

Chronic Active, Minimal

Mild

Minimal



TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 610

TRT#: 7

SEX: Male

DAY ON TEST: 95

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57811

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi  
Respirat Epith

Hyperplasia

Metaplasia

Fibrosis

Hyperplasia

Infiltration Cellular

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Mild

Squamous, Marked

Minimal

Minimal

Histiocyte, Mild

Chronic Active, Mild

Mild

Minimal

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 801

TRT#: 9

SEX: Male

DAY ON TEST: 95

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57782

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi  
Respirat Epith

Hyperplasia

Metaplasia

Fibrosis

Hyperplasia

Infiltration Cellular

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Minimal

Squamous, Marked

Minimal

Mild

Histiocyte, Mild

Chronic Active, Mild

Mild

Minimal

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 802

TRT#: 9

SEX: Male

DAY ON TEST: 95

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57783

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Minimal

Metaplasia

Squamous, Marked

\* Lung

Fibrosis

Minimal

Bronchiole

Hyperplasia

Mild

Infiltration Cellular

Histiocyte, Minimal

Inflammation

Chronic Active, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 803

TRT#: 9

SEX: Male

DAY ON TEST: 95

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57784

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

\* Lung

Bronchiole

Metaplasia

Fibrosis

Hyperplasia

Infiltration Cellular

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Marked

Minimal

Mild

Histiocyte, Minimal

Chronic Active, Mild

Mild

Minimal

Suppurative, Minimal

\* Nose

Olfactory Epi

Respirat Epith

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 804

TRT#: 9

SEX: Male

DAY ON TEST: 95

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57785

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi  
Respirat Epith

Hyperplasia

Metaplasia

Fibrosis

Hyperplasia

Infiltration Cellular

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Minimal

Squamous, Marked

Minimal

Mild

Histiocyte, Minimal

Chronic Active, Mild

Mild

Minimal

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 805

TRT#: 9

SEX: Male

DAY ON TEST: 95

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57786

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Mild

Metaplasia

Squamous, Marked

\* Lung

Fibrosis

Minimal

Bronchiole

Hyperplasia

Mild

Infiltration Cellular

Histiocyte, Minimal

Inflammation

Chronic Active, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Mild

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 806

TRT#: 9

SEX: Male

DAY ON TEST: 95

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57787

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Minimal

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Marked

Fibrosis

Minimal

\* Lung

Bronchiole

Hyperplasia

Mild

Infiltration Cellular

Histiocyte, Mild

Inflammation

Chronic Active, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Minimal

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 807

TRT#: 9

SEX: Male

DAY ON TEST: 95

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57788

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi  
Respirat Epith

Hyperplasia

Metaplasia

Fibrosis

Hyperplasia

Infiltration Cellular

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Mild

Squamous, Marked

Minimal

Mild

Histiocyte, Minimal

Chronic Active, Mild

Mild

Mild

Suppurative, Minimal



TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 808

TRT#: 9

SEX: Male

DAY ON TEST: 95

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57789

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi  
Respirat Epith

Hyperplasia

Metaplasia

Fibrosis

Hyperplasia

Infiltration Cellular

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Mild

Squamous, Marked

Minimal

Mild

Histiocyte, Minimal

Chronic Active, Mild

Mild

Mild

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 809

TRT#: 9

SEX: Male

DAY ON TEST: 95

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57790

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

\* Lung

Bronchiole

Metaplasia

Fibrosis

Hyperplasia

Infiltration Cellular

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Marked

Mild

Moderate

Histiocyte, Minimal

Chronic Active, Mild

Mild

Mild

Suppurative, Minimal

\* Nose

Olfactory Epi

Respirat Epith

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 810

TRT#: 9

SEX: Male

DAY ON TEST: 95

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57791

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi  
Respirat Epith

Hyperplasia

Metaplasia

Fibrosis

Hyperplasia

Infiltration Cellular

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Squamous, Mild

Squamous, Marked

Minimal

Mild

Histiocyte, Minimal

Chronic Active, Mild

Mild

Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1001

TRT#: 11

SEX: Male

DAY ON TEST: 95

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57762

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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, 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

- |          |                                 |  |  |
|----------|---------------------------------|--|--|
| * Larynx |                                 | Hyperplasia<br>Metaplasia  | Squamous, Mild<br>Squamous, Marked                                   |
|          |                                 | Note: Hyperplasia of squamous epithelium was observed overlying the arytenoid cartilage at level II. |  |
| * Lung   | Bronchiole                      | Fibrosis<br>Hyperplasia<br>Infiltration Cellular<br>Inflammation                                     | Moderate<br>Moderate<br>Histiocyte, Mild<br>Chronic Active, Moderate |
|          |                                 | Note: Alveolar macrophages were accompanied by lacy, flocculent extracellular material.              |  |
| * Nose   | Olfactory Epi<br>Respirat Epith | Accumulation, Hyaline Droplet<br>Accumulation, Hyaline Droplet<br>Inflammation                       | Mild<br>Minimal<br>Suppurative, Minimal                              |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1002

TRT#: 11

SEX: Male

DAY ON TEST: 95

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57763

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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, 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

