

Experiment Number: 20523 - 04
Test Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Metal Working Fluids: Trim VX
CAS Number: TRIMVX

Date Report Requested: 02/02/2015
Time Report Requested: 13:50:12
First Dose M/F: 08/03/09 / 08/03/09
Lab: BNW

F1_M3

NTP Study Number: C20523
Lock Date: 06/04/2012
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.2_002
PWG Approval Date: NONE

Experiment Number: 20523 - 04
Test Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

B6C3F1 MICE MALE	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
		7	7	7	7	4	7	6	7	7	7	7	7	7	7	5	7	6	6	7	7	7	7	7	7		
Control	ANIMAL ID	2	3	2	3	1	2	4	3	3	2	2	3	4	2	1	1	3	3	3	3	2	3	2	2		
		9	0	9	0	4	9	6	1	1	0	9	9	1	9	9	9	8	0	1	1	0	3	2	9		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	males (cont...)

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Gallbladder Inflammation, Chronic Active	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Large, Cecum Hemorrhage Hyperplasia Hyperplasia, Lymphoid Inflammation Necrosis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	
								3												2					
																				2					
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	I	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Small, Duodenum	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Small, Ileum Hyperplasia, Lymphoid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Small, Jejunum Hyperplasia, Lymphoid	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Liver Angiectasis Basophilic Focus Clear Cell Focus Congestion	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

B6C3F1 MICE MALE Control	DAY ON TEST	0729	0730	0731	0732	0733	0734	0735	0736	0737	0738	0739	0740	0741	0742	0743	0744	0745	0746	0747	0748	0749	0750	males (cont...)			
	ANIMAL ID	0001	0002	0003	0004	0005	0006	0007	0008	0009	0010	0011	0012	0013	0014	0015	0016	0017	0018	0019	0020	0021	0022		0023	0024	0025
Eosinophilic Focus			X												X	X				X					X		
Hemorrhage																3											
Mixed Cell Focus										X										X							
Tension Lipidosis			2																								
Centrilobular, Hepatocyte, Necrosis Hepatocyte, Hypertrophy Hepatocyte, Necrosis Hepatocyte, Vacuolization Cytoplasmic							2																				
Mesentery Fat, Necrosis																											
Pancreas Hypertrophy																											
Salivary Glands																											
Stomach, Forestomach Inflammation, Chronic Active																											
Stomach, Glandular Cyst, Squamous Inflammation, Chronic Active Mineralization																											
Tooth Dysplasia Malformation																											

CARDIOVASCULAR SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

B6C3F1 MICE MALE Control	DAY ON TEST	0729	0730	0731	0732	0733	0734	0735	0736	0737	0738	0739	0740	0741	0742	0743	0744	0745	0746	0747	0748	0749	0750	males (cont...)	
	ANIMAL ID	0001	0002	0003	0004	0005	0006	0007	0008	0009	0010	0011	0012	0013	0014	0015	0016	0017	0018	0019	0020	0021	0022		0023

Lymph Node
Pancreatic, Hyperplasia, Lymphoid

+ +
3

Lymph Node, Bronchial
Hyperplasia, Lymphoid

+ + + M M M + M + + M + I + M + + + + + + + + + + + +

Lymph Node, Mandibular
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid
Infiltration Cellular, Histiocyte

+ + + I M + + + + M + M + M M M + + M M M M + M M
2 3
2

Lymph Node, Mediastinal
Hyperplasia, Lymphoid

+ + + + M I M M + I I + + + M + + + + M + + M M M
2 1

Lymph Node, Mesenteric
Angiectasis
Congestion
Hyperplasia, Lymphoid
Hyperplasia, Plasma Cell

+ + + + + + + + + + + + + + + + M + + + + + + + +
2 2 1 1 2 2 1 1

Spleen
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid

+
1 2 1 1 2 1 3 2 1 1 2 2 1 1 2 2

Thymus
Atrophy
Cyst
Ectopic Parathyroid Gland
Hyperplasia, Lymphoid
Epithelial Cell, Hyperplasia

+ + + + + + + + + + + + + + + + + + + I + + + +
3 2 2 1

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| B6C3F1 MICE MALE | DAY ON TEST | 0
7
2
9 | 0
7
3
0 | 0
7
2
9 | 0
7
3
0 | 0
4
1
4 | 0
7
2
9 | 0
6
4
6 | 0
7
3
1 | 0
7
3
1 | 0
7
3
0 | 0
7
2
9 | 0
7
2
9 | 0
7
3
1 | 0
5
4
9 | 0
7
2
9 | 0
6
1
8 | 0
7
3
0 | 0
7
3
1 | 0
7
3
0 | 0
7
3
3 | 0
7
2
9 | 0
7
3
1 | 0
7
2
9 | 0
7
7
9 | |
| | ANIMAL ID | 0
0
0
0
1 | 0
0
0
0
2 | 0
0
0
0
3 | 0
0
0
0
4 | 0
0
0
0
5 | 0
0
0
0
6 | 0
0
0
0
7 | 0
0
0
0
8 | 0
0
0
0
9 | 0
0
0
0
0 | 0
0
0
0
1 | 0
0
0
0
2 | 0
0
0
0
3 | 0
0
0
0
4 | 0
0
0
0
5 | 0
0
0
0
6 | 0
0
0
0
7 | 0
0
0
0
8 | 0
0
0
0
9 | 0
0
0
0
0 | 0
0
0
0
1 | 0
0
0
0
2 | 0
0
0
0
3 | 0
0
0
0
4 | 0
0
0
0
5 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | + | + | + | M | M | M | M | M | M | M |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | 2 | | | | | | | | | | | | | | | | | | | 2 | | | |
| Inflammation, Chronic Active | | | 3 | | | | | | | 4 | 2 | | | 4 | | | | | | | | 2 | | | |
| Necrosis | | | | | | | | | | | | | | 4 | | | | | | | | | | | |
| Ulcer | | | 2 | | | | | | | 4 | | | | | | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibro-Osseous Lesion | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperostosis | | | | | | | | | | | | | | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infiltration Cellular | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | 2 | | | | | | | | | | | | | | | | | | | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Chronic Active | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | | 2 | 2 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | |
| Epiglottis, Hyperplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Epithelium, Hyperplasia | | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infiltration Cellular, Histiocyte | | 1 | 4 | | | | | | 1 | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20523 - 04

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 02/02/2015

Test Type: CHRONIC

Metal Working Fluids: Trim VX

Time Report Requested: 13:50:12

Route: RESPIRATORY EXPOSURE WHOLE BODY

CAS Number: TRIMVX

First Dose M/F: 08/03/09 / 08/03/09

Species/Strain: MICE/B6C3F1

Lab: BNW

| B6C3F1 MICE MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|
| | 0729 | 0730 | 0731 | 0704 | 0707 | 0706 | 0707 | 0707 | 0707 | 0707 | 0707 | 0707 | 0705 | 0707 | 0706 | 0706 | 0707 | 0707 | 0707 | 0707 | 0707 | 0707 | 0707 | |
| Control | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | males
(cont...) |
| ANIMAL ID | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0010 | 0011 | 0012 | 0013 | 0014 | 0015 | 0016 | 0017 | 0018 | 0019 | 0020 | 0021 | 0022 | 0023 | |

Inflammation, Chronic

1 2 1 1

Pigmentation

4

Alveolar/bronchiolar Epithelium, Hyperplasia

4

3

Alveolar Epithelium, Hyperplasia

2

3

Nose

+ +

Exudate

Inflammation, Suppurative

Inflammation, Chronic Active

1

1

Lateral Wall, Inflammation, Chronic Active

2

Nasolacrimal Duct, Abscess

4

Nasolacrimal Duct, Inflammation, Chronic Active

1

1

Olfactory Epithelium, Accumulation, Hyaline Droplet

1

Olfactory Epithelium, Metaplasia, Respiratory

1

1

Respiratory Epithelium, Accumulation, Hyaline Droplet

1

1

1

1

Respiratory Epithelium, Hyperplasia

1

1

1

1

2

2

2

1

1

1

1

1

1

1

1

1

1

1

1

2

1

1

1

1

1

1

2

1

1

1

1

1

2

Respiratory Epithelium, Metaplasia, Squamous

1

Respiratory Epithelium, Necrosis

1

Trachea

+ | + +

Cartilage, Metaplasia, Osseous

1

SPECIAL SENSES SYSTEM

Eye

+ +

Inflammation, Chronic Active

3

Harderian Gland

+ +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

M .. Missing tissue

1-4 .. Lesion qualified as:

X .. Lesion present

A .. Autolysis precludes evaluation

1) Minimal 3) Moderate

I .. Insufficient tissue

BLANK .. Not examined microscopically

2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | |
|------------------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----|--------------------|--|
| | 07
29 | 07
23 | 07
22 | 07
32 | 07
31 | 07
24 | 07
19 | 07
16 | 07
17 | 07
17 | 07
17 | 07
17 | 07
17 | 07
17 | 07
17 | 07
17 | 07
17 | 07
17 | 07
17 | 07
17 | 07
17 | 07
17 | 07
17 | 07
17 | | | |
| Control | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| | 12 | 30 | 29 | 40 | 54 | 67 | 87 | 90 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | | |

Hyperplasia 2

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infarct, Chronic | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nephropathy | 1 | 3 | 2 | 2 | | 2 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 1 | 2 | 1 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Calculus Micro Observation Only | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE MALE
Control | DAY ON TEST | 0
7
3
0 | 0
7
2
9 | 0
5
9
6 | 0
4
8
4 | 0
7
3
1 | 0
7
2
9 | 0
7
3
1 | 0
7
3
0 | 0
6
2
5 | 0
5
7
9 | 0
7
3
1 | 0
7
2
3 | 0
7
3
0 | 0
7
3
0 | 0
7
2
9 | 0
3
8
8 | 0
7
3
0 | 0
6
4
9 | 0
7
3
0 | 0
7
2
9 | 0
7
2
9 | | |
|-----------------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | ANIMAL ID | 0
0
0
2
6 | 0
0
0
2
7 | 0
0
0
2
8 | 0
0
0
2
9 | 0
0
0
3
0 | 0
0
0
3
1 | 0
0
0
3
2 | 0
0
0
3
3 | 0
0
0
3
3 | 0
0
0
3
3 | 0
0
0
3
3 | 0
0
0
3
3 | 0
0
0
3
3 | 0
0
0
4
0 | 0
0
0
4
1 | 0
0
0
4
2 | 0
0
0
4
3 | 0
0
0
4
4 | 0
0
0
4
5 | 0
0
0
4
6 | 0
0
0
4
7 | 0
0
0
4
8 | 0
0
0
4
9 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Gallbladder
Inflammation, Chronic Active | + | + | A | A | + | + | + | + | + | A | + | + | + | + | + | A | + | + | A | M | + | + | + | 43
1 | 1 1.0 |
| Intestine Large, Cecum
Hemorrhage
Hyperplasia
Hyperplasia, Lymphoid
Inflammation
Necrosis | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | A | + | + | A | + | + | + | + | 45

1
1
2
2
1 | 1 3.0
1 3.0
2 1.0
2 2.0
1 1.0 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | A | + | + | + | + | + | + | + | 48 | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | A | + | I | + | + | + | A | + | + | + | + | + | + | + | 46 | |
| Intestine Small, Duodenum | + | + | A | A | + | + | + | + | + | A | + | + | + | + | + | A | + | + | A | + | + | + | + | 44 | |
| Intestine Small, Ileum
Hyperplasia, Lymphoid | + | + | A | A | + | + | + | + | + | A | + | + | + | + | + | A | + | + | A | + | + | + | + | 45

2 | 8 1.4 |
| Intestine Small, Jejunum
Hyperplasia, Lymphoid | + | + | A | A | + | + | + | + | + | A | + | + | + | + | + | A | + | + | + | + | + | + | + | 45

1 | 1 1.0 |
| Liver
Angiectasis
Basophilic Focus
Clear Cell Focus
Congestion | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50

1
11
14
1 | 1 1.0

2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE MALE
Control | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS |
|------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|----------|
| | ANIMAL ID | 7 | 7 | 5 | 4 | 7 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | |
| | | 3 | 2 | 9 | 8 | 3 | 2 | 3 | 3 | 2 | 7 | 4 | 3 | 2 | 3 | 3 | 3 | 2 | 8 | 3 | 3 | 4 | 3 | 2 | 2 | 2 | |
| | | 0 | 9 | 6 | 4 | 1 | 9 | 1 | 0 | 9 | 5 | 9 | 1 | 3 | 0 | 0 | 0 | 9 | 8 | 0 | 0 | 9 | 0 | 9 | 9 | 9 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Heart | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiomyopathy | | | | | | 1 | 2 | | 1 | | | | | 2 | 1 | | | 1 | 1 | | 3 | | | | 1 | 19 1.5 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | 3 | | | | | | | | | | 1 3.0 | |
| Mineralization | | | | | | | | | | | | | | | | | | | | 2 | | | | | | 1 2.0 | |
| Atrium, Thrombosis | | | | | | | | | | | | | | 3 | | | | | | 3 | | | | | | 2 3.0 | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3 1.0 | |
| Hypertrophy | | 1 | | | | 1 | | 1 | 1 | 1 | | | | | 1 | | 3 | 1 | 1 | | | | 2 | | | 21 1.3 | |
| Adrenal Medulla | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Hyperplasia | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 | | | 6 1.0 |
| Hypertrophy | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | 1 1.0 |
| Islets, Pancreatic | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Parathyroid Gland | | + | + | M | + | M | + | M | + | + | + | M | M | + | M | + | + | + | + | M | + | M | + | M | + | M | 28 |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pars Distalis, Cyst | | | | | | | | | | | X | X | X | | | | | | | | | | | | | | 4 |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 3 1.0 | |
| Pars Intermedia, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Thyroid Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------|
| B6C3F1 MICE MALE | DAY ON TEST | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | * TOTALS |
| | ANIMAL ID | 00026 | 00007 | 00008 | 00009 | 00010 | 00011 | 00012 | 00013 | 00014 | 00015 | 00016 | 00017 | 00018 | 00019 | 00020 | 00021 | 00022 | 00023 | 00024 | 00025 | 00026 | 00027 | 00028 | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Exfoliated Germ Cell | X | X | | | X | X | X | X | | X | X | X | X | X | X | | X | X | X | X | X | X | X | X | 39 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Preputial Gland | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Ectasia | | | | | 2 | | | | | 1 | | | | | | | | | | | | 1 | | | 4 1.3 |
| Inflammation, Chronic Active | | 1 | | | 4 | | | | | | | | | | | | | 3 | 1 | | | 1 | | | 9 2.1 |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Inflammation | | | | | | | | | | | | | 2 | | | | | | 2 | | | | | | 2 2.0 |
| Arteriole, Inflammation, Chronic Active | | | | | | | | | 2 | | | | | | | | | | | | | | | | 1 2.0 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Inflammation | | | | | | | | | | | | | | | | | | | 2 | | | | | | 1 2.0 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Degeneration | | | 3 | | | | | 1 | 1 | | 2 | | | | | 1 | | | | | | | 1 | | 9 1.3 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Myeloid Cell, Hyperplasia | | | 1 | | | 1 | 2 | 1 | | 1 | | | | 1 | | | 1 | | | 2 | 1 | | | 1 | 16 1.2 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE
Control | DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-----------------------------|-------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | | 00730 | 00731 | 00732 | 00733 | 00734 | 00735 | 00736 | 00737 | 00738 | 00739 | 00740 | 00741 | 00742 | 00743 | 00744 | 00745 | 00746 | 00747 | 00748 | 00749 | 00750 | 00751 | 00752 | 00753 | |
| | | 0730 | 0731 | 0732 | 0733 | 0734 | 0735 | 0736 | 0737 | 0738 | 0739 | 0740 | 0741 | 0742 | 0743 | 0744 | 0745 | 0746 | 0747 | 0748 | 0749 | 0750 | 0751 | 0752 | 0753 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------|------------|------------|------------|
| Lymph Node
Pancreatic, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 3 | 1 | 3.0 |
| Lymph Node, Bronchial
Hyperplasia, Lymphoid | + | + | M | + | + | I | + | + | + | M | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | M | + | 38 | 3 | 1.7 |
| Lymph Node, Mandibular
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid
Infiltration Cellular, Histiocyte | M | + | M | M | + | M | + | M | M | + | + | M | M | M | + | M | M | + | M | M | M | M | M | M | M | + | 20 | 1 | 1.0 | |
| Lymph Node, Mediastinal
Hyperplasia, Lymphoid | + | M | + | A | + | + | + | + | + | + | I | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | 35 | 3 | 1.3 | |
| Lymph Node, Mesenteric
Angiectasis
Congestion
Hyperplasia, Lymphoid
Hyperplasia, Plasma Cell | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | 1 | 2.0 | | |
| Spleen
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | 11 | 1.4 | | |
| Thymus
Atrophy
Cyst
Ectopic Parathyroid Gland
Hyperplasia, Lymphoid
Epithelial Cell, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | I | I | M | M | + | + | + | + | + | 44 | 5 | 2.0 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE
Control | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS |
|-----------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| | ANIMAL ID | 7 | 7 | 5 | 4 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 3 | 2 | 9 | 8 | 3 | 2 | 3 | 3 | 2 | 7 | 4 | 3 | 2 | 3 | 3 | 2 | 8 | 3 | 3 | 4 | 3 | 2 | 2 | 2 | 2 | | |
| | | 0 | 9 | 6 | 4 | 1 | 9 | 1 | 0 | 5 | 9 | 1 | 3 | 0 | 0 | 0 | 9 | 8 | 0 | 0 | 9 | 0 | 9 | 9 | 9 | 9 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Mammary Gland | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 3 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 2.0 |
| Inflammation, Chronic Active | | | | | 1 | | | 1 | 2 | 1 | | | | | | | | 2 | | | | | | | | | 10 2.2 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Ulcer | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | 3 2.7 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Fibro-Osseous Lesion | | | | | X | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hyperostosis | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Infiltration Cellular | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | 2 1.5 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Larynx | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Inflammation, Chronic Active | 2 | 1 | | | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | | | 45 1.3 |
| Epiglottis, Hyperplasia, Squamous | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | 1 2.0 |
| Squamous Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Infiltration Cellular, Histiocyte | | | | | | | | | | 1 | | | | | | 3 | | | | | | | | | | | | 5 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE
Control | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|
| | 0730 | 0732 | 0739 | 0738 | 0731 | 0737 | 0737 | 0737 | 0737 | 0736 | 0735 | 0737 | 0737 | 0737 | 0737 | 0737 | 0737 | 0733 | 0737 | 0737 | 0736 | 0737 | 0737 | 0737 | | |
| ANIMAL ID | 00026 | 00007 | 00008 | 00009 | 00000 | 00001 | 00002 | 00003 | 00004 | 00005 | 00006 | 00007 | 00008 | 00009 | 00000 | 00001 | 00002 | 00003 | 00004 | 00005 | 00006 | 00007 | 00008 | 00009 | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 5 1.4 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 3.0 |
| Alveolar/bronchiolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 3 3.0 |
| Alveolar Epithelium, Hyperplasia | 2 | | | | | | | | 1 | | | | | | | | | | | | | | | | | 3 2.0 |
| Nose | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Exudate | | | | | | | | | 1 | | 1 | | | | | | | | | | | | | | 2 1.0 | |
| Inflammation, Suppurative | | | | | | | | 2 | | | | | | | | | | | | | | | | | 1 2.0 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | 1 | | | | | | | | | | 3 1.0 | |
| Lateral Wall, Inflammation, Chronic Active | | | | | | | | 3 | | | | | | | | | | | | | | | | | 2 2.5 | |
| Nasolacrimal Duct, Abscess | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | |
| Nasolacrimal Duct, Inflammation, Chronic Active | | | | | | | | 1 | | | | | | | | | | | | | | | | | 3 1.0 | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | 1 | | | | | | | 2 1.0 | |
| Olfactory Epithelium, Metaplasia, Respiratory | | | | | | | | | | | | | 1 | | | | | | | | | | | | 3 1.0 | |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | | | | | | 1 | | | | | | | | | | | | 1 | | | | 1 | | | 7 1.0 | |
| Respiratory Epithelium, Hyperplasia | 2 | 2 | | 1 | | 1 | | | 1 | | | 1 | | 1 | 1 | 1 | 2 | 1 | 1 | 1 | | 2 | 2 | 1 | 41 1.2 | |
| Respiratory Epithelium, Metaplasia, Squamous | | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 1.0 | |
| Respiratory Epithelium, Necrosis | | | | | | | | 1 | | | | | | | | | | | | | | | | | 2 1.0 | |
| Trachea | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | I | + | 46 | | |
| Cartilage, Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE
Control | DAY ON TEST | | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|---------------------------------|-------------|------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|---|---|----|-----|-----|
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | 0730 | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hyperplasia, Lymphoid | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Infarct, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | 1 | 2.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Nephropathy | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 4 | 1 | 3 | 2 | 2 | 2 | 2 | 2 | | | | | 2 | 2 | 1 | 1 | 2 | 2 | 2 | | 47 | 1.9 | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Calculus Micro Observation Only | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue
 X .. Lesion present A .. Autolysis precludes evaluation
 I .. Insufficient tissue BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
Test Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
CAS Number: TRIMVX

Date Report Requested: 02/02/2015
Time Report Requested: 13:50:12
First Dose M/F: 08/03/09 / 08/03/09
Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE MALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 4 | 7 | 4 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 10 mg/m3 | ANIMAL ID | 3 | 2 | 3 | 7 | 2 | 5 | 2 | 2 | 5 | 3 | 2 | 4 | 3 | 3 | 2 | 3 | 8 | 3 | 8 | 7 | 3 | 3 | 2 | 2 | 3 | 2 | 3 |
| | | 0 | 1 | 0 | 4 | 9 | 6 | 9 | 9 | 0 | 0 | 9 | 4 | 0 | 0 | 9 | 0 | 7 | 0 | 1 | 2 | 9 | 0 | 0 | 9 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | | |

males
(cont...)

