

Experiment Number: 20307 - 04

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

Date Report Requested: 09/10/2014

Test Type: 90-DAY

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E
Super [reg]; OTNE)

Time Report Requested: 11:32:44

Route: SKIN APPLICATION

CAS Number: 54464-57-2

First Dose M/F: 12/14/06 / 12/15/06

Species/Strain: MICE/B6C3F1

Lab: MBA

F1_Rev. 1_M3

NTP Study Number: C20307
Lock Date: 12/28/2009
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.2_002
PWG Approval Date: 08/08/2011

Experiment Number: 20307 - 04

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

Date Report Requested: 09/10/2014

Test Type: 90-DAY

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E Super [reg]; OTNE)

Time Report Requested: 11:32:44

Route: SKIN APPLICATION

CAS Number: 54464-57-2

First Dose M/F: 12/14/06 / 12/15/06

Species/Strain: MICE/B6C3F1

Lab: MBA

| B6C3F1 MICE MALE | untreated | vehicle | 6.25% | 12.5 % | 25 % | 50 % |
|------------------|-----------|---------|-------|--------|------|------|
|------------------|-----------|---------|-------|--------|------|------|

Disposition Summary

| | | | | | | |
|----------------------------------|----|----|----|----|----|----|
| Animals Initially In Study | 10 | 10 | 10 | 10 | 10 | 10 |
| Early Deaths | | | | | | |
| Survivors | | | | | | |
| Terminal Sacrifice | 10 | 10 | 10 | 10 | 10 | 10 |
| Animals Examined Microscopically | 10 | 10 | 10 | 10 | 10 | 10 |

ALIMENTARY SYSTEM

| | | | | | | |
|----------------------------|------|---------|------|---------|---------|------|
| Esophagus | (9) | (10) | (0) | (0) | (0) | (0) |
| Gallbladder | (10) | (10) | (0) | (0) | (0) | (0) |
| Intestine Large, Cecum | (10) | (10) | (0) | (0) | (0) | (0) |
| Intestine Large, Colon | (10) | (10) | (0) | (0) | (0) | (0) |
| Intestine Large, Rectum | (10) | (10) | (0) | (0) | (0) | (0) |
| Intestine Small, Duodenum | (10) | (10) | (0) | (0) | (0) | (0) |
| Intestine Small, Ileum | (10) | (10) | (0) | (0) | (0) | (0) |
| Intestine Small, Jejunum | (10) | (10) | (0) | (0) | (0) | (0) |
| Liver | (10) | (10) | (10) | (10) | (9) | (10) |
| Centrilobular, Hypertrophy | | 1 [3.0] | | 2 [1.0] | 3 [1.3] | |
| Oral Mucosa | (10) | (10) | (0) | (0) | (0) | (0) |
| Pancreas | (10) | (10) | (0) | (0) | (0) | (0) |
| Salivary Glands | (10) | (10) | (0) | (0) | (0) | (0) |
| Stomach, Forestomach | (10) | (10) | (0) | (0) | (0) | (0) |
| Stomach, Glandular | (10) | (10) | (0) | (0) | (0) | (0) |
| Tongue | (10) | (10) | (0) | (0) | (0) | (0) |

CARDIOVASCULAR SYSTEM

| | | | | | | |
|--------------|------|------|-----|-----|-----|-----|
| Blood Vessel | (10) | (10) | (0) | (0) | (0) | (0) |
| Heart | (10) | (10) | (0) | (0) | (0) | (0) |

ENDOCRINE SYSTEM

| | | | | | | |
|----------------|------|------|-----|-----|-----|-----|
| Adrenal Cortex | (10) | (10) | (0) | (0) | (0) | (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)

Test Type: 90-DAY

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E
Super [reg]; OTNE)

Time Report Requested: 11:32:44

Route: SKIN APPLICATION

CAS Number: 54464-57-2

First Dose M/F: 12/14/06 / 12/15/06

Species/Strain: MICE/B6C3F1

Lab: MBA

| B6C3F1 MICE MALE | untreated | vehicle | 6.25% | 12.5 % | 25 % | 50 % |
|------------------------|-----------|---------|-------|--------|------|------|
| Adrenal Medulla | (10) | (10) | (0) | (0) | (0) | (0) |
| Parathyroid Gland | (9) | (10) | (0) | (0) | (0) | (0) |
| Cyst | 1 | 2 | | | | |
| Pituitary Gland | (10) | (9) | (0) | (0) | (0) | (0) |
| Thyroid Gland | (10) | (10) | (0) | (0) | (0) | (0) |
| Follicle, Degeneration | 1 [2.0] | | | | | |