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

OBSERVATIONS

- |  |                |                               |                          |
|--|----------------|-------------------------------|--------------------------|
| * Larynx   |                | Hyperplasia                   | Squamous, Mild           |
|  |                | Metaplasia                    | Squamous, Marked         |
| Note: Hyperplasia of squamous epithelium was observed overlying the arytenoid cartilage at level II. |                |                               |                          |
| * Lung   |                | Fibrosis                      | Moderate                 |
|  | Bronchiole     | Hyperplasia                   | Moderate                 |
|  |                | Infiltration Cellular         | Histiocyte, Minimal      |
|  |                | Inflammation                  | Chronic Active, Moderate |
| * Nose   | Olfactory Epi  | Accumulation, Hyaline Droplet | Mild                     |
|  | Respirat Epith | Accumulation, Hyaline Droplet | Minimal                  |
|  |                | Inflammation                  | Suppurative, Minimal     |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1003

TRT#: 11

SEX: Male

DAY ON TEST: 95

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57764

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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, Bronchial    | * Lymph Node, Mandibular  | * 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

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

OBSERVATIONS

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

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1004

TRT#: 11

SEX: Male

DAY ON TEST: 95

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57765

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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, 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

- |          |   |                               |                          |
|----------|---|-------------------------------|--------------------------|
| * Larynx |   | Hyperplasia                   | Squamous, Mild           |
|          |   | Metaplasia                    | Squamous, Marked         |
| * Lung   |   | Fibrosis                      | Moderate                 |
|          | Bronchiole  | Hyperplasia                   | Moderate                 |
|          |   | Infiltration Cellular         | Histiocyte, Minimal      |
|          |   | Inflammation                  | Chronic Active, Moderate |
|          | Note: Alveolar macrophages were accompanied by lacy, flocculent extracellular material. |                               |                          |
| * Nose   | Olfactory Epi   | Accumulation, Hyaline Droplet | Mild                     |
|          | Respirat Epith  | Accumulation, Hyaline Droplet | Mild                     |
|          |   | Inflammation                  | Suppurative, Minimal     |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1005

TRT#: 11

SEX: Male

DAY ON TEST: 95

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57766

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

- |                           |                          |                           |                 |
|---------------------------|--------------------------|---------------------------|-----------------|
| * Intestine Large, Rectum | * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Mammary Gland |
| * Parathyroid Gland       | * Pituitary Gland        |                           |                 |

OBSERVATIONS

- |  |                |                               |                          |
|--|----------------|-------------------------------|--------------------------|
| * Adrenal Cortex   | Subcapsular    | Hyperplasia                   | Minimal                  |
| * Kidney   |                | Inflammation                  | Chronic, Minimal         |
| * Larynx   |                | Hyperplasia                   | Squamous, Minimal        |
|  |                | Metaplasia                    | Squamous, Marked         |
| Note: Hyperplasia of squamous epithelium was observed overlying the arytenoid cartilage at level II. |                |                               |                          |
| * Lung   |                | Fibrosis                      | Moderate                 |
|  | Bronchiole     | Hyperplasia                   | Moderate                 |
|  |                | Infiltration Cellular         | Histiocyte, Minimal      |
|  |                | Inflammation                  | Chronic Active, Moderate |
| * Nose   | Respirat Epith | Accumulation, Hyaline Droplet | Mild                     |
|  | Olfactory Epi  | Accumulation, Hyaline Droplet | Mild                     |
|  |                | Inflammation                  | Suppurative, Minimal     |

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1006

TRT#: 11

SEX: Male

DAY ON TEST: 95

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57767

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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, Bronchial    | * Lymph Node, Mandibular  | * 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

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

OBSERVATIONS

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

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1007

TRT#: 11

SEX: Male

DAY ON TEST: 95

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57768

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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, 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

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

OBSERVATIONS

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

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1008

TRT#: 11

SEX: Male

DAY ON TEST: 95

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57769

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

- \* Lymph Node, Bronchial
- \* Lymph Node, Mediastinal
- \* Mammary Gland
- \* Parathyroid Gland

OBSERVATIONS

- \* Larynx
  - Hyperplasia
  - Metaplasia
  - Squamous, Moderate
- \* Lung
  - Fibrosis
  - Squamous, Marked
  - Bronchiole
    - Hyperplasia
    - Moderate
    - Infiltration Cellular
    - Histiocyte, Minimal
    - Inflammation
    - Chronic Active, Moderate
- \* Nose
  - Olfactory Epi
  - Accumulation, Hyaline Droplet
  - Mild
  - Respirat Epith
  - Accumulation, Hyaline Droplet
  - Minimal
  - Inflammation
  - Suppurative, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1009

TRT#: 11

SEX: Male

DAY ON TEST: 95

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57770

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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, 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                   |

MISSING

- \* Mammary Gland

INSUFFICIENT TISSUE

- \* Urinary Bladder

OBSERVATIONS

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

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1010

TRT#: 11

SEX: Male

DAY ON TEST: 95

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57771

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel              | * Bone                      | * Bone Marrow            |
| * Brain                    | * Epididymis              | * Esophagus                 | * Eye                    |
| * Gallbladder              | * 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, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric |
| * Pancreas                 | * 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 | * Parathyroid Gland |
|-----------------|---------------------|

OBSERVATIONS

- |                  |                |                                   |                          |
|------------------|----------------|-----------------------------------|--------------------------|
| * Adrenal Cortex |                | Accessory Adrenal Cortical Nodule |                          |
| * Larynx         |                | Hyperplasia                       | Squamous, Minimal        |
|                  |                | Metaplasia                        | Squamous, Marked         |
| * Lung           |                | Fibrosis                          | Moderate                 |
|                  | Bronchiole     | Hyperplasia                       | Mild                     |
|                  |                | Infiltration Cellular             | Histiocyte, Mild         |
|                  |                | Inflammation                      | Chronic Active, Moderate |
| * Nose           | Olfactory Epi  | Accumulation, Hyaline Droplet     | Mild                     |
|                  | Respirat Epith | Accumulation, Hyaline Droplet     | Mild                     |
|                  |                | Inflammation                      | Suppurative, Minimal     |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 101