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Gallbladder
Inflammation, Chronic Active
Vacuolization Cytoplasmic | + | + | + | + | + | + | + | + | + | + | A | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | |
| Intestine Large, Cecum
Inflammation | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | | 1 | + | + | + | + | + | + | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Intestine Large, Rectum
Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 2 | + | + | + | + | + | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | |
| Intestine Small, Ileum
Cyst
Hyperplasia, Lymphoid
Inflammation | + | + | + | + | + | + | + | + | + | + | A | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| Intestine Small, Jejunum
Hyperplasia, Lymphoid | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | |
| Liver
Basophilic Focus
Clear Cell Focus
Eosinophilic Focus
Mixed Cell Focus | + | + | + | X | + | X | + | X | + | + | X | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | X | X | | | X | | | | | X | | X | | | | | | | | | | | | | |
| | | | X | X | | X | | | | | | | | | | | | | | | | | | | | X | X | | |
| | X | | | | | | | | X | | | X | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE
10 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--|-----------|--------------------|
| | 0
7
3
0 | 0
6
2
1 | 0
7
3
0 | 0
6
7
4 | 0
7
2
9 | 0
6
5
6 | 0
7
2
9 | 0
7
2
9 | 0
5
2
0 | 0
7
5
0 | 0
7
3
9 | 0
7
2
4 | 0
7
3
3 | 0
7
2
9 | 0
7
3
0 | 0
4
8
7 | 0
7
3
0 | 0
4
8
1 | 0
5
7
2 | 0
7
3
9 | 0
7
3
0 | 0
7
2
9 | 0
7
3
0 | 0
7
2
9 | | | |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Centrilobular, Hepatocyte, Fatty Change | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Hepatocyte, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tooth | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dysplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE MALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 mg/m3 | | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 4 | 7 | 4 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 3 | 2 | 3 | 7 | 2 | 5 | 2 | 2 | 5 | 3 | 2 | 4 | 3 | 3 | 2 | 3 | 8 | 3 | 8 | 7 | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 |
| | | 0 | 1 | 0 | 4 | 9 | 6 | 9 | 9 | 0 | 0 | 9 | 4 | 0 | 0 | 9 | 0 | 7 | 0 | 1 | 2 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | | | | | | |

males
(cont...)

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | | | | 2 | | | | | 1 | | | | 1 | | 1 | | | | | | 1 | | 2 | 1 | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hypertrophy | 1 | | 1 | | 1 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 | | 2 | | 1 | | 1 | 1 | | | | | | | | | | | | | | | | | | | |
| Subcapsular, Hyperplasia | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcapsular, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Angiectasis | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | 4 |
| Parathyroid Gland | + | + | M | M | + | + | + | M | + | M | M | + | M | M | M | M | + | M | M | + | M | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Pituitary Gland | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------------|
| B6C3F1 MICE MALE | DAY ON TEST | 0
7
3
0 | 0
6
2
1 | 0
7
3
0 | 0
6
7
4 | 0
7
2
9 | 0
6
5
6 | 0
7
2
9 | 0
7
5
9 | 0
7
2
0 | 0
7
5
0 | 0
7
3
0 | 0
7
2
4 | 0
7
3
3 | 0
7
2
9 | 0
4
8
7 | 0
7
3
8 | 0
4
8
7 | 0
5
7
2 | 0
7
3
9 | 0
7
3
0 | 0
7
2
9 | 0
7
3
0 | 0
7
2
9 | 0
7
3
0 | 0
7
2
3 | 0
7
2
9 | males
(cont...) |
| | ANIMAL ID | 0
0
2
0
1 | 0
0
2
0
2 | 0
0
2
0
3 | 0
0
2
0
4 | 0
0
2
0
5 | 0
0
2
0
6 | 0
0
2
0
7 | 0
0
2
0
8 | 0
0
2
0
9 | 0
0
2
0
0 | 0
0
2
0
1 | 0
0
2
0
2 | 0
0
2
0
3 | 0
0
2
0
4 | 0
0
2
0
5 | 0
0
2
0
6 | 0
0
2
0
7 | 0
0
2
0
8 | 0
0
2
0
9 | 0
0
2
0
0 | 0
0
2
0
1 | 0
0
2
0
2 | 0
0
2
0
3 | 0
0
2
0
4 | 0
0
2
0
5 | 0
0
2
0
6 | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Exfoliated Germ Cell | X | X | | X | | X | X | X | X | | X | X | X | X | | X | | X | X | X | X | X | X | X | X | X | X | X | X |
| Inflammation, Chronic Active | | | | | | | 1 | | | | | | | | | | | | | | | 1 | | | | | | | |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ectasia | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Duct, Ectasia | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE MALE | DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|------------------|-------------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|
| | | 0730 | 0621 | 0730 | 0674 | 0729 | 0656 | 0709 | 0678 | 0758 | 0600 | 0700 | 0600 | 0700 | 0600 | 0700 | 0600 | 0700 | 0600 | 0700 | 0600 | 0700 | 0600 | 0700 | 0600 | 0700 | |
| 10 mg/m3 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 4 | 7 | 4 | 5 | 7 | 7 | 7 | 7 | | |
| | | 3 | 2 | 3 | 7 | 2 | 5 | 2 | 2 | 5 | 3 | 2 | 4 | 3 | 3 | 2 | 3 | 8 | 3 | 8 | 7 | 2 | 3 | 3 | 2 | 3 | |
| | | 0 | 1 | 0 | 4 | 9 | 6 | 9 | 0 | 0 | 9 | 4 | 0 | 0 | 0 | 9 | 0 | 7 | 0 | 1 | 2 | 9 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | males
(cont...) |

Hyperplasia, Lymphoid

1 1

INTEGUMENTARY SYSTEM

Mammary Gland

M M M + M M M M M M M M M M M M M M + M M M M M M

Skin

+ +

Cyst Epithelial Inclusion

Hyperplasia

Inflammation, Chronic Active

Necrosis

Ulcer

Subcutaneous Tissue, Inflammation, Chronic Active

2 2 4 1

MUSCULOSKELETAL SYSTEM

Bone

Fibro-Osseous Lesion

Hyperostosis

+
X X

Skeletal Muscle

Degeneration

+ 1

NERVOUS SYSTEM

Brain

Infiltration Cellular

Inflammation, Chronic Active

+
3

Peripheral Nerve

+

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------|
| B6C3F1 MICE MALE | DAY ON TEST | 0730 | 0621 | 0730 | 0674 | 0752 | 0679 | 0775 | 0577 | 0775 | 0664 | 0773 | 0777 | 0777 | 0474 | 0747 | 0445 | 0572 | 0773 | 0773 | 0773 | 0773 | 0773 | males
(cont...) |
| | ANIMAL ID | 0020 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | |

Degeneration 1

Spinal Cord +

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | |
| Epiglottis, Hyperplasia, Squamous | | | | 1 | | | | | | | | 1 | | | | | | | | | | | |
| Epiglottis, Metaplasia, Squamous | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibrosis | | | | | | | | | | | | | | | | | | 1 | | | | 1 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Histiocyte | | | | | | | | | 1 | | | | | | | | | 2 | | 1 | 2 | | 2 |
| Inflammation, Chronic | | | | | 1 | | | | | | | | | | | | | | | 1 | 1 | | 1 |
| Pigmentation | | | | | | | | | | | | | | | | | | 2 | | | | | |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolar/bronchiolar Epithelium, Hyperplasia | | | | | | | | | | | 1 | | | | | | | 1 | | | 1 | | 2 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | 1 | | 1 | | | |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Exudate | | | | 1 | | | | | 1 | | | | | | | 1 | 2 | | | | | 1 | |
| Inflammation, Chronic Active | | | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | | | 1 | 1 | 1 | 1 | | | 1 | | 1 | 1 | 1 |
| Lateral Wall, Inflammation, Chronic Active | | | | | | | | 3 | | | | | | | | | | | | | | | |
| Lateral Wall, Necrosis | | | | | | | | | | | | | | | | | 4 | | | | 2 | | |
| Nasolacrimal Duct, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | 4 | | | | | | |
| Nasopharyngeal Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 3 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE MALE
10 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | |
|------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|
| | 0730 | 0731 | 0732 | 0733 | 0734 | 0735 | 0736 | 0737 | 0738 | 0739 | 0740 | 0741 | 0742 | 0743 | 0744 | 0745 | 0746 | 0747 | 0748 | 0749 | 0750 | 0751 | 0752 | 0753 | 0754 | | | 0755 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0020 | |
| | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 4 | 7 | 4 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 0000 | |
| | 3 | 2 | 3 | 7 | 2 | 5 | 2 | 2 | 5 | 3 | 2 | 4 | 3 | 3 | 2 | 3 | 8 | 3 | 8 | 7 | 2 | 3 | 3 | 2 | 3 | 3 | 0000 | |
| | 0 | 1 | 0 | 4 | 9 | 6 | 9 | 9 | 0 | 0 | 9 | 4 | 0 | 0 | 9 | 0 | 7 | 0 | 1 | 2 | 9 | 0 | 0 | 9 | 0 | 0 | 0000 | |

Nasopharyngeal Duct, Inflammation, Chronic Active

3

Nasopharyngeal Duct, Perforation

Olfactory Epithelium, Accumulation, Hyaline Droplet

1 1 2 1 1 1 1 2 2 2 1 1 1 1 1 1 1 1 2 2 2 2 2 2

Olfactory Epithelium, Atrophy

1

Olfactory Epithelium, Metaplasia, Respiratory Epithelium, Accumulation, Hyaline Droplet

2 1 2 2 2 2 2 2 1 2 2 2 2 2 2 2 2 2 1 3 2 2 2 2 2

Respiratory Epithelium, Atrophy

Respiratory Epithelium, Hyperplasia

1 1 2 1 2 1 2 1 1 1 1 2 2 2 1 2 1 2 1 2 2 2 1 2

Respiratory Epithelium, Metaplasia, Squamous

1

Respiratory Epithelium, Necrosis

1

Turbinate, Atrophy

1

2

Pleura

Trachea

+ +

SPECIAL SENSES SYSTEM

Eye

Inflammation, Chronic Active

+ + + + + + + + + + + + + + + + 2 + + + + + + + +

Harderian Gland

Hyperplasia

1

Inflammation

1

URINARY SYSTEM

Kidney

+ +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE

10 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | males
(cont...) |
|----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------------|
| | 0 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 4 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | | |
| | | 3 | 2 | 3 | 7 | 2 | 5 | 2 | 2 | 5 | 3 | 2 | 4 | 3 | 3 | 2 | 3 | 8 | 3 | 8 | 7 | 2 | 3 | 3 | 2 | 3 | | |
| | | 0 | 1 | 0 | 4 | 9 | 6 | 9 | 9 | 0 | 0 | 9 | 4 | 0 | 0 | 9 | 0 | 7 | 0 | 1 | 2 | 9 | 0 | 0 | 9 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Infarct, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Inflammation, Chronic Active | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Nephropathy | | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | | 2 | 2 | 1 | 2 | 1 | 1 | | 2 | 2 | 4 | | 2 | 1 | | |
| Urinary Bladder | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation, Suppurative | | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | |
| Ulcer | | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE
10 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|-------|-------|-------|-------|
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | 0730 | | | | |
| ANIMAL ID | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | | | | | |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | 1 | 3 1.0 | | | |
| Centrilobular, Hepatocyte, Fatty Change | | | | | | | | | | | | | | | | | | | | | | | 1 | 2 2.5 | | |
| Hepatocyte, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 | |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | | 2 | 7 1.4 | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | 7 | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 2 | 4 1.8 | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Hemorrhage, Acute | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3 1.3 |
| Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3 1.3 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 2.0 |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4 1.3 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Tooth | | | | | | | | | | | | | | | | | | | | | | | | | 10 | |
| Dysplasia | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 9 1.7 |
| Inflammation, Suppurative, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 3.5 |

CARDIOVASCULAR SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE
10 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|-----------------------------------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--------|
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | 0730 |
| ANIMAL ID | 002226 | 002227 | 002228 | 002229 | 002230 | 002231 | 002232 | 002233 | 002234 | 002235 | 002236 | 002237 | 002238 | 002239 | 002240 | 002241 | 002242 | 002243 | 002244 | 002245 | 002246 | |
| | Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiomyopathy | | 1 | | | 1 | 1 | | | 2 | 1 | | | | | | 1 | | | 1 | 1 | | 17 1.2 |
| Inflammation, Chronic Active | 2 | | | | | | | | | | | | | | | | | | | | | 3 1.7 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Accessory Adrenal Cortical Nodule | | 1 | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Hyperplasia | | | | | | 2 | | | | | | | | | | | | | | | | 2 1.5 |
| Hypertrophy | | 1 | 1 | | 1 | | 2 | | | 1 | | 1 | | 1 | | 1 | 1 | 2 | 1 | 1 | 1 | 30 1.1 |
| Subcapsular, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Subcapsular, Hypertrophy | | | | | | | | 2 | | | | | | | | | | | | | | 1 2.0 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | | | | | | | | | | | | | | | 3 | | | | | 2 2.0 |
| Hyperplasia | | | | | | | | | | | | 2 | | | | | 1 | 1 | | | | 5 1.2 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 2 2.5 |
| Parathyroid Gland | + | + | + | + | + | M | + | + | + | + | + | M | M | + | + | M | M | M | + | + | M | 28 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Pars Distalis, Cyst | | | | | | X | | | | | | | | | | | | | | | | 1 |
| Pars Distalis, Hyperplasia | | | | | | 1 | | | | | | | | 2 | 1 | | | | | | | 3 1.3 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE | DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | * TOTALS |
|------------------|-------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|
| | | 7 | | | | | | | | | | | | | | | | | | | | |
| 10 mg/m3 | ANIMAL ID | 3 | | | | | | | | | | | | | | | | | | | | |
| | | 2 | | | | | | | | | | | | | | | | | | | | |
| | | 2 | | | | | | | | | | | | | | | | | | | | |
| | | 6 | | | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Exfoliated Germ Cell | X | X | | | X | X | X | X | X | | X | | X | X | X | X | X | X | X | | X | X | | 40 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | 2 | | | | | | | 3 1.3 |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Ectasia | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | 3 1.0 |
| Inflammation, Chronic Active | 1 | | 4 | | | | | | | | | 1 | | 1 | | | | 1 | | | 1 | | 3 | 14 2.1 |
| Duct, Ectasia | | | | | | | | | | | | | | | | | | | | | | | | 2 3.5 |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 1.0 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | 2 3.5 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Degeneration | | | | | | | | | 1 | 1 | | | | | | | | 1 | 2 | | 1 | 1 | | 17 1.2 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | 1 | 2 1.5 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE
10 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|------------|------------|------------|
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | | | |
| ANIMAL ID | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | | | | |
| Myeloid Cell, Hyperplasia | 2 | 2 | 1 | 2 | | 1 | | 1 | | | 2 | | 1 | 1 | | | | 2 | | 1 | | 1 | 2 | 1 | 29 | 1.4 | | |
| Lymph Node, Bronchial
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid
Infiltration Cellular, Histiocyte | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | M | + | M | I | + | + | + | + | 37 | | | |
| | | | | | | | | | | | 1 | | | | | | | | | | | 1 | | | | 1 | 1.0 | |
| | | | | | 1 | | | | | | | | | | | | | | | | | | | | | 3 | 1.3 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Lymph Node, Mandibular
Hyperplasia, Lymphoid
Infiltration Cellular, Histiocyte | M | M | M | M | M | M | M | + | + | + | + | M | M | M | M | M | + | + | + | + | + | + | M | + | + | 27 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Lymph Node, Mediastinal
Hyperplasia, Lymphoid | I | + | + | I | + | + | M | I | + | + | I | + | + | + | I | + | + | + | + | + | + | + | + | I | + | 35 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Lymph Node, Mesenteric
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid
Infiltration Cellular
Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.3 |
| | | | | | 2 | 1 | | | | | 2 | | 1 | | | | | | | 1 | | | 2 | | | 11 | 1.5 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Spleen
Angiectasis
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid
Necrosis, Lymphoid | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| | 2 | | | 2 | | | | 2 | | | 2 | | | | 2 | | | | | | | | | | | 8 | 1.9 | |
| | | 1 | | | 2 | | 2 | | | | 2 | | 2 | | | | 2 | | 1 | | 1 | | 1 | | | 15 | 1.7 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Thymus
Atrophy
Cyst
Ectopic Parathyroid Gland | I | + | + | I | + | + | + | I | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 | | | |
| | | | | | | | | | | | 2 | | | | | | | | | | | | | | | 5 | 2.4 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | |
| | | | | | | | | | X | | | | | | | X | | | | | | 1 | | 1 | | 2 | 1.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE MALE | DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|------------------|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|----------|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| | | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | | 7 |
| 10 mg/m3 | | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 5 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | |
| | | 0 | 0 | 9 | 8 | 1 | 9 | 0 | 8 | 9 | 0 | 6 | 0 | 0 | 9 | 9 | 1 | 0 | 9 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | |
| Degeneration | | | | | | | | | | | | | | | | | | | | | 1 1.0 | | |
| Spinal Cord | | | | | | | | | | | | | | | | | | | | | 1 | | |

| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|---|---|--------|
| Larynx | + | + | + | + | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | 49 | | | |
| Foreign Body | | | | | | | 2 | | | | | | | | | | | | | | | | 1 2.0 | | | |
| Inflammation, Chronic Active | 1 | 1 | 2 | 2 | 1 | 2 | | 1 | 1 | 1 | 2 | | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 47 1.4 |
| Necrosis | | | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 1.0 |
| Epiglottis, Hyperplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Epiglottis, Metaplasia, Squamous | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 3 | 2 | 2 | 2 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | | 49 2.0 |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | 1 | | | | | | | | | 1 1.0 |
| Infiltration Cellular, Histiocyte | | | | 1 | | | | | | | | | | | | | | | 1 | 1 | 3 | | | | | 9 1.6 |
| Inflammation, Chronic | | | 1 | 1 | 1 | 1 | | | 1 | 1 | | | | | 1 | | | 1 | 1 | 1 | | | | | | 12 1.0 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | 2 | | | | | 2 2.0 |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 1.0 |
| Alveolar/bronchiolar Epithelium, Hyperplasia | | | | | | | | | | | | 3 | | | | | | | 1 | 1 | | | | | | 7 1.4 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | 1 | | | | | | | | | | 3 1.0 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Exudate | 1 | | | 1 | 2 | | | | | | | | | | 1 | | | | | | 1 | | | 1 | | 11 1.2 |
| Inflammation, Chronic Active | 1 | 1 | 1 | 1 | 1 | 1 | | | 1 | 1 | 1 | | | 1 | 1 | 1 | | 1 | 1 | 1 | 2 | | 1 | 1 | | 33 1.0 |
| Lateral Wall, Inflammation, Chronic Active | | 3 | 2 | | | | | | | 3 | | | | | | | | | | | 2 | | | | | 7 2.7 |
| Lateral Wall, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Nasolacrimal Duct, Inflammation, Chronic Active | | | | | | | | | | | | | | 2 | | | | | 2 | | | | | | | 2 2.0 |
| Nasopharyngeal Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE
10 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|----------|
| | 0730 | 0733 | 0732 | 0722 | 0733 | 0723 | 0732 | 0723 | 0728 | 0729 | 0720 | 0728 | 0729 | 0726 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | | |
| ANIMAL ID | 0022 | 0022 | 0022 | 0022 | 0023 | 0023 | 0023 | 0023 | 0024 | 0025 | 0026 | 0027 | 0028 | 0029 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | | |
| Nasopharyngeal Duct, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Nasopharyngeal Duct, Perforation | | | | | | | | X | | | | | | | | | | | | | | | | 1 | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | | | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 46 1.5 | |
| Olfactory Epithelium, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Olfactory Epithelium, Metaplasia, Respiratory | | | | | | | 1 | | | | | | | | | | | | | | | | | 2 1.0 | |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 49 1.9 | |
| Respiratory Epithelium, Atrophy | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 1.0 | |
| Respiratory Epithelium, Hyperplasia | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 49 1.5 | |
| Respiratory Epithelium, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 | |
| Respiratory Epithelium, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Turbinate, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 | |
| Pleura | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 4 1.5 | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE
10 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|-----|----|----|-----|
| | 0730 | 0730 | 0732 | 0738 | 0731 | 0739 | 0730 | 0736 | 0737 | 0738 | 0739 | 0730 | 0736 | 0737 | 0738 | 0739 | 0730 | 0736 | 0737 | 0738 | 0739 | 0730 | 0736 | 0737 | | 0738 | 0739 | | | | |
| ANIMAL ID | 0022 | 0022 | 0022 | 0022 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 | | | |
| Infarct, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Nephropathy | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 46 | 1.9 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| B6C3F1 MICE MALE | DAY ON TEST | 0
7 | 0
7 | 0
7 | 0
6 | 0
7 | 0
7 | 0
6 | 0
7 | 0
5 | 0
5 | 0
7 | 0
7 | 0
6 | 0
7 | 0
7 | 0
7 | 0
7 | 0
7 | 0
7 | 0
6 | 0
3 | 0
7 | 0
7 | |
| | | 2 | 2 | 3 | 6 | 3 | 3 | 4 | 3 | 4 | 8 | 3 | 3 | 9 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 9 | 4 | 2 | |
| 30 mg/m3 | ANIMAL ID | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | |

males
(cont...)