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

| | | | | | | |
|-----------------|------|------|-----|-----|-----|-----|
| Epididymis | (10) | (10) | (0) | (0) | (0) | (0) |
| Preputial Gland | (10) | (10) | (0) | (0) | (0) | (0) |
| Prostate | (10) | (10) | (0) | (0) | (0) | (0) |
| Seminal Vesicle | (10) | (10) | (0) | (0) | (0) | (0) |
| Testes | (10) | (10) | (0) | (0) | (0) | (0) |

HEMATOPOIETIC SYSTEM

| | | | | | | |
|------------------------|------|------|------|------|------|------|
| Bone Marrow | (10) | (10) | (10) | (10) | (10) | (10) |
| Lymph Node, Mandibular | (9) | (10) | (0) | (0) | (0) | (0) |
| Lymph Node, Mesenteric | (10) | (10) | (0) | (0) | (0) | (0) |
| Spleen | (10) | (10) | (10) | (10) | (9) | (10) |
| Thymus | (10) | (10) | (0) | (0) | (0) | (0) |

INTEGUMENTARY SYSTEM

| | | | | | | |
|----------------|------|------|------|------|---------|---------|
| Mammary Gland | (4) | (4) | (0) | (0) | (0) | (0) |
| Skin | (10) | (10) | (10) | (10) | (9) | (10) |
| Fibrosis | | | | | 1 [1.0] | 2 [1.5] |
| Hyperkeratosis | | | | | | 2 [2.0] |

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)

Experiment Number: 20307 - 04

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

Date Report Requested: 09/10/2014

Test Type: 90-DAY

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E Super [reg]; OTNE)

Time Report Requested: 11:32:44

Route: SKIN APPLICATION

CAS Number: 54464-57-2

First Dose M/F: 12/14/06 / 12/15/06

Species/Strain: MICE/B6C3F1

Lab: MBA

| B6C3F1 MICE MALE | untreated | vehicle | 6.25% | 12.5 % | 25 % | 50 % |
|--------------------------------------|-----------|---------|---------|----------|---------|---------|
| Hyperplasia | | | | 2 [1.5] | 4 [1.0] | 3 [2.0] |
| Inflammation, Neutrophil | | | | | | |
| Inflammation, Chronic Active | | | | 2 [1.5] | 4 [1.3] | 2 [2.0] |
| Epidermis, Inflammation, Suppurative | | | | | | 1 [2.0] |
| Hair Follicle, Hyperplasia | | | | 1 [2.0] | | 1 [2.0] |
| Skin, Site Of Application | (10) | (10) | (10) | (10) | (10) | (9) |
| Fibrosis | | | 4 [1.5] | 3 [2.0] | 8 [1.8] | 8 [1.6] |
| Hyperkeratosis | | | 2 [1.0] | 5 [1.4] | 5 [1.4] | 8 [1.4] |
| Hyperplasia | | | 9 [1.7] | 10 [1.9] | 9 [1.8] | 9 [2.3] |
| Inflammation, Chronic Active | | | 7 [1.4] | 10 [1.7] | 9 [1.7] | 9 [1.7] |
| Epidermis, Inflammation, Suppurative | | | | | 1 [1.0] | 1 [2.0] |
| Hair Follicle, Hyperplasia | | | 3 [1.0] | 2 [1.5] | 3 [2.3] | 7 [1.1] |
| MUSCULOSKELETAL SYSTEM | | | | | | |
| Bone | (10) | (10) | (0) | (0) | (0) | (0) |
| Skeletal Muscle | (0) | (1) | (0) | (0) | (0) | (0) |
| NERVOUS SYSTEM | | | | | | |
| Brain | (10) | (10) | (0) | (0) | (0) | (0) |
| RESPIRATORY SYSTEM | | | | | | |
| Larynx | (10) | (10) | (0) | (0) | (0) | (0) |
| Lung | (10) | (10) | (0) | (0) | (0) | (0) |
| Nose | (10) | (10) | (0) | (0) | (0) | (0) |
| Trachea | (10) | (10) | (0) | (0) | (0) | (0) |
| SPECIAL SENSES SYSTEM | | | | | | |
| Eye | (10) | (10) | (0) | (0) | (0) | (0) |
| Retina, Dysplasia | | 1 [2.0] | | | | |

