

Experiment Number: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:06

First Dose M/F: NA / NA

Lab: BNW

C Number: C62077D

Lock Date: 11/19/1992

Cage Range: All

Date Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: All

Study Gender: Both

PWG Approval Date NONE

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Lab: BNW

B6C3F1 Mouse 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
9	9	9	9	9	9	9	9	9	9	9
5	5	5	5	5	5	5	5	5	5	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	1
1	2	3	4	5	6	7	8	9	0	

*TOTALS

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	10
Gallbladder	+	+	+	+	+	+		+	+	+	9
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	10
Liver	+	+	+	+	+	+	+	+	+	+	10
Pancreas	+	+	+	+	+	+	+	+	+	+	10
Salivary Glands	+	+	+	+	+	+	+	+	+	+	10
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10

Cardiovascular System

Heart	+	+	+	+	+	+	+	+	+	+	10
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Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	10
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	10
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	10
Parathyroid Gland	+	+	+	+	+	M	+	+	M	+	8

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

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Lab: BNW

**B6C3F1 Mouse Male
CONTROL**

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	5	5	5	5	5	5	5	5	5	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	1
	1	2	3	4	5	6	7	8	9	0

***TOTALS**

Pituitary Gland	+	+	+	+	+	+	+	+	+	+	10
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	10

General Body System

NONE

Genital System

Epididymis	+	+	+	+	+	+	+	+	+	+	10
Preputial Gland	+	+	+	+	+	+	+	M	+	+	9
Prostate	+	+	+	+	+	+	+	+	+	+	10
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	10
Testes	+	+	+	+	+	+	+	+	+	+	10

Hematopoietic System

Bone Marrow	+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Bronchial	+	+	+	+	+	+	+	+	+	M	9
Lymph Node, Mandibular	+	M	+	+	+	+	+	+	+	M	8
Lymph Node, Mediastinal	M	M	+	+	+	M	M	M	M	+	4
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	10
Spleen	+	+	+	+	+	+	+	+	+	+	10
Hyperplasia, Lymphoid										1	1.0
Thymus	+	+	+	+	+	+	+	+	+	+	10

Integumentary System

Mammary Gland	M	M	M	M	M	M	M	M	+	M	1
---------------	---	---	---	---	---	---	---	---	---	---	---

* ..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: 05197-10

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Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:06

First Dose M/F: NA / NA

Lab: BNW

**B6C3F1 Mouse Male
CONTROL**

DAY ON TEST										
	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	1
	1	2	3	4	5	6	7	8	9	0

***TOTALS**

Mammary Gland	M	M	M	M	M	M	M	M	+	M	1
Skin	+	+	+	+	+	+	+	+	+	+	10
Musculoskeletal System											
Bone	+	+	+	+	+	+	+	+	+	+	10
Nervous System											
Brain	+	+	+	+	+	+	+	+	+	+	10
Respiratory System											
Larynx	+	+	+	+	+	+	+	+	+	+	10
Lung	+	+	+	+	+	+	+	+	+	+	10
Hemorrhage						1					1 1.0
Nose	+	+	+	+	+	+	+	+	+	+	10
Trachea	+	+	+	+	+	+	+	+	+	+	10
Special Senses System											
NONE											
Urinary System											
Kidney	+	+	+	+	+	+	+	+	+	+	10
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	10

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

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Time Report Requested: 12:50:06

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Lab: BNW

**B6C3F1 Mouse Male
31 PPM**

DAY ON TEST										
	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
	2	2	2	2	2	2	2	2	2	2
	0	0	0	0	0	0	0	0	0	1
	1	2	3	4	5	6	7	8	9	0

*TOTALS

Alimentary System

Liver	+	+	+	+	+	+	+	+	+	+	10
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10

Cardiovascular System

NONE

Endocrine System

Adrenal Cortex

+

1

General Body System

NONE

Genital System

Epididymis	+	+	+	+	+	+	+	+	+	+	10
Testes	+	+	+	+	+	+	+	+	+	+	10

Hematopoietic System

Lymph Node, Mandibular	+	M	+	+	+	+	+	+	+	+	9
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	10
Spleen	+	+	+	+	+	+	+	+	+	+	10
Thymus	+	+	+	+	+	+	+	+	+	+	10