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Gallbladder
Infiltration Cellular, Lymphoid
Inflammation, Chronic Active | + | M | + | A | + | + | + | + | A | + | + | A | + | + | + | A | + | M | + | M | M | M | + | + |
| | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Intestine Large, Cecum
Infiltration Cellular, Lymphoid
Inflammation
Necrosis | + | + | + | + | + | A | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 |
| | | | | | | | | 3 | | | | | | | | | | | | | | | | 3 |
| Intestine Large, Colon
Hyperplasia, Lymphoid | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum | + | + | + | + | + | + | I | + | A | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum | + | + | + | A | + | + | A | + | + | + | + | A | + | + | + | + | + | + | + | + | + | A | + | + |
| Intestine Small, Ileum
Hyperplasia, Lymphoid
Inflammation | + | + | + | + | + | + | A | + | + | A | + | + | A | + | + | + | + | + | + | + | + | + | + | + |
| | | | 1 | | 1 | 1 | | | | | | 1 | | | 2 | | | 2 | | | | | | 1 |
| Intestine Small, Jejunum
Hyperplasia, Lymphoid
Inflammation
Necrosis
Perforation | + | + | + | + | + | + | A | + | + | A | + | + | A | + | + | + | + | + | + | + | + | A | + | + |
| | | | 1 | | | | | | | | 1 | | | | 2 | | | | | | | | | |
| | | | | | | | | | | 4 | | | | | | | | | | | | | | 4 |
| | | | | | | | | | | 4 | | | | | | | | | | | | | | 4 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------|
| B6C3F1 MICE MALE | DAY ON TEST | 0729 | 0729 | 0730 | 0662 | 0771 | 0677 | 0763 | 0554 | 0558 | 0773 | 0676 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0666 | 0337 | 0777 | 0777 | males
(cont...) |
| | ANIMAL ID | 0040 | 0044 | 0040 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | |

Inflammation, Suppurative

3

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | 1 | | 1 | 1 | | | | | 1 | | | | | 1 | | 3 | 2 | | 1 | 1 | | 1 | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | |
| Hypertrophy | | | 2 | | | | | 2 | 1 | | | 1 | 1 | | 1 | 1 | | | | 1 | | 2 | 1 1 |
| Adrenal Medulla | + | + | + | + | + | M | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | 1 | | | | | | | | | | 2 | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | + | + | + | + | + | M | M | + | M | + | + | M | + | + | M | + | + | + | + | + | + | + | + |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |
| Pars Distalis, Angiectasis | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | X | | |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | | | 1 | 2 | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------|
| B6C3F1 MICE MALE | DAY ON TEST | 0729 | 0729 | 0730 | 0662 | 0773 | 0677 | 0764 | 0553 | 0558 | 0773 | 0676 | 0777 | 0677 | 0777 | 0777 | 0777 | 0777 | 0777 | 0663 | 0777 | 0677 | 0777 | males
(cont...) |
| | ANIMAL ID | 0040 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + |
| Exfoliated Germ Cell | X | X | X | X | X | X | X | | X | | X | X | | X | X | X | X | X | X | X | | X | X |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + |
| Ectasia | | | | | 1 | | | | | | 1 | | | | | | | | | | | | |
| Inflammation, Chronic Active | 4 | | | | | | 2 | | | | 1 | | 1 | 4 | 1 | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + |
| Degeneration | | | | | | | | | 2 | 1 | | 1 | | | | | | | | | | 1 | 1 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
Test Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Metal Working Fluids: Trim VX
CAS Number: TRIMVX

Date Report Requested: 02/02/2015
Time Report Requested: 13:50:12
First Dose M/F: 08/03/09 / 08/03/09
Lab: BNW

| B6C3F1 MICE MALE
30 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|---|---|---|
| | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | | | | | |
| ANIMAL ID | 00401 | 00402 | 00403 | 00404 | 00405 | 00406 | 00407 | 00408 | 00409 | 00410 | 00411 | 00412 | 00413 | 00414 | 00415 | 00416 | 00417 | 00418 | 00419 | 00420 | 00421 | 00422 | 00423 | 00424 | | | | |
| Myeloid Cell, Hyperplasia | 2 | | | | | | | | | | | 1 | | | 1 | | | | 1 | | | 1 | 2 | 2 | | | | |
| Lymph Node
Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | + | | | | |
| Lymph Node, Bronchial
Hyperplasia, Lymphoid
Plasma Cell, Hyperplasia | + | + | + | + | + | M | + | + | + | M | + | + | A | + | + | M | + | + | + | + | + | 1 | + | | | | | |
| Lymph Node, Mandibular
Hyperplasia, Lymphoid
Infiltration Cellular, Histiocyte | + | M | M | + | M | + | M | + | + | M | M | + | M | + | + | M | + | + | + | M | + | + | M | M | + | | | |
| Lymph Node, Mediastinal
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid | + | + | + | + | + | + | + | + | + | + | + | + | + | A | M | M | + | + | + | + | + | + | + | + | I | + | + | + |
| Lymph Node, Mesenteric
Angiectasis
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid
Hyperplasia, Plasma Cell
Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | M | + | + | | |
| Spleen
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid | 2 | 2 | | | | 2 | | 2 | | | | | 1 | | | 2 | | | 2 | | 2 | | 1 | 2 | | | | |
| Thymus
Atrophy
Cyst | 1 | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20523 - 04
Test Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Metal Working Fluids: Trim VX
CAS Number: TRIMVX

Date Report Requested: 02/02/2015
Time Report Requested: 13:50:12
First Dose M/F: 08/03/09 / 08/03/09
Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--|
| B6C3F1 MICE MALE | DAY ON TEST | 0
7
2
9 | 0
7
2
9 | 0
7
3
0 | 0
6
6
2 | 0
7
3
0 | 0
7
3
1 | 0
6
4
7 | 0
7
3
0 | 0
5
4
9 | 0
5
8
3 | 0
7
3
0 | 0
7
3
0 | 0
6
9
4 | 0
7
3
1 | 0
7
2
9 | 0
7
3
1 | 0
7
2
9 | 0
7
3
0 | 0
6
3
1 | 0
7
9
4 | 0
3
4
9 | 0
7
2
9 | 0
7
2
9 | |
| | ANIMAL ID | 0
4
0
1 | 0
4
0
2 | 0
4
0
3 | 0
4
0
4 | 0
4
0
5 | 0
4
0
6 | 0
4
0
7 | 0
4
0
8 | 0
4
0
9 | 0
4
1
0 | 0
4
1
1 | 0
4
1
1 | 0
4
1
1 | 0
4
1
1 | 0
4
1
1 | 0
4
1
1 | 0
4
1
1 | 0
4
2
0 | 0
4
2
1 | 0
4
2
2 | 0
4
2
3 | 0
4
2
4 | 0
0
2
5 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

Ectopic Parathyroid Gland

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | 3 | | 2 | | | | 4 | | | |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Ulcer | | | | | | | | | | | | | | | 3 | | | | | | 4 | | | |
| Hair Follicle, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibro-Osseous Lesion | | | | | | | | | | | | | | | | X | | | | | | | | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + |
| Compression | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Infiltration Cellular | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE MALE
30 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|--------------------|
| | 0
7
2
9 | 0
7
2
9 | 0
7
3
0 | 0
6
6
2 | 0
7
3
0 | 0
7
3
1 | 0
6
4
7 | 0
7
3
0 | 0
5
4
9 | 0
5
8
3 | 0
7
3
0 | 0
7
3
0 | 0
6
9
4 | 0
7
3
1 | 0
7
3
1 | 0
7
2
9 | 0
7
3
1 | 0
7
2
9 | 0
7
3
0 | 0
6
3
1 | 0
3
9
4 | 0
7
4
9 | 0
3
2
9 | 0
7
7
9 | | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | | |
| Olfactory Epithelium, Metaplasia, Respiratory | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| Respiratory Epithelium, Atrophy | | | 1 | | | | | 1 | 1 | | | | | | | 1 | | 1 | | | 1 | | | 1 | | |
| Respiratory Epithelium, Hyperplasia | 1 | 2 | 1 | 2 | 2 | 2 | | 2 | 1 | 1 | 2 | 2 | | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | |
| Respiratory Epithelium, Metaplasia, Squamous | | | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory Epithelium, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Turbinate, Atrophy | | | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Turbinate, Perforation | | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Trachea | + | + | + | + | + | + | + | + | + | + | I | + | A | + | + | + | + | + | + | + | + | + | + | | | |
| Cartilage, Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | | | |
| Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Infarct, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04
Test Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
CAS Number: TRIMVX

Date Report Requested: 02/02/2015
Time Report Requested: 13:50:12
First Dose M/F: 08/03/09 / 08/03/09
Lab: BNW

| B6C3F1 MICE MALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | males
(cont...) | |
|--------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------------|--|
| | ANIMAL ID | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 5 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 3 | 7 | 7 | 2 | 2 | 2 | | |
| 30 mg/m3 | | 2 | 2 | 3 | 6 | 3 | 3 | 4 | 3 | 4 | 8 | 3 | 3 | 9 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 9 | 4 | 2 | 2 | 9 | | | |
| | | 9 | 9 | 0 | 2 | 0 | 1 | 7 | 0 | 9 | 3 | 0 | 0 | 4 | 1 | 1 | 1 | 9 | 1 | 9 | 0 | 1 | 7 | 4 | 2 | 9 | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | | | | |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nephropathy | | 2 | 2 | 1 | | 1 | 2 | 2 | 1 | 2 | 2 | 2 | | 2 | 2 | 2 | 1 | 2 | 3 | 2 | 4 | 2 | | 2 | 2 | | | | | |
| Artery, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urethra | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|--|
| B6C3F1 MICE MALE | DAY ON TEST | 6 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 9 | 3 | 2 | 3 | 4 | 3 | 1 | 2 | 1 | 3 | 3 | 2 | 3 | 3 | 7 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | |
| | | 7 | 1 | 9 | 0 | 0 | 1 | 2 | 9 | 1 | 0 | 0 | 9 | 3 | 0 | 2 | 1 | 9 | 9 | 1 | 0 | 3 | 9 | 9 | 0 | |
| 30 mg/m3 | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | * TOTALS | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----|-----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Gallbladder | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | 39 | | |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | 47 | | |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.7 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Hyperplasia, Lymphoid | | 4 | | | | | | | | | | | | | A | | | | | | | | | | | 1 | 4.0 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 46 | | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 45 | | |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 46 | | |
| Hyperplasia, Lymphoid | | | 2 | | | | | | | | | | | | | | | 1 | 1 | 1 | | | | 1 | | 11 | 1.3 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 45 | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.3 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Perforation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE MALE
30 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|---------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|
| | 0697 | 0731 | 0779 | 0770 | 0671 | 0672 | 0771 | 0772 | 0773 | 0774 | 0775 | 0776 | 0777 | 0778 | 0579 | 0770 | 0771 | 0772 | 0773 | 0774 | | 0775 | 0776 | 0777 | 0778 |
| ANIMAL ID | 00426 | 00447 | 00448 | 00449 | 00450 | 00451 | 00452 | 00453 | 00454 | 00455 | 00456 | 00457 | 00458 | 00459 | 00460 | 00461 | 00462 | 00463 | 00464 | 00465 | 00466 | 00467 | 00468 | 00469 | 00470 |
| Basophilic Focus | | | | | X | | | | | | | | | | | | | | | | | | | | 3 |
| Clear Cell Focus | | | X | | | | | | X | X | | | | X | | X | | | | | | | | | 9 |
| Eosinophilic Focus | | | | X | X | | | | | X | | | | X | | X | X | | | | | | | X | 17 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | 1 | | | | | | 2 1.0 |
| Mixed Cell Focus | | | X | | | | | | | | | | | | | | | | | X | | | | | 6 |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | | | 3 1.0 |
| Hepatocyte, Necrosis | | | | | | | | 2 | | | | | | | | | | 3 | 1 | 2 | | | | | 5 1.8 |
| Periportal, Fatty Change | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Serosa, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Mesentery | | | | | | | | | | + | | | + | | | | | | | | | | | | 4 |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 5 1.2 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 3 1.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | 1 | | 2 1.0 |
| Tooth | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| Dysplasia | | | | | | | | | | | | | | | | | | | | | | | | | 7 1.9 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE MALE

30 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|-----------|
| | | 6 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| ANIMAL ID | | 9 | 3 | 2 | 3 | 4 | 3 | 1 | 2 | 1 | 3 | 3 | 2 | 2 | 3 | 3 | 7 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | |
| | | 7 | 1 | 9 | 0 | 0 | 1 | 2 | 9 | 1 | 0 | 0 | 9 | 9 | 3 | 0 | 2 | 1 | 9 | 9 | 1 | 0 | 3 | 9 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Heart | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Cardiomyopathy | | | 1 | | | | | | 1 | | | 1 | | | 1 | | | 1 | | 2 | 1 | 2 | | 18 1.3 | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 1.0 | |
| Hypertrophy | | 1 | 1 | 1 | 1 | 1 | 1 | | | | | 1 | 1 | 1 | | | 1 | 1 | 1 | | 1 | 1 | 1 | 26 1.1 | |
| Adrenal Medulla | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Hyperplasia | | | 1 | | | | 1 | | | | | | 1 | | | | | | | | | | | 5 1.2 | |
| Islets, Pancreatic | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | 48 | |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 1.0 | |
| Parathyroid Gland | | + | + | + | + | M | + | + | M | + | + | M | M | M | M | + | + | + | M | M | + | M | + | 36 | |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | 48 |
| Pars Distalis, Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Pars Distalis, Cyst | | | X | | | | | | | | | | | | | | | | X | | | | | 3 | |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 | |
| Thyroid Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | I | + | 47 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 02/02/2015

Test Type: CHRONIC

Metal Working Fluids: Trim VX

Time Report Requested: 13:50:12

Route: RESPIRATORY EXPOSURE WHOLE BODY

CAS Number: TRIMVX

First Dose M/F: 08/03/09 / 08/03/09

Species/Strain: MICE/B6C3F1

Lab: BNW

| B6C3F1 MICE MALE
30 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
|------------------------------|-------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANIMAL ID | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 | 0 | |
| | | 9 | 3 | 2 | 3 | 4 | 3 | 1 | 2 | 1 | 3 | 3 | 2 | 2 | 3 | 3 | 7 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 9 | 9 | 1 | 0 | 3 | 3 | 2 | 2 | 9 | 9 | 1 | 0 | 0 | 0 | 0 |
| | | 7 | 1 | 9 | 0 | 0 | 1 | 2 | 9 | 1 | 0 | 0 | 9 | 9 | 3 | 0 | 2 | 1 | 9 | 9 | 3 | 3 | 3 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 | 0 | |
| | | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|-------|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Exfoliated Germ Cell | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 44 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Ectasia | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 1.0 | |
| Inflammation, Chronic Active | | | | | 2 | | | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | 12 1.7 | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 1.0 | |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Degeneration | 2 | 1 | 1 | 1 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | 15 1.1 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE
30 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----|-----|----|-----|
| | 0697 | 0732 | 0773 | 0776 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | | | | | |
| ANIMAL ID | 00426 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | 00442 | | | | |
| Myeloid Cell, Hyperplasia | 1 | | 1 | 1 | 1 | | 1 | 1 | 1 | 2 | | | | | | | | | | | | 1 | 2 | | 1 | 18 | 1.3 | | |
| Lymph Node
Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 2.0 |
| Lymph Node, Bronchial
Hyperplasia, Lymphoid
Plasma Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 39 | 2 | 1.0 |
| Lymph Node, Mandibular
Hyperplasia, Lymphoid
Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | | | | 25 | 2 | 1.0 |
| Lymph Node, Mediastinal
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | 41 | 1 | 1.0 |
| Lymph Node, Mesenteric
Angiectasis
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid
Hyperplasia, Plasma Cell
Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | 47 | 3 | 1.7 |
| Spleen
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | 49 | 11 | 1.7 |
| Thymus
Atrophy
Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | 47 | 8 | 1.5 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|---|
| | 06 | 07 | 07 | 07 | 06 | 07 | 06 | 07 | 07 | 07 | 07 | 07 | 05 | 07 | 00 | 07 | 07 | 07 | 07 | 07 | | 07 | 07 | |
| 30 mg/m3 | 9 | 3 | 2 | 3 | 4 | 3 | 1 | 2 | 1 | 3 | 3 | 2 | 2 | 3 | 3 | 7 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 3 |
| | 7 | 1 | 9 | 0 | 0 | 1 | 2 | 9 | 1 | 0 | 0 | 9 | 9 | 3 | 0 | 2 | 1 | 9 | 9 | 1 | 0 | 9 | 9 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|-----|
| Larynx | | | | | | | | | | | | | | | | | | | | | | | | 49 | | | |
| Inflammation, Chronic Active | 1 | | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 46 | 1.4 | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Epiglottis, Hyperplasia, Squamous | | | | | | | | 1 | 1 | 2 | 1 | | | | | | | | | | | | | | 14 | 1.1 | |
| Epiglottis, Metaplasia, Squamous | 3 | 2 | 3 | 3 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 3 | | 2 | 3 | 3 | 4 | 2 | 2 | 2 | 3 | 2 | 49 | 3.1 |
| Lung | | | | | | | | | | | | | | | | | | | | | | | | 49 | | | |
| Fibrosis | | | 1 | | | | | | | | | | | | 2 | 1 | | | | | 1 | | | | 5 | 1.2 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Infiltration Cellular, Histiocyte | 1 | 2 | 1 | | | | | 3 | | | | | | | 2 | 2 | | | | 1 | | | | | 15 | 1.5 | |
| Inflammation, Chronic | | 1 | 2 | 1 | | | | | | | | | | | 1 | 2 | 2 | | | 1 | | | 1 | 1 | 16 | 1.3 | |
| Pigmentation | | | | | | | | 2 | | | | | | | | | | | | | | | | | 2 | 1.5 | |
| Proteinosis | | 2 | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.5 | |
| Alveolar/bronchiolar Epithelium, Hyperplasia | 1 | 1 | 1 | 2 | | | | | 2 | | 1 | | 1 | 2 | 2 | | | | 1 | | | 1 | 1 | 15 | 1.3 | | |
| Alveolar Epithelium, Hyperplasia | | 1 | 1 | | | | | | | | | | 1 | | 2 | 1 | | | | | | | 1 | 7 | 1.1 | | |
| Nose | | | | | | | | | | | | | | | | | | | | | | | | 49 | | | |
| Exudate | 3 | | 1 | 2 | 2 | 3 | | 1 | 2 | 2 | | 3 | 3 | | 3 | | 1 | 1 | 2 | 2 | 3 | 1 | 2 | 2 | 35 | 2.0 | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Inflammation, Chronic Active | 2 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 39 | 1.3 | |
| Polyp, Inflammatory | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Lateral Wall, Inflammation, Chronic Active | | | 3 | | | | | | | | 4 | | | | | | | | | | | | | | 4 | 3.3 | |
| Nasolacrimal Duct, Inflammation, Chronic Active | | | | | | | | | 1 | | | | | | | | | | | | | | | | 2 | 1.0 | |
| Nasopharyngeal Duct, Perforation | X | | | | | X | | | | | | X | | X | | | | | X | X | | X | | | 11 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE MALE
30 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|------|------|
| | 0697 | 0731 | 0729 | 0730 | 0760 | 0771 | 0762 | 0772 | 0773 | 0774 | 0775 | 0776 | 0777 | 0778 | 0779 | 0780 | 0781 | 0782 | 0783 | 0784 | 0785 | 0786 | 0787 | | | 0788 | 0789 | 0790 |
| ANIMAL ID | 00426 | 00447 | 00448 | 00449 | 00450 | 00451 | 00452 | 00453 | 00454 | 00455 | 00456 | 00457 | 00458 | 00459 | 00460 | 00461 | 00462 | 00463 | 00464 | 00465 | 00466 | 00467 | 00468 | 00469 | 00470 | 00471 | | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 48 | 1.9 | |
| Olfactory Epithelium, Metaplasia, Respiratory Epithelium, Accumulation, Hyaline Droplet | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 1.0 | |
| Respiratory Epithelium, Atrophy | | | | | 1 | 1 | | | 1 | 1 | | 1 | 1 | | 1 | | | | 1 | | 1 | 1 | 1 | 1 | | 20 | 1.0 | |
| Respiratory Epithelium, Hyperplasia | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 47 | 1.6 | |
| Respiratory Epithelium, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Respiratory Epithelium, Necrosis | 1 | | | | | 1 | | | | | | | | | | | | | | | | | | | | 2 | 1.0 | |
| Turbinate, Atrophy | | | 1 | | | 1 | | | | | 1 | | | | | | | | | | | | | 1 | | 5 | 1.0 | |
| Turbinate, Perforation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | | |
| Cartilage, Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3 | 2.7 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.3 | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 2.0 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Infarct, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 | 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE
30 mg/m3 | DAY ON TEST | 0697 | 0731 | 0729 | 0730 | 0761 | 0772 | 0773 | 0774 | 0775 | 0776 | 0777 | 0778 | 0779 | 0780 | 0781 | 0782 | 0783 | 0784 | 0785 | 0786 | 0787 | 0788 | 0789 | 0790 | * TOTALS |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|
| | ANIMAL ID | 00426 | 00427 | 00428 | 00429 | 00430 | 00431 | 00432 | 00433 | 00434 | 00435 | 00436 | 00437 | 00438 | 00439 | 00440 | 00441 | 00442 | 00443 | 00444 | 00445 | 00446 | 00447 | 00448 | 00449 | |
| Metaplasia, Osseous | | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Nephropathy | | 2 | 3 | 2 | 2 | | 2 | 3 | 4 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 45 2.0 |
| Artery, Inflammation, Chronic Active | | | | | | | | | | | | 2 | | | | | | | | | | | | | | 1 2.0 |
| Urethra | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Urinary Bladder
Inflammation, Chronic Active | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49
1 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------|
| B6C3F1 MICE MALE | DAY ON TEST | 0730 | 0537 | 0722 | 0733 | 0421 | 0748 | 0571 | 0773 | 0777 | 0777 | 0777 | 0777 | 0664 | 0772 | 0772 | 0773 | 0577 | 0666 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | males
(cont...) |
| | ANIMAL ID | 0060 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | |
| | | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Gallbladder
Inflammation, Chronic Active
Vacuolization Cytoplasmic
Epithelium, Hyperplasia | M | + | + | + | M | A | I | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Cecum
Hyperplasia, Lymphoid
Inflammation | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Colon | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum | + | + | + | + | I | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | I |
| Intestine Small, Duodenum
Inflammation | + | + | + | + | A | A | A | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum
Hyperplasia, Lymphoid | + | + | + | + | A | A | A | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | + | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Jejunum
Hyperplasia, Lymphoid | + | + | + | + | A | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Liver
Basophilic Focus
Clear Cell Focus
Eosinophilic Focus
Fatty Change | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
Test Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Metal Working Fluids: Trim VX
CAS Number: TRIMVX

Date Report Requested: 02/02/2015
Time Report Requested: 13:50:12
First Dose M/F: 08/03/09 / 08/03/09
Lab: BNW

| B6C3F1 MICE MALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANIMAL ID | 7 | 5 | 7 | 7 | 4 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 100 mg/m3 | | 3 | 3 | 2 | 3 | 2 | 1 | 4 | 3 | 3 | 1 | 2 | 2 | 2 | 4 | 2 | 2 | 3 | 7 | 6 | 3 | 3 | 3 | 3 | 0 | 3 | |
| | | 0 | 7 | 9 | 1 | 4 | 4 | 8 | 1 | 0 | 1 | 9 | 9 | 5 | 9 | 9 | 1 | 1 | 7 | 0 | 0 | 0 | 0 | 1 | 8 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | |

males
(cont...)