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)

Experiment Number: 20307 - 04

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

Date Report Requested: 09/10/2014

Test Type: 90-DAY

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E Super [reg]; OTNE)

Time Report Requested: 11:32:44

Route: SKIN APPLICATION

CAS Number: 54464-57-2

First Dose M/F: 12/14/06 / 12/15/06

Species/Strain: MICE/B6C3F1

Lab: MBA

| B6C3F1 MICE MALE | untreated | vehicle | 6.25% | 12.5 % | 25 % | 50 % |
|---------------------------------------|-----------|---------|-------|--------|------|------|
| Retrobulbar, Inflammation, Neutrophil | 1 [1.0] | | | | | |
| Harderian Gland | (10) | (10) | (0) | (0) | (0) | (0) |
| Inflammation, Neutrophil | | 2 [1.5] | | | | |
| Inflammation, Chronic | | | | | | |
| URINARY SYSTEM | | | | | | |
| Kidney | (10) | (10) | (0) | (0) | (0) | (0) |
| Inflammation, Chronic | | 1 [1.0] | | | | |
| Urinary Bladder | (10) | (10) | (0) | (0) | (0) | (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)

Experiment Number: 20307 - 04

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

Date Report Requested: 09/10/2014

Test Type: 90-DAY

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E Super [reg]; OTNE)

Time Report Requested: 11:32:44

Route: SKIN APPLICATION

CAS Number: 54464-57-2

First Dose M/F: 12/14/06 / 12/15/06

Species/Strain: MICE/B6C3F1

Lab: MBA

B6C3F1 MICE MALE 100 %

Disposition Summary

| | |
|----------------------------------|----|
| Animals Initially In Study | 10 |
| Early Deaths | |
| Survivors | |
| Terminal Sacrifice | 10 |
| Animals Examined Microscopically | 10 |

ALIMENTARY SYSTEM

| | |
|----------------------------|---------|
| Esophagus | (9) |
| Gallbladder | (10) |
| 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) |
| Centrilobular, Hypertrophy | 4 [2.0] |
| Oral Mucosa | (10) |
| Pancreas | (10) |
| Salivary Glands | (10) |
| Stomach, Forestomach | (10) |
| Stomach, Glandular | (10) |
| Tongue | (10) |

CARDIOVASCULAR SYSTEM

| | |
|--------------|------|
| Blood Vessel | (10) |
| Heart | (10) |

ENDOCRINE SYSTEM

| | |
|----------------|------|
| Adrenal Cortex | (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)

Experiment Number: 20307 - 04

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

Date Report Requested: 09/10/2014

Test Type: 90-DAY

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E
Super [reg]; OTNE)

Time Report Requested: 11:32:44

Route: SKIN APPLICATION

CAS Number: 54464-57-2

First Dose M/F: 12/14/06 / 12/15/06

Species/Strain: MICE/B6C3F1

Lab: MBA

B6C3F1 MICE MALE 100 %

| | |
|------------------------|------|
| Adrenal Medulla | (10) |
| Parathyroid Gland | (10) |
| Cyst | |
| Pituitary Gland | (10) |
| Thyroid Gland | (10) |
| Follicle, Degeneration | |

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

| | |
|-----------------|------|
| Epididymis | (10) |
| Preputial Gland | (10) |
| Prostate | (10) |
| Seminal Vesicle | (10) |
| Testes | (10) |

HEMATOPOIETIC SYSTEM

| | |
|------------------------|------|
| Bone Marrow | (10) |
| Lymph Node, Mandibular | (9) |
| Lymph Node, Mesenteric | (10) |
| Spleen | (10) |
| Thymus | (10) |