Integumentary System

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Experiment Number: 05197-10

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Species/Strain: Mouse/B6C3F1

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Time Report Requested: 12:50:06

First Dose M/F: NA / NA

Lab: BNW

**B6C3F1 Mouse Male
31 PPM**

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	5	5	5	5	5	5	5	5	5	5
ANIMAL ID	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
	0	0	0	0	0	0	0	0	0	1
	1	2	3	4	5	6	7	8	9	0

*TOTALS

NONE

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

Lung

+ + + + + + + + + + 10

Special Senses System

NONE

Urinary System

Kidney

+ + + + + + + + + + 10

Renal Tubule, Regeneration

1 1 1.0

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Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:06

First Dose M/F: NA / NA

Lab: BNW

**B6C3F1 Mouse Male
62.5 PPM**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 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 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Alimentary System

| | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|----|
| Liver | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Forestomach | + | M | + | + | + | + | + | + | + | + | 9 |
| Stomach, Glandular | + | M | + | + | + | + | + | + | + | + | 9 |

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

| | | | | | | | | | | | |
|------------|---|---|---|---|---|---|---|---|---|---|----|
| Epididymis | + | + | + | + | + | + | + | + | + | + | 10 |
| Testes | + | + | + | + | + | + | + | + | + | + | 10 |

Hematopoietic System

| | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|----|
| Lymph Node, Mandibular | + | M | M | M | M | + | + | + | + | + | 6 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | M | + | 9 |
| Spleen | + | + | + | + | + | + | + | + | + | + | 10 |
| Thymus | + | + | + | + | + | + | + | + | + | + | 10 |

Integumentary System

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+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Experiment Number: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:07

First Dose M/F: NA / NA

Lab: BNW

**B6C3F1 Mouse Male
62.5 PPM**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 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 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

NONE

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

Lung

+ + + + + + + + + + 10

Special Senses System

NONE

Urinary System

Kidney

+ + + + + + + + + + 10

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Time Report Requested: 12:50:07

First Dose M/F: NA / NA

Lab: BNW

**B6C3F1 Mouse Male
125 PPM**

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

*TOTALS

Alimentary System

| | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|----|
| Liver | + | + | + | + | + | + | + | + | + | + | 10 |
| Necrosis | | | | | | | | | | | 1 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | 10 |
| Epithelium, Hyperplasia | | | | | | | | | | | 1 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | 10 |

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

| | | | | | | | | | | | |
|------------|---|---|---|---|---|---|---|---|---|---|----|
| Epididymis | + | + | + | + | + | + | + | + | + | + | 10 |
| Testes | + | + | + | + | + | + | + | + | + | + | 10 |

Hematopoietic System

| | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|----|
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | | + | 9 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | 10 |
| Spleen | + | + | + | + | + | + | + | + | + | + | 10 |

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Time Report Requested: 12:50:07

First Dose M/F: NA / NA

Lab: BNW

**B6C3F1 Mouse Male
125 PPM**

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

| | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|----|-----|
| Hematopoietic Cell Proliferation | 1 | 1 | | | | | | | | 2 | 1.0 |
| Pigmentation, Hemosiderin | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 | 1.0 |
| Thymus | + | + | + | + | + | + | + | + | + | 10 | |

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

Lung

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|----|
| + | + | + | + | + | + | + | + | + | + | 10 |
|---|---|---|---|---|---|---|---|---|---|----|

Bronchiole, Metaplasia, Squamous

| | | |
|---|---|-----|
| 1 | 1 | 1.0 |
|---|---|-----|

Special Senses System

Eye

| | |
|---|---|
| + | 1 |
|---|---|

Urinary System

Kidney

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|----|
| + | + | + | + | + | + | + | + | + | + | 10 |
|---|---|---|---|---|---|---|---|---|---|----|

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

+ ..Tissue examined microscopically

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Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:07

First Dose M/F: NA / NA

Lab: BNW

**B6C3F1 Mouse Male
250 PPM**

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

*TOTALS

Alimentary System

| | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|----|
| Liver | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | 10 |

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

| | | | | | | | | | | | |
|------------|---|---|---|---|---|---|---|---|---|---|----|
| Epididymis | + | + | + | + | + | + | + | + | + | + | 10 |
| Testes | + | + | + | + | + | + | + | + | + | + | 10 |