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| Inflammation, Chronic Active | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Mixed Cell Focus | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | |
| Thrombosis | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | |
| Bile Duct, Vacuolization Cytoplasmic | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Hepatocyte, Hypertrophy | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | |
| Hepatocyte, Necrosis | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Acinus, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Abscess | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst, Squamous | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 | 2 | | 1 | | | | | | | | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Tooth | | | | | | | | | | | | | + | | | | | | | | | | | | | | | | |
| Dysplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------------|
| B6C3F1 MICE MALE | DAY ON TEST | 0730 | 0537 | 0722 | 0733 | 0421 | 0744 | 0578 | 0771 | 0770 | 0771 | 0772 | 0772 | 0779 | 0645 | 0779 | 0771 | 0656 | 0773 | 0773 | 0733 | 0733 | 0730 | 0738 | 0730 | males
(cont...) |
| | ANIMAL ID | 00601 | 00602 | 00603 | 00604 | 00605 | 00606 | 00607 | 00608 | 00609 | 00610 | 00611 | 00612 | 00613 | 00614 | 00615 | 00616 | 00617 | 00618 | 00619 | 00620 | 00621 | 00622 | 00623 | 00624 | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | | | 1 | | 1 | | 1 | 1 | 2 | | 2 | 1 | | | 2 | 2 | | | 2 | | 1 | | | 1 | |
| Inflammation, Chronic Active | | | | | | | | | | 2 | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accessory Adrenal Cortical Nodule | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hypertrophy | 1 | | 3 | | | | | | | | | | 1 | | 1 | | | | 3 | | 1 | | | | 1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hyperplasia | | | 1 | | | | | | | 1 | 2 | | | | | | | | | | | | | | |
| Hypertrophy | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland | + | + | M | + | M | + | + | + | + | + | M | + | + | M | M | + | + | + | + | + | M | + | + | + | + |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pars Distalis, Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Cyst | | | | | | | | | | | X | | | | X | X | | | X | | | | | | |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | | | | | | | 3 | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
Test Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
CAS Number: TRIMVX

Date Report Requested: 02/02/2015
Time Report Requested: 13:50:12
First Dose M/F: 08/03/09 / 08/03/09
Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------|
| B6C3F1 MICE MALE
100 mg/m3 | DAY ON TEST | 0730 | 0730 | 0731 | 0732 | 0733 | 0734 | 0735 | 0736 | 0737 | 0738 | 0739 | 0740 | 0741 | 0742 | 0743 | 0744 | 0745 | 0746 | 0747 | 0748 | 0749 | 0750 | males
(cont...) |
| | ANIMAL ID | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | |

Thyroid Gland +

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | |
|---------------------------------|---|
| Epididymis | + |
| Exfoliated Germ Cell | X |
| Infiltration Cellular, Lymphoid | |
| Inflammation, Chronic Active | |
| Preputial Gland | + |
| Ectasia | 1 1 |
| Inflammation, Chronic Active | 3 1 1 4 1 3 |
| Prostate | + |
| Infiltration Cellular, Lymphoid | 2 |
| Seminal Vesicle | + |
| Dilatation | |
| Testes | + |
| Degeneration | 1 1 2 1 1 1 |

HEMATOPOIETIC SYSTEM

| | |
|---------------------------|---|
| Bone Marrow | + |
| Myeloid Cell, Hyperplasia | 1 1 1 1 1 2 1 2 2 2 1 2 1 1 2 1 1 2 2 1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE
100 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | males
(cont...) | | | | | | | | | |
|-------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------------|---|---|---|---|---|---|---|---|---|
| | 7 | 5 | 7 | 7 | 4 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 3 | 3 | 3 | 7 | | | 7 | 7 | 3 | 7 | 7 | 3 | 7 | 7 | 3 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst Epithelial Inclusion | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | 2 | 3 | | | 3 | | | | | | | | | | | | | | | | | | | | | 1 |
| Ulcer | | | | | | | | | | | | 2 | | | 3 | | | | | | | | | | | | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|---|---|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| Skeletal Muscle Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 1 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|---|--|---|---|---|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | |
| Gliosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Peripheral Nerve Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 1 | |
| Spinal Cord | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | + | + |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | | | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 3 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 3 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE MALE
100 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|
| | 0730 | 0733 | 0737 | 0741 | 0744 | 0747 | 0751 | 0754 | 0757 | 0761 | 0764 | 0767 | 0771 | 0774 | 0777 | 0781 | 0784 | 0787 | 0791 | 0794 | | | 0797 |
| Epiglottis, Hyperplasia, Squamous | 1 | 1 | | 1 | 2 | 2 | 3 | 2 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 3 | |
| Epiglottis, Metaplasia, Squamous | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| Lung | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Fibrosis | 1 | | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | | 1 | 1 | 2 | 1 | 2 | 1 | | 2 | 1 | 1 | 1 | 1 |
| Infiltration Cellular, Histiocyte | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | | 2 | 2 | 2 | 3 | 3 | 2 |
| Inflammation, Chronic | 2 | 1 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 1 | 3 | 3 | 2 | 2 | 3 | 2 |
| Metaplasia, Osseous | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Pigmentation | | | | | | 2 | | | | 1 | | | | | | | | 1 | 1 | | 1 | | 1 |
| Alveolar/bronchiolar Epithelium, Hyperplasia | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 |
| Alveolar Epithelium, Hyperplasia | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | | 2 | 1 | 2 | 2 | 2 |
| Bronchiole, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Exudate | 3 | 1 | 3 | 2 | 2 | 4 | 3 | 3 | 2 | 1 | 4 | 4 | 2 | 4 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 |
| Inflammation, Chronic Active | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 |
| Glands, Olfactory Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Lateral Wall, Inflammation, Chronic Active | | | | | | | | | | | 3 | | | | | 3 | | | | | | | 2 |
| Nasolacrimal Duct, Inflammation, Chronic Active | | | | | | | | | | | | 1 | | | | | | 1 | | | | | |
| Nasopharyngeal Duct, Perforation | | | | | | X | | X | | | X | | | | | X | X | X | | X | | X | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Olfactory Epithelium, Atrophy | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Olfactory Epithelium, Metaplasia, Respiratory | | | | | | | | | | | | | | | | 1 | | | | | | 2 | |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Respiratory Epithelium, Atrophy | 1 | | 1 | 1 | | 1 | 1 | 1 | | 1 | | 1 | 2 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| Respiratory Epithelium, Hyperplasia | 2 | | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 |
| Respiratory Epithelium, Metaplasia, Squamous | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Respiratory Epithelium, Necrosis | 1 | | | | 1 | 1 | | | | | | | | | | 1 | 1 | 1 | 1 | | 1 | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE MALE
100 mg/m3 | DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | |
|--------------------------------|-------------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|--|---|-----------|
| | | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | | | |
| Turbinate, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Turbinate, Perforation | | | | | | | | | | | | | | | | | | | | | | | | | 1 1 1 1 1 |
| Pleura | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trachea | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cartilage, Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cataract | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | |
| Harderian Gland | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hydronephrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infarct, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nephropathy | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE MALE

100 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---|---|---|---|---|---|---|---|
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 5 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 1 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 0 |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|-----|-----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Gallbladder
Inflammation, Chronic Active
Vacuolization Cytoplasmic
Epithelium, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | A | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | 42 | | | | |
| | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Intestine Large, Cecum
Hyperplasia, Lymphoid
Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.7 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 | | | |
| Intestine Small, Duodenum
Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Intestine Small, Ileum
Hyperplasia, Lymphoid | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 43 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | 1.5 |
| Intestine Small, Jejunum
Hyperplasia, Lymphoid | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Clear Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 | |
| Fatty Change | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20523 - 04
Test Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Metal Working Fluids: Trim VX
CAS Number: TRIMVX

Date Report Requested: 02/02/2015
Time Report Requested: 13:50:12
First Dose M/F: 08/03/09 / 08/03/09
Lab: BNW

| B6C3F1 MICE MALE
100 mg/m3 | DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | | | | | | | | | |
|---|-------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|---|-----|-----|-----|
| | | 00731 | 00733 | 00739 | 00730 | 00731 | 00732 | 00739 | 00731 | 00733 | 00730 | 00731 | 00733 | 00739 | 00731 | 00733 | 00730 | 00731 | 00733 | 00739 | 00731 | 00733 | 00739 | 00730 | 00731 | 00733 | 00739 | 00730 | 00731 | 00733 | 00739 | 00730 | | | | | | |
| Inflammation, Chronic Active
Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Bile Duct, Vacuolization Cytoplasmic
Hepatocyte, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Hepatocyte, Necrosis | | 2 | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | | 1 | 2.0 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 1.8 | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Acinus, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Abscess | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Cyst, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 1.6 |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1.0 |
| Tooth | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | | |
| Dysplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.7 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.5 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE
100 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS |
|-------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| | ANIMAL ID | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 5 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 1 | 3 | 2 | 2 | 3 | 6 | 8 | 7 | 3 | 2 | 2 | 3 | 3 | 2 | |
| | | 1 | 0 | 9 | 0 | 1 | 9 | 9 | 1 | 3 | 0 | 9 | 9 | 1 | 7 | 0 | 5 | 0 | 9 | 9 | 0 | 1 | 1 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |

Thyroid Gland + + + + + M + 49

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | |
|---------------------------------|---|----|-----|
| Epididymis | + | 50 | |
| Exfoliated Germ Cell | X | 40 | |
| Infiltration Cellular, Lymphoid | | 1 | 1.0 |
| Inflammation, Chronic Active | | 1 | 1.0 |
| Preputial Gland | + + + + + + + + + + M + + + + + + + + + + + + + + + | 49 | |
| Ectasia | | 1 | 1.0 |
| Inflammation, Chronic Active | | 2 | 2.3 |
| Prostate | + | 50 | |
| Infiltration Cellular, Lymphoid | | 1 | 1.5 |
| Seminal Vesicle | + | 50 | |
| Dilatation | | 2 | 2.0 |
| Testes | + | 50 | |
| Degeneration | | 1 | 1.2 |

HEMATOPOIETIC SYSTEM

| | | | |
|---------------------------|---|----|-----|
| Bone Marrow | + | 50 | |
| Myeloid Cell, Hyperplasia | | 1 | 1.4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE
100 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|------|---|----|----|-----|-----|
| | 0731 | 0733 | 0739 | 0773 | 0777 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | | 0779 | | | | | |
| ANIMAL ID | 00626 | 00662 | 00662 | 00662 | 00662 | 00662 | 00662 | 00662 | 00662 | 00662 | 00662 | 00662 | 00662 | 00662 | 00662 | 00662 | 00662 | 00662 | 00662 | 00662 | 00662 | | | | | | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Lymph Node, Bronchial
Hyperplasia, Lymphoid
Infiltration Cellular, Histiocyte
Infiltration Cellular, Plasma Cell | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | I | + | + | + | + | + | M | 39 | 14 | 1.4 | |
| | | 1 | | 1 | 1 | 3 | | | | 1 | | 1 | 2 | | | | | 2 | | | | 1 | | | 7 | 1.6 | |
| | | | | 2 | | | | | | | | 2 | 1 | | | | | | 2 | | | | | | 1 | 2.0 | |
| Lymph Node, Mandibular
Hyperplasia, Lymphoid
Infiltration Cellular, Histiocyte | + | M | M | + | + | + | + | M | M | M | + | + | M | + | + | M | + | I | + | + | + | + | + | M | 27 | 1 | 1.0 |
| | 1 | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | 1.0 | |
| Lymph Node, Mediastinal
Hyperplasia, Lymphoid | M | M | M | + | + | + | + | + | M | + | + | + | + | + | A | + | M | + | + | + | + | + | + | + | 40 | 5 | 1.2 |
| | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | | | |
| Lymph Node, Mesenteric
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid
Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | M | + | + | + | + | + | + | + | + | 48 | 1 | 2.0 |
| | 1 | | | | 2 | 1 | | | | | | | | | | | | | | | | | | | | 6 | 1.3 |
| | | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | 1.0 |
| Spleen
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 10 | 1.8 |
| | | | | 1 | | | | | 2 | | | | | | | | | | | | | | | | | 8 | 1.6 |
| | | | | 2 | | | | | | 2 | | 2 | | | | | | | 1 | | | | 1 | 3 | | | |
| Thymus
Atrophy
Cyst
Ectopic Thyroid
Hyperplasia, Lymphoid | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | I | + | + | + | + | + | + | 46 | 9 | 1.8 |
| | | | | | | | | | | | | | | | 2 | 1 | | | | | | | | | | 5 | |
| | | X | | | | | | | | | | | | | | | | | | | X | | X | | 1 | 1.0 | |
| | | | | | | | | | | | | | | | | | | | | | | | 2 | | 4 | 2.0 | |

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE MALE

100 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
|-----------------------------------|-------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|--------------------------|-----------------|
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 5 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | | |
| | | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 1 | 3 | 2 | 2 | 3 | 6 | 8 | 7 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | | | |
| | | 1 | 0 | 9 | 0 | 1 | 9 | 9 | 1 | 3 | 0 | 9 | 9 | 1 | 7 | 0 | 5 | 0 | 9 | 9 | 0 | 0 | 1 | 1 | 9 | 9 | 0 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | | | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | | | | |
| | | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0 | | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Cyst Epithelial Inclusion | | | | X | | | | | | | | | X | X | | | | | | | | | | | | | | 4 | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | 3 2.0 | | |
| Inflammation, Chronic Active | | | 1 | 1 | | | | 1 | 3 | | | | | | 4 | | | | | | 2 | | | | | | | 11 2.3 | | |
| Ulcer | | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | 3 3.0 | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Skeletal Muscle
Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1
1 1.0 | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Gliosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Peripheral Nerve
Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2
1 1.0 | |
| Spinal Cord | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Larynx | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 48 1.4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

| B6C3F1 MICE MALE
100 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|------|------|-----|-----|
| | 0731 | 0733 | 0732 | 0773 | 0773 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | | | 0777 | 0777 | | |
| ANIMAL ID | 00626 | 00662 | 00662 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | | | | |
| Epiglottis, Hyperplasia, Squamous | | 1 | | | | | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | | 30 | 1.2 | | |
| Epiglottis, Metaplasia, Squamous | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 49 | 3.9 |
| Lung | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Fibrosis | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 45 | 1.3 | |
| Infiltration Cellular, Histiocyte | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | 3 | 3 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 49 | 2.0 | |
| Inflammation, Chronic | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 50 | 2.4 | |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Pigmentation | | | | | | | | | 1 | | | | | | 2 | | | | | | | | | 8 | 1.3 | |
| Alveolar/bronchiolar Epithelium, Hyperplasia | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 1 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 50 | 2.3 | |
| Alveolar Epithelium, Hyperplasia | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 47 | 1.7 | |
| Bronchiole, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Nose | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Exudate | 3 | 1 | | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 1 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 1 | 2 | 49 | 2.5 |
| Inflammation, Chronic Active | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 50 | 1.5 |
| Glands, Olfactory Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Lateral Wall, Inflammation, Chronic Active | 3 | | 1 | | | | | | | | | | | | | | | | | | | | | 5 | 2.4 | |
| Nasolacrimal Duct, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 | |
| Nasopharyngeal Duct, Perforation | X | | | X | | | | X | X | X | X | X | | | X | | | X | | | | X | | 19 | | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 50 | 2.0 | |
| Olfactory Epithelium, Atrophy | | | | | | | | | | 1 | 1 | 1 | | | | | | | | | | | | 4 | 1.0 | |
| Olfactory Epithelium, Metaplasia, Respiratory | | 1 | | 1 | | | | | | | | | | | | 1 | | | | | | | | 5 | 1.2 | |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 50 | 2.0 | |
| Respiratory Epithelium, Atrophy | 2 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | | 40 | 1.1 | |
| Respiratory Epithelium, Hyperplasia | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | | 1 | 2 | 2 | 2 | 2 | 48 | 1.7 | |
| Respiratory Epithelium, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Respiratory Epithelium, Necrosis | 1 | | | 1 | | | 1 | | 1 | 1 | 1 | 1 | 3 | | 1 | | 1 | 1 | | | 1 | | 1 | 23 | 1.1 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE MALE
100 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----------------|
| | 0731 | 0730 | 0729 | 0728 | 0727 | 0726 | 0725 | 0724 | 0723 | 0722 | 0721 | 0720 | 0719 | 0718 | 0717 | 0716 | 0715 | 0714 | 0713 | 0712 | | 0711 |
| ANIMAL ID | 00626 | 00662 | 00668 | 00669 | 00670 | 00671 | 00672 | 00673 | 00674 | 00675 | 00676 | 00677 | 00678 | 00679 | 00680 | 00681 | 00682 | 00683 | 00684 | 00685 | 00686 | |
| Turbinate, Atrophy | | | | 1 | | | 1 | | | | | 1 | | | | | | | 1 | | | |
| Turbinate, Perforation | X | | | | | | | | | | | X | X | | | | | | | X | | 1 |
| Pleura | | | | | | | | | | | | | | | | | | | | | | 1 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | A | A | + | + | + | + | + | + | 48 |
| Cartilage, Metaplasia, Osseous Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 1 1.0
3 1.0 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Cataract | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 3 2.3 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Hydronephrosis | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Infarct, Chronic | | | | | | | | | | | | | | | | | | | 2 | | | 2 2.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Metaplasia, Osseous | | 2 | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Nephropathy | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 49 1.8 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
Test Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Metal Working Fluids: Trim VX
CAS Number: TRIMVX

Date Report Requested: 02/02/2015
Time Report Requested: 13:50:12
First Dose M/F: 08/03/09 / 08/03/09
Lab: BNW

*** END OF MALE DATA ***

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------------------------------|
| B6C3F1 MICE FEMALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | ANIMAL ID | 7 | 5 | 7 | 5 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 4 | 7 | 6 | 7 | 7 | | 7 |
| Control | | 3 | 7 | 3 | 9 | 5 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 3 | 9 | 3 | 3 | 3 | females
(cont...) |
| | | 3 | 5 | 1 | 7 | 0 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 1 | 2 | 1 | 3 | 2 | 1 | 2 | 4 | 3 | 2 | 1 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus
Periesophageal Tissue, Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Gallbladder
Inflammation, Chronic Active | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | A |
| Intestine Large, Cecum
Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 2 | 2 | + | + | + |
| Intestine Large, Colon
Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 2 | + | + | + |
| Intestine Large, Rectum
Edema | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Intestine Small, Duodenum
Inflammation | + | + | + | + | + | + | + | + | + | 2 | + | + | + | + | + | + | + | + | + | A | + | + | + | A |
| Intestine Small, Ileum
Hyperplasia, Lymphoid Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | A |
| Intestine Small, Jejunum
Hyperplasia, Lymphoid Inflammation
Perforation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | A |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | females (cont...) | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-------------------|---|
| | | 7 | 5 | 7 | 5 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 4 | 7 | 6 | 7 | 7 | 7 | 6 | 6 | | | 4 |
| Control | | 3 | 7 | 3 | 9 | 5 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 3 | 9 | 3 | 3 | 3 | 3 | 4 | 5 | | | |
| | | 3 | 5 | 1 | 7 | 0 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | 1 | 2 | 1 | 3 | 2 | 1 | 2 | 4 | 3 | 2 | 1 | 1 | 5 | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | | | | |
| Angiectasis | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Basophilic Focus | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Eosinophilic Focus | | | | | | | | | | | | | | | X | | | | | | X | | | | | | | | | |
| Fatty Change | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Granulocytic Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mixed Cell Focus | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tension Lipidosis | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Duct, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04
Test Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Metal Working Fluids: Trim VX
CAS Number: TRIMVX