TRT#: 2

SEX: Female

DAY ON TEST: 96

DOSE: 0 mg/m3

DISP: Terminal Sacrifice

HISTO: 57752

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | * Bone                      | * Bone Marrow            | * Brain                    |
| * Clitoral Gland          | * Esophagus                 | * Eye                    | * Gallbladder              |
| * 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                  | * Lung                     |
| * Lymph Node, Mesenteric  | * Mammary Gland             | * Nose                   | * Ovary                    |
| * Pancreas                | * Pituitary Gland           | * Salivary Glands        | * Skin                     |
| * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        | * Uterus                   |

MISSING

- |                     |                         |                          |                           |
|---------------------|-------------------------|--------------------------|---------------------------|
| Blood Vessel        | * Lymph Node, Bronchial | * Lymph Node, Mandibular | * Lymph Node, Mediastinal |
| * Parathyroid Gland |                         |                          |                           |

OBSERVATIONS

- |                  |             |                                   |      |
|------------------|-------------|-----------------------------------|------|
| * Adrenal Cortex | Subcapsular | Accessory Adrenal Cortical Nodule |      |
|                  |             | Vacuolization Cytoplasmic         | Mild |
| * Kidney         |             | Cyst                              |      |

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 102

TRT#: 2

SEX: Female

DAY ON TEST: 96

DOSE: 0 mg/m3

DISP: Terminal Sacrifice

HISTO: 57753

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | Blood Vessel                | * Bone                   | * Bone Marrow              |
| * Brain                   | * Esophagus                 | * Eye                    | * Gallbladder              |
| * 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                    |
| * Lung                    | * Lymph Node, Mandibular    | * Lymph Node, Mesenteric | * Mammary Gland            |
| * Nose                    | * Ovary                     | * Pancreas               | * Pituitary Gland          |
| * Salivary Glands         | * Skin                      | * Spleen                 | * Stomach, Forestomach     |
| * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          | * Trachea                  |
| * Urinary Bladder         | * Uterus                    |                          |                            |

MISSING

- |                  |                         |                           |                     |
|------------------|-------------------------|---------------------------|---------------------|
| * Clitoral Gland | * Lymph Node, Bronchial | * Lymph Node, Mediastinal | * Parathyroid Gland |
|------------------|-------------------------|---------------------------|---------------------|

OBSERVATIONS

- |                  |             |  |                 |
|------------------|-------------|--|-----------------|
| * Adrenal Cortex | Subcapsular | Hyperplasia<br>Vacuolization Cytoplasmic | Minimal<br>Mild |
|------------------|-------------|--|-----------------|

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 103

TRT#: 2

SEX: Female

DAY ON TEST: 96

DOSE: 0 mg/m3

DISP: Terminal Sacrifice

HISTO: 57754

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Clitoral Gland          | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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                    | * Lung                    | * Lymph Node, Bronchial     |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Mammary Gland           | * Nose                      |
| * Ovary                  | * Pancreas                 | * Pituitary Gland         | * Salivary Glands           |
| * Skin                   | * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                 | * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                            |                           |                             |

**MISSING**

- |                           |                     |
|---------------------------|---------------------|
| * Lymph Node, Mediastinal | * Parathyroid Gland |
|---------------------------|---------------------|



TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 104

TRT#: 2

SEX: Female

DAY ON TEST: 96

DOSE: 0 mg/m3

DISP: Terminal Sacrifice

HISTO: 57755

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel              | * Bone                      | * Bone Marrow            |
| * Brain                    | * Clitoral Gland          | * Esophagus                 | * Eye                    |
| * Gallbladder              | * 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                    | * Lung                    | * 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

- |                  |             |                           |         |
|------------------|-------------|---------------------------|---------|
| * Adrenal Cortex | Subcapsular | Hyperplasia               | Minimal |
|                  |             | Vacuolization Cytoplasmic | Minimal |

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 105

TRT#: 2

SEX: Female

DAY ON TEST: 96

DOSE: 0 mg/m3

DISP: Terminal Sacrifice

HISTO: 57756

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

- \* Clitoral Gland
- \* Lymph Node, Bronchial

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 106

TRT#: 2

SEX: Female

DAY ON TEST: 96

DOSE: 0 mg/m3

DISP: Terminal Sacrifice

HISTO: 57757

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel              | * Bone                      | * Bone Marrow            |
| * Brain                    | * Clitoral Gland          | * Esophagus                 | * Eye                    |
| * Gallbladder              | * 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                    | * Lung                    | * Lymph Node, Bronchial     | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric   | * Mammary Gland           | * Nose                      | * Ovary                  |
| * Pancreas                 | * Pituitary Gland         | * Salivary Glands           | * Skin                   |
| * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 |
| * Thyroid Gland            | * Trachea                 | * Urinary Bladder           | * Uterus                 |

MISSING

- |                           |                     |
|---------------------------|---------------------|
| * Lymph Node, Mediastinal | * Parathyroid Gland |
|---------------------------|---------------------|

OBSERVATIONS

- |                  |             |                           |      |
|------------------|-------------|---------------------------|------|
| * Adrenal Cortex | Subcapsular | Hyperplasia               | Mild |
|                  |             | Vacuolization Cytoplasmic | Mild |