Hematopoietic System

| | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|--------|
| Lymph Node, Mandibular | + | I | + | + | + | M | + | + | + | + | 8 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | 10 |
| Spleen | + | + | + | + | + | + | + | + | + | + | 10 |
| Hematopoietic Cell Proliferation | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 9 1.2 |
| Pigmentation, Hemosiderin | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 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: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:07

First Dose M/F: NA / NA

Lab: BNW

**B6C3F1 Mouse Male
250 PPM**

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

*TOTALS

Thymus

+ + + + + + + + + +

10

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

Lung

+ + + + + + + + + +

10

Special Senses System

Harderian Gland

+ + + + + + + + + +

1

Urinary System

Kidney

+ + + + + + + + + +

10

* ..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: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:07

First Dose M/F: NA / NA

Lab: BNW

**B6C3F1 Mouse Male
500 PPM**

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

TOTALS*Alimentary System**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|-----|----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | 10 |
| Gallbladder | + | + | + | + | + | A | + | + | + | A | 8 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | A | 9 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | A | 9 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | M | 9 |
| Intestine Small, Duodenum | + | + | + | M | + | A | + | + | + | A | 7 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | A | 9 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | A | 9 |
| Liver | + | + | + | + | + | + | + | + | + | + | 10 |
| Kupffer Cell, Pigmentation, Hemosiderin | 1 | 1 | 1 | | 1 | 1 | 1 | | 6 | 1.0 | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | 10 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | 10 |
| Epithelium, Hyperplasia | | | | 1 | 1 | | | 1 | 3 | 1.0 | |
| Inflammation | | | 2 | | 2 | | | 2 | 3 | 2.0 | |
| Necrosis | | | 2 | | 2 | | | | 2 | 2.0 | |
| Ulcer | | | 3 | | 3 | | | | 2 | 3.0 | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | 10 |

Cardiovascular System

| | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|----|
| Heart | + | + | + | + | + | + | + | + | + | + | 10 |
|-------|---|---|---|---|---|---|---|---|---|---|----|

* ..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: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:07

First Dose M/F: NA / NA

Lab: BNW

**B6C3F1 Mouse Male
500 PPM**

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

*TOTALS

Endocrine System

| | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | 10 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | 10 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 10 |
| Parathyroid Gland | + | + | + | + | M | + | + | + | + | + | 9 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | M | 9 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Hemorrhage | | | | | 2 | | | | | | 1 2.0 |

General Body System

| | | | | | | | | | | | |
|---------------------------|---|---|--|--|--|--|--|--|--|--|-------|
| Peritoneum | + | + | | | | | | | | | 2 |
| Inflammation, Suppurative | 2 | 2 | | | | | | | | | 2 2.0 |

Genital System

| | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|-------|
| Epididymis | + | + | + | + | + | + | + | + | + | + | 10 |
| Necrosis | | | | 1 | | | | | | | 1 1.0 |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Prostate | + | + | + | + | + | + | + | + | + | + | 10 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | A | 9 |
| Testes | + | + | + | + | + | + | + | + | + | + | 10 |
| Degeneration | 2 | 2 | | | | 2 | | | | | 3 2.0 |

Hematopoietic System

| | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | 10 |
|-------------|---|---|---|---|---|---|---|---|---|---|----|

* ..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: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:07

First Dose M/F: NA / NA

Lab: BNW

**B6C3F1 Mouse Male
500 PPM**

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

***TOTALS**

| | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | 10 |
| Lymph Node, Bronchial | M | M | M | + | I | + | + | + | + | + | 6 |
| Lymph Node, Mandibular | M | + | + | + | + | + | + | + | + | + | 9 |
| Atrophy | | | | | | 2 | | | | | |
| Lymph Node, Mediastinal | M | M | + | M | + | M | + | I | M | + | 4 |
| Lymph Node, Mesenteric | + | + | + | + | M | + | + | + | + | + | 9 |
| Atrophy | | | | | | 2 | | | | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | 10 |
| Atrophy | | | | | 4 | 2 | 2 | | | | |
| Hematopoietic Cell Proliferation | 2 | 2 | | 2 | | | 2 | 2 | 2 | | 6 2.0 |
| Pigmentation, Hemosiderin | 1 | 1 | | 1 | | | 1 | 1 | 1 | | 6 1.0 |
| Thymus | M | + | + | + | + | + | + | + | + | + | 9 |
| Atrophy | | | | | 4 | 3 | | | | | 2 3.5 |