Date Report Requested: 02/02/2015
Time Report Requested: 13:50:12
First Dose M/F: 08/03/09 / 08/03/09
Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females (cont...) |
|--------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------------|
| | 0733 | 0573 | 0773 | 0553 | 0573 | 0773 | 0773 | 0773 | 0773 | 0573 | 0773 | 0773 | 0773 | 0676 | 0773 | 0773 | 0773 | 0773 | 0474 | 0776 | 0677 | 0773 | 0773 | 0676 | |
| Control | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | |
| | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | |
| | 0011 | 0012 | 0013 | 0014 | 0015 | 0016 | 0017 | 0018 | 0019 | 0020 | 0021 | 0022 | 0023 | 0024 | 0025 | 0026 | 0027 | 0028 | 0029 | 0030 | 0031 | 0032 | 0033 | 0034 | 0035 |

Inflammation, Chronic Active 1 1 4
Mineralization 1

CARDIOVASCULAR SYSTEM

Blood Vessel +
Heart +
 Cardiomyopathy 1 2 2 2 1 1 1 1
 Infiltration Cellular, Lymphoid 1
 Inflammation, Chronic Active 2
 Mineralization 1
 Coronary Artery, Fibrosis 2

ENDOCRINE SYSTEM

Adrenal Cortex +
 Accessory Adrenal Cortical Nodule 1
 Hematopoietic Cell Proliferation
 Hyperplasia 1
 Hypertrophy 1 2 1 1 1 1 1 1
 Inflammation, Chronic Active 1

Adrenal Medulla +
 Hyperplasia 1 1 1
 Hypertrophy 1

Islets, Pancreatic +

Parathyroid Gland + M + + M + + M + + + M M + M M + M M + + + M + M
 Ectopic Tissue 1

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE
Control | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | females
(cont...) | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------------------|---|
| | | 7 | 5 | 7 | 5 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 4 | 7 | 6 | 7 | 7 | 7 | | | 6 |
| | | 3 | 7 | 3 | 9 | 5 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 8 | 3 | 9 | 3 | 3 | 3 | 4 | | | |
| | | 3 | 5 | 1 | 7 | 0 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 1 | 2 | 1 | 3 | 2 | 1 | 2 | 4 | 3 | 2 | 1 | 5 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | | |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | M | | | |
| Pars Distalis, Angiectasis | | | | 1 | | | | | | | | 1 | 1 | | | | | | | 1 | | | | | | | | |
| Pars Distalis, Hyperplasia | | | | | | | 1 | 1 | | | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| Pars Distalis, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Intermedia, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Cyst | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | + | | 4 |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | M | M | + | + | + | + | | |
| Ovary | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | X | 4 | | | | | X | | | | | X | | | | | | | | X | | X | | | |
| Cyst, Multiple | | | | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Hemorrhage | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | 1 | | 4 | | | | | | |
| Periovarian Tissue, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | |
| Uterus | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Adenomyosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE
Control | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | | | | | | | | |
|-------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|---|---|---|---|---|---|---|---|--|
| | ANIMAL ID | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | | 1 | 2 | 3 | 4 | 5 | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|
| Inflammation, Chronic Active Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hematopoietic Cell Proliferation | | | | 1 | 1 | | | | | | | | | 1 | | | | | | | | 4 | | 2 | | | | | | | | |
| Hyperplasia, Granulocytic | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | |
| Hyperplasia, Lymphoid | 3 | | 3 | | | | | | 1 | 2 | | | | 1 | | | | | 1 | 3 | 2 | | 2 | | | 2 | 1 | 2 | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|
| Thymus | + | + | + | + | + | + | + | M | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Atrophy | | | | | | | | | | 1 | | | | | | | | | | | | 1 | | 2 | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ectopic Parathyroid Gland | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | 2 | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 1 | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Hyperplasia | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE FEMALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 5 | 7 | 5 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 4 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 |
| Control | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

females (cont...)

Fibro-Osseous Lesion X X X X

Skeletal Muscle +
 Degeneration 2
 Infiltration Cellular, Lymphoid

NERVOUS SYSTEM

Brain +
 Compression 3 3 2 2
 Hemorrhage 1 1
 Hydrocephalus 2
 Inflammation, Chronic Active 1 1
 Peripheral Nerve Degeneration +
 Spinal Cord +

RESPIRATORY SYSTEM

Larynx +
 Inflammation, Chronic Active 2 2 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
 Necrosis
 Epiglottitis, Hyperplasia, Squamous 1 1
 Lung +
 Infiltration Cellular, Histiocyte 2
 Inflammation, Chronic 1
 Thrombosis 2
 Interstitium, Inflammation, Suppurative 2

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue
 X .. Lesion present A .. Autolysis precludes evaluation
 I .. Insufficient tissue BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE
Control | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|-------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|
| | 0
7
3
3 | 0
5
7
5 | 0
7
3
1 | 0
5
9
7 | 0
5
5
0 | 0
7
3
2 | 0
7
3
3 | 0
7
3
3 | 0
7
3
3 | 0
5
2
2 | 0
7
3
3 | 0
7
3
2 | 0
7
3
2 | 0
6
3
1 | 0
7
3
2 | 0
7
3
3 | 0
7
3
2 | 0
4
8
1 | 0
7
3
2 | 0
6
9
4 | 0
7
3
3 | 0
7
3
2 | 0
7
3
1 | 0
6
4
5 | |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nose | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Exudate | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nasolacrimal Duct, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 1 | | | | 1 | | | | | 1 | 2 | | | | 1 | | | | | | 1 | 1 | | 1 | |
| Olfactory Epithelium, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | |
| Olfactory Epithelium, Metaplasia, Respiratory | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 2 | 2 | | | | 1 | | | | 1 | 2 | | | | 1 | 2 | | | | | | 1 | 1 | | 1 |
| Respiratory Epithelium, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory Epithelium, Hyperplasia | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 |
| Respiratory Epithelium, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Trachea | + | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Eye | + | | | | | | | | | | | | | | | | | | | | | | | |
| Harderian Gland | + | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Kidney | + | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | |
| Infarct, Chronic | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 7 | 5 | 7 | 5 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 4 | 7 | 6 | 7 | 7 | 7 | 6 | |
| Control | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 2 | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nephropathy | 2 | 1 | 1 | | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | | 2 | | 1 | 1 | 2 | 2 | | 1 | 1 | 1 | 2 | |
| Renal Tubule, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia, Lymphoid | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS | |
|--------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|
| | ANIMAL ID | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 6 | 7 | | 7 |
| Control | | 3 | 3 | 3 | 2 | 3 | 7 | 3 | 3 | 4 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 1 | 3 | 8 | 3 | 3 | 2 | 3 | 3 | |
| | | 1 | 3 | 3 | 1 | 1 | 3 | 1 | 2 | 7 | 2 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 8 | 2 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Esophagus
Periesophageal Tissue, Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 2.0 |
| Gallbladder
Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | 46 | 1 | 1.0 |
| Intestine Large, Cecum
Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 2 | 2.0 |
| Intestine Large, Colon
Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 2.0 |
| Intestine Large, Rectum
Edema | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | 1 | 1.0 |
| Intestine Small, Duodenum
Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | 1 | 2.0 |
| Intestine Small, Ileum
Hyperplasia, Lymphoid Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | 4 | 1.3 |
| | 2 | | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Intestine Small, Jejunum
Hyperplasia, Lymphoid Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | 2 | 2.0 |
| | 3 | | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 4.0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------|
| | 0
7
3
1 | 0
7
3
3 | 0
7
3
3 | 0
7
2
1 | 0
7
3
1 | 0
7
7
3 | 0
6
3
1 | 0
7
3
2 | 0
7
3
7 | 0
6
3
2 | 0
7
3
2 | 0
7
3
1 | 0
7
3
3 | 0
7
3
5 | 0
7
3
3 | 0
7
3
3 | 0
7
3
3 | 0
6
3
3 | 0
7
3
3 | 0
7
3
2 | 0
6
3
8 | 0
7
2
2 | 0
7
3
3 | 0
7
2
2 | |
| Control | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |

| | | | |
|------------------------------|---|---|-----|
| Inflammation, Chronic Active | 1 | 4 | 1.8 |
| Mineralization | | 1 | 1.0 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Cardiomyopathy | | 2 | | | | | | | 1 | | 1 | | | | | 1 | | | | | | | | | 12 | 1.3 |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Coronary Artery, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Accessory Adrenal Cortical Nodule | 1 | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Hematopoietic Cell Proliferation | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Hyperplasia | | 1 | | | | | | 1 | | 1 | | | | | | | | | | | | 2 | 1 | | 6 | 1.2 |
| Hypertrophy | 1 | | | | 2 | | | 1 | | | | | | | | | | 1 | | | | | | | 14 | 1.1 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hyperplasia | 1 | | | | | 1 | 1 | | | | | 1 | | | | 2 | | | | | | 1 | | | 11 | 1.1 |
| Hypertrophy | | | | | | | | | | 1 | | | | | | | | | | | | | | | 1 | 1.0 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Parathyroid Gland | + | + | + | M | + | M | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | 35 | | |
| Ectopic Tissue | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE

Control | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----------|
| | ANIMAL ID | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | |
| | | 3 | 3 | 3 | 2 | 3 | 7 | 3 | 3 | 4 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 1 | 3 | 8 | 3 | 3 | 2 | |
| | | 1 | 3 | 3 | 1 | 1 | 3 | 1 | 2 | 7 | 2 | 2 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Pars Distalis, Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Pars Distalis, Hyperplasia | | | 1 | | | | | | | | 2 | 2 | 2 | | | | 1 | | | | 3 | | | 11 | |
| Pars Distalis, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | |
| Pars Intermedia, Hyperplasia | | | | | | 3 | | | | | | | | | | | | | | | | | | 1 | |
| Thyroid Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Follicular Cell, Hyperplasia | | | | | | | | | 2 | | | | | | 2 | | | | | | | | | 3 | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 46 | |
| Ovary | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Angiectasis | | | | | | | | | 1 | | | | | | | | | | | | | | | 1 | |
| Cyst | | | | | | | X | | X | X | | | | | X | X | | X | | | | X | | 13 | |
| Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Periovarian Tissue, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Uterus | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Adenomyosis | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Angiectasis | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 0731 | 0733 | 0733 | 0732 | 0733 | 0737 | 0733 | 0733 | 0734 | 0733 | 0733 | 0733 | 0735 | 0733 | 0733 | 0733 | 0733 | 0736 | 0737 | 0738 | 0733 | 0733 | 0732 | 0737 | |
| Control | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 |
| | 112 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 |
| | 226 | 227 | 228 | 229 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 | 220 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|---|-----|
| Inflammation, Chronic Active | 1 | 2 | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.7 |
| Endometrium, Hyperplasia, Cystic | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 4 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 4 | 1 | 3 | 45 | 2.4 | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Hyperplasia, Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Myelofibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| Iliac, Infiltration Cellular, Mixed Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Bronchial | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | 44 |
| Hyperplasia, Lymphoid | 2 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | 6 |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mandibular | M | + | M | + | M | + | I | I | + | M | + | + | M | M | + | + | + | M | + | + | + | + | + | + | + | 35 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mediastinal | + | M | M | + | + | + | + | + | + | + | + | + | I | + | + | + | + | I | M | M | + | + | + | + | + | 40 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Hyperplasia, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Hyperplasia, Lymphoid | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | 11 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE
Control | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|--------|
| | 0
7
3
1 | 0
7
3
3 | 0
7
3
3 | 0
7
2
1 | 0
7
3
1 | 0
7
7
3 | 0
6
3
1 | 0
7
3
2 | 0
7
3
7 | 0
6
3
4 | 0
7
3
3 | 0
7
3
3 | 0
7
3
3 | 0
6
4
2 | 0
7
3
2 | 0
7
3
1 | 0
6
3
3 | 0
7
3
3 | 0
6
8
3 | 0
7
3
3 | 0
6
2
8 | 0
7
3
2 | 0
6
3
2 | 0
7
3
2 | | | |
| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0
0
1
2
6 | 0
0
1
2
7 | 0
0
1
2
8 | 0
0
1
2
9 | 0
0
1
3
0 | 0
0
1
3
1 | 0
0
1
3
2 | 0
0
1
3
3 | 0
0
1
3
4 | 0
0
1
3
5 | 0
0
1
3
6 | 0
0
1
3
7 | 0
0
1
3
8 | 0
0
1
3
9 | 0
0
1
3
0 | 0
0
1
4
1 | 0
0
1
4
2 | 0
0
1
4
3 | 0
0
1
4
4 | 0
0
1
4
5 | 0
0
1
4
6 | 0
0
1
4
7 | 0
0
1
4
8 | 0
0
1
4
9 | 0
0
1
5
0 | | |
| Inflammation, Chronic Active
Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0
1 4.0 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2 1.0 |
| Hematopoietic Cell Proliferation | | | | 3 | | 3 | 1 | | | | 2 | | | | | 2 | 1 | | | | | | | | | | 11 1.9 |
| Hyperplasia, Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Hyperplasia, Lymphoid | 2 | 1 | 2 | | 3 | | 2 | | | | | | 3 | | | | | | | | | | 1 | 2 | | 20 2.0 | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Atrophy | | | | 2 | | 1 | | | | | | | | | | | | | | | | | | | | 6 1.7 | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 1.0 | |
| Ectopic Parathyroid Gland | | | | | | | | | | | | | | | | 1 | | | | | | | | | | 2 1.0 | |
| Hyperplasia, Lymphoid | | | 2 | | 1 | | | | | | | | | | 1 | | | | | | | | | | | 11 1.5 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Edema | | | | | | | | | | | | | | | | 2 | | | | | | | | | | 1 2.0 | |
| Hemorrhage, Acute | | | | | | | | | | | | | | | 3 | | | | | | | | | | | 1 3.0 | |
| Inflammation, Chronic Active | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | 2 1.0 | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|----------|
| | 0731 | 0733 | 0733 | 0732 | 0733 | 0737 | 0733 | 0733 | 0734 | 0733 | 0733 | 0733 | 0735 | 0733 | 0733 | 0733 | 0733 | 0736 | 0737 | 0736 | 0737 | 0736 | 0737 | | |
| Control | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | |
| | 00126 | 00127 | 00128 | 00129 | 00130 | 00131 | 00132 | 00133 | 00134 | 00135 | 00136 | 00137 | 00138 | 00139 | 00140 | 00141 | 00142 | 00143 | 00144 | 00145 | 00146 | 00147 | 00148 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|--------|
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Exudate | | | | 1 | | | | 1 | | | | | | 1 | | 1 | | | 2 | | | | | 8 1.1 |
| Inflammation, Chronic Active | | | | | | | | | | | | 2 | | | | | | 1 | | | | | 1 | 4 1.3 |
| Nasolacrimal Duct, Inflammation, Chronic Active | | | | | | | | | | | | | | | 1 | | | | | | | | | 2 1.0 |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 1 | | | | | | | | 2 | | 1 | | | 1 | 2 | | | | | | | 1 | | 14 1.2 |
| Olfactory Epithelium, Atrophy | | | | | | | | | | | | | | | | | | | 1 | | | | | 1 1.0 |
| Olfactory Epithelium, Metaplasia, Respiratory | | | | | | | | | | | | | | | | | 1 | | | | | | | 2 1.0 |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 1 | | | | | | | | 2 | 1 | 1 | | | 1 | 1 | | | | 1 | 1 | 1 | | 1 1 1 | 23 1.2 |
| Respiratory Epithelium, Atrophy | | | | | | | | | | | | | | | | | | | 1 | | | | | 1 1.0 |
| Respiratory Epithelium, Hyperplasia | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | | 1 | 1 | 1 | 1 1 1 | 49 1.2 |
| Respiratory Epithelium, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | 1 | | | | | 1 1.0 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Harderian Gland Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 3 1.0 |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Kidney Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 1 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Infarct, Chronic | | | | | | | | | | | 1 | | | 2 | | | | | | 2 | | | | 4 1.8 |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 2 | | 1 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0731 | 0733 | 0733 | 0721 | 0731 | 0731 | 0731 | 0732 | 0733 | 0734 | 0733 | 0733 | 0731 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | |
| Control | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | |
| | 00126 | 00127 | 00128 | 00129 | 00130 | 00131 | 00132 | 00133 | 00134 | 00135 | 00136 | 00137 | 00138 | 00139 | 00140 | 00141 | 00142 | 00143 | 00144 | 00145 | 00146 | 00147 | 00148 | 00149 | 00150 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Nephropathy | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | | | 1 | | | 1 | | 2 | 2 | 1 | | 1 | 1 | 3 | | 2 | 38 |
| Renal Tubule, Hyperplasia | | | | | | | 2 | | | | | | | | | | | | | | | | | | 1 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Inflammation, Chronic Active | | | | 2 | | | | | | | | | | | | | | | | | | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------|----------|----------|
| B6C3F1 MICE FEMALE | DAY ON TEST | 0607000000000000 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | 0777777777777777 | | | |
| | ANIMAL ID | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 | 00030001 |

females
(cont...)

Hyperplasia
Inflammation, Chronic Active
Ulcer

Stomach, Glandular
Cyst
Hyperplasia, Lymphoid
Inflammation, Chronic Active
Mineralization

Tooth
Dysplasia

CARDIOVASCULAR SYSTEM

Blood Vessel
Heart
Cardiomyopathy
Inflammation, Chronic Active

ENDOCRINE SYSTEM

Adrenal Cortex
Accessory Adrenal Cortical Nodule
Angiectasis
Hyperplasia
Hypertrophy
Adrenal Medulla
Hyperplasia

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------------------------------|--------|
| B6C3F1 MICE FEMALE | DAY ON TEST | 0
6 | 0
7 | 0
7 | 0
7 | 0
7 | 0
7 | 0
7 | 0
4 | 0
6 | 0
7 | 0
6 | 0
7 | 0
5 | 0
6 | 0
7 | 0
7 | 0
7 | 0
7 | 0
7 | 0
7 | 0
7 | 0
5 | 0
7 | | |
| | 10 mg/m3 | 0
7 | 0
3 | 0
2 | 0
3 | 0
3 | 0
3 | 0
3 | 0
3 | 0
7 | 0
1 | 0
3 | 0
4 | 0
3 | 0
7 | 0
9 | 0
3 | 0
3 | 0
3 | 0
3 | 0
3 | 0
3 | 0
3 | 0
8 | | 0
3 |
| | ANIMAL ID | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | females
(cont...) | |
| | | 3
0 | 3
0 | 3
0 | 3
0 | 3
0 | 3
0 | 3
0 | 3
0 | 3
1 | 3
1 | 3
1 | 3
1 | 3
1 | 3
1 | 3
1 | 3
1 | 3
1 | 3
1 | 3
1 | 3
2 | 3
2 | 3
2 | 3
2 | | |
| | | 1
2 | 1
2 | 1
3 | 1
4 | 1
5 | 1
6 | 1
7 | 1
8 | 1
9 | 1
0 | 1
1 | 1
2 | 1
3 | 1
4 | 1
5 | 1
6 | 1
7 | 1
8 | 1
9 | 2
0 | 2
1 | 2
2 | 2
3 | | 2
4 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node Lumbar, Angiectasis | | | | | | | | | | | + | | | | | | | | | | | | | | + |
| Lymph Node, Pancreatic, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymph Node, Bronchial Hyperplasia, Lymphoid | + | + | I | + | + | + | + | + | + | + | + | + | I | + | + | + | + | M | + | + | + | + | + | + | |
| | | | | | | | | | | | | | | | | | | | | 1 | | | | | 1 |
| Lymph Node, Mandibular Hyperplasia, Lymphoid | I | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | M | I | M | + | M | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mediastinal Hyperplasia, Lymphoid Hyperplasia, Plasma Cell | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | I | + | + | + | M | + | I | + | + |
| | | | 1 | | 1 | | | | | | | | | | | | | | | | 1 | | | | |
| Lymph Node, Mesenteric Angiectasis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node, Hyperplasia, Lymphoid Necrosis | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Artery, Inflammation | | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen Angiectasis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spleen, Hematopoietic Cell Proliferation | 2 | | 2 | | | | | | | | | | 2 | | | 2 | | | | | | | | | 1 |
| Spleen, Hyperplasia, Lymphoid Inflammation, Suppurative | | | 1 | | 3 | 3 | 2 | 2 | 3 | 1 | | 3 | | 2 | 2 | | | | 2 | 2 | 2 | 2 | 3 | 2 | 2 |
| | | | | | | | | | | | | | 2 | | | | | | | | | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20523 - 04
Test Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Metal Working Fluids: Trim VX
CAS Number: TRIMVX