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 107

TRT#: 2

SEX: Female

DAY ON TEST: 96

DOSE: 0 mg/m3

DISP: Terminal Sacrifice

HISTO: 57758

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Clitoral Gland          | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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                    | * Lung                    | * 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                  |                             |

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 108

TRT#: 2

SEX: Female

DAY ON TEST: 96

DOSE: 0 mg/m3

DISP: Terminal Sacrifice

HISTO: 57759

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel              | * Bone                      | * Bone Marrow            |
| * Brain                    | * Clitoral Gland          | * Esophagus                 | * Eye                    |
| * Gallbladder              | * 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                    | * Lung                    | * 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**

- |                  |             |                           |      |
|------------------|-------------|---------------------------|------|
| * Adrenal Cortex | Subcapsular | Hyperplasia               | Mild |
|                  |             | Vacuolization Cytoplasmic | Mild |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 109

TRT#: 2

SEX: Female

DAY ON TEST: 96

DOSE: 0 mg/m3

DISP: Terminal Sacrifice

HISTO: 57760

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                            |                           |                             |
|---------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow             | * Brain                    | * Clitoral Gland          | * Esophagus                 |
| * Eye                     | * Gallbladder              | * 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                   | * Lung                     | * 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

- |          |             |         |
|----------|-------------|---------|
| * Kidney | Nephropathy | Minimal |
|----------|-------------|---------|

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 110

TRT#: 2

SEX: Female

DAY ON TEST: 96

DOSE: 0 mg/m3

DISP: Terminal Sacrifice

HISTO: 57761

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | Blood Vessel                | * 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, Mediastinal | * Lymph Node, Mesenteric    | * Mammary Gland          | * Nose                     |
| * Ovary                   | * Pancreas                  | * Pituitary Gland        | * Salivary Glands          |
| * Skin                    | * Spleen                    | * Stomach, Forestomach   | * Stomach, Glandular       |
| * Thymus                  | * Thyroid Gland             | * Trachea                | * Urinary Bladder          |
| * Uterus                  |                             |                          |                            |

**MISSING**

- |               |                          |                     |
|---------------|--------------------------|---------------------|
| * Gallbladder | * Lymph Node, Mandibular | * Parathyroid Gland |
|---------------|--------------------------|---------------------|

**INSUFFICIENT TISSUE**

- \* Lymph Node, Bronchial

**OBSERVATIONS**

- |                  |             |                           |                         |
|------------------|-------------|---------------------------|-------------------------|
| * Adrenal Cortex | Subcapsular | Hyperplasia               | Mild                    |
|                  |             | Vacuolization Cytoplasmic | Mild                    |
| * Lung           |             | Inflammation              | Chronic Active, Minimal |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 301