Integumentary System

| | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | M | M | M | M | M | M | M | M | M | M | 0 |
| Skin | + | + | + | + | + | + | + | + | + | + | 10 |

Musculoskeletal System

| | | | | | | | | | | | |
|------|---|---|---|---|---|---|---|---|---|---|----|
| Bone | + | + | + | + | + | + | + | + | + | + | 10 |
|------|---|---|---|---|---|---|---|---|---|---|----|

Nervous System

| | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|----|
| Brain | + | + | + | + | + | + | + | + | + | + | 10 |
|-------|---|---|---|---|---|---|---|---|---|---|----|

Respiratory System

* ..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: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:07

First Dose M/F: NA / NA

Lab: BNW

**B6C3F1 Mouse Male
500 PPM**

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

*TOTALS

| | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|-----|----|
| Larynx | + | + | + | + | + | + | + | + | + | + | 10 |
| Lung | + | + | + | + | + | + | + | + | + | + | 10 |
| Mediastinum, Inflammation, Suppurative | | | 1 | | 3 | | | | 2 | 2.0 | |
| Nose | + | + | + | + | + | + | + | + | + | + | 10 |
| Trachea | + | + | + | + | + | + | + | + | + | + | 10 |

Special Senses System

NONE

Urinary System

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|-------|
| Kidney | + | + | + | + | + | + | + | + | + | + | 10 |
| Renal Tubule, Degeneration | | | 2 | | 1 | 3 | | | 1 | | 4 1.8 |
| Renal Tubule, Pigmentation, Hemosiderin | 1 | 1 | | 1 | | | 1 | 1 | | | 5 1.0 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | 10 |

END OF MALE DATA

* ..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: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:07

First Dose M/F: NA / NA

Lab: BNW

| B6C3F1 Mouse 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 | | | | | | | | | |
| | | 9 9 9 9 9 9 9 9 9 9 | | | | | | | | | |
| | | 5 5 5 5 5 5 5 5 5 5 | | | | | | | | | |
| | | 0 0 0 0 0 0 0 0 0 0 | | | | | | | | | |
| ANIMAL ID | | 0 0 0 0 0 0 0 0 0 0 | | | | | | | | | |
| | | 1 1 1 1 1 1 1 1 1 1 | | | | | | | | | |
| | | 0 0 0 0 0 0 0 0 0 1 | | | | | | | | | |
| | | 1 2 3 4 5 6 7 8 9 0 | | | | | | | | | |
| | | *TOTALS | | | | | | | | | |

Alimentary System

| | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|-----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | 10 |
| Gallbladder | + | + | + | M | + | + | + | M | M | + | 7 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | 10 |
| Liver | + | + | + | + | + | + | + | + | + | + | 10 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | 10 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | 10 |
| Epithelium, Hyperplasia | | | | | | | | 1 | | 1 | 1.0 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | 10 |

Cardiovascular System

| | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|----|
| Heart | + | + | + | + | + | + | + | + | + | + | 10 |
|-------|---|---|---|---|---|---|---|---|---|---|----|

Endocrine System

| | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | 10 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | 10 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 10 |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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BLANK ..Not examined microscopically

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Experiment Number: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

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Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:07