INTEGUMENTARY SYSTEM

| | |
|----------------|---------|
| Mammary Gland | (4) |
| Skin | (10) |
| Fibrosis | 5 [1.4] |
| Hyperkeratosis | 5 [1.6] |

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: 20307 - 04

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

Date Report Requested: 09/10/2014

Test Type: 90-DAY

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E Super [reg]; OTNE)

Time Report Requested: 11:32:44

Route: SKIN APPLICATION

CAS Number: 54464-57-2

First Dose M/F: 12/14/06 / 12/15/06

Species/Strain: MICE/B6C3F1

Lab: MBA

B6C3F1 MICE MALE **100 %**

| | |
|--------------------------------------|----------|
| Hyperplasia | 8 [2.3] |
| Inflammation, Neutrophil | 1 [1.0] |
| Inflammation, Chronic Active | 8 [1.8] |
| Epidermis, Inflammation, Suppurative | 4 [1.0] |
| Hair Follicle, Hyperplasia | 5 [1.6] |
| Skin, Site Of Application | (10) |
| Fibrosis | 10 [2.0] |
| Hyperkeratosis | 10 [1.7] |
| Hyperplasia | 10 [2.8] |
| Inflammation, Chronic Active | 10 [2.0] |
| Epidermis, Inflammation, Suppurative | 5 [1.0] |
| Hair Follicle, Hyperplasia | 8 [1.8] |

MUSCULOSKELETAL SYSTEM

| | |
|-----------------|------|
| Bone | (10) |
| Skeletal Muscle | (0) |

NERVOUS SYSTEM

| | |
|-------|------|
| Brain | (10) |
|-------|------|

RESPIRATORY SYSTEM

| | |
|---------|------|
| Larynx | (10) |
| Lung | (10) |
| Nose | (10) |
| Trachea | (10) |

SPECIAL SENSES SYSTEM

| | |
|-------------------|------|
| Eye | (10) |
| Retina, Dysplasia | |

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: 20307 - 04

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

Date Report Requested: 09/10/2014

Test Type: 90-DAY

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E
Super [reg]; OTNE)

Time Report Requested: 11:32:44

Route: SKIN APPLICATION

CAS Number: 54464-57-2

First Dose M/F: 12/14/06 / 12/15/06

Species/Strain: MICE/B6C3F1

Lab: MBA

B6C3F1 MICE MALE **100 %**

| | |
|---------------------------------------|---------|
| Retrobulbar, Inflammation, Neutrophil | |
| Harderian Gland | (10) |
| Inflammation, Neutrophil | 1 [1.0] |
| Inflammation, Chronic | 1 [2.0] |

URINARY SYSTEM

| | |
|-----------------------|------|
| Kidney | (10) |
| Inflammation, Chronic | |
| Urinary Bladder | (10) |

*** END OF MALE ***

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: 20307 - 04

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

Date Report Requested: 09/10/2014

Test Type: 90-DAY

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E Super [reg]; OTNE)

Time Report Requested: 11:32:44

Route: SKIN APPLICATION

CAS Number: 54464-57-2

First Dose M/F: 12/14/06 / 12/15/06

Species/Strain: MICE/B6C3F1

Lab: MBA

| B6C3F1 MICE FEMALE | untreated | vehicle | 6.25 % | 12.5 % | 25 % | 50 % |
|--------------------|-----------|---------|--------|--------|------|------|
|--------------------|-----------|---------|--------|--------|------|------|

Disposition Summary

| | | | | | | |
|----------------------------------|----|----|----|----|----|----|
| Animals Initially In Study | 10 | 10 | 10 | 10 | 10 | 10 |
| Early Deaths | | | | | | |
| Survivors | | | | | | |
| Terminal Sacrifice | 10 | 10 | 10 | 10 | 10 | 10 |
| Animals Examined Microscopically | 10 | 10 | 10 | 10 | 10 | 10 |