TRT#: 4

SEX: Female

DAY ON TEST: 96

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57852

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Nose

Respirat Epith

Olfactory Epi

Metaplasia

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Squamous, Marked

Mild

Mild



TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 302

TRT#: 4

SEX: Female

DAY ON TEST: 96

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57853

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Nose

Respirat Epith

Olfactory Epi

Metaplasia

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Squamous, Mild

Minimal

Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 303

TRT#: 4

SEX: Female

DAY ON TEST: 96

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57854

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Nose

Olfactory Epi

Respirat Epith

Metaplasia

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Squamous, Mild

Mild

Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 304

TRT#: 4

SEX: Female

DAY ON TEST: 96

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57855

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Nose

Respirat Epith

Olfactory Epi

Metaplasia

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Squamous, Mild

Minimal

Mild

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 305

TRT#: 4

SEX: Female

DAY ON TEST: 96

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57856

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung

\* Trachea

**OBSERVATIONS**

\* Larynx

Metaplasia

Squamous, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Mild

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 306

TRT#: 4

SEX: Female

DAY ON TEST: 96

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57857

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Nose

Olfactory Epi

Respirat Epith

Metaplasia

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Squamous, Mild

Minimal

Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 307

TRT#: 4

SEX: Female

DAY ON TEST: 96

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57858

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Lung

\* Trachea

OBSERVATIONS

\* Larynx

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Minimal

Respirat Epith

Accumulation, Hyaline Droplet

Minimal

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 308

TRT#: 4

SEX: Female

DAY ON TEST: 96

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57859

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung

\* Trachea

**OBSERVATIONS**

\* Larynx

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Minimal

Respirat Epith

Accumulation, Hyaline Droplet

Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 309

TRT#: 4

SEX: Female

DAY ON TEST: 96

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57860

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung

\* Trachea

**OBSERVATIONS**

\* Larynx

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Mild

\* Nose

Respirat Epith

Accumulation, Hyaline Droplet

Minimal

Olfactory Epi

Accumulation, Hyaline Droplet

Minimal



TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 310

TRT#: 4

SEX: Female

DAY ON TEST: 96

DOSE: 25 mg/m3

DISP: Terminal Sacrifice

HISTO: 57861

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung

\* Trachea

**OBSERVATIONS**

\* Larynx

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Mild

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 501

TRT#: 6

SEX: Female

DAY ON TEST: 96

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57832

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi

Respirat Epith

Metaplasia

Hyperplasia

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Squamous, Mild

Minimal

Mild

Mild

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 502

TRT#: 6

SEX: Female

DAY ON TEST: 96

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57833

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Lung

\* Trachea

OBSERVATIONS

\* Larynx

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 503

TRT#: 6

SEX: Female

DAY ON TEST: 96

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57834

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi

Respirat Epith

Inflammation

Metaplasia

Hyperplasia

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Chronic, Minimal

Squamous, Mild

Minimal

Mild

Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 504

TRT#: 6

SEX: Female

DAY ON TEST: 96

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57835

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung

\* Trachea

**OBSERVATIONS**

\* Larynx

Hyperplasia

Squamous, Mild

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Marked

\* Nose

Respirat Epith

Accumulation, Hyaline Droplet

Mild

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 505

TRT#: 6

SEX: Female

DAY ON TEST: 96

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57836

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung

\* Trachea

**OBSERVATIONS**

\* Larynx

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Mild

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 506

TRT#: 6

SEX: Female

DAY ON TEST: 96

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57837

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi

Respirat Epith

Metaplasia

Hyperplasia

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Marked

Minimal

Chronic Active, Minimal

Mild

Mild

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 507

TRT#: 6

SEX: Female

DAY ON TEST: 96

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57838

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi  
Respirat Epith

Metaplasia

Hyperplasia

Infiltration Cellular

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Marked

Minimal

Histiocyte, Minimal

Chronic Active, Minimal

Mild

Mild

Suppurative, Minimal



TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 508

TRT#: 6

SEX: Female

DAY ON TEST: 96

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57839

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung

\* Trachea

**OBSERVATIONS**

\* Larynx

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Minimal

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

**ANIMAL ID:** 509

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 96

**DOSE:** 50 mg/m3

**DISP:** Terminal Sacrifice

**HISTO:** 57840

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex

\* Lung

\* Trachea

**OBSERVATIONS**

\* Larynx

Metaplasia

Squamous, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Mild

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 510

TRT#: 6

SEX: Female

DAY ON TEST: 96

DOSE: 50 mg/m3

DISP: Terminal Sacrifice

HISTO: 57841

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Lung

\* Trachea

**OBSERVATIONS**

\* Larynx

\* Nose

Olfactory Epi

Respirat Epith

Metaplasia

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Mild

Mild

Mild

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 701

TRT#: 8

SEX: Female

DAY ON TEST: 96

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57812

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Mild

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Marked

\* Lung

Fibrosis

Minimal

Bronchiole

Hyperplasia

Minimal

Inflammation

Chronic Active, Minimal

\* Nose

Respirat Epith

Accumulation, Hyaline Droplet

Mild

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 702

TRT#: 8

SEX: Female

DAY ON TEST: 96

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57813

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Mild

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Mild

\* Lung

Fibrosis

Minimal

Bronchiole

Hyperplasia

Minimal

Infiltration Cellular

Histiocyte, Minimal

Inflammation

Chronic Active, Minimal

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Mild

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 703

TRT#: 8

SEX: Female

DAY ON TEST: 96

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57814

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Mild

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Marked

\* Lung

Fibrosis

Minimal

Bronchiole

Hyperplasia

Minimal

Inflammation

Chronic Active, Minimal

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 704

TRT#: 8

SEX: Female

DAY ON TEST: 96

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57815

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Minimal

Metaplasia

Squamous, Marked

\* Lung

Fibrosis

Minimal

Bronchiole

Hyperplasia

Minimal

Infiltration Cellular

Histiocyte, Minimal

Inflammation

Chronic Active, Minimal

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Mild

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 705

TRT#: 8

SEX: Female

DAY ON TEST: 96

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57816

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Mild

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Marked

\* Lung

Fibrosis

Minimal

Bronchiole

Hyperplasia

Mild

Infiltration Cellular

Histiocyte, Minimal

Inflammation

Chronic Active, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Mild

Inflammation

Suppurative, Minimal



TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 706

TRT#: 8

SEX: Female

DAY ON TEST: 96

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57817

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Mild

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Marked

\* Lung

Fibrosis

Minimal

Bronchiole

Hyperplasia

Mild

Inflammation

Chronic Active, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Mild