First Dose M/F: NA / NA

Lab: BNW

| B6C3F1 Mouse 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 |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| ANIMAL ID | | 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 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| *TOTALS | | | | | | | | | | | |
| Parathyroid Gland | | M | M | + | + | + | + | + | + | + | 8 |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | 10 |
| Thyroid Gland | | + | + | + | + | + | + | + | + | + | 10 |
| General Body System | | | | | | | | | | | |
| NONE | | | | | | | | | | | |
| Genital System | | | | | | | | | | | |
| Clitoral Gland | | + | + | + | + | + | + | + | + | + | 10 |
| Ovary | | + | + | + | + | + | + | + | + | + | 10 |
| Uterus | | + | + | + | + | + | + | + | + | + | 10 |
| Hematopoietic System | | | | | | | | | | | |
| Bone Marrow | | + | + | + | + | + | + | + | + | + | 10 |
| Lymph Node, Bronchial | | M | + | + | + | + | + | M | + | M | 7 |
| Lymph Node, Mandibular | | M | + | M | + | + | + | + | + | + | 8 |
| Lymph Node, Mediastinal | | + | + | M | + | M | M | + | M | M | 4 |
| Lymph Node, Mesenteric | | + | + | + | + | + | + | + | + | + | 10 |
| Spleen | | + | + | + | + | + | + | + | + | + | 10 |
| Pigmentation, Melanin | | | | | | | | 2 | 1 | 2.0 | |
| Thymus | | + | + | + | + | + | + | + | + | + | 10 |
| Integumentary System | | | | | | | | | | | |
| Mammary Gland | | + | + | + | + | + | + | + | + | + | 10 |
| Skin | | + | + | + | + | + | + | + | + | + | 10 |

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

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

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2) Mild 4) Marked

Experiment Number: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:07

First Dose M/F: NA / NA

Lab: BNW

| B6C3F1 Mouse Female
CONTROL | DAY ON TEST | | | | | | | | | | |
|--------------------------------|------------------------|---|---|---|---|---|---|---|---|---|---------|
| | | 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 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | *TOTALS |
| | Skin | + | + | + | + | + | + | + | + | + | 10 |
| | Musculoskeletal System | + | + | + | + | + | + | + | + | + | 10 |
| | Bone | + | + | + | + | + | + | + | + | + | 10 |
| | Nervous System | + | + | + | + | + | + | + | + | + | 10 |
| | Respiratory System | + | + | + | + | + | + | + | + | + | 10 |
| Larynx | + | + | + | + | + | + | + | + | + | + | 10 |
| | Lung | + | + | + | + | + | + | + | + | + | 10 |
| | Nose | + | + | + | + | + | + | + | + | + | 10 |
| | Trachea | + | + | + | + | + | + | + | + | + | 10 |
| Special Senses System | NONE | | | | | | | | | | |
| | Urinary System | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | 10 |
| | Urinary Bladder | I | + | + | + | + | + | + | I | + | 8 |

* ..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: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:07

First Dose M/F: NA / NA

Lab: BNW

B6C3F1 Mouse Female
31 PPM

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

*TOTALS

Alimentary System

| | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|-----|----|
| Liver | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | 10 |
| Epithelium, Hyperplasia | | | | | 1 | 2 | | | 2 | 1.5 | |
| Inflammation | | | | | | 1 | | | 1 | 1.0 | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | 10 |

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

| | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|----|
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | 10 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | 10 |
| Spleen | + | + | + | + | + | + | + | + | + | + | 10 |
| Thymus | + | + | + | + | + | + | + | + | + | + | 10 |

* ..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: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:07

First Dose M/F: NA / NA

Lab: BNW

| B6C3F1 Mouse Female
31 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---------------------------------------|-------------|----------------|---|---|---|---|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | ANIMAL ID | 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 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | *TOTALS | | | | | | | | |

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

Lung

+ + + + + + + + + + 10

Special Senses System

NONE

Urinary System

Kidney

+ + + + + + + + + + 10

* ..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: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:07

First Dose M/F: NA / NA

Lab: BNW

B6C3F1 Mouse Female
62.5 PPM

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

*TOTALS

Alimentary System

| | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Liver | + | + | + | + | + | + | + | + | + | + | 10 |
| Eosinophilic Focus | | | | | X | | | | | | 1 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | 10 |
| Epithelium, Hyperplasia | | | 1 | 1 | | | 1 | 2 | 1 | | 5 1.2 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | 10 |

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

| | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|----|
| Lymph Node, Mandibular | + | + | + | + | + | + | + | M | + | 9 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | 10 |
| Spleen | + | + | + | + | + | + | + | + | + | 10 |
| Thymus | + | + | + | + | + | + | + | + | + | 10 |

* ..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
- 2) Mild
- 3) Moderate
- 4) Marked

Experiment Number: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:07

First Dose M/F: NA / NA

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 |
| 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 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 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

