TDMS No. 93025 - 06

Test Type: CHRONIC

Species/Strain: MICE/B6C3F1

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

Tetralin

CAS Number: 119-64-2

Date Report Requested: 05/22/2008

Time Report Requested: 06:34:08 First Dose M/F: 06/23/03 / 06/23/03

Lab: BNW

C Number: C93025

Route: RESPIRATORY EXPOSURE WHOLE BODY

Lock Date: 03/22/2006

Cage Range: ALL

Date Range: ALL

Reasons For Removal: ALL

Removal Date Range: ALL

Treatment Groups: Include ALL

Study Gender: Both

TDMSE Version: 2.0.0

Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

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

Tetralin

CAS Number: 119-64-2

Date Report Requested: 05/22/2008

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| B6C3F1 MICE MALE | CONTROL | 30 PPM | 60 PPM | 120 PPM |
|---|----------|-----------|----------|----------|
| Disposition Summary | | | | |
| Animals Initially in Study | 50 | 50 | 50 | 50 |
| Early Deaths | _ | _ | _ | |
| Moribund Sacrifice | 9 | 8 | 7 | 11 |
| Natural Death | 5 | 7 | 5 | 3 |
| Survivors | 00 | 0.5 | 00 | 00 |
| Terminal Sacrifice Animals Examined Microscopically | 36 50 | 35 50 | 38 50 | 36 50 |
| Animais Examined wicroscopically | 50 | 50 | 50 | 50 |
| ALIMENTARY SYSTEM | | | | |
| Gallbladder | (43) | (41) | (43) | (41) |
| Degeneration, Hyaline | (10) | (' ' ') | (10) | 1 [3.0] |
| Infiltration Cellular, Polymorphonuclear | | 1 [2.0] | | . [0.0] |
| Intestine Large, Cecum | (47) | (45) | (45) | (47) |
| Hemorrhage | (, | 1 [3.0] | () | (, |
| Intestine Small, Duodenum | (45) | (45) | (45) | (47) |
| Necrosis | 1 [1.0] | (-/ | (-/ | (- / |
| Intestine Small, Ileum | (47) | (44) | (45) | (47) |
| Infiltration Cellular, Mixed Cell | 2 [2.0] | ` ' | (-/ | ` / |
| Peyer's Patch, Inflammation, | i -1 | 1 [3.0] | | |
| Granulomatous | | F 1 | | |
| Intestine Small, Jejunum | (45) | (44) | (45) | (47) |
| Inflammation, Suppurative | 1 [3.0] | , , | ` ' | ` ' |
| Liver | (49) | (50) | (50) | (50) |
| Angiectasis | 2 [1.0] | 1 [1.0] | | , , |
| Basophilic Focus | 4 [2.0] | 4 [2.3] | 4 [2.3] | 1 [3.0] |
| Clear Cell Focus | 16 [2.1] | 16 [2.1] | 14 [2.1] | 18 [2.2] |
| Eosinophilic Focus | 1 [2.0] | 1 [2.0] | 4 [2.3] | 3 [2.0] |
| Hepatodiaphragmatic Nodule | | | | 1 |
| Infarct | | 1 [4.0] | | |
| Mixed Cell Focus | 1 [2.0] | 1 [2.0] | 1 [3.0] | |
| Necrosis | 2 [3.0] | 2 [3.5] | | 3 [2.0] |
| Tension Lipidosis | 2 [1.0] | 2 [1.0] | 3 [2.0] | 3 [1.3] |
| Vacuolization Cytoplasmic | | | | 1 [4.0] |
| Mesentery | (13) | (4) | (10) | (2) |
| Artery, Inflammation | | | | 1 [3.0] |

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)

Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

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

Tetralin

CAS Number: 119-64-2

Date Report Requested: 05/22/2008

Time Report Requested: 06:34:08 First Dose M/F: 06/23/03 / 06/23/03

| B6C3F1 MICE MALE | CONTROL | 30 PPM | 60 PPM | 120 PPM | |
|---|-----------------|----------|--------------------|-----------------|--|
| Fat, Necrosis | 13 [2.0] | 4 [2.0] | 10 [2.0] | 1 [2.0] | |
| Pancreas | (49) | (49) | (50) | (50) | |
| Basophilic Focus | 1 [2.0] | , | 1 [1.0] | , | |
| Hemorrhage | | | 1 [4.0] | | |
| Inflammation, Granulomatous | | 1 [2.0] | | | |
| Inflammation, Acute | | 4 | 1 [3.0] | () | |
| Stomach, Forestomach | (49) | (48) | (50) | (50) | |
| Hyperplasia, Squamous | 1 [3.0] | 1 [2.0] | 4 [2.8] | 4 [2.8] | |
| Infiltration Cellular, Mast Cell | 1 [2.0] | 4 [0 0] | 4 [0 0] | 2 [2 2] | |
| Inflammation Ulcer | 1 [2 0] | 1 [2.0] | 4 [2.3] 3 [2.3] | 3 [2.3] | |
| Stomach, Glandular | 1 [3.0] (49) | (47) | 3 [2.3] (48) | 3 [3.0] (48) | |
| Necrosis | 3 [1.3] | 2 [1.5] | (40) | (40) | |
| Artery, Inflammation, Chronic Active | 1 [3.0] | 2 [1.0] | 1 [4.0] | | |
| Tooth | (7) | (6) | (7) | (1) | |
| Malformation | 6 [2.7] | 6 [2.0] | 7 [2.0] | 1 [2.0] | |
| CARDIOVASCULAR SYSTEM | | | | | |
| Blood Vessel Aorta, Mineralization | (0) | (0) | (0) | (1) 1 [2.0] | |
| Heart | (50) | (50) | (50) | (50) | |
| Cardiomyopathy | 6 [1.0] | 2 [1.0] | 5 [1.2] | 5 [1.2] | |
| Inflammation, Suppurative | . [] | -[•] | - [] | 1 [2.0] | |
| Mineralization | | 1 [1.0] | | 2 [1.0] | |
| Thrombosis | | 1 [3.0] | | | |
| Artery, Inflammation, Chronic Active | | | 3 [2.0] | | |
| ENDOCRINE SYSTEM | | | | | |
| Adrenal Cortex | (49) | (49) | (50) | (50) | |
| Atrophy | 2 [3.0] | | | | |
| Hyperplasia | 17 [2.1] | 14 [2.0] | 10 [2.0] | 9 [1.9] | |
| Hypertrophy | 24 [2.0] | 21 [2.1] | 16 [2.0] | 18 [1.9] | |
| Necrosis | 1 [1 0] | | | 1 [3.0] | |
| Capsule, Hyperplasia Adrenal Medulla | 1 [1.0] (47) | (49) | (49) | (50) | |
| Hyperplasia | 1 [2.0] | 1 [3.0] | (4 8) | (50) 3 [2.0] | |
| Islets, Pancreatic | (49) | (48) | (50) | (50) | |
| | (10) | (10) | (33) | (00) | |

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)

Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

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

Tetralin

CAS Number: 119-64-2

Date Report Requested: 05/22/2008

Time Report Requested: 06:34:08 First Dose M/F: 06/23/03 / 06/23/03

| Peritoneum (0) (1) (0) (0) ENITAL SYSTEM Epididymis (50) (50) (50) (50) (50) Granuloma Sperm 1 [4.0] 2 [3.0] Preputial Gland (50) (50) (49) (50) Ectasia 1 [3.0] Prostate (49) (48) (49) (49) Inflammation, Chronic Active Seminal Vesicle (49) (47) (48) (48) Inflammation, Chronic Active 1 [4.0] Testes (50) (50) (50) (50) (50) Atrophy | | | | | |
|--|--------------------------------|-----------------|---------|-----------------|-------------|
| Pitulizary Gland | B6C3F1 MICE MALE | CONTROL | 30 PPM | 60 PPM | 120 PPM |
| Pars Distalis, Hyperplasia | Hyperplasia Pituitary Gland | 2 [2.0] (50) | | 3 [2.0] (48) | (49) |
| Follicular Cell, Hyperplasia 1 [1.0] 1 [1.0] ENERAL BODY SYSTEM Peritoneum (0) (1) (0) (0) ENITAL SYSTEM Epididymis (50) (50) (50) (50) (50) Granuloma Sperm 1 [4.0] Preputial Gland (50) (50) (49) (50) Ectasia 1 [3.0] Prostate (49) (48) (49) (49) Inflammation, Chronic Active 1 [1.0] Seminal Vesicle (49) (47) (48) (48) Inflammation, Chronic Active 1 [1.0] Entropy (50) (50) (50) (50) (50) (50) Example (49) (47) (48) (48) Inflammation, Chronic Active 1 [1.0] EMATOPOIETIC SYSTEM Bone Marrow (50) (49) (50) (50) Angiectasis 1 [2.0] Lymph Node, Bronchial (35) (30) (22) (27) Lymph Node, Mandibular (24) (26) (28) (25) Lymph Node, Mediastinal (34) (36) (34) (33) Lymph Node, Mediastinal (34) (36) (34) (38) Lymph Node, Mediastinal (34) (36) (34) (33) Lymph Node, Mediastinal (34) (36) (34) (38) Lymph Node, Mediastinal (34) (36) (34) (33) Lymph Node, Mediastinal (34) (36) (34) (38) Lymph Node, Mediastinal (34) (36) (34) (36) Lymph Node, Mediastinal (34) (36) (34) (36) Lymph Node, Mediastinal (34) (36) (34) (36) Lymph Node, Med | Pars Distalis, Hyperplasia | | 1 [2.0] | | |
| Follicular Čell, Hyperplasia | | (49) | (49) | (49) | |
| Peritoneum (0) | Follicular Cell, Hyperplasia | | | 1 [1.0] | |
| ENITAL SYSTEM Epididymis (50) (50) (50) (50) (50) Granuloma Sperm 1 [4.0] 2 [3.0] Preputial Gland (50) (50) (49) (50) Ectasia 1 [3.0] 9 Prostate (49) (48) (49) (48) (49) (49) Inflammation, Chronic Active 1 [3.0] 9 Seminal Vesicle (49) (47) (48) (48) (48) Inflammation, Chronic Active 1 [4.0] 1 [3.0] Testes (50) (50) (50) (50) (50) (50) Atrophy 2 [3.0] EMATOPOIETIC SYSTEM Bone Marrow (50) (49) (50) (49) Angiectasis 1 [2.0] 1 [2.0] Lymph Node, Bronchial (35) (30) (22) (27) Lymph Node, Mandibular (24) (26) (28) (25) Lymph Node, Mediastinal (34) (36) (34) (33) Lymph Node, Mediastinal (34) (36) (34) (33) Lymph Node, Mesenteric (47) (48) (48) (48) Hyperplasia, Lymphoid Infiltration Cellular, Mixed Cell (210) | GENERAL BODY SYSTEM | | | | |
| Epididymis (50) (50) (50) (50) (50) (50) (50) (50) | Peritoneum | (0) | (1) | (0) | (0) |
| Carauloma Sperm | GENITAL SYSTEM | | | | |
| Preputial Gland (50) (50) (49) (50) Ectasia 1 [3.0] Prostate (49) (48) (49) (49) Inflammation, Chronic Active 1 [3.0] Seminal Vesicle (49) (47) (48) (48) Inflammation, Chronic Active 1 [4.0] (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (49) (50) (49) (50) (49) (50) (49) (50) (49) <t< td=""><td></td><td></td><td>(50)</td><td>(50)</td><td></td></t<> | | | (50) | (50) | |
| Fostate | | | (50) | (40) | |
| Prostate | Ectasia | | (50) | (49) | (50) |
| Seminal Vesicle Inflammation, Chronic Active (49) (47) (48) (48) Inflammation, Chronic Active 1 [4.0] (50) (50) (50) (50) Atrophy (50) (50) (50) (50) (50) (49) EMATOPOIETIC SYSTEM 8 8 (50) (49) (50) (49) Angiectasis 1 [2.0] <td< td=""><td></td><td></td><td>(48)</td><td></td><td>(49)</td></td<> | | | (48) | | (49) |
| Inflammation, Chronic Active 1 [4.0] Testes (50) (50) (50) (50) (50) Atrophy 2 [3.0] EMATOPOIETIC SYSTEM Bone Marrow (50) (49) (50) (49) Angiectasis 1 [2.0] Lymph Node (1) (0) (0) (0) Lymph Node, Bronchial (35) (30) (22) (27) Lymph Node, Mandibular (24) (26) (28) (25) Lymph Node, Mediastinal (34) (36) (34) (33) Lymph Node, Mesenteric (47) (48) (48) Hyperplasia, Lymphoid 1 [3.0] Infiltration Cellular, Mixed Cell 2 [3.0] | | (49) | (47) | | (48) |
| Atrophy 2 [3.0] EMATOPOIETIC SYSTEM Bone Marrow (50) (49) (50) (49) Angiectasis 1 [2.0] Lymph Node (1) (0) (0) (0) Lymph Node, Bronchial (35) (30) (22) (27) Lymph Node, Mandibular (24) (26) (28) (25) Lymph Node, Mediastinal (34) (36) (34) (33) Lymph Node, Mesenteric (47) (48) (48) (48) Hyperplasia, Lymphoid 1 [3.0] Infiltration Cellular, Mixed Cell 2 [3.0] | | | , , | (40) | |
| EMATOPOIETIC SYSTEM Bone Marrow (50) (49) (50) (49) Angiectasis 1 [2.0] Lymph Node (1) (0) (0) (0) Lymph Node, Bronchial (35) (30) (22) (27) Lymph Node, Mandibular (24) (26) (28) (25) Lymph Node, Mediastinal (34) (36) (34) (33) Lymph Node, Mesenteric (47) (48) (48) Hyperplasia, Lymphoid 1 [3.0] Infiltration Cellular, Mixed Cell 2 [3.0] | | (50) | (50) | | (50) |
| Bone Marrow Angiectasis 1 [2.0] Lymph Node (1) (0) (0) (0) (0) Lymph Node, Bronchial (35) (30) (22) (27) Lymph Node, Mandibular (24) (26) (28) (25) Lymph Node, Mediastinal (34) (36) (34) (33) Lymph Node, Mesenteric (47) (48) (48) (48) (48) Infiltration Cellular, Mixed Cell (50) (49) (49) (49) (49) (49) (49) (49) (49 | Atrophy | | | 2 [3.0] | |
| Angiectasis 1 [2.0] Lymph Node (1) (0) (0) (0) Lymph Node, Bronchial (35) (30) (22) (27) Lymph Node, Mandibular (24) (26) (28) (25) Lymph Node, Mediastinal (34) (36) (34) (33) Lymph Node, Mesenteric (47) (48) (48) (48) Hyperplasia, Lymphoid 1 [3.0] Infiltration Cellular, Mixed Cell 2 [3.0] | HEMATOPOIETIC SYSTEM | | | | |
| Lymph Node (1) (0) (0) (0) Lymph Node, Bronchial (35) (30) (22) (27) Lymph Node, Mandibular (24) (26) (28) (25) Lymph Node, Mediastinal (34) (36) (34) (33) Lymph Node, Mesenteric (47) (48) (48) (48) Hyperplasia, Lymphoid 1 [3.0] Infiltration Cellular, Mixed Cell 2 [3.0] | | | (49) | (50) | (49) |
| Lymph Node, Bronchial (35) (30) (22) (27) Lymph Node, Mandibular (24) (26) (28) (25) Lymph Node, Mediastinal (34) (36) (34) (33) Lymph Node, Mesenteric (47) (48) (48) (48) Hyperplasia, Lymphoid 1 [3.0] 1 [3.0] 1 [3.0] Infiltration Cellular, Mixed Cell 2 [3.0] 1 [3.0] 1 [3.0] | | | (0) | (0) | (0) |
| Lymph Node, Mandibular (24) (26) (28) (25) Lymph Node, Mediastinal (34) (36) (34) (33) Lymph Node, Mesenteric (47) (48) (48) (48) Hyperplasia, Lymphoid 1 [3.0] 1 [3.0] Infiltration Cellular, Mixed Cell 2 [3.0] | | | | (0) (22) | (0) (27) |
| Lymph Node, Mediastinal (34) (36) (34) (33) Lymph Node, Mesenteric (47) (48) (48) (48) Hyperplasia, Lymphoid 1 [3.0] Infiltration Cellular, Mixed Cell 2 [3.0] | | | | | |
| Lymph Node, Mesenteric (47) (48) (48) (48) Hyperplasia, Lymphoid 1 [3.0] Infiltration Cellular, Mixed Cell 2 [3.0] | | | | | (33) |
| Infiltration Cellular, Mixed Cell 2 [3.0] | | | | | |
| | Hyperplasia, Lymphoid | 0.50.01 | 1 [3.0] | | |
| inilitation Celiular, Plasma Celi 2 [3.0] | | | | | |
| Spleen (49) (49) (49) | | | (49) | (40) | (40) |
| Depletion Cellular 1 [4.0] | | | (43) | (40) | (40) |