ALIMENTARY SYSTEM

| | | | | | | |
|---------------------------|------|------|------|------|------|------|
| Esophagus | (10) | (10) | (0) | (0) | (0) | (0) |
| Gallbladder | (10) | (9) | (0) | (0) | (0) | (0) |
| Intestine Large, Cecum | (10) | (10) | (0) | (0) | (0) | (0) |
| Intestine Large, Colon | (10) | (10) | (0) | (0) | (0) | (0) |
| Intestine Large, Rectum | (10) | (10) | (0) | (0) | (0) | (0) |
| Intestine Small, Duodenum | (10) | (10) | (0) | (0) | (0) | (0) |
| Intestine Small, Ileum | (10) | (10) | (0) | (0) | (0) | (0) |
| Intestine Small, Jejunum | (10) | (10) | (0) | (0) | (0) | (0) |
| Liver | (10) | (10) | (10) | (10) | (10) | (10) |
| Oral Mucosa | (10) | (10) | (0) | (0) | (0) | (0) |
| Pancreas | (10) | (10) | (0) | (0) | (0) | (0) |
| Salivary Glands | (10) | (10) | (0) | (0) | (0) | (0) |
| Stomach, Forestomach | (10) | (10) | (0) | (0) | (0) | (0) |
| Stomach, Glandular | (10) | (10) | (0) | (0) | (0) | (0) |
| Tongue | (10) | (10) | (0) | (0) | (0) | (0) |

CARDIOVASCULAR SYSTEM

| | | | | | | |
|--------------|------|------|------|------|------|-----|
| Blood Vessel | (10) | (10) | (0) | (0) | (0) | (0) |
| Heart | (10) | (10) | (10) | (10) | (10) | (9) |

ENDOCRINE SYSTEM

| | | | | | | |
|-----------------|------|------|-----|-----|-----|-----|
| Adrenal Cortex | (10) | (10) | (0) | (0) | (0) | (0) |
| Adrenal Medulla | (10) | (10) | (0) | (0) | (0) | (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)

Experiment Number: 20307 - 04

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

Date Report Requested: 09/10/2014

Test Type: 90-DAY

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E Super [reg]; OTNE)

Time Report Requested: 11:32:44

Route: SKIN APPLICATION

CAS Number: 54464-57-2

First Dose M/F: 12/14/06 / 12/15/06

Species/Strain: MICE/B6C3F1

Lab: MBA

| B6C3F1 MICE FEMALE | untreated | vehicle | 6.25 % | 12.5 % | 25 % | 50 % |
|------------------------|-----------|---------|--------|--------|------|------|
| Parathyroid Gland Cyst | (9) | (7) | (0) | (0) | (0) | (0) |
| Pituitary Gland | (10) | (10) | (0) | (0) | (0) | (0) |
| Thyroid Gland | (10) | (10) | (0) | (0) | (0) | (0) |

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

| | | | | | | |
|----------------|------|------|-----|-----|-----|-----|
| Clitoral Gland | (9) | (6) | (0) | (0) | (0) | (0) |
| Ovary | (10) | (10) | (0) | (0) | (0) | (0) |
| Uterus | (10) | (10) | (0) | (0) | (0) | (0) |
| Vagina | (10) | (10) | (0) | (0) | (0) | (0) |

HEMATOPOIETIC SYSTEM

| | | | | | | |
|------------------------|------|------|------|------|------|------|
| Bone Marrow | (10) | (10) | (10) | (10) | (10) | (10) |
| Lymph Node | (0) | (0) | (0) | (0) | (0) | (0) |
| Lymph Node, Mandibular | (10) | (10) | (0) | (0) | (0) | (0) |
| Lymph Node, Mesenteric | (10) | (10) | (0) | (0) | (0) | (0) |
| Spleen | (10) | (10) | (10) | (10) | (10) | (8) |
| Thymus Atrophy | (10) | (10) | (10) | (10) | (10) | (8) |

INTEGUMENTARY SYSTEM

| | | | | | | |
|----------------|------|------|---------|---------|---------|---------|
| Mammary Gland | (10) | (10) | (0) | (0) | (0) | (0) |
| Skin | (10) | (10) | (10) | (10) | (10) | (8) |
| Fibrosis | | | | 3 [1.3] | | |
| Hyperkeratosis | | | | 1 [1.0] | | |
| Hyperplasia | | | 4 [1.0] | 3 [1.7] | 2 [1.0] | 3 [1.0] |

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)