Lung

+ + + + + + + + + + 10

Special Senses System

NONE

Urinary System

Kidney

+ + + + + + + + + + 10

* ..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: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:07

First Dose M/F: NA / NA

Lab: BNW

**B6C3F1 Mouse Female
125 PPM**

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

*TOTALS

Alimentary System

| | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Liver | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | 10 |
| Epithelium, Hyperplasia | 3 | 2 | 1 | 2 | 2 | 1 | | 2 | 1 | 2 | 9 1.8 |
| Inflammation | | | | | | | 1 | | | | 2 1.0 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | 10 |

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

| | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|----|
| Lymph Node, Mandibular | M | M | + | + | M | M | + | + | + | M | 5 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | 10 |
| Spleen | + | + | + | + | + | + | + | + | + | + | 10 |
| Thymus | + | + | + | + | + | + | + | + | + | + | 10 |

* ..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
- 2) Mild
- 3) Moderate
- 4) Marked

Experiment Number: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:08

First Dose M/F: NA / NA

Lab: BNW

| B6C3F1 Mouse Female
125 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|--------------------|----------------|---|---|---|---|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | ANIMAL ID | 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 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | *TOTALS | | | | | | | | |

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

Lung

+ + + + + + + + + + 10

Special Senses System

Eye

+ 1

Urinary System

Kidney

+ + + + + + + + + + 10

* ..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: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:08

First Dose M/F: NA / NA

Lab: BNW

**B6C3F1 Mouse Female
250 PPM**

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

*TOTALS

Alimentary System

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|--------|
| Liver | + | + | + | + | + | + | + | + | + | + | 10 |
| Kupffer Cell, Pigmentation, Hemosiderin | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 1.0 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | 10 |
| Epithelium, Hyperplasia | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 3 | 10 1.7 |
| Inflammation | | | | | | 1 | 1 | | | 1 | 4 1.0 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | 10 |

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

| | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|----|
| Lymph Node, Mandibular | + | + | + | + | + | M | + | + | + | + | 9 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | 10 |
| Spleen | + | + | + | + | + | + | + | + | + | + | 10 |

* ..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: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:08

First Dose M/F: NA / NA

Lab: BNW

**B6C3F1 Mouse Female
250 PPM**

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

*TOTALS

Hematopoietic Cell Proliferation 2 1 2.0

Pigmentation, Hemosiderin 1 1 1 1 1 1 1 1 1 10 1.0

Thymus + + + + + + + + + + 10

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

Lung + + + + + + + + + + 10

Special Senses System

NONE

Urinary System

Kidney + + + + + + + + + + 10

* ..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: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:08

First Dose M/F: NA / NA

Lab: BNW

| B6C3F1 Mouse Female
500 PPM | DAY ON TEST | 0 0 0 0 0 0 0 0 0 0 | | | | | | | | | |
|--------------------------------|-------------|---------------------|---|---|---|---|---|---|---|---|---|
| | | 0 0 0 0 0 0 0 0 0 0 | | | | | | | | | |
| | | 9 9 9 9 9 9 0 0 0 0 | | | | | | | | | |
| | | 5 5 5 5 5 5 3 8 3 2 | | | | | | | | | |
| | | 0 0 0 0 0 0 0 0 0 0 | | | | | | | | | |
| ANIMAL ID | 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 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| | | *TOTALS | | | | | | | | | |

Alimentary System

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|-------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | 10 |
| Gallbladder | + | + | + | + | + | + | A | + | + | + | 9 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | 10 |
| Liver | + | + | + | + | + | + | + | + | + | + | 10 |
| Kupffer Cell, Pigmentation, Hemosiderin | 1 | 1 | 1 | 1 | 1 | 1 | | | | | 6 1.0 |
| Necrosis | | | | | | | 3 | | | | 1 3.0 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | 10 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | 10 |
| Epithelium, Hyperplasia | 3 | 2 | 2 | | 1 | | | | | | 4 2.0 |
| Inflammation | 1 | 1 | | 1 | 2 | 3 | 1 | 2 | | | 7 1.6 |
| Necrosis | | | | | | 3 | 3 | 3 | | | 3 3.0 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | 10 |
| Ulcer | | | | | | 2 | | | | | 1 2.0 |