Date Report Requested: 02/02/2015
Time Report Requested: 13:50:12
First Dose M/F: 08/03/09 / 08/03/09
Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|-----------------------|
| B6C3F1 MICE FEMALE
10 mg/m3 | DAY ON TEST | 0
6
0
7 | 0
7
3
2 | 0
7
2
4 | 0
7
3
2 | 0
7
3
3 | 0
7
3
1 | 0
7
3
2 | 0
7
3
3 | 0
7
4
3 | 0
6
7
1 | 0
7
6
3 | 0
7
7
4 | 0
5
7
9 | 0
6
7
3 | 0
7
7
2 | 0
7
7
2 | 0
7
7
3 | 0
7
3
3 | 0
7
3
2 | 0
5
8
0 | 0
7
3
2 | females
(cont...) | |
| | ANIMAL ID | 0
0
3
0
1 | 0
0
3
0
2 | 0
0
3
0
3 | 0
0
3
0
4 | 0
0
3
0
5 | 0
0
3
0
6 | 0
0
3
0
7 | 0
0
3
0
8 | 0
0
3
0
9 | 0
0
3
0
0 | 0
0
3
1
1 | 0
0
3
1
1 | 0
0
3
1
1 | 0
0
3
1
1 | 0
0
3
1
1 | 0
0
3
1
1 | 0
0
3
1
1 | 0
0
3
1
1 | 0
0
3
2
2 | 0
0
3
2
2 | 0
0
3
2
2 | | 0
0
3
2
3 |
| Necrosis, Focal | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Peripheral Nerve | | | | | | | | | | | | | | | | | | | | | | | | + |
| Spinal Cord | | | | | | | | | | | | | | | | | | | | | | | | + |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Larynx | | | | | | | | | | | | | | | | | | | | | | | | + |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 1 2 1 2 2 1 1 2 2 2 1 2 2 1 2 1 1 1 1 2 3 1 2 2 |
| Epiglottis, Hyperplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Epiglottis, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | 2 2 2 2 2 2 3 4 2 3 2 2 2 2 3 3 2 3 2 2 2 4 3 |
| Lung | | | | | | | | | | | | | | | | | | | | | | | | + |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolar/bronchiolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Nose | | | | | | | | | | | | | | | | | | | | | | | | + |
| Cyst, Squamous | | | | | | | | | | | | | | | | | | | | | | | | X |
| Exudate | | | | | | | | | | | | | | | | | | | | | | | | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Glands, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Lateral Wall, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | 2 1 2 1 2 1 1 1 1 1 1 2 2 2 2 2 1 2 2 1 2 1 1 2 1 1 |
| Olfactory Epithelium, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | |
| Olfactory Epithelium, Metaplasia, Respiratory | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

| B6C3F1 MICE FEMALE
10 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | | |
| | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 6 | 7 | 6 | 7 | 5 | 6 | 7 | 7 | 7 | 7 | | 7 | 5 | 7 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Respiratory Epithelium, Atrophy | | | | | | | | 1 | | | | | | | | | | | 1 | | | | | | |
| Respiratory Epithelium, Hyperplasia | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | | 1 | |
| Respiratory Epithelium, Metaplasia, Squamous | | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Respiratory Epithelium, Necrosis | | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 2 | | | |
| Hypertrophy | | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia, Lymphoid | | | | | | 1 | | | | | | | 1 | | | | | | | | | | | 1 | |
| Infarct, Chronic | | | 2 | | | | | | | | 1 | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Metaplasia, Osseous | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Nephropathy | 2 | | 2 | 1 | 1 | | 1 | | 1 | 1 | 2 | 2 | | | | | 1 | 2 | 1 | 1 | | 1 | 1 | | |
| Glomerulus, Inflammation, Acute | | | 1 | | | | | | | | | | | | | | | | | | | | | | |
| Urethra | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE FEMALE
10 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|----------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|------|
| | 0732 | 0732 | 0733 | 0733 | 0732 | 0731 | 0735 | 0732 | 0731 | 0731 | 0738 | 0732 | 0732 | 0733 | 0733 | 0732 | 0733 | 0733 | 0732 | 0733 | 0733 | 0733 | 0736 | | 0737 | 0736 | 0735 | 0737 |
| ANIMAL ID | 00326 | 00337 | 00338 | 00339 | 00340 | 00341 | 00342 | 00343 | 00344 | 00345 | 00346 | 00347 | 00348 | 00349 | 00350 | 00351 | 00352 | 00353 | 00354 | 00355 | 00356 | 00357 | 00358 | 00359 | 00360 | 00361 | 00362 | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Clear Cell Focus | | | | | | | | | | | | X | | | | | | | | | | | | | | | | 5 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Eosinophilic Focus | X | | | | X | | | | | | | | | | | | | | X | | X | | | | | | 8 | |
| Fatty Change | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | 2 2.5 | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Tension Lipidosis | | | | | | | | | | | | 1 | | | | | | | | | | | 1 | 2 | | | 4 1.3 | |
| Hepatocyte, Hypertrophy | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 | |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | 10 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 9 2.0 | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Atrophy | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Necrosis, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Cyst, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 2.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE FEMALE
10 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------|---|----|-----|-----|-----|
| | 0
7
3
2 | 0
7
3
2 | 0
7
3
3 | 0
7
3
3 | 0
7
3
2 | 0
7
2
1 | 0
7
6
5 | 0
7
3
2 | 0
7
3
1 | 0
7
3
1 | 0
7
6
8 | 0
7
3
2 | 0
7
3
3 | 0
7
3
3 | 0
7
3
2 | 0
7
3
3 | 0
7
3
3 | 0
7
3
2 | 0
7
6
9 | 0
7
3
2 | 0
7
6
7 | 0
5
8
1 | 0
7
3
2 | | | | | | | | |
| ANIMAL ID | 0
0
3
2
6 | 0
0
3
2
7 | 0
0
3
2
8 | 0
0
3
2
9 | 0
0
3
3
0 | 0
0
3
3
1 | 0
0
3
3
2 | 0
0
3
3
3 | 0
0
3
3
4 | 0
0
3
3
5 | 0
0
3
3
6 | 0
0
3
3
7 | 0
0
3
3
8 | 0
0
3
3
9 | 0
0
3
4
0 | 0
0
3
4
1 | 0
0
3
4
2 | 0
0
3
4
3 | 0
0
3
4
4 | 0
0
3
4
5 | 0
0
3
4
6 | 0
0
3
4
7 | 0
0
3
4
8 | 0
0
3
4
9 | 0
0
3
5
0 | | | | | | |
| Hyperplasia | | | | | | 2 | | | | | 2 | | | 1 | | | | | | | | | | | | | | 6 | 1.7 | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | 1 | 2.0 | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | 1 | 1.0 | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Cyst | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | 1 | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | 3 | 1.0 | |
| Mineralization | | | 1 | | 1 | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 | |
| Tooth | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Dysplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Cardiomyopathy | 1 | | 1 | 1 | | | | | | | | | | 1 | | | 1 | | 1 | | | | | | | | | | 18 | 1.2 | |
| Inflammation, Chronic Active | | | | | | | | | | 1 | | | | | | | | | | | | 1 | 1 | | | | | | 5 | 1.6 | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 | |
| Angiectasis | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.3 | |
| Hyperplasia | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | 6 | 1.3 | |
| Hypertrophy | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | 2 | 8 | 1.1 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 | 1.1 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE
10 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|----------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|--------|--------|--|
| | 0732 | 0732 | 0733 | 0733 | 0732 | 0731 | 0735 | 0732 | 0731 | 0731 | 0738 | 0733 | 0733 | 0733 | 0733 | 0732 | 0733 | 0733 | 0732 | 0733 | | 0736 | 0737 | 0736 | 0735 | 0737 | |
| ANIMAL ID | 00326 | 00337 | 00338 | 00339 | 00300 | 00301 | 00302 | 00303 | 00304 | 00305 | 00306 | 00307 | 00308 | 00309 | 00310 | 00311 | 00312 | 00313 | 00314 | 00315 | 00316 | 00317 | 00318 | 00319 | 00320 | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Parathyroid Gland | M | M | + | + | + | M | + | + | + | M | + | + | + | + | M | M | + | M | + | M | + | M | M | + | 30 | | |
| Pituitary Gland | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Pars Distalis, Angiectasis | | | | | | | | | | | | 1 | | | | | | | | | | | | | 2 1.0 | | |
| Pars Distalis, Hyperplasia | | 4 | | | | | | | | 1 | 2 | 1 | | 1 | | | | | 2 | | 1 | | | 1 | 17 1.4 | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Cyst | | | | | | | | | | | | X | | | | | | | | | | | | | 1 | | |
| Inflammation, Chronic Active | | | | | | | | | 1 | | | | | | | | | | 1 | | | | | | 2 1.0 | | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | | |
| Cyst | | | | | | X | | | | | | | | X | | | | X | | X | | | | | 8 | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Angiectasis | | | | 1 | | 1 | | | | | | | | | | | | | | | | | | | 4 1.5 | | |
| Inflammation, Chronic Active | | | | | | | | | | 3 | | | | | | | | | | | | | | | 4 1.8 | | |
| Endometrium, Hyperplasia, Cystic | 3 | 3 | 3 | 4 | | 2 | 2 | 3 | 3 | 1 | | 2 | | 1 | 2 | 2 | 3 | 2 | | 3 | 4 | | 2 | 1 | 2 | 35 2.4 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | |
|--------------------|-------------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|------|------|------|
| | | 0732 | 0732 | 0733 | 0733 | 0732 | 0731 | 0735 | 0732 | 0731 | 0731 | 0738 | 0732 | 0732 | 0733 | 0733 | 0732 | 0733 | 0733 | 0732 | 0733 | | 0733 | 0739 | 0733 | 0734 | 0737 | 0736 | 0735 |
| 10 mg/m3 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 3 | 3 | 3 | 3 | 3 | 2 | 6 | 3 | 3 | 3 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 4 | 8 | 3 | 3 | |
| | | 2 | 2 | 2 | 2 | 1 | 5 | 2 | 1 | 1 | 8 | 2 | 2 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 9 | 2 | 7 | 1 | 2 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 | 0 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|-----|
| Bone Marrow Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 2.0 | |
| Lymph Node Lumbar, Angiectasis | | | + | | | | | + | | + | | | | | | | | | | | | | | | | | | | 11 | 3 | 1.7 |
| Lymph Node, Pancreatic, Hyperplasia, Lymphoid | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Lymph Node, Bronchial Hyperplasia, Lymphoid | + | + | + | + | M | + | + | + | + | I | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | 44 | 4 | 1.0 | |
| Lymph Node, Mandibular Hyperplasia, Lymphoid | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 42 | 1 | 1.0 |
| Lymph Node, Mediastinal Hyperplasia, Lymphoid | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 | 4 | 1.0 |
| Lymph Node, Hyperplasia, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 3.0 |
| Lymph Node, Mesenteric Angiectasis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | 3 | 1.7 |
| Lymph Node, Hyperplasia, Lymphoid | | | | | | 2 | 1 | | | | | | | | | | | | | | | | | | | | | | 7 | 1.4 | |
| Lymph Node, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Lymph Node, Artery, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Spleen Angiectasis | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | 1 | 2.0 |
| Spleen, Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 | 1.7 | |
| Spleen, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 26 | 2.1 | |
| Spleen, Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | | | | | | |
|-----------------------------------|-------------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|---|------|------|------|------|-----------------|------|------|------|------|------|------|--|
| | | 0732 | 0732 | 0733 | 0733 | 0732 | 0731 | 0735 | 0732 | 0731 | 0731 | 0738 | 0732 | 0732 | 0733 | 0733 | 0732 | 0733 | 0733 | 0732 | 0733 | | | 0733 | 0731 | 0733 | 0734 | 0737 | 0736 | 0735 | 0737 | 0738 | 0739 | 0730 | |
| 10 mg/m3 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | | 3 | 3 | 3 | 3 | 3 | 2 | 6 | 3 | 3 | 3 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 4 | 8 | 3 | | |
| | | 2 | 2 | 2 | 3 | 3 | 1 | 5 | 2 | 1 | 1 | 8 | 2 | 2 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 9 | 2 | 7 | 1 | 2 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 0 | | | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | |
| Necrosis, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | | | | |
| Thymus | | | | | | | | | | | | | | | | | | | | | | | | | | | | 48 | | | | | | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Ectopic Parathyroid Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.0 | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | 1.3 | | | | | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | | | | | |
| Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | | | | |
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 2.0 | | | | | | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | | | | | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | | | | | |
| Fibro-Osseous Lesion | | | | | | | | | | | | | | | | | | | | | | | | | | | | 10 | | | | | | | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | | | | | |
| Compression | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | | | | | |
| Infiltration Cellular | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | | | | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|---|----|-----|-----|--|
| | 0732 | 0732 | 0733 | 0733 | 0733 | 0732 | 0731 | 0735 | 0732 | 0731 | 0731 | 0736 | 0737 | 0737 | 0737 | 0737 | 0737 | 0737 | 0736 | 0737 | 0736 | 0735 | 0737 | | | | | | | |
| 10 mg/m3 | 0026 | 0007 | 0008 | 0009 | 0000 | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0000 | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | | | | | | |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | | 50 | 1.8 | |
| Respiratory Epithelium, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 | |
| Respiratory Epithelium, Hyperplasia | 1 | 1 | | 1 | 2 | 1 | | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | | 1 | 2 | 1 | 2 | 1 | 1 | 2 | | 44 | 1.2 | | |
| Respiratory Epithelium, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | 2 | 1.0 | | |
| Respiratory Epithelium, Necrosis | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | 2 | 1.0 | | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Harderian Gland | + | | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Hyperplasia | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 | |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hyperplasia, Lymphoid | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | 4 | 1.0 | |
| Infarct, Chronic | | | | 2 | 2 | | | | | | | | | 1 | | | | | | | | | | | | | | 5 | 1.6 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 | |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | 2 | 1.5 | | |
| Nephropathy | 2 | 1 | | | 2 | | | 2 | 1 | | | 2 | 2 | 1 | 2 | 1 | | | | | | 1 | | | 1 | 1 | | 28 | 1.4 | |
| Glomerulus, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Urethra | | | | | | | | | | | | | | | | | | | | | | | | | + | | | 1 | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | 1 | 2.0 | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|------|
| B6C3F1 MICE FEMALE
30 mg/m3 | DAY ON TEST | 0637 | 0733 | 0731 | 0611 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0467 | 0673 | 0773 | 0773 | females
(cont...) | |
| | ANIMAL ID | 0050 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | | 0055 |
| | | 1234 | 5678 | 9012 | 3456 | 7890 | 1234 | 5678 | 9012 | 3456 | 7890 | 1234 | 5678 | 9012 | 3456 | 7890 | 1234 | 5678 | 9012 | 3456 | 7890 | 1234 | 5678 | 9012 | 3456 | 7890 | | 1234 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Gallbladder
Vacuolization Cytoplasmic | A | + | + | + | A | + | + | + | + | M | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum
Inflammation | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Intestine Large, Colon | + | + | + | + | A | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Intestine Large, Rectum | + | + | + | + | I | + | + | + | + | + | + | + | I | + | I | + | + | + | + | + | + | A | + | + | + | + |
| Intestine Small, Duodenum
Inflammation
Necrosis | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Intestine Small, Ileum
Hyperplasia, Lymphoid | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Intestine Small, Jejunum
Hyperplasia, Lymphoid
Inflammation
Ulcer | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Liver
Angiectasis
Basophilic Focus
Clear Cell Focus
Eosinophilic Focus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | X | | | | | | | | | | | X | | | | |
| | | | | | | | | | | | | X | X | | | | | | | | | X | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE FEMALE | | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 6 | 7 | 7 |
| | | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 9 | 7 | 3 | 3 |
| 30 mg/m3 | | 7 | 2 | 1 | 9 | 5 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 5 | 3 | 1 |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 |

females (cont...)

| | | |
|----------------------------------|---|---|
| Fatty Change | 3 | |
| Hematopoietic Cell Proliferation | | 2 |
| Inflammation, Chronic Active | 2 | |
| Hepatocyte, Hypertrophy | | |
| Hepatocyte, Necrosis | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|--|---|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Mesentery | | + | | + | | | | | | | | | | | | | | | | | | | | + |
| Fat, Necrosis | | 1 | | 1 | | | | | | | | | | | | | | | | | | | | 3 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Inflammation, Chronic Active | | | | | 2 | | | | | | | | | | | | | | | | | 2 | | |
| Duct, Cyst | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Inflammation, Chronic Active | | | | | | | | | | | 1 | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------|---|---|---|---|
| | 0637 | 0773 | 0773 | 0661 | 0771 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | | | | | |
| 30 mg/m3 | ANIMAL ID | | | | | | | | | | | | | | | | | | | | females (cont...) | | | | |
| | 00501 | 00502 | 00503 | 00504 | 00505 | 00506 | 00507 | 00508 | 00509 | 00500 | 00501 | 00502 | 00503 | 00504 | 00505 | 00506 | 00507 | 00508 | 00509 | 00500 | | | | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | |
| Cardiomyopathy | | | 1 | | | 2 | | | | | 2 | | | 1 | | | | | 1 | 1 | | 2 | 1 | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Accessory Adrenal Cortical Nodule | | | | | | | | | 1 | | | | | | | | | | 1 | | | | | | |
| Angiectasis | | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | 2 | | | |
| Hyperplasia | | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Hypertrophy | 1 | | | | | | 1 | 1 | | 1 | | | | | | 1 | | | | | | | 1 | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | | | 1 | 2 | | | | | | | | | | | 1 | | | | | | | | | |
| Hypertrophy | | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + |
| Parathyroid Gland | + | + | + | M | + | M | M | M | + | + | + | + | + | + | + | + | + | M | + | M | M | + | M | + | + |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pars Distalis, Angiectasis | | | 1 | | | | | | | | | | | | | | | | 1 | | | | | | |
| Pars Distalis, Hyperplasia | | | 1 | | | | | | 2 | 3 | | | | 1 | | 3 | | 1 | | | | | 1 | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 02/02/2015

Test Type: CHRONIC

Metal Working Fluids: Trim VX

Time Report Requested: 13:50:12

Route: RESPIRATORY EXPOSURE WHOLE BODY

CAS Number: TRIMVX

First Dose M/F: 08/03/09 / 08/03/09

Species/Strain: MICE/B6C3F1

Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | females
(cont...) |
|--------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------------------|
| | | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 6 | 7 | 7 | | |
| 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 9 | 7 | 3 | 3 | 3 | 1 | 0 | |
| 7 | 2 | 1 | 9 | 5 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 1 | 0 | 0 | |

30 mg/m3

Inflammation, Suppurative
Follicular Cell, Hyperplasia

1

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland | + | M | + | + | + | + | M | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | M | + | + |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Congestion | | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Cyst | | | | X | | | | X | | | | | | | X | | | | | | | | | X | |
| Inflammation, Chronic Active | | | | | | | | | | | | 4 | | | | | | | | | | | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Hemorrhage | | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia, Cystic | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | | | 3 | 3 | 1 | 2 | 2 | 3 | 3 | 1 | 2 | 1 | 2 | | 2 | 1 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | 2 | | | | | | | | | | | | 3 | |
| Lymph Node | | | | + | + | | + | + | + | | | | + | | | + | | | | | | | | + | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Iliac, Angiectasis | | | | | | | | 2 | | | | | | | | | | | | | | | | | |
| Lumbar, Angiectasis | | | | | | | 2 | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
| | 0637 | 0733 | 0733 | 0611 | 0711 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0467 | 0673 | 0733 | 0731 | | |
| 30 mg/m3 | 0050 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0050 | 0055 |

Inflammation, Suppurative

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Thymus Atrophy | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst | | | | 1 | | | | | | | | | | | | | | | | | | | 2 | |
| Ectopic Parathyroid Gland | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | 2 | | | | 2 | | | 1 | | | | | 1 | 1 | | | | | 2 | 2 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skin Edema | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | 1 | | | | | | | | | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Fibro-Osseous Lesion | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle | | | X | | | X | X | | | | X | | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain Compression | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Demyelination | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Infiltration Cellular | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Meninges, Infiltration Cellular | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

Table with columns for DAY ON TEST (0-30) and ANIMAL ID (000001-000025). Includes text 'B6C3F1 MICE FEMALE' and '30 mg/m3'. A column on the right is labeled 'females (cont...)'.

Peripheral Nerve

Spinal Cord

RESPIRATORY SYSTEM

Table detailing respiratory system findings for Larynx, Lung, and Nose across 25 animals. Findings include inflammation, hyperplasia, and atrophy with associated counts and severity grades.