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)

Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

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

Tetralin

CAS Number: 119-64-2

Time Report Requested: 06:34:08

First Dose M/F: 06/23/03 / 06/23/03

Date Report Requested: 05/22/2008

| B6C3F1 MICE MALE | CONTROL | 30 PPM | 60 PPM | 120 PPM |
|---|----------------|--------------------|--------------------|-----------------|
| Hematopoietic Cell Proliferation | 5 [2.8] | 5 [3.0] | 2 [3.0] | 5 [2.6] |
| Hyperplasia, Lymphoid Thymus | (47) | 1 [3.0] (40) | (45) | (43) |
| INTEGUMENTARY SYSTEM | | | | |
| Skin Hyperplasia, Squamous | (50) | (49) | (50) | (50) 1 [1.0] |
| Inflammation, Chronic Active Metaplasia, Osseous | 3 [3.3] | 4 [3.0] 1 [3.0] | 7 [3.7] | 6 [3.2] |
| MUSCULOSKELETAL SYSTEM | | | | |
| Bone Hyperostosis | (50) | (50) | (50) | (49) |
| Skeletal Muscle | (0) | 1 [2.0] (1) | (0) | (0) |
| NERVOUS SYSTEM | | | | |
| Brain | (50) | (50) | (50) | (50) |
| Inflammation, Acute Meninges, Infiltration Cellular, Mononuclear Cell | 1 [2.0] | | 1 [2.0] | |
| Spinal Cord Demyelination, Focal | (1) 1 [3.0] | (0) | (0) | (0) |
| Gliosis | 1 [3.0] | | | |
| RESPIRATORY SYSTEM | | | | |
| Larynx | (50) | (50) | (50) | (50) |
| Inflammation, Acute Squamous Epithelium, Polyp, Inflammatory | 1 [1.0] | | | 1 [2.0] |
| Lung Fibrosis | (50) | (50) 1 [3.0] | (50) | (50) |
| Inflammation, Chronic Active | | 1 [5.0] | 4 [4 0] | 1 [2.0] |
| Thrombosis Alveolar Epithelium, Hyperplasia | 2 [1.5] | 6 [1.5] | 1 [1.0] 8 [1.9] | 8 [1.3] |
| | | | | |