Cardiovascular System

| | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|----|
| Heart | + | + | + | + | + | + | + | + | + | + | 10 |
|-------|---|---|---|---|---|---|---|---|---|---|----|

* ..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: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:08

First Dose M/F: NA / NA

Lab: BNW

| B6C3F1 Mouse Female
500 PPM | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|--------------------|----------------|---|---|---|---|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 |
| | | 5 | 5 | 5 | 5 | 5 | 3 | 8 | 3 | 2 |
| | ANIMAL ID | 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 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | *TOTALS | | | | | | | | |

Endocrine System

| | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | 10 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | 10 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 10 |
| Parathyroid Gland | + | + | + | + | + | + | + | I | + | + | 9 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | 10 |

General Body System

NONE

Genital System

| | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|----|
| Clitoral Gland | + | + | M | + | M | M | + | M | + | + | 6 |
| Ovary | + | + | + | + | M | + | + | + | + | + | 9 |
| Uterus | + | + | + | + | + | + | + | + | + | + | 10 |

Hematopoietic System

| | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|-----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | 10 |
| Lymph Node, Bronchial | + | + | + | + | + | + | M | + | + | M | 8 |
| Lymph Node, Mandibular | + | + | + | + | M | + | + | + | + | + | 9 |
| Lymph Node, Mediastinal | + | M | + | + | M | + | M | M | M | M | 4 |
| Lymph Node, Mesenteric | + | + | M | + | + | + | + | + | + | + | 9 |
| Atrophy | | | | | | | 2 | 3 | | 2 | 2.5 |
| Spleen | + | + | + | + | + | + | + | + | + | + | 10 |

* ..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

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1-4 ..Lesion qualified as:

- 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:50:08

First Dose M/F: NA / NA

Lab: BNW

B6C3F1 Mouse Female
500 PPM

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

***TOTALS**

| | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|-----|-------|
| Spleen | + | + | + | + | + | + | + | + | + | + | 10 |
| Atrophy | | | | | | | 3 | 3 | 3 | 3 | 3.0 |
| Hematopoietic Cell Proliferation | 2 | 2 | 2 | 2 | 2 | 2 | | | | | 6 2.0 |
| Pigmentation, Hemosiderin | 1 | 1 | 1 | 1 | 1 | 1 | | | | | 6 1.0 |
| Thymus | + | + | + | + | + | + | + | + | + | + | 10 |
| Atrophy | | | | | | | 2 | 4 | | 2 | 3.0 |
| Integumentary System | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Skin | + | + | + | + | + | + | + | + | + | + | 10 |
| Musculoskeletal System | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | 10 |
| Nervous System | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | 10 |
| Hemorrhage | | | | | | | 2 | | 1 | 2.0 | |
| Respiratory System | | | | | | | | | | | |
| Larynx | + | + | + | + | + | + | + | + | + | + | 10 |
| Lung | + | + | + | + | + | + | + | + | + | + | 10 |
| Mediastinum, Inflammation, Suppurative | | | | | 2 | | 2 | | 2 | 2.0 | |
| Perivascular, Infiltration Cellular,
Mononuclear CI | | | | | | | 2 | | 1 | 2.0 | |
| Thrombosis | | | | | | 1 | | 1 | 1 | 1.0 | |

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Time Report Requested: 12:50:08

First Dose M/F: NA / NA

Lab: BNW

**B6C3F1 Mouse Female
500 PPM**

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 8 | 3 | 2 |

ANIMAL ID

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |

*TOTALS

| | | | | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|---|---|----|
| Nose | + | + | + | + | + | + | + | + | + | + | 10 |
| Trachea | + | + | + | + | + | + | + | + | + | + | 10 |

Special Senses System

NONE

Urinary System

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|-------|
| Kidney | + | + | + | + | + | + | + | + | + | + | 10 |
| Renal Tubule, Degeneration | | | | | | | 2 | 1 | 1 | | 3 1.3 |
| Renal Tubule, Pigmentation, Hemosiderin | 1 | 1 | 1 | 1 | 1 | 1 | | | | | 6 1.0 |
| Urinary Bladder | + | + | + | + | | + | + | + | + | + | 9 |

** END OF REPORT **

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