

Experiment Number: 05197-10

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

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

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

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:47:38

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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First Dose M/F: NA / NA

Lab: BNW

| B6C3F1 Mouse MALE | CONTROL | 31 PPM | 62.5 PPM | 125 PPM | 250 PPM | 500 PPM |
|---|---------|--------|----------|---------|---------|---------|
| Disposition Summary | | | | | | |
| Animals Initially In Study | 10 | 10 | 10 | 10 | 10 | 10 |
| Early Deaths | | | | | | |
| Moribund Sacrifice | | | | | | 2 |
| Natural Death | | | | | | 2 |
| Survivors | | | | | | |
| Terminal Sacrifice | 10 | 10 | 10 | 10 | 10 | 6 |
| Animals Examined Microscopically | 10 | 10 | 10 | 10 | 10 | 10 |
| ALIMENTARY SYSTEM | | | | | | |
| Esophagus | (10) | (0) | (0) | (0) | (0) | (10) |
| Gallbladder | (9) | (0) | (0) | (0) | (0) | (8) |
| Intestine Large, Cecum | (10) | (0) | (0) | (0) | (0) | (9) |
| Intestine Large, Colon | (10) | (0) | (0) | (0) | (0) | (9) |
| Intestine Large, Rectum | (10) | (0) | (0) | (0) | (0) | (9) |
| Intestine Small, Duodenum | (10) | (0) | (0) | (0) | (0) | (7) |
| Intestine Small, Ileum | (10) | (0) | (0) | (0) | (0) | (9) |
| Intestine Small, Jejunum | (10) | (0) | (0) | (0) | (0) | (9) |
| Liver | (10) | (10) | (10) | (10) | (10) | (10) |
| Kupffer Cell, Pigmentation, Hemosiderin | | | | | | 6 [1.0] |
| Necrosis | | | | 1 [1.0] | | |
| Pancreas | (10) | (0) | (0) | (0) | (0) | (10) |
| Salivary Glands | (10) | (0) | (0) | (0) | (0) | (10) |
| Stomach, Forestomach | (10) | (10) | (9) | (10) | (10) | (10) |
| Epithelium, Hyperplasia | | | | 1 [1.0] | | 3 [1.0] |
| Inflammation | | | | | | 3 [2.0] |
| Necrosis | | | | | | 2 [2.0] |
| Ulcer | | | | | | 2 [3.0] |
| Stomach, Glandular | (10) | (10) | (9) | (10) | (10) | (10) |

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

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Species/Strain: Mouse/B6C3F1

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First Dose M/F: NA / NA

Lab: BNW

| B6C3F1 Mouse MALE | CONTROL | 31 PPM | 62.5 PPM | 125 PPM | 250 PPM | 500 PPM |
|------------------------------|---------|--------|----------|---------|---------|---------|
| CARDIOVASCULAR SYSTEM | | | | | | |
| Heart | (10) | (0) | (0) | (0) | (0) | (10) |
| ENDOCRINE SYSTEM | | | | | | |
| Adrenal Cortex | (10) | (1) | (0) | (0) | (0) | (10) |
| Adrenal Medulla | (10) | (0) | (0) | (0) | (0) | (10) |
| Islets, Pancreatic | (10) | (0) | (0) | (0) | (0) | (10) |
| Parathyroid Gland | (8) | (0) | (0) | (0) | (0) | (9) |
| Pituitary Gland | (10) | (0) | (0) | (0) | (0) | (9) |
| Thyroid Gland | (10) | (0) | (0) | (0) | (0) | (10) |
| Hemorrhage | | | | | | 1 [2.0] |
| GENERAL BODY SYSTEM | | | | | | |
| Peritoneum | (0) | (0) | (0) | (0) | (0) | (2) |
| Inflammation, Suppurative | | | | | | 2 [2.0] |
| GENITAL SYSTEM | | | | | | |
| Epididymis | (10) | (10) | (10) | (10) | (10) | (10) |
| Necrosis | | | | | | 1 [1.0] |
| Preputial Gland | (9) | (0) | (0) | (0) | (0) | (10) |
| Prostate | (10) | (0) | (0) | (0) | (0) | (10) |
| Seminal Vesicle | (10) | (0) | (0) | (0) | (0) | (9) |
| Testes | (10) | (10) | (10) | (10) | (10) | (10) |
| Degeneration | | | | | | 3 [2.0] |
| HEMATOPOIETIC SYSTEM | | | | | | |
| Bone Marrow | (10) | (0) | (0) | (0) | (0) | (10) |
| Lymph Node, Bronchial | (9) | (0) | (0) | (0) | (0) | (6) |
| Lymph Node, Mandibular | (8) | (9) | (6) | (9) | (8) | (9) |
| Atrophy | | | | | | 1 [2.0] |
| Lymph Node, Mediastinal | (4) | (0) | (0) | (0) | (0) | (4) |

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Experiment Number: 05197-10

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Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