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE
30 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|
| | 0637 | 0773 | 0773 | 0661 | 0771 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | | | 0467 | 0673 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Olfactory Epithelium, Metaplasia, Respiratory | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| Respiratory Epithelium, Atrophy | | | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | |
| Respiratory Epithelium, Hyperplasia | 2 | 2 | 1 | 1 | 2 | 1 | | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 |
| Respiratory Epithelium, Metaplasia, Squamous | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | |
| Respiratory Epithelium, Necrosis | | | | 1 | | | | | 1 | 1 | | | 1 | | 1 | 1 | | | 1 | | 1 | 1 | 1 | |
| Turbinate, Atrophy | | | | | 1 | | 1 | | | | | 2 | | 1 | | | | 1 | | | 1 | 1 | 1 | |
| Turbinate, Perforation | | | | | | | X | | X | | X | | | | | | | X | | | X | X | | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cartilage, Metaplasia, Osseous Epithelium, Hyperplasia | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | 2 | | | | | | |
| Cornea, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Harderian Gland | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | X | |
| Hyperplasia | 1 | | | | | | | | | 1 | | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + |
| Amyloid Deposition | | | | | | | | | | | | | | | | | | | | | | | | |
| Infarct, Chronic | | | | | | | | | | | | | | | | | | | 2 | 2 | | | 1 | 2 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia, Osseous | | | | | | | | | | 2 | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | |
|--------------------------------|-------------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|------|------|--|
| | | 0637 | 0773 | 0773 | 0661 | 0771 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | | 0777 | 0777 | |
| 30 mg/m3 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | | |
| Nephropathy | | | 2 | | | 1 | | | | | 2 | | 3 | | | 1 | 1 | 2 | | | 1 | 2 | 1 | 1 | |
| Urinary Bladder
Angiectasis | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE | 30 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS |
|--------------------|----------|-------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|
| | | ANIMAL ID | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 9 | 3 | 3 | 3 | 5 | 3 | 4 | 3 | 1 | 3 | 3 | 0 | 3 | 3 | 3 | 8 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 8 | 3 | 2 | 2 | 5 | 2 | 9 | 3 | 6 | 2 | 2 | 7 | 1 | 1 | 3 | 3 | 0 | 9 | 1 | 5 | 1 | 3 | 3 | 1 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Gallbladder | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | 2 | | 1 | 2.0 | |
| Intestine Large, Cecum | A | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | |
| Intestine Small, Duodenum | A | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | 43 | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 1.0 | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 1.0 | |
| Intestine Small, Ileum | A | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | 1 | | 4 | 1.0 | |
| Intestine Small, Jejunum | A | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Clear Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0198 | 0732 | 0732 | 0732 | 0635 | 0763 | 0643 | 0733 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | |
| 30 mg/m3 | 00526 | 00526 | 00526 | 00526 | 00526 | 00526 | 00526 | 00526 | 00526 | 00526 | 00526 | 00526 | 00526 | 00526 | 00526 | 00526 | 00526 | 00526 | 00526 | 00526 | 00526 | 00526 | 00526 |

Fatty Change 1 3.0
Hematopoietic Cell Proliferation 1 2.0
Inflammation, Chronic Active 1 2.0
Hepatocyte, Hypertrophy 3 3.0
Hepatocyte, Necrosis 4 2 3.0

Mesentery + 5
Fat, Necrosis 2 2 5 1.8

Pancreas + 49
Atrophy 1 2.0
Inflammation, Chronic Active 2 3 2.0
Duct, Cyst 1 1.0

Salivary Glands + 50

Stomach, Forestomach + 50
Hyperkeratosis 1 1.0
Hyperplasia 1 1.0
Inflammation 1 1.0
Inflammation, Chronic Active 1 1.0
Ulcer 1 1.0

Stomach, Glandular + 49
Cyst 1
Inflammation, Chronic Active 2 1.0

CARDIOVASCULAR SYSTEM

Blood Vessel + 50

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE FEMALE
30 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 018 | 073 | 073 | 077 | 065 | 073 | 064 | 073 | 077 | 077 | 077 | 077 | 077 | 077 | 048 | 077 | 077 | 072 | 073 | 077 | |
| ANIMAL ID | 00526 | 00527 | 00528 | 00529 | 00530 | 00531 | 00532 | 00533 | 00534 | 00535 | 00536 | 00537 | 00538 | 00539 | 00540 | 00541 | 00542 | 00543 | 00544 | 00545 | 00546 |
| | 00547 | 00548 | 00549 | 00550 | 00551 | 00552 | 00553 | 00554 | 00555 | 00556 | 00557 | 00558 | 00559 | 00560 | 00561 | 00562 | 00563 | 00564 | 00565 | 00566 | 00567 |
| | 00568 | 00569 | 00570 | 00571 | 00572 | 00573 | 00574 | 00575 | 00576 | 00577 | 00578 | 00579 | 00580 | 00581 | 00582 | 00583 | 00584 | 00585 | 00586 | 00587 | 00588 |
| | 00589 | 00590 | 00591 | 00592 | 00593 | 00594 | 00595 | 00596 | 00597 | 00598 | 00599 | 00600 | 00601 | 00602 | 00603 | 00604 | 00605 | 00606 | 00607 | 00608 | 00609 |

| | | |
|------------------------------|---|-----|
| Inflammation, Suppurative | 1 | 1.0 |
| Follicular Cell, Hyperplasia | 2 | 1.0 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|----|-----|-----|
| Clitoral Gland | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | | |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Cyst | | | | | | | | | | | | X | X | | X | | | | X | | | | | X | | | | | | | | | | | | | | | 9 | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 4.0 | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Angiectasis | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.7 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Inflammation, Chronic Active | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.3 |
| Endometrium, Hyperplasia, Cystic | 1 | 2 | 3 | 2 | | 2 | | 3 | 1 | 2 | 2 | 1 | 3 | | | 2 | 2 | 2 | 1 | 1 | | | 3 | 2 | 1 | 4 | 2 | | | | | | | | | | | | | 43 | 2.0 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|--|---|-----|-----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1.8 | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Iliac, Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Lumbar, Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE
30 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|--------|-------|
| | 018 | 033 | 072 | 073 | 065 | 073 | 064 | 073 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | | 077 | | |
| ANIMAL ID | 00526 | 00552 | 00552 | 00552 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | | | |
| Lumbar, Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | |
| Pancreatic, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | | |
| Renal, Angiectasis | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | | |
| Renal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | | |
| Lymph Node, Bronchial | M | + | + | + | + | + | + | + | + | + | + | + | + | I | + | + | M | + | + | + | + | + | 44 | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Hyperplasia, Lymphoid | | | | | | | | | | 1 | 1 | | | | | | | 1 | | | 1 | 3 | 9 1.4 | |
| Infiltration Cellular, Histiocyte | | | | | | | | | | 1 | | | | | | | | | | | | | 2 1.0 | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Lymph Node, Mandibular | + | + | + | M | M | M | + | + | + | I | + | + | + | + | + | + | + | + | + | M | M | + | + | 37 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | 2 | | | | | | 3 1.3 |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Lymph Node, Mediastinal | + | + | + | + | I | + | + | + | I | M | + | + | + | + | + | + | + | + | + | + | + | + | 45 | |
| Hyperplasia, Lymphoid | | | | | | | | | 1 | | 2 | | | | | | | | | | 1 | 1 | 7 1.4 | |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Lymph Node, Mesenteric | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | |
| Angiectasis | | | | | | | | | | | | | | | | | 1 | | | | | 1 | 2 1.0 | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Hyperplasia, Lymphoid | | | 3 | | | 2 | | 1 | | | 2 | | | | | | | 1 | | | 1 | | 12 1.4 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Angiectasis | | | | 1 | | | | | | | | | | | | | | | | | | | 2 1.5 | |
| Hematopoietic Cell Proliferation | | | | 1 | | 3 | | 2 | 1 | 3 | | | | | 3 | | | 2 | | | | | 11 2.4 | |
| Hyperplasia, Granulocytic | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | |
| Hyperplasia, Lymphoid | | | 2 | | | | 2 | | | | 2 | 2 | | | | | | 1 | | 1 | 2 | 3 | 17 1.9 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|---------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|--------|-------|
| | 018 | 073 | 073 | 073 | 065 | 073 | 064 | 073 | 073 | 073 | 073 | 073 | 073 | 073 | 073 | 073 | 073 | 073 | 073 | 073 | | 073 | 073 | | | | |
| 30 mg/m3 | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 00526 | 00527 | 00528 | 00529 | 00530 | 00531 | 00532 | 00533 | 00534 | 00535 | 00536 | 00537 | 00538 | 00539 | 00540 | 00541 | 00542 | 00543 | 00544 | 00545 | 00546 | 00547 | 00548 | 00549 | 00550 | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | I | + | + | + | M | + | + | + | + | + | + | + | 47 | |
| Atrophy | 3 | | | | 2 | | 1 | | | | | | | | | | | 1 | | | | | | | | 7 1.9 | |
| Cyst | | | | | | | | | | | X | | | | | | | | | | | | | | | 1 | |
| Ectopic Parathyroid Gland | | | 1 | | | | | | | | | | | | | | | | 1 | | | 1 | | | | 5 1.0 | |
| Hyperplasia, Lymphoid | | | 1 | | | | 1 | | 1 | | | | | | | | | | | | | | 1 | 2 | 2 | 13 1.5 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Inflammation, Chronic Active | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Fibro-Osseous Lesion | | X | | X | | | | X | | | X | X | X | | | | | | | | | | X | | | | 12 |
| Skeletal Muscle | | | | | | | | | | | | + | | | | | | | | | | | | | | | 2 |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Compression | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Demyelination | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Infiltration Cellular | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | 3 1.0 |
| Meninges, Infiltration Cellular | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 1.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|--|
| | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | | |
| 30 mg/m3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 00526 | 00527 | 00528 | 00529 | 00530 | 00531 | 00532 | 00533 | 00534 | 00535 | 00536 | 00537 | 00538 | 00539 | 00540 | 00541 | 00542 | 00543 | 00544 | 00545 | 00546 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|
| Peripheral Nerve | | | | | | | | | | | | | | | | | | | | | | | + | 1 | |
| Spinal Cord | | | | | | | | | | | | | | | | | | | | | | | | + | 1 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|-----|
| Larynx | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Inflammation, Chronic Active | 1 | 2 | 2 | 1 | | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 48 | 1.4 | |
| Epiglottis, Hyperplasia, Squamous | 2 | | 1 | | 2 | | 2 | | | | | 2 | | 1 | | | 1 | | 3 | | | | 16 | 1.5 | | |
| Epiglottis, Metaplasia, Squamous | 4 | 4 | 3 | 2 | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 4 | 2 | 4 | 4 | 3 | 3 | 4 | 3 | 4 | 4 | 4 | 3 | 50 | 3.5 | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Hemorrhage | | | 2 | | | | | | | | | | | | | 2 | | | | | | | | | 2 | 2.0 |
| Infiltration Cellular, Histiocyte | 1 | | 1 | 1 | | 2 | | 1 | | | | 2 | | | | 1 | | | | | | | 15 | 1.2 | | |
| Inflammation, Chronic | 2 | 1 | 1 | 1 | | 1 | 1 | | | | | | | | | 1 | | | | 1 | | 1 | 1 | 26 | 1.1 | |
| Mineralization | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | 1.0 | |
| Proteinosis | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Alveolar/bronchiolar Epithelium, Hyperplasia | 2 | | 1 | 1 | | | | | | | | | | | 1 | | | | 1 | | | | | 8 | 1.1 | |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | 2 | | | | | | | | | | | | | 2 | 1.5 | |
| Mediastinum, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Exudate | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 3 | 1 | 1 | 2 | 4 | 2 | 2 | | 1 | 48 | 2.0 | |
| Inflammation, Chronic Active | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 49 | 1.2 | |
| Nasolacrimal Duct, Inflammation, Chronic Active | | | | | | | | | | | | 2 | | | | | | | | | | | | 2 | 2.0 | |
| Nasopharyngeal Duct, Perforation | | | X | | | | | | | | | | | | | | | | X | | | | | 14 | | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 50 | 2.0 | |
| Olfactory Epithelium, Atrophy | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

| B6C3F1 MICE FEMALE
30 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--------------------------------|-------------|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 9 | 3 | 3 | 3 | 5 | 3 | 4 | 3 | 1 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 8 | 0 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| ANIMAL ID | | 8 | 3 | 2 | 2 | 5 | 2 | 9 | 3 | 6 | 2 | 2 | 7 | 1 | 1 | 3 | 3 | 0 | 9 | 1 | 5 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| ANIMAL ID | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| ANIMAL ID | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|-----|
| Olfactory Epithelium, Metaplasia, Respiratory | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 50 | 2.0 |
| Respiratory Epithelium, Atrophy | | 1 | 1 | 1 | | 1 | | | | | | | | | 1 | | | | 1 | 2 | 1 | 1 | | | | | | | | | | 28 | 1.0 | |
| Respiratory Epithelium, Hyperplasia | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | | 1 | 1 | 2 | 2 | 1 | | | | | | 48 | 1.6 | | |
| Respiratory Epithelium, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 | |
| Respiratory Epithelium, Necrosis | | 1 | | | | | | | | | | | | | 1 | | | | 1 | | | | | | | | | | | | | 13 | 1.0 | |
| Turbinate, Atrophy | | | 1 | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | | | | | | 10 | 1.1 | |
| Turbinate, Perforation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Cartilage, Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | 1 | 1.0 | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Cornea, Hyperplasia | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Amyloid Deposition | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Infarct, Chronic | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 1.6 |
| Inflammation, Chronic Active | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Metaplasia, Osseous | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | 2 | 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

M .. Missing tissue

1-4 .. Lesion qualified as:

X .. Lesion present

A .. Autolysis precludes evaluation

1) Minimal 3) Moderate

I .. Insufficient tissue

BLANK .. Not examined microscopically

2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------------------|
| B6C3F1 MICE FEMALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | ANIMAL ID | 7 | 5 | 6 | 6 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 1 | 7 | 7 | 7 | 7 | |
| 100 mg/m3 | | 1 | 1 | 6 | 4 | 3 | 5 | 3 | 3 | 6 | 3 | 2 | 3 | 9 | 3 | 3 | 3 | 1 | 3 | 6 | 3 | 3 | 3 | females (cont...) |
| | | 5 | 3 | 8 | 5 | 1 | 7 | 3 | 3 | 1 | 3 | 5 | 3 | 4 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus
Periesophageal Tissue, Inflammation, Chronic
Active | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + |
| Gallbladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum
Inflammation | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon
Hyperplasia, Lymphoid | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | I | + | + | + | + | + |
| Intestine Small, Duodenum | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum
Hyperplasia, Lymphoid
Hyperplasia, Plasma Cell | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum
Hyperplasia, Lymphoid | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver
Basophilic Focus
Clear Cell Focus
Eosinophilic Focus
Inflammation, Chronic Active
Mixed Cell Focus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | X | | | | | | X | | | | | | | X | | | |
| | | | | | | | | | | | | | | | | | | | | | X | | |
| | | | | | | | X | | | | | | | | | | | | | X | | | |
| | | | | | | | | | | | | | | | | | | | | | | X | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE
100 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------------|-----------|----------------------|
| | 0
7
1
5 | 0
5
1
3 | 0
6
6
8 | 0
6
4
5 | 0
7
3
1 | 0
5
5
7 | 0
7
3
3 | 0
7
3
3 | 0
6
6
1 | 0
7
3
3 | 0
7
2
5 | 0
7
3
3 | 0
6
9
4 | 0
7
3
2 | 0
7
3
2 | 0
6
3
2 | 0
7
3
2 | 0
1
3
3 | 0
7
3
3 | 0
7
3
3 | 0
7
3
3 | 0
7
3
2 | 0
7
3
1 | 0
7
3
2 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
0
7
0
1 | | |

Hepatocyte, Degeneration
 Hepatocyte, Hypertrophy
 Hepatocyte, Necrosis

2

4 4 1 1

Mesentery
 Fat, Necrosis

+ +
 2 2

Pancreas
 Atrophy
 Hypertrophy
 Infiltration Cellular, Lymphoid

+
 1
 1

Salivary Glands

+ +

Stomach, Forestomach
 Hyperkeratosis
 Hyperplasia
 Inflammation
 Inflammation, Chronic Active
 Ulcer

+
 1
 2 1

Stomach, Glandular
 Inflammation, Chronic Active

+
 2

CARDIOVASCULAR SYSTEM

Blood Vessel

+ +

Heart
 Cardiomyopathy
 Inflammation, Chronic Active

+
 1 1 1 1 1 1 2 2 3 3 1
 2 3 3 1

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------------------------------|---|
| B6C3F1 MICE FEMALE | 100 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | | 7 | 5 | 6 | 6 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 1 | 7 | 7 | 7 | 7 | | 7 |
| | | | 1 | 1 | 6 | 4 | 3 | 5 | 3 | 3 | 6 | 3 | 2 | 3 | 9 | 3 | 3 | 3 | 1 | 3 | 6 | 3 | 3 | 3 | | 3 |
| | | | 5 | 3 | 8 | 5 | 1 | 7 | 3 | 3 | 1 | 3 | 5 | 3 | 4 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | | 2 |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | females
(cont...) | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | | |

Necrosis
Thrombosis
Coronary Artery, Thrombosis

1

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | | | | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | 1 | | 2 | | | | 1 | | | | | | | 1 | |
| Hypertrophy | | | 1 | | | | | | | | | | | | 1 | | | | 1 | 1 | 1 | 1 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 1 |
| Pigmentation | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland | + | M | M | M | M | M | M | M | + | M | + | + | + | M | M | + | M | + | + | M | M | M | + |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pars Distalis, Angiectasis | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | | | | 1 | | | | | | | | 1 | 1 | | 2 | 1 | 1 | | | 2 | | 2 | |
| Pars Distalis, Hypertrophy | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE FEMALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| | | 7 | 5 | 6 | 6 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 1 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| 100 mg/m3 | ANIMAL ID | 1 | 1 | 6 | 4 | 3 | 5 | 3 | 3 | 6 | 3 | 2 | 3 | 9 | 3 | 3 | 3 | 1 | 3 | 6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | | 5 | 3 | 8 | 5 | 1 | 7 | 3 | 3 | 1 | 3 | 5 | 3 | 4 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

Follicular Cell, Hypertrophy

females
(cont...)

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | X | | | | | | | X | | X | | | | X | | | | | | X | | | | | | |
| Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | 2 | | | | | | | | | | 1 | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | 3 | 1 | | | | | | | | 1 | | | | | | |
| Necrosis | | | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia, Cystic | 3 | 2 | 3 | | 1 | 1 | 3 | 3 | 3 | 3 | | 2 | 2 | | 3 | 4 | 4 | 2 | 1 | 3 | 3 | 1 | 2 | | 1 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Necrosis | | | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | 2 | | | | | | | | |
| Lymph Node | | + | | | | | | | | | + | + | | | | | | + | + | | | | | | | + |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Artery, Lumbar, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Artery, Renal, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue
X .. Lesion present A .. Autolysis precludes evaluation
I .. Insufficient tissue BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|
| | 0715 | 0716 | 0717 | 0718 | 0719 | 0720 | 0721 | 0722 | 0723 | 0724 | 0725 | 0726 | 0727 | 0728 | 0729 | 0730 | 0731 | 0732 | 0733 | 0734 | 0735 | 0736 | 0737 | 0738 | | |
| 100 mg/m3 | 0070 | 0071 | 0072 | 0073 | 0074 | 0075 | 0076 | 0077 | 0078 | 0079 | 0080 | 0081 | 0082 | 0083 | 0084 | 0085 | 0086 | 0087 | 0088 | 0089 | 0090 | 0091 | 0092 | 0093 | 0094 | |

Iliac, Angiectasis
 Lumbar, Angiectasis
 Lumbar, Infiltration Cellular, Plasma Cell
 Renal, Angiectasis
 Renal, Infiltration Cellular, Plasma Cell
 Renal, Necrosis

2
2

Lymph Node, Bronchial
 Hyperplasia, Lymphoid
 Infiltration Cellular, Histiocyte
 Plasma Cell, Hyperplasia

+ + + + + + + + + + + M + + + + + + + M + + + +
 2 3 1 1 2 3 1
 2 2

Lymph Node, Mandibular
 Hyperplasia, Lymphoid
 Infiltration Cellular, Histiocyte

M + + + M + + + + + + + + + + + + + + + M + + +
 3

Lymph Node, Mediastinal
 Hyperplasia, Lymphoid
 Infiltration Cellular, Histiocyte
 Pigmentation

+ + + + I I + + + + + + + + + M + + + + + I +
 1 2 2

Lymph Node, Mesenteric
 Angiectasis
 Hematopoietic Cell Proliferation
 Hyperplasia, Lymphoid

I +
 2 1 1

Spleen
 Angiectasis
 Hematopoietic Cell Proliferation
 Hyperplasia, Lymphoid
 Inflammation, Suppurative

A +
 2 1 1 2 2 1 3 2 1 2 1 2 1

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE
100 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | |
|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------------------|
| | 7 | 5 | 6 | 6 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 1 | 7 | 7 | 3 | 7 | 7 | 7 | | |
| | | 1 | 1 | 6 | 4 | 3 | 5 | 3 | 3 | 6 | 3 | 2 | 3 | 9 | 3 | 3 | 3 | 1 | 3 | 6 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | |
| | | 5 | 3 | 8 | 5 | 1 | 7 | 3 | 3 | 1 | 3 | 5 | 3 | 4 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 0 | females
(cont...) |

Necrosis, Lymphoid

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Atrophy | 2 | | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | 1 | | | | X | X | |
| Ectopic Parathyroid Gland | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | | 1 |
| Hyperplasia, Lymphoid | | | | | 2 | | | | 3 | | | | | 2 | | | | | | | | | 1 | 1 | | |
| Necrosis, Lymphoid | | | | | | | | | | | | | 2 | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | 1 | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | 2 | | | | | | | 1 | | | | | | 4 | | | 1 | | | | | | 2 |
| Necrosis | | | | | | | | | | | | | | | | 4 | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibro-Osseous Lesion | | | | X | | | | | | | X | | | | X | | | | | | X | X | | X | X | |
| Skeletal Muscle | | + | + | | | | | | | | | | | | | | | | | | | | | | | + |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Compression | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | |
|--------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|------------------|------------------|------------------|
| | 0
7
1
5 | 0
5
1
3 | 0
6
6
8 | 0
6
4
5 | 0
7
3
1 | 0
5
5
7 | 0
7
3
3 | 0
7
3
3 | 0
6
3
1 | 0
7
3
3 | 0
7
2
5 | 0
6
3
4 | 0
7
3
2 | 0
6
9
4 | 0
7
3
2 | 0
7
3
2 | 0
6
1
2 | 0
7
3
3 | 0
7
3
3 | 0
7
3
2 | | | 0
7
3
1 | 0
7
3
2 | |
| 100 mg/m3 | 0
7
0
1 | 0
0
7
2 | 0
0
7
3 | 0
0
7
4 | 0
0
7
5 | 0
0
7
6 | 0
0
7
7 | 0
0
7
8 | 0
0
7
9 | 0
0
7
0 | 0
0
7
1 | 0
0
7
2 | 0
0
7
3 | 0
0
7
4 | 0
0
7
5 | 0
0
7
6 | 0
0
7
7 | 0
0
7
8 | 0
0
7
9 | 0
0
7
0 | 0
0
7
1 | 0
0
7
2 | 0
0
7
3 | 0
0
7
4 | 0
0
7
5 |

Peripheral Nerve Degeneration

+

+

1

Spinal Cord

+

+

RESPIRATORY SYSTEM

Larynx

Inflammation, Chronic Active
 Necrosis
 Epiglottis, Hyperplasia, Squamous
 Epiglottis, Metaplasia, Squamous

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| 1 | 2 | | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| | | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| 3 | 1 | 1 | | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | | | 1 | 2 | 1 | 2 | | 1 | 1 | 1 | 1 | 2 | 2 | |
| 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |