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 707

TRT#: 8

SEX: Female

DAY ON TEST: 96

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57818

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex

\* Trachea

OBSERVATIONS

\* Larynx

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Marked

\* Lung

Fibrosis

Minimal

Bronchiole

Hyperplasia

Mild

Infiltration Cellular

Histiocyte, Mild

Inflammation

Chronic Active, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Mild

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 708

TRT#: 8

SEX: Female

DAY ON TEST: 96

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57819

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi

Respirat Epith

Metaplasia

Fibrosis

Hyperplasia

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Squamous, Mild

Minimal

Minimal

Chronic Active, Minimal

Mild

Moderate

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 709

TRT#: 8

SEX: Female

DAY ON TEST: 96

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57820

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Mild

Fibrosis

Minimal

Hyperplasia

Mild

Infiltration Cellular

Histiocyte, Mild

Inflammation

Chronic Active, Mild

Accumulation, Hyaline Droplet

Mild

Accumulation, Hyaline Droplet

Mild

Inflammation

Suppurative, Minimal

\* Nose

Olfactory Epi

Respirat Epith

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 710

TRT#: 8

SEX: Female

DAY ON TEST: 96

DOSE: 100 mg/m3

DISP: Terminal Sacrifice

HISTO: 57821

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Mild

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Marked

\* Lung

Fibrosis

Minimal

Bronchiole

Hyperplasia

Minimal

Inflammation

Chronic Active, Minimal

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Mild

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 901

TRT#: 10

SEX: Female

DAY ON TEST: 96

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57792

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Mild

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Marked

\* Lung

Fibrosis

Minimal

Bronchiole

Hyperplasia

Mild

Infiltration Cellular

Histiocyte, Minimal

Inflammation

Chronic Active, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Mild

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 902

TRT#: 10

SEX: Female

DAY ON TEST: 96

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57793

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi  
Respirat Epith

Hyperplasia

Metaplasia

Fibrosis

Hyperplasia

Infiltration Cellular

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Squamous, Mild

Squamous, Marked

Minimal

Mild

Histiocyte, Minimal

Chronic Active, Mild

Mild

Mild

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 903

TRT#: 10

SEX: Female

DAY ON TEST: 96

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57794

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mediastinal

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Mild

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Marked

\* Lung

Fibrosis

Mild

Bronchiole

Hyperplasia

Mild

Infiltration Cellular

Histiocyte, Minimal

Inflammation

Chronic Active, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Mild

Inflammation

Suppurative, Minimal



TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 904

TRT#: 10

SEX: Female

DAY ON TEST: 96

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57795

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Mild

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Marked

\* Lung

Fibrosis

Minimal

Bronchiole

Hyperplasia

Mild

Infiltration Cellular

Histiocyte, Mild

Inflammation

Chronic Active, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Mild

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 905

TRT#: 10

SEX: Female

DAY ON TEST: 96

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57796

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

MISSING

Lymph Node, Mediastinal

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Mild

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Marked

\* Lung

Fibrosis

Mild

Bronchiole

Hyperplasia

Mild

Infiltration Cellular

Histiocyte, Minimal

Inflammation

Chronic Active, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Moderate

Respirat Epith

Hyperplasia

Minimal

Inflammation

Suppurative, Minimal

Note: Focal hyperplasia of respiratory epithelium was noted along the nasal septum at level II.

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 906

TRT#: 10

SEX: Female

DAY ON TEST: 96

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57797

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Mild

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Marked

\* Lung

Fibrosis

Mild

Bronchiole

Hyperplasia

Mild

Infiltration Cellular

Histiocyte, Minimal

Inflammation

Chronic Active, Moderate

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Mild

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 907

TRT#: 10

SEX: Female

DAY ON TEST: 96

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57798

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi  
Respirat Epith

Inflammation

Metaplasia

Fibrosis

Hyperplasia

Infiltration Cellular

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Chronic, Minimal

Squamous, Marked

Mild

Mild

Histiocyte, Minimal

Chronic Active, Mild

Mild

Mild

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 908

TRT#: 10

SEX: Female

DAY ON TEST: 96

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57799

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Marked

Fibrosis

Mild

\* Lung

Bronchiole

Hyperplasia

Mild

Infiltration Cellular

Histiocyte, Minimal

Inflammation

Chronic Active, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Mild

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 909

TRT#: 10

SEX: Female

DAY ON TEST: 96

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57800

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

Hyperplasia

Squamous, Mild

Inflammation

Chronic, Minimal

Metaplasia

Squamous, Marked

\* Lung

Fibrosis

Mild

Bronchiole

Hyperplasia

Mild

Inflammation

Chronic Active, Mild

\* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Respirat Epith

Accumulation, Hyaline Droplet

Mild

Inflammation

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 910

TRT#: 10

SEX: Female

DAY ON TEST: 96

DOSE: 200 mg/m3

DISP: Terminal Sacrifice

HISTO: 57801

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Trachea

OBSERVATIONS

\* Larynx

\* Lung

\* Nose

Bronchiole

Olfactory Epi  
Respirat Epith

Inflammation

Metaplasia

Fibrosis

Hyperplasia

Infiltration Cellular

Inflammation

Accumulation, Hyaline Droplet

Accumulation, Hyaline Droplet

Inflammation

Chronic, Minimal

Squamous, Marked

Mild

Mild

Histiocyte, Minimal

Chronic Active, Moderate

Mild

Mild

Suppurative, Minimal

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1101

TRT#: 12

SEX: Female

DAY ON TEST: 96

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57772

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Clitoral Gland          | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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, Mediastinal | * Lymph Node, Mesenteric    |
| * Mammary Gland          | * Ovary                    | * Pancreas                | * Pituitary Gland           |
| * Salivary Glands        | * Skin                     | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

MISSING

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

OBSERVATIONS

- |          |                |                               |                          |
|----------|----------------|-------------------------------|--------------------------|
| * Larynx |                | Hyperplasia                   | Squamous, Mild           |
|          |                | Metaplasia                    | Squamous, Marked         |
| * Lung   |                | Fibrosis                      | Moderate                 |
|          | Bronchiole     | Hyperplasia                   | Moderate                 |
|          |                | Infiltration Cellular         | Histiocyte, Mild         |
|          |                | Inflammation                  | Chronic Active, Moderate |
| * Nose   | Olfactory Epi  | Accumulation, Hyaline Droplet | Mild                     |
|          | Respirat Epith | Accumulation, Hyaline Droplet | Mild                     |

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1102

TRT#: 12

SEX: Female

DAY ON TEST: 96

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57773

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Clitoral Gland          | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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, 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 |                | Metaplasia                    | Squamous, Marked         |
| * Lung   |                | Fibrosis                      | Moderate                 |
|          | Bronchiole     | Hyperplasia                   | Moderate                 |
|          |                | Infiltration Cellular         | Histiocyte, Mild         |
|          |                | Inflammation                  | Chronic Active, Moderate |
| * Nose   | Olfactory Epi  | Accumulation, Hyaline Droplet | Mild                     |
|          | Respirat Epith | Accumulation, Hyaline Droplet | Mild                     |
|          |                | Inflammation                  | Suppurative, Minimal     |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1103