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

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

CAS Number: 111-76-2

Date Report Requested: 10/15/2014

Time Report Requested: 12:47:38

First Dose M/F: NA / NA

Lab: BNW

| B6C3F1 Mouse MALE | CONTROL | 31 PPM | 62.5 PPM | 125 PPM | 250 PPM | 500 PPM |
|--|---------|--------|----------|----------|----------|-----------------|
| Lymph Node, Mesenteric Atrophy | (10) | (10) | (9) | (10) | (10) | (9) 1 [2.0] |
| Spleen Atrophy | (10) | (10) | (10) | (10) | (10) | (10) 4 [2.3] |
| Hematopoietic Cell Proliferation | | | | 2 [1.0] | 9 [1.2] | 6 [2.0] |
| Hyperplasia, Lymphoid | 1 [1.0] | | | | | |
| Pigmentation, Hemosiderin | | | | 10 [1.0] | 10 [1.0] | 6 [1.0] |
| Thymus Atrophy | (10) | (10) | (10) | (10) | (10) | (9) 2 [3.5] |
| INTEGUMENTARY SYSTEM | | | | | | |
| Mammary Gland | (1) | (0) | (0) | (0) | (0) | (0) |
| Skin | (10) | (0) | (0) | (0) | (0) | (10) |
| MUSCULOSKELETAL SYSTEM | | | | | | |
| Bone | (10) | (0) | (0) | (0) | (0) | (10) |
| NERVOUS SYSTEM | | | | | | |
| Brain | (10) | (0) | (0) | (0) | (0) | (10) |
| RESPIRATORY SYSTEM | | | | | | |
| Larynx | (10) | (0) | (0) | (0) | (0) | (10) |
| Lung | (10) | (10) | (10) | (10) | (10) | (10) |
| Bronchiole, Metaplasia, Squamous | | | | 1 [1.0] | | |
| Hemorrhage | 1 [1.0] | | | | | |
| Mediastinum, Inflammation, Suppurative | | | | | | 2 [2.0] |
| Nose | (10) | (0) | (0) | (0) | (0) | (10) |
| Trachea | (10) | (0) | (0) | (0) | (0) | (10) |
| SPECIAL SENSES SYSTEM | | | | | | |
| Eye | (0) | (0) | (0) | (1) | (0) | (0) |
| Harderian Gland | (0) | (0) | (0) | (0) | (1) | (0) |

a - Number of animals examined microscopically at site and number of animals with lesion

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Date Report Requested: 10/15/2014

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First Dose M/F: NA / NA

Lab: BNW

| B6C3F1 Mouse MALE | CONTROL | 31 PPM | 62.5 PPM | 125 PPM | 250 PPM | 500 PPM |
|---|---------|---------|----------|---------|---------|---------|
| URINARY SYSTEM | | | | | | |
| Kidney | (10) | (10) | (10) | (10) | (10) | (10) |
| Renal Tubule, Degeneration | | | | | | 4 [1.8] |
| Renal Tubule, Pigmentation, Hemosiderin | | | | | | 5 [1.0] |
| Renal Tubule, Regeneration | | 1 [1.0] | | | | |
| Urinary Bladder | (10) | (0) | (0) | (0) | (0) | (10) |

END OF MALE DATA

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Experiment Number: 05197-10

Test Type: 90-DAY

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Species/Strain: Mouse/B6C3F1

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CAS Number: 111-76-2

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First Dose M/F: NA / NA

Lab: BNW

| B6C3F1 Mouse FEMALE | CONTROL | 31 PPM | 62.5 PPM | 125 PPM | 250 PPM | 500 PPM |
|---|---------|---------|----------|---------|----------|---------|
| Disposition Summary | | | | | | |
| Animals Initially In Study | 10 | 10 | 10 | 10 | 10 | 10 |
| Early Deaths | | | | | | |
| Moribund Sacrifice | | | | | | 2 |
| Natural Death | | | | | | 2 |
| Survivors | | | | | | |
| Terminal Sacrifice | 10 | 10 | 10 | 10 | 10 | 6 |
| Animals Examined Microscopically | 10 | 10 | 10 | 10 | 10 | 10 |
| ALIMENTARY SYSTEM | | | | | | |
| Esophagus | (10) | (0) | (0) | (0) | (0) | (10) |
| Gallbladder | (7) | (0) | (0) | (0) | (0) | (9) |
| Intestine Large, Cecum | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Large, Colon | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Large, Rectum | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Small, Duodenum | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Small, Ileum | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Small, Jejunum | (10) | (0) | (0) | (0) | (0) | (10) |
| Liver | (10) | (10) | (10) | (10) | (10) | (10) |
| Eosinophilic Focus | | | 1 | | | |
| Kupffer Cell, Pigmentation, Hemosiderin | | | | | 10 [1.0] | 6 [1.0] |
| Necrosis | | | | | | 1 [3.0] |
| Pancreas | (10) | (0) | (0) | (0) | (0) | (10) |
| Salivary Glands | (10) | (0) | (0) | (0) | (0) | (10) |
| Stomach, Forestomach | (10) | (10) | (10) | (10) | (10) | (10) |
| Epithelium, Hyperplasia | 1 [1.0] | 2 [1.5] | 5 [1.2] | 9 [1.8] | 10 [1.7] | 4 [2.0] |
| Inflammation | | 1 [1.0] | | 2 [1.0] | 4 [1.0] | 7 [1.6] |
| Necrosis | | | | | | 3 [3.0] |
| Stomach, Glandular | (10) | (10) | (10) | (10) | (10) | (10) |

a - Number of animals examined microscopically at site and number of animals with lesion