Experiment Number: 20307 - 04

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

Date Report Requested: 09/10/2014

Test Type: 90-DAY

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E Super [reg]; OTNE)

Time Report Requested: 11:32:44

Route: SKIN APPLICATION

CAS Number: 54464-57-2

First Dose M/F: 12/14/06 / 12/15/06

Species/Strain: MICE/B6C3F1

Lab: MBA

| B6C3F1 MICE FEMALE | untreated | vehicle | 6.25 % | 12.5 % | 25 % | 50 % |
|---|-----------|---------|----------|----------|----------|---------|
| Inflammation, Chronic Active Ulcer | | | 4 [1.3] | 4 [1.5] | 2 [1.5] | 3 [1.3] |
| Epidermis, Inflammation, Suppurative Hair Follicle, Hyperplasia | | | | | 1 [1.0] | |
| Skin, Site Of Application | (10) | (10) | (10) | (10) | (10) | (6) |
| Fibrosis | | | 2 [1.5] | 10 [1.6] | 10 [1.7] | 4 [1.3] |
| Hyperkeratosis | | | 5 [1.2] | 5 [1.2] | 10 [1.7] | 6 [1.8] |
| Hyperplasia | | | 10 [2.1] | 10 [1.8] | 10 [2.0] | 6 [2.3] |
| Inflammation, Chronic Active Ulcer | | 1 [4.0] | 10 [1.8] | 10 [1.7] | 10 [2.0] | 6 [2.0] |
| Epidermis, Inflammation, Suppurative Hair Follicle, Hyperplasia | | | | 1 [1.0] | 4 [1.3] | 4 [1.3] |
| | | | 3 [1.3] | | 4 [2.8] | 3 [2.0] |
| MUSCULOSKELETAL SYSTEM | | | | | | |
| Bone | (10) | (10) | (0) | (0) | (0) | (0) |
| NERVOUS SYSTEM | | | | | | |
| Brain | (10) | (10) | (0) | (0) | (0) | (0) |
| RESPIRATORY SYSTEM | | | | | | |
| Larynx | (10) | (10) | (0) | (0) | (0) | (0) |
| Lung | (10) | (10) | (0) | (0) | (0) | (0) |
| Nose | (10) | (10) | (0) | (0) | (0) | (0) |
| Trachea | (10) | (10) | (0) | (0) | (0) | (0) |
| SPECIAL SENSES SYSTEM | | | | | | |
| Eye | (10) | (10) | (0) | (0) | (0) | (0) |
| Retrolbulbar, Inflammation, Neutrophil | | | | | | |
| Harderian Gland | (10) | (10) | (0) | (0) | (0) | (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)

Experiment Number: 20307 - 04

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

Date Report Requested: 09/10/2014

Test Type: 90-DAY

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E
Super [reg]; OTNE)

Time Report Requested: 11:32:44

Route: SKIN APPLICATION

CAS Number: 54464-57-2

First Dose M/F: 12/14/06 / 12/15/06

Species/Strain: MICE/B6C3F1

Lab: MBA

| B6C3F1 MICE FEMALE | untreated | vehicle | 6.25 % | 12.5 % | 25 % | 50 % |
|--------------------|-----------|---------|--------|--------|------|------|
|--------------------|-----------|---------|--------|--------|------|------|

URINARY SYSTEM

| | | | | | | |
|-----------------|------|---------|-----|-----|-----|-----|
| Kidney | (10) | (10) | (0) | (0) | (0) | (0) |
| Nephropathy | | 1 [1.0] | | | | |
| Urinary Bladder | (9) | (10) | (0) | (0) | (0) | (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)

Experiment Number: 20307 - 04

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

Date Report Requested: 09/10/2014

Test Type: 90-DAY

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E
Super [reg]; OTNE)

Time Report Requested: 11:32:44

Route: SKIN APPLICATION

CAS Number: 54464-57-2

First Dose M/F: 12/14/06 / 12/15/06

Species/Strain: MICE/B6C3F1

Lab: MBA

B6C3F1 MICE FEMALE 100 %

Disposition Summary

| | |
|----------------------------------|----|
| Animals Initially In Study | 10 |
| Early Deaths | |
| Survivors | |
| Terminal Sacrifice | 10 |
| Animals Examined Microscopically | 10 |