TRT#: 12

SEX: Female

DAY ON TEST: 96

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57774

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel              | * Bone                      | * Bone Marrow            |
| * Brain                    | * Clitoral Gland          | * Esophagus                 | * Eye                    |
| * Gallbladder              | * 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, Bronchial    | * Lymph Node, Mandibular  | * 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                  |                             |                          |

MISSING

- \* Lymph Node, Mediastinal

OBSERVATIONS

- |                  |                                 |  |  |
|------------------|---------------------------------|--|--|
| * Adrenal Cortex | Subcapsular                     | Hyperplasia<br>Vacuolization Cytoplasmic   | Minimal<br>Mild  |
| * Larynx         |                                 | Hyperplasia<br>Inflammation<br>Metaplasia  | Squamous, Mild<br>Chronic, Minimal<br>Squamous, Marked           |
| * Lung           | Bronchiole                      | Fibrosis<br>Hyperplasia<br>Infiltration Cellular   | Moderate<br>Moderate<br>Histiocyte, Mild                         |
| * Nose           | Olfactory Epi<br>Respirat Epith | Inflammation<br>Accumulation, Hyaline Droplet<br>Accumulation, Hyaline Droplet<br>Inflammation | Chronic Active, Moderate<br>Mild<br>Mild<br>Suppurative, Minimal |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1104

TRT#: 12

SEX: Female

DAY ON TEST: 96

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57775

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Bone Marrow            | * Brain                    | * Clitoral Gland          | * Esophagus                 |
| * Eye                    | * Gallbladder              | * 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, Bronchial    | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    |
| * Mammary Gland          | * Ovary                    | * Pancreas                | * Pituitary Gland           |
| * Salivary Glands        | * Skin                     | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

MISSING

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

OBSERVATIONS

- |          |                |                               |                          |
|----------|----------------|-------------------------------|--------------------------|
| * Larynx |                | Hyperplasia                   | Squamous, Mild           |
|          |                | Inflammation                  | Chronic, Minimal         |
|          |                | Metaplasia                    | Squamous, Marked         |
| * Lung   |                | Fibrosis                      | Moderate                 |
|          | Bronchiole     | Hyperplasia                   | Moderate                 |
|          |                | Infiltration Cellular         | Histiocyte, Minimal      |
|          |                | Inflammation                  | Chronic Active, Moderate |
| * Nose   | Respirat Epith | Accumulation, Hyaline Droplet | Mild                     |
|          | Olfactory Epi  | Accumulation, Hyaline Droplet | Mild                     |

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1105

TRT#: 12

SEX: Female

DAY ON TEST: 96

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57776

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel              | * Bone                      | * Bone Marrow            |
| * Brain                    | * Clitoral Gland          | * Esophagus                 | * Eye                    |
| * Gallbladder              | * 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, Bronchial    | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    | * Mammary Gland          |
| * Ovary                    | * Pancreas                | * Pituitary Gland           | * Salivary Glands        |
| * Skin                     | * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |
| * Uterus                   |                           |                             |                          |

MISSING

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

OBSERVATIONS

- |                  |                |                                   |                          |
|------------------|----------------|-----------------------------------|--------------------------|
| * Adrenal Cortex | Subcapsular    | Accessory Adrenal Cortical Nodule |                          |
| * Larynx         |                | Hyperplasia                       | Squamous, Mild           |
|                  |                | Metaplasia                        | Squamous, Marked         |
| * Lung           |                | Fibrosis                          | Mild                     |
|                  | Bronchiole     | Hyperplasia                       | Mild                     |
|                  |                | Infiltration Cellular             | Histiocyte, Mild         |
|                  |                | Inflammation                      | Chronic Active, Moderate |
| * Nose           | Respirat Epith | Accumulation, Hyaline Droplet     | Mild                     |
|                  | Olfactory Epi  | Accumulation, Hyaline Droplet     | Mild                     |
|                  |                | Inflammation                      | Suppurative, Minimal     |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1106

TRT#: 12

SEX: Female

DAY ON TEST: 96

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57777

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel              | * Bone                      | * Bone Marrow            |
| * Brain                    | * Clitoral Gland          | * Esophagus                 | * Eye                    |
| * Gallbladder              | * 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, Mediastinal  | * Lymph Node, Mesenteric  | * Mammary Gland             | * Ovary                  |
| * Pancreas                 | * Pituitary Gland         | * Salivary Glands           | * Skin                   |
| * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 |
| * Thyroid Gland            | * Trachea                 | * Urinary Bladder           | * Uterus                 |

MISSING

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

OBSERVATIONS

- |                  |                |                               |                          |
|------------------|----------------|-------------------------------|--------------------------|
| * Adrenal Cortex | Subcapsular    | Hyperplasia                   | Mild                     |
|                  |                | Vacuolization Cytoplasmic     | Mild                     |
| * Kidney         |                | Nephropathy                   | Minimal                  |
| * Larynx         |                | Metaplasia                    | Squamous, Marked         |
| * Lung           |                | Fibrosis                      | Moderate                 |
|                  | Bronchiole     | Hyperplasia                   | Moderate                 |
|                  |                | Infiltration Cellular         | Histiocyte, Mild         |
|                  |                | Inflammation                  | Chronic Active, Moderate |
| * Nose           | Respirat Epith | Accumulation, Hyaline Droplet | Mild                     |
|                  | Olfactory Epi  | Accumulation, Hyaline Droplet | Mild                     |
|                  |                | Inflammation                  | Suppurative, Minimal     |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1107