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First Dose M/F: NA / NA

Lab: BNW

| B6C3F1 Mouse FEMALE | CONTROL | 31 PPM | 62.5 PPM | 125 PPM | 250 PPM | 500 PPM |
|----------------------------------|---------|--------|----------|---------|----------|---------|
| Ulcer | | | | | | 1 [2.0] |
| CARDIOVASCULAR SYSTEM | | | | | | |
| Heart | (10) | (0) | (0) | (0) | (0) | (10) |
| ENDOCRINE SYSTEM | | | | | | |
| Adrenal Cortex | (10) | (0) | (0) | (0) | (0) | (10) |
| Adrenal Medulla | (10) | (0) | (0) | (0) | (0) | (10) |
| Islets, Pancreatic | (10) | (0) | (0) | (0) | (0) | (10) |
| Parathyroid Gland | (8) | (0) | (0) | (0) | (0) | (9) |
| Pituitary Gland | (10) | (0) | (0) | (0) | (0) | (10) |
| Thyroid Gland | (10) | (0) | (0) | (0) | (0) | (10) |
| GENERAL BODY SYSTEM | | | | | | |
| None | | | | | | |
| GENITAL SYSTEM | | | | | | |
| Clitoral Gland | (10) | (0) | (0) | (0) | (0) | (6) |
| Ovary | (10) | (0) | (0) | (0) | (0) | (9) |
| Uterus | (10) | (0) | (0) | (0) | (0) | (10) |
| HEMATOPOIETIC SYSTEM | | | | | | |
| Bone Marrow | (10) | (0) | (0) | (0) | (0) | (10) |
| Lymph Node, Bronchial | (7) | (0) | (0) | (0) | (0) | (8) |
| Lymph Node, Mandibular | (8) | (10) | (9) | (5) | (9) | (9) |
| Lymph Node, Mediastinal | (4) | (0) | (0) | (0) | (0) | (4) |
| Lymph Node, Mesenteric | (10) | (10) | (10) | (10) | (10) | (9) |
| Atrophy | | | | | | 2 [2.5] |
| Spleen | (10) | (10) | (10) | (10) | (10) | (10) |
| Atrophy | | | | | | 3 [3.0] |
| Hematopoietic Cell Proliferation | | | | | 1 [2.0] | 6 [2.0] |
| Pigmentation, Hemosiderin | | | | | 10 [1.0] | 6 [1.0] |

a - Number of animals examined microscopically at site and number of animals with lesion

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First Dose M/F: NA / NA

Lab: BNW

| B6C3F1 Mouse FEMALE | CONTROL | 31 PPM | 62.5 PPM | 125 PPM | 250 PPM | 500 PPM |
|--|---------|--------|----------|---------|---------|---------|
| Pigmentation, Melanin | 1 [2.0] | | | | | |
| Thymus Atrophy | (10) | (10) | (10) | (10) | (10) | (10) |
| | | | | | | 2 [3.0] |
| INTEGUMENTARY SYSTEM | | | | | | |
| Mammary Gland | (10) | (0) | (0) | (0) | (0) | (10) |
| Skin | (10) | (0) | (0) | (0) | (0) | (10) |
| MUSCULOSKELETAL SYSTEM | | | | | | |
| Bone | (10) | (0) | (0) | (0) | (0) | (10) |
| NERVOUS SYSTEM | | | | | | |
| Brain | (10) | (0) | (0) | (0) | (0) | (10) |
| Hemorrhage | | | | | | 1 [2.0] |
| RESPIRATORY SYSTEM | | | | | | |
| Larynx | (10) | (0) | (0) | (0) | (0) | (10) |
| Lung | (10) | (10) | (10) | (10) | (10) | (10) |
| Mediastinum, Inflammation, Suppurative | | | | | | 2 [2.0] |
| Perivascular, Infiltration Cellular, Mononuclear Cl | | | | | | 1 [2.0] |
| Thrombosis | | | | | | 1 [1.0] |
| Nose | (10) | (0) | (0) | (0) | (0) | (10) |
| Trachea | (10) | (0) | (0) | (0) | (0) | (10) |
| SPECIAL SENSES SYSTEM | | | | | | |
| Eye | (0) | (0) | (0) | (1) | (0) | (0) |
| URINARY SYSTEM | | | | | | |
| Kidney | (10) | (10) | (10) | (10) | (10) | (10) |
| Renal Tubule, Degeneration | | | | | | 3 [1.3] |
| Renal Tubule, Pigmentation, Hemosiderin | | | | | | 6 [1.0] |
| Urinary Bladder | (8) | (0) | (0) | (0) | (0) | (9) |

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Lab: BNW

B6C3F1 Mouse FEMALE

CONTROL

31 PPM

62.5 PPM

125 PPM

250 PPM

500 PPM

**** END OF REPORT ****

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)