ALIMENTARY SYSTEM

| | |
|---------------------------|------|
| Esophagus | (10) |
| Gallbladder | (10) |
| 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) |
| Oral Mucosa | (10) |
| Pancreas | (10) |
| Salivary Glands | (10) |
| Stomach, Forestomach | (10) |
| Stomach, Glandular | (10) |
| Tongue | (10) |

CARDIOVASCULAR SYSTEM

| | |
|--------------|------|
| Blood Vessel | (10) |
| Heart | (10) |

ENDOCRINE SYSTEM

| | |
|-----------------|------|
| Adrenal Cortex | (10) |
| Adrenal Medulla | (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)

Experiment Number: 20307 - 04

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

Date Report Requested: 09/10/2014

Test Type: 90-DAY

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E
Super [reg]; OTNE)

Time Report Requested: 11:32:44

Route: SKIN APPLICATION

CAS Number: 54464-57-2

First Dose M/F: 12/14/06 / 12/15/06

Species/Strain: MICE/B6C3F1

Lab: MBA

B6C3F1 MICE FEMALE **100 %**

| | |
|-------------------|------|
| Parathyroid Gland | (8) |
| Cyst | 1 |
| Pituitary Gland | (9) |
| Thyroid Gland | (10) |

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

| | |
|----------------|------|
| Clitoral Gland | (10) |
| Ovary | (10) |
| Uterus | (10) |
| Vagina | (10) |

HEMATOPOIETIC SYSTEM

| | |
|------------------------|---------|
| Bone Marrow | (10) |
| Lymph Node | (1) |
| Lymph Node, Mandibular | (10) |
| Lymph Node, Mesenteric | (10) |
| Spleen | (10) |
| Thymus | (10) |
| Atrophy | 2 [2.0] |

INTEGUMENTARY SYSTEM

| | |
|----------------|----------|
| Mammary Gland | (10) |
| Skin | (10) |
| Fibrosis | 6 [1.5] |
| Hyperkeratosis | 7 [2.0] |
| Hyperplasia | 10 [2.1] |

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)

Experiment Number: 20307 - 04

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

Date Report Requested: 09/10/2014

Test Type: 90-DAY

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E Super [reg]; OTNE)

Time Report Requested: 11:32:44

Route: SKIN APPLICATION

CAS Number: 54464-57-2

First Dose M/F: 12/14/06 / 12/15/06

Species/Strain: MICE/B6C3F1

Lab: MBA

| B6C3F1 MICE FEMALE | 100 % |
|--------------------------------------|----------|
| Inflammation, Chronic Active | 8 [1.9] |
| Ulcer | 1 [2.0] |
| Epidermis, Inflammation, Suppurative | 8 [1.6] |
| Hair Follicle, Hyperplasia | 3 [2.0] |
| Skin, Site Of Application | (10) |
| Fibrosis | 9 [2.0] |
| Hyperkeratosis | 10 [2.1] |
| Hyperplasia | 10 [2.8] |
| Inflammation, Chronic Active | 10 [2.0] |
| Ulcer | |
| Epidermis, Inflammation, Suppurative | 7 [1.3] |
| Hair Follicle, Hyperplasia | 10 [2.0] |

MUSCULOSKELETAL SYSTEM

Bone (10)

NERVOUS SYSTEM

Brain (10)

RESPIRATORY SYSTEM

Larynx (10)
Lung (10)
Nose (10)
Trachea (10)

SPECIAL SENSES SYSTEM

Eye (10)
Retrobulbar, Inflammation, Neutrophil 1 [1.0]
Harderian Gland (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)

Experiment Number: 20307 - 04

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

Date Report Requested: 09/10/2014

Test Type: 90-DAY

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E
Super [reg]; OTNE)

Time Report Requested: 11:32:44

Route: SKIN APPLICATION

CAS Number: 54464-57-2

First Dose M/F: 12/14/06 / 12/15/06

Species/Strain: MICE/B6C3F1

Lab: MBA

B6C3F1 MICE FEMALE

100 %

URINARY SYSTEM

Kidney (10)

 Nephropathy

Urinary Bladder (10)

*** 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)