TRT#: 12

SEX: Female

DAY ON TEST: 96

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57778

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel              | * Bone                      | * Bone Marrow            |
| * Brain                    | * Clitoral Gland          | * Esophagus                 | * Eye                    |
| * Gallbladder              | * 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, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Mammary Gland          |
| * Ovary                    | * Pancreas                | * Pituitary Gland           | * Salivary Glands        |
| * Skin                     | * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |
| * Uterus                   |                           |                             |                          |

MISSING

- |                           |                     |
|---------------------------|---------------------|
| * Lymph Node, Mediastinal | * Parathyroid Gland |
|---------------------------|---------------------|

OBSERVATIONS

- |                  |                |                               |                          |
|------------------|----------------|-------------------------------|--------------------------|
| * Adrenal Cortex | Subcapsular    | Hyperplasia                   | Mild                     |
| * Larynx         |                | Hyperplasia                   | Squamous, Mild           |
|                  |                | Inflammation                  | Chronic, Minimal         |
|                  |                | Metaplasia                    | Squamous, Marked         |
| * Lung           |                | Fibrosis                      | Moderate                 |
|                  | Bronchiole     | Hyperplasia                   | Moderate                 |
|                  |                | Infiltration Cellular         | Histiocyte, Mild         |
|                  |                | Inflammation                  | Chronic Active, Moderate |
| * Nose           | Respirat Epith | Accumulation, Hyaline Droplet | Moderate                 |
|                  | Olfactory Epi  | Accumulation, Hyaline Droplet | Mild                     |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1108

TRT#: 12

SEX: Female

DAY ON TEST: 96

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57779

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | Blood Vessel             | * Bone                     |
| * Bone Marrow             | * Brain                     | * 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, Bronchial    |
| * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Mammary Gland          | * Ovary                    |
| * Pancreas                | * Pituitary Gland           | * Salivary Glands        | * Skin                     |
| * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   |
| * Thyroid Gland           | * Urinary Bladder           | * Uterus                 |                            |

MISSING

- |                  |               |                           |                     |
|------------------|---------------|---------------------------|---------------------|
| * Clitoral Gland | * Gallbladder | * Lymph Node, Mediastinal | * Parathyroid Gland |
| * Trachea        |               |                           |                     |

OBSERVATIONS

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

TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1109

TRT#: 12

SEX: Female

DAY ON TEST: 96

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57780

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | Blood Vessel                | * 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, 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                    |                          |                            |

MISSING

- \* Gallbladder

OBSERVATIONS

- |                  |                                 |  |  |
|------------------|---------------------------------|--|--|
| * Adrenal Cortex | Subcapsular                     | Hyperplasia<br>Vacuolization Cytoplasmic                                       | Minimal<br>Minimal   |
| * Larynx         |                                 | Hyperplasia<br>Inflammation<br>Metaplasia                                      | Squamous, Mild<br>Chronic, Minimal<br>Squamous, Marked               |
| * Lung           | Bronchiole                      | Fibrosis<br>Hyperplasia<br>Infiltration Cellular<br>Inflammation               | Moderate<br>Moderate<br>Histiocyte, Mild<br>Chronic Active, Moderate |
| * Nose           | Respirat Epith<br>Olfactory Epi | Accumulation, Hyaline Droplet<br>Accumulation, Hyaline Droplet<br>Inflammation | Mild<br>Mild<br>Suppurative, Minimal                                 |

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20523 - 02

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Metal working fluids (Trim VX)

CAS Number: TRIMVX

Date Report Requested: 03/18/2011

Time Report Requested: 12:52:30

First Dose M/F: 07/14/08 / 07/14/08

Lab: BNW

ANIMAL ID: 1110

TRT#: 12

SEX: Female

DAY ON TEST: 96

DOSE: 400 mg/m3

DISP: Terminal Sacrifice

HISTO: 57781

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel              | * Bone                      | * Bone Marrow            |
| * Brain                    | * Clitoral Gland          | * Esophagus                 | * Eye                    |
| * Gallbladder              | * 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, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Mammary Gland          |
| * Ovary                    | * Pancreas                | * Pituitary Gland           | * Salivary Glands        |
| * Skin                     | * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |
| * Uterus                   |                           |                             |                          |

MISSING

- |                           |                     |
|---------------------------|---------------------|
| * Lymph Node, Mediastinal | * Parathyroid Gland |
|---------------------------|---------------------|

OBSERVATIONS

- |                  |                |                               |                          |
|------------------|----------------|-------------------------------|--------------------------|
| * Adrenal Cortex | Subcapsular    | Hyperplasia                   | Mild                     |
|                  |                | Vacuolization Cytoplasmic     | Mild                     |
| * Larynx         |                | Hyperplasia                   | Squamous, Mild           |
|                  |                | Inflammation                  | Chronic, Minimal         |
|                  |                | Metaplasia                    | Squamous, Marked         |
| * Lung           |                | Fibrosis                      | Moderate                 |
|                  | Bronchiole     | Hyperplasia                   | Moderate                 |
|                  |                | Infiltration Cellular         | Histiocyte, Mild         |
|                  |                | Inflammation                  | Chronic Active, Moderate |
| * Nose           | Olfactory Epi  | Accumulation, Hyaline Droplet | Mild                     |
|                  | Respirat Epith | Accumulation, Hyaline Droplet | Mild                     |
|                  |                | Inflammation                  | Suppurative, Minimal     |

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