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

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| B6C3F1 MICE MALE | CONTROL | 30 PPM | 60 PPM | 120 PPM | |
|--|--------------------|--------------------|----------|-----------------|--|
| Alveolar Epithelium, Metaplasia, | | 1 [1.0] | | | |
| Squamous | | | | | |
| Alveolus, Infiltration Cellular, Histiocyte | 1 [1.0] | | 2 [1.0] | 1 [4.0] | |
| Arteriole, Mineralization | 4.54.03 | 0.10.01 | 4 [0.0] | 1 [2.0] | |
| Bronchiole, Hyperplasia | 4 [1.0] | 2 [3.0] | 1 [2.0] | 3 [2.3] | |
| Nose | (49) | (49) | (50) | (50) | |
| Inflammation | 0.[4.5] | 00 [4 0] | 45 [4 0] | 1 [2.0] | |
| Inflammation, Suppurative | 2 [1.5] | 26 [1.0] | 45 [1.3] | 45 [1.6] | |
| Glands, Olfactory Epithelium, | 14 [1.0] | 49 [2.1] | 50 [3.0] | 49 [3.1] | |
| Hyperplasia Glands, Olfactory Epithelium, | | | | 1 [2 0] | |
| Inflammation | | | | 1 [3.0] | |
| Olfactory Epithelium, Atrophy | 2 [1.0] | 49 [2.6] | 50 [3.3] | 50 [3.8] | |
| Olfactory Epithelium, Metaplasia, | 2 [1.0] 2 [1.0] | 47 [1.6] | 50 [2.3] | 49 [2.4] | |
| Respiratory | 2 [1.0] | 47 [1.0] | 00 [Z.0] | 40 [2.4] | |
| Trachea | (49) | (48) | (50) | (50) | |
| Inflammation, Suppurative | (13) | (10) | (00) | 1 [1.0] | |
| Mineralization | | | 1 [1.0] | . [] | |
| SPECIAL SENSES SYSTEM | | | | | |
| | | | | | |
| Eye | (48) | (46) | (47) | (47) | |
| Cataract | 1 [4.0] | 1 [3.0] | 1 [2.0] | | |
| Degeneration | | | | 1 [4.0] | |
| Inflammation, Suppurative | | | | 1 [2.0] | |
| Cornea, Inflammation, Chronic Active | 1 [3.0] | 3 [2.0] | 4.54.03 | 0.54.51 | |
| Cornea, Mineralization | (40) | (47) | 1 [1.0] | 2 [1.5] | |
| Harderian Gland | (49) | (47) | (50) | (50) | |
| Hyperplasia | 3 [2.0] | 1 [1.0] | 2 [1.5] | 2 [2.0] | |
| URINARY SYSTEM | | | | | |
| Kidney | (49) | (49) | (50) | (49) | |
| Cyst | (49) | (49) 1 [2.0] | (30) | (49) 1 [2.0] | |
| Hemorrhage | | 1 [2.0] 1 [3.0] | | ا زد.ن | |
| Infarct | | 2 [2.0] | 1 [2.0] | | |
| Metaplasia, Osseous | | 2 [2.0] 1 [1.0] | 2 [1.0] | 1 [1.0] | |
| Mineralization | | رد. ۱ ا | [۱۰۰۰] | 1 [2.0] | |
| Nephropathy | 46 [1.4] | 47 [1.5] | 48 [1.3] | 47 [1.4] | |
| - - - - - - - - - - - - | | [] | .0[0] | [] | |

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

TDMS No. 93025 - 06
Test Type: CHRONIC

Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

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

Tetralin

CAS Number: 119-64-2

Date Report Requested: 05/22/2008

Time Report Requested: 06:34:08 First Dose M/F: 06/23/03 / 06/23/03

Lab: BNW

| B6C3F1 MICE MALE | CONTROL | 30 PPM | 60 PPM | 120 PPM | |
|--|-----------------|--|-----------------------------|-----------------------------|--|
| Thrombosis Artery, Inflammation, Chronic Active Pelvis, Inflammation, Chronic Active Renal Tubule, Hyperplasia Urinary Bladder Transitional Epithelium, Eosinophilic Granules, Cytoplasmic | 1 [1.0] (49) | 1 [2.0] 1 [3.0] 1 [2.0] 4 [1.0] (47) 47 [1.0] | 1 [2.0] (50) 50 [1.0] | 4 [1.0] (48) 48 [1.0] | |

*** END OF MALE ***

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

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Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

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

Tetralin

CAS Number: 119-64-2

Time Papart Paguested: 06:24:08

Time Report Requested: 06:34:08 First Dose M/F: 06/23/03 / 06/23/03

Date Report Requested: 05/22/2008

| B6C3F1 MICE FEMALE | CONTROL | 30 PPM | 60 PPM | 120 PPM |
|--|--------------------|---------|--------------------|--------------------|
| Disposition Summary | | | | |
| Animals Initially in Study Early Deaths | 50 | 50 | 50 | 50 |
| Moribund Sacrifice | 17 | 9 | 6 | 6 |
| Natural Death | 2 | 3 | 2 | 1 |
| Survivors | | | | |
| Terminal Sacrifice | 31 | 38 | 42 | 43 |
| Animals Examined Microscopically | 50 | 50 | 50 | 50 |
| ALIMENTARY SYSTEM | | | | |
| Esophagus | (50) | (50) | (50) | (50) |
| Inflammation, Suppurative | 1 [4.0] | | | |
| Gallbladder | (42) | (43) | (44) | (47) |
| Infiltration Cellular, Polymorphonuclear | | | | 1 [2.0] |
| Intestine Large, Colon | (49) | (49) | (49) | (48) |
| Intestine Small, Duodenum | (48) | (48) | (48) | (49) |
| Necrosis | 1 [1.0] | | | |
| Intestine Small, Ileum | (48) | (48) | (49) | (49) |
| Infiltration Cellular, Polymorphonuclear | 1 [2.0] | 4 | () | |
| Intestine Small, Jejunum | (48) | (48) | (48) | (49) |
| Inflammation, Acute | (==) | 1 [2.0] | (==) | (==) |
| Liver | (50) | (50) | (50) | (50) |
| Angiectasis | 0.10.01 | | | 2 [2.0] |
| Basophilic Focus | 3 [2.0] | 0.00.01 | 0 [0 5] | 1 [2.0] |
| Clear Cell Focus | 2 [2.5] | 2 [2.0] | 2 [2.5] | 2 [3.0] |
| Eosinophilic Focus | 3 [2.0] | 2 [2.5] | 1 [4.0] | 1 [2.0] |
| Hematopoietic Cell Proliferation | 1 [2.0] | | | 4 |
| Hepatodiaphragmatic Nodule | 4 [0 0] | | | 1 |
| Infarct Inflammation, Chronic | 1 [2.0] | | 1 [2.0] | 1 [2 0] |
| Mitotic Alteration | | | 1 [2.0] 1 [2.0] | 1 [2.0] 1 [1.0] |
| Mixed Cell Focus | | | 1 [Z.U] | 1 [1.0] 1 [2.0] |
| Necrosis | 2 [2.5] | | | 1 [2.0] 2 [2.5] |
| Tension Lipidosis | 2 [2.5] 3 [1.7] | 8 [1.5] | 3 [1.3] | 2 [2.5] 3 [1.7] |
| Mesentery | (16) | (17) | (15) | (10) |
| Fat, Hemorrhage | (10) | 3 [1.7] | 1 [2.0] | (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)

Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

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

Tetralin

CAS Number: 119-64-2

Date Report Requested: 05/22/2008

Time Report Requested: 06:34:08 First Dose M/F: 06/23/03 / 06/23/03

| B6C3F1 MICE FEMALE | CONTROL | 30 PPM | 60 PPM | 120 PPM | |
|--------------------------------------|----------|----------|----------|------------------|--|
| Fat, Necrosis | 14 [2.0] | 14 [2.1] | 13 [2.0] | 10 [2.1] | |
| Pancreas | (50) | (50) | (50) | (50) | |
| Atrophy | (/ | 1 [3.0] | 1 [3.0] | 1 [1.0] | |
| Inflammation, Acute | | | | 1 [2.0] | |
| Inflammation, Chronic Active | 1 [2.0] | | | | |
| Necrosis | | | 1 [2.0] | | |
| Acinus, Hypertrophy | 1 [2.0] | | | | |
| Salivary Glands | (50) | (50) | (50) | (50) | |
| Atrophy | | | | 1 [2.0] | |
| Stomach, Forestomach | (50) | (50) | (50) | (50) | |
| Hyperplasia, Squamous | 2 [2.0] | 3 [2.7] | | 2 [2.0] | |
| Inflammation, Suppurative | 1 [2.0] | | | | |
| Ulcer | 1 [2.0] | 2 [2.5] | 1 [3.0] | 1 [3.0] | |
| Artery, Inflammation, Chronic Active | 1 [2.0] | | | | |
| Stomach, Glandular | (49) | (49) | (49) | (49) | |
| Mineralization | 1 [2.0] | | | | |
| Tooth | (1) | (0) | (0) | (0) | |
| ARDIOVASCULAR SYSTEM | | | | | |
| Blood Vessel | (2) | (1) | (1) | (0) | |
| Inflammation, Chronic Active | 1 [4.0] | () | , | , | |
| Adventitia, Metaplasia, Respiratory | | 1 [2.0] | | | |
| Aorta, Mineralization | 1 [2.0] | | 1 [2.0] | | |
| Heart | (50) | (50) | (50) | (50) | |
| Cardiomyopathy | 6 [1.0] | 5 [1.4] | 1 [1.0] | 4 [1.0] | |
| Inflammation, Suppurative | 1 [1.0] | | | | |
| Mineralization | 1 [2.0] | | 1 [2.0] | 1 [2.0] | |
| Thrombosis | | | 1 [3.0] | | |
| Artery, Inflammation, Chronic Active | 1 [2.0] | | 1 [2.0] | | |
| NDOCRINE SYSTEM | | | | | |
| Adrenal Cortex | (50) | (50) | (50) | (50) | |
| Hyperplasia | 5 [2.0] | 3 [2.0] | 12 [2.1] | 5 [2.0] | |
| Hypertrophy | 5 [2.0] | 1 [2.0] | 2 [2.0] | 3 [2.7] | |
| Necrosis | 1 [2.0] | · [2.0] | ر2.0 | ن ر <u>د.، ب</u> | |
| Adrenal Medulla | (50) | (50) | (50) | (50) | |
| | | | | | |
| Hyperplasia | 2 [2.0] | 2 [2.0] | 1 [2.0] | 5 [2.2] | |

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)

Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

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

Tetralin

CAS Number: 119-64-2

Date Report Requested: 05/22/2008

Time Report Requested: 06:34:08 First Dose M/F: 06/23/03 / 06/23/03

| B6C3F1 MICE FEMALE | CONTROL | 30 PPM | 60 PPM | 120 PPM | |
|--|--------------------|----------------|----------|----------|--|
| Islets, Pancreatic | (50) | (50) | (50) | (50) | |
| Hyperplasia Pituitary Gland | 2 [2.0] (49) | (50) | (50) | (50) | |
| Hemorrhage | (43) | 1 [2.0] | (30) | (30) | |
| Pars Distalis, Hyperplasia | 9 [2.0] | 11 [2.1] | 10 [2.2] | 7 [2.1] | |
| Thyroid Gland Inflammation, Chronic Active | (50) | (50) | (49) | (49) | |
| Follicular Cell, Hyperplasia | 1 [2.0] 1 [2.0] | | | | |
| GENERAL BODY SYSTEM | | | | | |
| Peritoneum | (0) | (1) | (0) | (0) | |
| GENITAL SYSTEM | | | | | |
| Ovary | (50) | (50) | (50) | (49) | |
| Angiectasis | 1 [4.0] | | 2 [3.0] | 1 [2.0] | |
| Cyst | 10 [2.2] | 11 [2.5] | 6 [2.5] | 11 [2.8] | |
| Hemorrhage Thrombosis | | 1 [4.0] | 1 [4.0] | | |
| Uterus | (50) | (50) | (50) | (50) | |
| Angiectasis | 1 [3.0] | 1 [2.0] | 1 [3.0] | 1 [2.0] | |
| Inflammation, Suppurative | 40.10.01 | 1 [4.0] | 47.50.41 | 40.50.41 | |
| Endometrium, Hyperplasia, Cystic | 46 [2.6] | 50 [2.6] | 47 [3.1] | 48 [3.4] | |
| HEMATOPOIETIC SYSTEM | | | | | |
| Bone Marrow | (50) | (50) | (50) | (49) | |
| Atrophy Lymph Node | (7) | 1 [1.0] (7) | (3) | (2) | |
| Angiectasis | (1) | (1) | (3) | 1 [3.0] | |
| Hemorrhage | | 1 [3.0] | | . [] | |
| Iliac, Angiectasis | | | 1 [3.0] | | |
| Lumbar, Angiectasis | 4 [2 0] | 2 [2 0] | 1 [4.0] | | |
| Lumbar, Ectasia Lumbar, Hyperplasia, Lymphoid | 1 [3.0] 2 [2.5] | 2 [3.0] | | | |
| Renal, Ectasia | ک زک.ن] | | | 1 [3.0] | |
| Renal, Hyperplasia, Lymphoid | 2 [2.5] | | | | |

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)

Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

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

Tetralin

CAS Number: 119-64-2

Date Report Requested: 05/22/2008

Time Report Requested: 06:34:08 First Dose M/F: 06/23/03 / 06/23/03

Lab: BNW

| B6C3F1 MICE FEMALE | CONTROL | 30 PPM | 60 PPM | 120 PPM | |
|---|-----------------|---------|---------|---------|--|
| Lymph Node, Bronchial | (33) | (32) | (28) | (37) | |
| Infiltration Cellular, Mixed Cell | 1 [3.0] | (0.4) | (00) | (0.1) | |
| Lymph Node, Mandibular | (33) | (34) | (30) | (31) | |
| Hyperplasia, Lymphoid Necrosis, Lymphoid | 1 [2.0] | | | | |
| Lymph Node, Mediastinal | 1 [3.0] (35) | (42) | (38) | (35) | |
| Infiltration Cellular, Mixed Cell | 1 [3.0] | (42) | (30) | (33) | |
| Lymph Node, Mesenteric | (49) | (48) | (49) | (50) | |
| Angiectasis | (40) | (40) | 1 [3.0] | (55) | |
| Ectasia | 1 [3.0] | | 1 [2.0] | 2 [3.5] | |
| Infiltration Cellular, Mixed Cell | 1 [3.0] | | . [] | _ [] | |
| Necrosis, Lymphoid | 1 [3.0] | | | | |
| Spleen | (50) | (50) | (50) | (50) | |
| Hematopoietic Cell Proliferation | 5 [2.2] | 3 [2.3] | 6 [2.5] | 4 [2.8] | |
| Hyperplasia, Lymphoid | 3 [3.0] | | 2 [2.0] | 2 [2.5] | |
| Necrosis, Lymphoid | 1 [3.0] | | | | |
| Thymus | (48) | (49) | (49) | (47) | |
| Inflammation, Granulomatous | 4 [0 0] | | 1 [2.0] | | |
| Necrosis, Lymphoid | 1 [3.0] | | | | |
| TEGUMENTARY SYSTEM | | | | | |
| Mammary Gland | (50) | (49) | (50) | (50) | |
| Inflammation, Chronic | 1 [2.0] | | | | |
| Skin | (50) | (50) | (50) | (50) | |
| Infiltration Cellular, Mixed Cell | 0.00.01 | 0.54.01 | 1 [2.0] | 4 [0.0] | |
| Inflammation, Chronic Active | 3 [2.3] | 3 [4.0] | 1 [4.0] | 1 [3.0] | |
| Hair Follicle, Inflammation, Chronic Subcutaneous Tissue, Inflammation, | 1 [2.0] | | | 1 [2 0] | |
| Granulomatous | | | | 1 [2.0] | |
| Grandiomatous | | | | | |
| JSCULOSKELETAL SYSTEM | | | | | |
| Bone | (50) | (50) | (50) | (50) | |
| Skeletal Muscle | (1) | (0) | (1) | (1) | |
| Inflammation, Chronic Active | · / | (-) | 1 [2.0] | · / | |

NERVOUS SYSTEM

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)

Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

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

Tetralin

CAS Number: 119-64-2

Date Report Requested: 05/22/2008

Time Report Requested: 06:34:08 First Dose M/F: 06/23/03 / 06/23/03

| B6C3F1 MICE FEMALE | CONTROL | 30 PPM | 60 PPM | 120 PPM | |
|--|-------------------------------|------------------------------|-----------------------------------|------------------------------|--|
| Brain Gliosis | (50) 1 [1.0] | (50) | (50) | (50) | |
| Inflammation, Chronic Necrosis Meninges, Infiltration Cellular, Mononuclear Cell | 1 [3.0] 1 [2.0] 1 [2.0] | | 1 [2.0] | | |
| RESPIRATORY SYSTEM | | | | | |
| Larynx Mineralization | (50) | (50) | (50) 1 [3.0] | (49) | |
| Lung Inflammation, Suppurative | (50) 1 [3.0] | (50) | (50) | (50) | |
| Thrombosis Alveolar Epithelium, Hyperplasia Alveolar Epithelium, Metaplasia, | 4 [1.3] | 6 [1.5] | 3 [1.0] 1 [2.0] | 1 [2.0] 6 [1.3] | |
| Squamous Alveolus, Infiltration Cellular, Histiocyte Bronchiole, Hyperplasia Mediastinum, Hemorrhage | 1 [3.0] | 1 [3.0] 1 [2.0] | | 2 [3.0] 1 [3.0] | |
| Nose Inflammation, Suppurative Glands, Olfactory Epithelium, | (50) 3 [1.0] 17 [1.0] | (50) 28 [1.0] 50 [2.1] | (50) 48 [1.3] 50 [3.0] | (49) 46 [1.2] 49 [3.0] | |
| Hyperplasia Olfactory Epithelium, Atrophy Olfactory Epithelium, Metaplasia, | 1 [1.0] 1 [1.0] | 50 [2.8] 49 [1.4] | 50 [3.4] 50 [2.9] | 49 [3.9] 49 [3.3] | |
| Respiratory Pleura Trachea Inflammation, Suppurative Mineralization | (1) (50) | (0) (50) | (0) (50) 1 [2.0] 1 [3.0] | (0) (49) | |
| SPECIAL SENSES SYSTEM | | | | | |
| Eye Cataract Cornea, Hyperplasia, Squamous | (49) 2 [2.5] | (49) 1 [1.0] 1 [2.0] | (49) 1 [2.0] | (49) 1 [2.0] | |
| Cornea, Inflammation, Chronic Active Cornea, Mineralization | | 3 [1.0] | 3 [1.0] | 1 [2.0] 12 [1.1] | |

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)

TDMS No. 93025 - 06
Test Type: CHRONIC

Species/Strain: MICE/B6C3F1

Route: RESPIRATORY EXPOSURE WHOLE BODY

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

Tetralin

CAS Number: 119-64-2

Date Report Requested: 05/22/2008

Time Report Requested: 06:34:08 First Dose M/F: 06/23/03 / 06/23/03

| Kidney (50) (50) (50) (50) Amyloid Deposition 1 [4.0] Infarct 1 [2.0] 1 [3.0] Metaplasia, Osseous 3 [1.0] 4 [1.0] 2 [1.0] Mineralization 1 [2.0] Nephropathy 40 [1.1] 40 [1.0] 43 [1.1] 38 [1.1] Artery, Inflammation, Chronic Active 1 [3.0] | | | | | |
|--|---------------------------------------|----------|---------|----------|----------|
| Hyperplasia 2 [2.5] 2 [2.0] 4 [2.3] 2 [1.5] RINARY SYSTEM Kidney (50) (50) (50) (50) (50) Amyloid Deposition 1 [4.0] Infarct 1 [2.0] 1 [3.0] Metaplasia, Osseous 3 [1.0] 4 [1.0] 2 [1.0] Mineralization 1 [2.0] Nephropathy 40 [1.1] 40 [1.0] 43 [1.1] 38 [1.1] Artery, Inflammation, Chronic Active | B6C3F1 MICE FEMALE | CONTROL | 30 PPM | 60 PPM | 120 PPM |
| Kidney (50) (50) (50) (50) (50) Amyloid Deposition 1 [4.0] 1 [3.0] 1 [3.0] Infarct 1 [2.0] 1 [3.0] 4 [1.0] 2 [1.0] Metaplasia, Osseous 3 [1.0] 4 [1.0] 2 [1.0] Mineralization 1 [2.0] Nephropathy 40 [1.1] 40 [1.0] 43 [1.1] 38 [1.1] Artery, Inflammation, Chronic Active 1 [3.0] | | | | | |
| Amyloid Deposition 1 [4.0] Infarct 1 [2.0] 1 [3.0] Metaplasia, Osseous 3 [1.0] 4 [1.0] 2 [1.0] Mineralization 1 [2.0] Nephropathy 40 [1.1] 40 [1.0] 43 [1.1] 38 [1.1] Artery, Inflammation, Chronic Active 1 [3.0] | URINARY SYSTEM | | | | |
| Metaplasia, Osseous 3 [1.0] 4 [1.0] 2 [1.0] Mineralization 1 [2.0] Nephropathy 40 [1.1] 40 [1.0] 43 [1.1] 38 [1.1] Artery, Inflammation, Chronic Active 1 [3.0] | | | (50) | (50) | (50) |
| Mineralization 1 [2.0] Nephropathy 40 [1.1] 40 [1.0] 43 [1.1] 38 [1.1] Artery, Inflammation, Chronic Active 1 [3.0] | | 1 [2.0] | | 4 [1.0] | 2 [1.0] |
| Artery, Inflammation, Chronic Active 1 [3.0] | | 40 [1.1] | | 1 [2.0] | 38 [1.1] |
| | Urinary Bladder | | (50) | (49) | (49) |
| Infiltration Cellular, Mixed Cell 1 [2.0] Transitional Epithelium, Eosinophilic 50 [1.0] 49 [1.0] 49 [1.0] Granules, Cytoplasmic | Transitional Epithelium, Eosinophilic | | 1 [2.0] | 49 [1.0] | |

^{***} 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)