Lung

Fibrosis
 Hyperplasia, Lymphoid
 Infiltration Cellular, Histiocyte
 Inflammation, Chronic
 Metaplasia, Osseous
 Metaplasia, Squamous
 Pigmentation
 Alveolar/bronchiolar Epithelium, Hyperplasia
 Alveolar Epithelium, Hyperplasia
 Alveolar Epithelium, Metaplasia, Squamous

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| 1 | 1 | | | 1 | 1 | 1 | 1 | 1 | | | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 2 | 1 | | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | |
| 3 | 2 | 2 | | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | |
| | | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| 3 | 2 | 2 | | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | |
| 2 | 1 | 1 | | 2 | 2 | 2 | 2 | 2 | 1 | 3 | 2 | 2 | | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | |

Nose

Exudate
 Inflammation, Chronic Active
 Goblet Cell, Hyperplasia
 Nasopharyngeal Duct, Perforation

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| 4 | 3 | 3 | 2 | 1 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 4 | 3 | | 3 | 2 | 2 | 1 | 2 | 4 | 2 | 4 | 4 | 4 | |
| 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | | 1 | 2 | 1 | 2 | 2 | 2 | |
| | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| | | | X | | X | X | | | | | | | X | X | | | | | | X | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
Test Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
CAS Number: TRIMVX

Date Report Requested: 02/02/2015
Time Report Requested: 13:50:12
First Dose M/F: 08/03/09 / 08/03/09
Lab: BNW

| B6C3F1 MICE FEMALE
100 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|----------------------|
| | 071515 | 071638 | 071645 | 071731 | 071757 | 071773 | 071777 | 071667 | 071776 | 071777 | 071676 | 071776 | 071777 | 071677 | 071776 | 071777 | 071677 | 071776 | 071777 | 071677 | 071776 | 071777 | 071677 | 071776 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 071515 | females
(cont...) |
| | 7 | 5 | 6 | 6 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 1 | 7 | 7 | 7 | 7 | 7 | 071638 | |
| | 1 | 1 | 6 | 4 | 3 | 5 | 3 | 3 | 6 | 3 | 2 | 3 | 9 | 3 | 3 | 3 | 1 | 3 | 6 | 3 | 3 | 3 | 3 | 3 | 071645 | |
| | 5 | 3 | 8 | 5 | 1 | 7 | 3 | 3 | 1 | 3 | 5 | 3 | 4 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 071731 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 071757 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 071773 | |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 071667 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 071776 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 071777 | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Olfactory Epithelium, Atrophy | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | |
| Olfactory Epithelium, Metaplasia, Respiratory | | | | 1 | | | | | | | | | 1 | | | | | | | | | | | | | |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 4 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | | |
| Respiratory Epithelium, Atrophy | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | 1 | | 1 | 2 | 1 | | 1 | 1 | | | | 1 | | 1 | 1 | | |
| Respiratory Epithelium, Hyperplasia | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 3 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Respiratory Epithelium, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Respiratory Epithelium, Necrosis | | | 1 | | 1 | 1 | | | | | 1 | | | | | 1 | 1 | | | | 1 | | 1 | 1 | | |
| Turbinate, Atrophy | 1 | | 1 | | 1 | 1 | | | | 1 | | | 1 | | | 1 | | | | 1 | 1 | 1 | | 1 | | |
| Turbinate, Perforation | | | | | X | | | | | | | | | | | | | | | | | | | | | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Pigmentation | | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Cartilage, Metaplasia, Osseous | 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | 1 | | 1 | | 2 | | | | | | | | | | | | | | | | 2 | | | | | |
| Epithelium, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ear | | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Cornea, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE FEMALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 5 | 6 | 6 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 1 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 1 | 1 | 6 | 4 | 3 | 5 | 3 | 3 | 6 | 3 | 2 | 3 | 9 | 3 | 3 | 3 | 1 | 3 | 6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 5 | 3 | 8 | 5 | 1 | 7 | 3 | 3 | 1 | 3 | 5 | 3 | 4 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 2 |
| 100 mg/m3 | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | |

females
(cont...)

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nephropathy | 2 | | 1 | | 1 | 1 | 2 | 2 | 1 | | 2 | 1 | 2 | 1 | 1 | 1 | 1 | | 1 | | 2 | | | | 1 | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE
100 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS | |
|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|
| | ANIMAL ID | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 3 | 6 | 7 | 7 | 6 | 7 | 5 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 6 | | 7 |
| | | 3 | 7 | 3 | 3 | 3 | 9 | 3 | 1 | 8 | 3 | 3 | 4 | 3 | 7 | 3 | 1 | 7 | 3 | 3 | 3 | 3 | 8 | | |
| | | 3 | 3 | 3 | 2 | 1 | 8 | 2 | 9 | 1 | 1 | 2 | 5 | 1 | 2 | 3 | 5 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|-----|--|
| Esophagus
Periesophageal Tissue, Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | 1 | 2.0 | | |
| Gallbladder | + | + | + | + | + | M | + | + | A | + | + | + | + | A | + | A | A | + | + | + | + | + | M | + | + | 44 | | |
| Intestine Large, Cecum
Inflammation | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | A | A | + | + | + | + | + | + | + | 45 | 1 | 1.0 | |
| Intestine Large, Colon
Hyperplasia, Lymphoid | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 2.0 | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | A | + | + | I | + | + | + | A | + | + | + | I | + | + | + | + | 45 | | | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | A | A | + | + | + | + | + | + | + | 45 | | | |
| Intestine Small, Ileum
Hyperplasia, Lymphoid
Hyperplasia, Plasma Cell | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | A | + | + | + | + | + | + | + | 46 | 2 | 2.0 | |
| Intestine Small, Jejunum
Hyperplasia, Lymphoid | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | + | A | + | + | + | + | + | + | + | 46 | 1 | 3.0 | |
| Liver
Basophilic Focus
Clear Cell Focus
Eosinophilic Focus
Inflammation, Chronic Active
Mixed Cell Focus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| | | | | | X | | | | | | | | | | | | | | | | | | | | 4 | | | |
| | | | | | X | | | | | | | | | | | | | | | | | X | | | 3 | | | |
| | | X | | | | X | | | | X | X | | X | | | X | | | | | | | | | 8 | | | |
| | | | | | | | | | 1 | | | | | | | | | | | | | | 1 | | 2 | 1.0 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE
100 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|----|-----|-------|-----|-----|
| | 0
7
3
3 | 0
6
7
3 | 0
7
3
3 | 0
7
3
2 | 0
7
3
1 | 0
6
7
8 | 0
7
3
2 | 0
3
6
1 | 0
6
7
1 | 0
7
3
2 | 0
6
7
5 | 0
7
3
1 | 0
6
7
3 | 0
7
3
2 | 0
5
7
3 | 0
7
3
5 | 0
6
7
2 | 0
7
3
3 | 0
6
7
3 | 0
7
3
2 | 0
7
3
3 | 0
6
7
4 | 0
7
3
3 | 0
7
3
2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 0
0
7
2
6 | 0
0
7
2
7 | 0
0
7
2
8 | 0
0
7
2
9 | 0
0
7
3
0 | 0
0
7
3
1 | 0
0
7
3
2 | 0
0
7
3
3 | 0
0
7
3
4 | 0
0
7
3
5 | 0
0
7
3
6 | 0
0
7
3
7 | 0
0
7
3
8 | 0
0
7
3
9 | 0
0
7
4
0 | 0
0
7
4
1 | 0
0
7
4
2 | 0
0
7
4
3 | 0
0
7
4
4 | 0
0
7
4
5 | 0
0
7
4
6 | 0
0
7
4
7 | 0
0
7
4
8 | 0
0
7
4
9 | 0
0
7
5
0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatocyte, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2 1.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatocyte, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 5 2.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 11 | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | | | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 | | |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.7 | | |
| Infiltration Cellular, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Heart | | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Cardiomyopathy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.3 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.3 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS |
|--------------------|-------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| | ANIMAL ID | | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 3 | 6 | 7 | 6 | 7 | 5 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 6 | 7 | |
| 100 mg/m3 | | | 3 | 7 | 3 | 3 | 3 | 9 | 3 | 1 | 8 | 3 | 3 | 4 | 3 | 7 | 3 | 1 | 7 | 3 | 3 | 3 | 3 | 8 | 3 |
| | | | 3 | 3 | 3 | 2 | 1 | 8 | 2 | 9 | 1 | 1 | 2 | 5 | 1 | 2 | 3 | 5 | 2 | 3 | 3 | 3 | 2 | 3 | 2 |
| | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| | | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |

| | | |
|-----------------------------|---|-------|
| Necrosis | 4 | 1 4.0 |
| Thrombosis | 4 | 1 4.0 |
| Coronary Artery, Thrombosis | | 1 1.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 1.0 |
| Angiectasis | | | | | | | | | | | | | | 1 | | | | | | | | | 2 | | 2 1.5 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | 3 | | | | 1 3.0 |
| Hyperplasia | 1 | | | | | | | | | | 1 | | 1 | | | | | | | | | | | | 7 1.1 |
| Hypertrophy | | | | 2 | | | | | | 1 | | 1 | | | | | | | | 1 | | | | | 10 1.1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hyperplasia | | | | | | | | 1 | | | | 1 | | | | | | | | | | | | | 5 1.0 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Parathyroid Gland | + | M | M | M | + | + | + | + | + | + | M | + | M | M | + | + | + | + | + | + | M | + | + | 28 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | 49 | |
| Pars Distalis, Angiectasis | | | | | | | | | | | | | | 1 | | | | | | | | 2 | | | 5 1.2 |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | X | | | | | | | 1 | | 1 |
| Pars Distalis, Hyperplasia | 2 | | | | | | | | | | | 1 | | | | | | | | | | | | | 10 1.4 |
| Pars Distalis, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | 49 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 1.0 |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 2 | | 2 1.5 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue
X .. Lesion present A .. Autolysis precludes evaluation
I .. Insufficient tissue BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---|---|-------|
| | | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 3 | 6 | 7 | 7 | 6 | 7 | 5 | 7 | 7 | 6 | 7 | 6 | 7 | | 7 | 6 | 7 | 7 |
| 100 mg/m3 | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 2.0 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|-------|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | I | + | 46 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | 3 1.3 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | X | | X | 7 |
| Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 5 1.6 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Endometrium, Hyperplasia, Cystic | 4 | | 2 | 2 | 4 | 2 | 3 | 2 | 3 | 2 | 1 | 3 | 3 | 1 | 2 | 4 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 43 2.4 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Artery, Lumbar, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Artery, Renal, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE
100 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| | 0733 | 0673 | 0773 | 0773 | 0676 | 0773 | 0363 | 0667 | 0773 | 0363 | 0667 | 0773 | 0363 | 0667 | 0773 | 0363 | 0667 | 0773 | 0363 | 0667 | 0773 | 0363 | 0667 | 0773 | |
| ANIMAL ID | 00726 | 00727 | 00728 | 00729 | 00730 | 00731 | 00732 | 00733 | 00734 | 00735 | 00736 | 00737 | 00738 | 00739 | 00740 | 00741 | 00742 | 00743 | 00744 | 00745 | 00746 | 00747 | 00748 | 00749 | |
| Iliac, Angiectasis | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 | |
| Lumbar, Angiectasis | | | | 2 | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Renal, Angiectasis | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Renal, Necrosis | | | | 3 | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Lymph Node, Bronchial
Hyperplasia, Lymphoid
Infiltration Cellular, Histiocyte
Plasma Cell, Hyperplasia | + | + | + | M | I | + | M | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | I | + | 43
9 2.0
4 2.0
1 1.0 |
| Lymph Node, Mandibular
Hyperplasia, Lymphoid
Infiltration Cellular, Histiocyte | M | M | + | M | + | M | M | M | + | + | + | + | M | + | + | + | + | + | + | M | + | + | + | + | 39
1 3.0
1 1.0 |
| Lymph Node, Mediastinal
Hyperplasia, Lymphoid
Infiltration Cellular, Histiocyte
Pigmentation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 45
5 1.8
1 2.0
1 2.0 |
| Lymph Node, Mesenteric
Angiectasis
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48
1 2.0
1 2.0
4 1.8 |
| Spleen
Angiectasis
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid
Inflammation, Suppurative | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49
1 1.0
11 1.9
13 1.6
1 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--------------------|-------------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|
| | | 0733 | 0673 | 0773 | 0773 | 0676 | 0773 | 0363 | 0673 | 0363 | 0773 | 0773 | 0676 | 0773 | 0575 | 0773 | 0773 | 0676 | 0773 | 0676 | 0773 | | 0773 | 0676 |
| 100 mg/m3 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 3 | 6 | 7 | 7 | 6 | 7 | 5 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 6 | 7 |
| | | 3 | 7 | 3 | 3 | 3 | 9 | 3 | 1 | 8 | 3 | 3 | 4 | 3 | 7 | 3 | 1 | 7 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 3 | 3 | 3 | 2 | 1 | 8 | 2 | 9 | 1 | 1 | 2 | 5 | 1 | 2 | 3 | 5 | 2 | 3 | 5 | 3 | 2 | 3 | 2 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-----|
| Necrosis, Lymphoid | 2 | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Thymus | + | | | | | | | | | | | | | | | | | | | | | | | 49 | |
| Angiectasis | 2 | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.3 |
| Atrophy | 2 | | | | | | | | | | | | | | | | | | | | | | | 4 | 1.8 |
| Cyst | X | | | | | | | | | | | | | | | | | | | | | | | 5 | 1.0 |
| Ectopic Parathyroid Gland | 1 | | | | | | | | | | | | | | | | | | | | | | | 5 | 1.2 |
| Hyperplasia, Lymphoid | 1 3 1 3 1 | | | | | | | | | | | | | | | | | | | | | | | 11 | 1.8 |
| Necrosis, Lymphoid | 2 | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-----|
| Mammary Gland | + | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Hyperplasia | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Skin | + | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 5 | 2.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|--|
| Bone | + | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Fibro-Osseous Lesion | X | | | | | | | | | | | | | | | | | | | | | | | 9 | |
| Skeletal Muscle | + | | | | | | | | | | | | | | | | | | | | | | | 4 | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-----|
| Brain | + | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Compression | 2 | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.7 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 0733 | 0673 | 0773 | 0773 | 0676 | 0773 | 0331 | 0667 | 0773 | 0331 | 0667 | 0773 | 0573 | 0773 | 0676 | 0773 | 0676 | 0773 | 0676 | 0773 | |
| 100 mg/m3 | 0026 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 2 |
| ANIMAL ID | 0026 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 1.0 |

| | | | |
|-------------------------------|---|---|-----|
| Peripheral Nerve Degeneration | 2 | 1 | 1.0 |
| Spinal Cord | 2 | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|---|----|-----|-----|-----|
| Larynx | + | | | | | | | | | | | | | | | | | | | | 50 | | | | | | |
| Inflammation, Chronic Active | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 47 | 1.6 | | |
| Necrosis | | 1 | | | | | | | | | | | 1 | | | | | | | | | | | 3 | 1.0 | | |
| Epiglottis, Hyperplasia, Squamous | 2 | 2 | | | 1 | 2 | | 1 | 3 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 42 | 1.6 | |
| Epiglottis, Metaplasia, Squamous | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 50 | 4.0 | |
| Lung | + | | | | | | | | | | | | | | | | | | | | 50 | | | | | | |
| Fibrosis | 2 | 1 | | 2 | 2 | 1 | 2 | 1 | | 1 | 2 | 1 | 2 | 2 | 1 | | 2 | 1 | 2 | 2 | 2 | 1 | 1 | | 42 | 1.5 | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | 2 | | | | | | | | | 1 | 2.0 | |
| Infiltration Cellular, Histiocyte | 2 | 2 | 2 | 3 | 4 | 2 | 3 | 1 | | 3 | 3 | 2 | 2 | 2 | 3 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 48 | 2.3 | |
| Inflammation, Chronic | 3 | 2 | | 3 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 47 | 2.4 | |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Alveolar/bronchiolar Epithelium, Hyperplasia | 3 | 2 | | 3 | 3 | 3 | 3 | 2 | | 2 | 3 | 3 | 3 | 3 | 3 | | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 45 | 2.6 | |
| Alveolar Epithelium, Hyperplasia | | 1 | | 2 | 2 | 1 | 2 | | | 2 | 2 | 2 | 2 | 2 | 4 | 1 | | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 43 | 1.9 |
| Alveolar Epithelium, Metaplasia, Squamous | | | | | 2 | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Nose | + | | | | | | | | | | | | | | | | | | | | 50 | | | | | | |
| Exudate | 4 | 2 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 49 | 2.9 |
| Inflammation, Chronic Active | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 49 | 1.6 |
| Goblet Cell, Hyperplasia | | | | | | | | 1 | | | | | | | | | | | | | | | | | 2 | 1.0 | |
| Nasopharyngeal Duct, Perforation | | X | | X | X | X | X | | | X | | | | | X | | | X | | X | X | X | | | 17 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Metal Working Fluids: Trim VX
 CAS Number: TRIMVX

Date Report Requested: 02/02/2015
 Time Report Requested: 13:50:12
 First Dose M/F: 08/03/09 / 08/03/09
 Lab: BNW

| B6C3F1 MICE FEMALE
100 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----|-----|
| | 0
7
3
3 | 0
6
7
3 | 0
7
3
3 | 0
7
3
2 | 0
7
3
1 | 0
6
9
8 | 0
7
3
2 | 0
3
1
9 | 0
6
7
1 | 0
7
3
2 | 0
7
3
1 | 0
6
4
5 | 0
7
3
1 | 0
5
7
2 | 0
7
3
3 | 0
7
1
5 | 0
6
7
2 | 0
6
3
5 | 0
7
3
3 | 0
7
3
2 | 0
6
7
3 | 0
7
3
4 | 0
7
3
3 | 0
6
7
2 | | | |
| ANIMAL ID | 0
0
7
2
6 | 0
0
7
2
7 | 0
0
7
2
8 | 0
0
7
2
9 | 0
0
7
3
0 | 0
0
7
3
1 | 0
0
7
3
2 | 0
0
7
3
3 | 0
0
7
3
3 | 0
0
7
3
3 | 0
0
7
3
3 | 0
0
7
3
3 | 0
0
7
3
3 | 0
0
7
3
3 | 0
0
7
4
0 | 0
0
7
4
1 | 0
0
7
4
2 | 0
0
7
4
3 | 0
0
7
4
4 | 0
0
7
4
4 | 0
0
7
4
4 | 0
0
7
4
4 | 0
0
7
4
4 | 0
0
7
4
5 | 0
0
7
4
6 | | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 50 | 2.0 |
| Olfactory Epithelium, Atrophy | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | | | | | 5 | 1.0 |
| Olfactory Epithelium, Metaplasia, Respiratory | | | | | | | | 1 | | | | | | 1 | | | | | | | | | | | | 4 | 1.0 |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 4 | 2 | 2 | 4 | 3 | 2 | 3 | 4 | 2 | 2 | 2 | 3 | 2 | 3 | 4 | 3 | 2 | 4 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | 50 | 2.6 |
| Respiratory Epithelium, Atrophy | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | | 1 | 1 | | 1 | 2 | 1 | 1 | 1 | 1 | | 1 | 1 | 39 | 1.1 |
| Respiratory Epithelium, Hyperplasia | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 49 | 1.3 |
| Respiratory Epithelium, Metaplasia, Squamous | | | | | | | | | | | 1 | | | | | | | | | | | | | | | 2 | 1.0 |
| Respiratory Epithelium, Necrosis | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | | | | 1 | | | 1 | | 1 | 1 | 1 | | | | 23 | 1.0 | |
| Turbinate, Atrophy | | 1 | | 1 | 1 | 1 | | | | 1 | | | | 1 | | | | | 1 | | | | | | 19 | 1.0 | |
| Turbinate, Perforation | | | | X | | X | | | | X | | | | X | | | X | | | | | | | | 6 | | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Cartilage, Metaplasia, Osseous | | | | | | | | | | 1 | | | | | | 1 | | 1 | | | | | | | 4 | 1.0 | |
| Epithelium, Degeneration | | | | | | | | | | | | 1 | | | | | | 2 | | | | | | | 2 | 1.5 | |
| Epithelium, Hyperplasia | | | | | | 1 | | | | | | | | | | | | | | | | | | | 5 | 1.4 | |
| Epithelium, Necrosis | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 1.0 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ear | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Cornea, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | 49 | | |
| Hyperplasia | | | | | | | | | | 1 | | | | | | | | | | | | | | | 1 | 1.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20523 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Metal Working Fluids: Trim VX

CAS Number: TRIMVX

Date Report Requested: 02/02/2015

Time Report Requested: 13:50:12

First Dose M/F: 08/03/09 / 08/03/09

Lab: BNW

| B6C3F1 MICE FEMALE | 100 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|--------------------|-----------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|------|
| | | | 0733 | 0673 | 0773 | 0773 | 0676 | 0773 | 0673 | 0673 | 0673 | 0773 | 0673 | 0673 | 0573 | 0773 | 0773 | 0676 | 0773 | 0676 | 0773 | 0677 | | 0677 | 0676 | 0777 | 0677 | 0777 |
| | | ANIMAL ID | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 | 0072 |
| | | | 67 | 77 | 88 | 99 | 00 | 11 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 00 | 11 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 00 | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|-------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Cyst | | | | | | | | | | | | | | | | | X | | | X | | | | | | | | | 2 |
| Nephropathy | 2 | | | 2 | | 1 | 2 | | | | 1 | | | 1 | | 1 | | | | 1 | 1 | | | 1 | 1 | | 2 | 29 1.3 | |
| Pigmentation | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 1.0 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | 3 1.7 |

*** END OF REPORT ***

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked