

TDMS No. 20307 - 03

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: RATS/F344/N Tac

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E Super)

CAS Number: 54464-57-2

Date Report Requested: 07/27/2011

Time Report Requested: 12:19:40

First Dose M/F: 12/12/06 / 12/13/06

Lab: MBA

F1_RD

C Number: C20307
Lock Date: 12/23/2009
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 2.4.2.1_003
PWG Approval Date: NONE

DAY ON TEST		0	0	0	0	0	0	0	0	0	0
FISCHER 344-TACONIC RATS MALE		0	0	0	0	0	0	0	0	0	0
	untreated	9	9	9	9	9	9	9	9	9	9
		2	2	2	2	2	2	2	2	2	2
ANIMAL ID		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	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	
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 Inflammation, Chronic	+	+	+	+	+	+	+	+	+	+	10	1 2.0
Oral Mucosa	+	+	+	+	+	+	+	+	+	+	10	
Pancreas	+	+	+	+	+	+	+	+	+	+	10	
Salivary Glands	+	+	+	+	+	+	+	+	+	+	10	
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10	
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10	
Tongue	+	+	+	+	+	+	+	+	+	+	10	

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

DAY ON TEST		0	0	0	0	0	0	0	0	0	0
FISCHER 344-TACONIC RATS MALE		0	0	0	0	0	0	0	0	0	0
		9	9	9	9	9	9	9	9	9	9
untreated		2	2	2	2	2	2	2	2	2	2
ANIMAL ID		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	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											

CARDIOVASCULAR SYSTEM

Blood Vessel	+	+	+	+	+	+	+	+	+	+	10
Heart	+	+	+	+	+	+	+	+	+	+	10
Cardiomyopathy				1							1 1.0
Inflammation, Chronic			2								1 2.0

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	10
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	10
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	10
Pituitary Gland	I	+	+	+	+	+	+	+	+	+	9
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	10

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	10
Preputial Gland	+	+	+	M	+	+	+	+	+	+	9
Inflammation, Chronic	1		1								2 1.0

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FISCHER 344-TACONIC RATS MALE	DAY ON TEST										* TOTALS
	0	0	0	0	0	0	0	0	0	0	
untreated	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	
Prostate	+	+	+	+	+	+	+	+	+	+	10
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	10
Testes	+	+	+	+	+	+	+	+	+	+	10
HEMATOPOIETIC SYSTEM											
Bone Marrow	+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Mesenteric Infiltration Cellular, Histiocyte	+	+	+	+	+	+	+	+	+	+	10 1 2.0
Spleen	+	+	+	+	+	+	+	+	+	+	10
Thymus	+	+	+	+	+	+	+	+	+	+	10
INTEGUMENTARY SYSTEM											
Mammary Gland	+	+	+	+	+	+	+	+	+	+	10
Skin	+	+	+	+	+	+	+	+	+	+	10
Skin, Site Of Application	+	+	+	+	+	+	+	+	+	+	10
MUSCULOSKELETAL SYSTEM											
Bone	+	+	+	+	+	+	+	+	+	+	10

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+ .. Tissue examined microscopically

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1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

DAY ON TEST		0	0	0	0	0	0	0	0	0	0	0	0	0	0
FISCHER 344-TACONIC RATS MALE		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	untreated	9	9	9	9	9	9	9	9	9	9	9	9	9	9
		2	2	2	2	2	2	2	2	2	2	2	2	2	2
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	1	0
		1	2	3	4	5	6	7	8	9	0				
* TOTALS															

NERVOUS SYSTEM

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

RESPIRATORY SYSTEM

Larynx	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	10
Inflammation, Neutrophil				2												1 2.0

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	10
Hemorrhage	3															1 3.0
Inflammation, Chronic	2		1	3							3					4 2.3
Interstitialium, Inflammation, Focal					1		1									2 1.0

Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	10
------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-----------

Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	10
---------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-----------

SPECIAL SENSES SYSTEM

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	10
-----	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-----------

Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	10
-----------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-----------

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	10
Nephropathy	2	1	1	2	1	1	1	1	1	2	2					10 1.4
Renal Tubule, Casts		1	1						1							3 1.0

Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	10
-----------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-----------

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

DAY ON TEST		0	0	0	0	0	0	0	0	0	0
FISCHER 344-TACONIC RATS MALE		0	0	0	0	0	0	0	0	0	0
	vehicle	9	9	9	9	9	9	9	9	9	9
		2	2	2	2	2	2	2	2	2	2
ANIMAL ID		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		1	1	1	1	1	1	1	1	1	2
		1	2	3	4	5	6	7	8	9	0
* TOTALS											

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	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 Acinus, Atrophy	+	+	+	+	+	+	+	+	+	2	10 1 2.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	10
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10
Tongue	+	+	+	+	+	+	+	+	+	+	10

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DAY ON TEST		0	0	0	0	0	0	0	0	0	0
FISCHER 344-TACONIC RATS MALE		0	0	0	0	0	0	0	0	0	0
		9	9	9	9	9	9	9	9	9	9
vehicle		2	2	2	2	2	2	2	2	2	2
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		1	1	1	1	1	1	1	1	1	2
		1	2	3	4	5	6	7	8	9	0
* TOTALS											

CARDIOVASCULAR SYSTEM

Blood Vessel	+	+	+	+	+	+	+	+	+	+	10
Heart	+	+	+	+	+	+	+	+	+	+	10
Cardiomyopathy	1										1 1.0

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	10
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	10
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	10
Pituitary Gland	+	I	+	I	+	+	+	+	+	+	8
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	10

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	10
Preputial Gland	+	+	+	+	+	M	M	+	+	+	8
Prostate	+	+	+	+	+	+	+	+	+	+	10

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FISCHER 344-TACONIC RATS MALE vehicle	DAY ON TEST										* TOTALS
	0 9 2	0 9 2	0 9 2	0 9 2	0 9 2	0 9 2	0 9 2	0 9 2	0 9 2	0 9 2	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	2	
	1	2	3	4	5	6	7	8	9	0	
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	10
Testes	+	+	+	+	+	+	+	+	+	+	10
HEMATOPOIETIC SYSTEM											
Bone Marrow	+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Mesenteric Infiltration Cellular, Histiocyte	+	+	+	+	+	+	+	+	+	2	10 1 2.0
Spleen	+	+	+	+	+	+	+	+	+	+	10
Thymus	+	+	+	+	+	+	+	+	+	+	10
INTEGUMENTARY SYSTEM											
Mammary Gland	+	+	+	+	+	+	+	+	+	+	10
Skin	+	+	+	+	+	+	+	+	+	+	10
Skin, Site Of Application	+	+	+	+	+	+	+	+	+	+	10
MUSCULOSKELETAL SYSTEM											
Bone	+	+	+	+	+	+	+	+	+	+	10
NERVOUS SYSTEM											

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FISCHER 344-TACONIC RATS MALE vehicle	DAY ON TEST										* TOTALS
	0 9 2	0 9 2	0 9 2	0 9 2	0 9 2	0 9 2	0 9 2	0 9 2	0 9 2	0 9 2	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	2	
	1	2	3	4	5	6	7	8	9	0	
Brain	+	+	+	+	+	+	+	+	+	+	10
RESPIRATORY SYSTEM											
Larynx	+	+	+	+	+	+	+	+	+	+	10
Lung	+	+	+	+	+	+	+	+	+	+	10
Inflammation, Chronic	3				2		3	3		2	5 2.6
Interstitial, Inflammation, Focal					1						1 1.0
Nose	+	+	+	+	+	+	+	+	+	+	10
Trachea	+	+	+	+	+	+	+	+	+	+	10
SPECIAL SENSES SYSTEM											
Eye	+	+	+	+	+	+	+	+	+	+	10
Harderian Gland	+	+	+	+	+	+	+	+	+	+	10
URINARY SYSTEM											
Kidney	+	+	+	+	+	+	+	+	+	+	10
Nephropathy	1	1	1	1			1	1	1	1	8 1.0
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	10

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	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FISCHER 344-TACONIC RATS MALE		0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.25%		9	9	9	9	9	9	9	9	9	9	9	9	9	9
		2	2	2	2	2	2	2	2	2	2	2	2	2	2
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	2	2	2	2	2	2	2	2	2	2	2	3	0
		1	2	3	4	5	6	7	8	9	0				
* TOTALS															

ALIMENTARY SYSTEM

Liver + + + + + + + + + +

10

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

NONE

INTEGUMENTARY SYSTEM

Skin + + + + + + + + + +

10

Control, Hyperplasia

1

1 1.0

Control, Inflammation

1

1 1.0

Skin, Site Of Application

+ + + + + + + + + +

10

Hyperkeratosis

1

1 1.0

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Route: SKIN APPLICATION

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E Super)

CAS Number: 54464-57-2

Date Report Requested: 07/27/2011

Time Report Requested: 12:19:40

First Dose M/F: 12/12/06 / 12/13/06

Lab: MBA

FISCHER 344-TACONIC RATS MALE	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
6.25%	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	
		1	2	3	4	5	6	7	8	9	0									
* TOTALS																				
Hyperplasia					1			1												
																			2 1.0	

MUSCULOSKELETAL SYSTEM

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

NONE

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	+									10
Nephropathy	2	2	2	1	2	2	2	1	1											9 1.7
Renal Tubule, Casts			1																	1 1.0

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	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FISCHER 344-TACONIC RATS MALE		0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.5%		9	9	9	9	9	9	9	9	9	9	9	9	9	9
		2	2	2	2	2	2	2	2	2	2	2	2	2	2
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		3	3	3	3	3	3	3	3	3	3	3	3	4	4
		1	2	3	4	5	6	7	8	9	0				
* TOTALS															

ALIMENTARY SYSTEM

Liver + + + + + + + + + +

10

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

NONE

INTEGUMENTARY SYSTEM

Skin + + + + + + + + + +

10

Skin, Site Of Application + + + + + + + + + +

10

Hyperkeratosis 1 1 1

3 1.0

Hyperplasia 1 1 1 1 1

4 1.0

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Species/Strain: RATS/F344/N Tac

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E Super)

CAS Number: 54464-57-2

Date Report Requested: 07/27/2011

Time Report Requested: 12:19:40

First Dose M/F: 12/12/06 / 12/13/06

Lab: MBA

	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FISCHER 344-TACONIC RATS MALE		0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.5%		9	9	9	9	9	9	9	9	9	9	9	9	9	9
		2	2	2	2	2	2	2	2	2	2	2	2	2	2
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		3	3	3	3	3	3	3	3	3	3	3	3	4	4
		1	2	3	4	5	6	7	8	9	9	9	9	0	0
* TOTALS															

MUSCULOSKELETAL SYSTEM

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

NONE

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	10
Nephropathy	2	2	2	2	2	2	2	2	2	2	2	2	2	1	10 1.9
Renal Tubule, Casts													1		1 1.0

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

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

	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FISCHER 344-TACONIC RATS MALE		0	0	0	0	0	0	0	0	0	0	0	0	0	0
25%		9	9	9	9	9	9	9	9	9	9	9	9	9	9
		2	2	2	2	2	2	2	2	2	2	2	2	2	2
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		4	4	4	4	4	4	4	4	4	4	4	4	5	0
		1	2	3	4	5	6	7	8	9	0				
* TOTALS															

ALIMENTARY SYSTEM

Liver + + + + + + + + + +

10

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

NONE

INTEGUMENTARY SYSTEM

Skin + + + + + + + + + +

10

Skin, Site Of Application + + + + + + + + + +

10

Hyperkeratosis 1 1 1 1 1 1 1 1 1 1 **4 1.0**

Hyperplasia 1 1 1 1 1 1 1 1 1 1 **5 1.0**

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

+ .. Tissue examined microscopically

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I .. Insufficient tissue

M .. Missing tissue

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2) Mild 4) Marked

	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	
FISCHER 344-TACONIC RATS MALE		0	0	0	0	0	0	0	0	0	0	0	
25%		9	9	9	9	9	9	9	9	9	9	9	
		2	2	2	2	2	2	2	2	2	2	2	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	
		4	4	4	4	4	4	4	4	4	5		
		1	2	3	4	5	6	7	8	9	0		
												* TOTALS	

MUSCULOSKELETAL SYSTEM

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

NONE

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+		10
Nephropathy	2	1	2	2	2	1	1	1	1	1		10 1.4

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

+ .. Tissue examined microscopically

X .. Lesion present

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1-4 .. Lesion qualified as:

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2) Mild 4) Marked

	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FISCHER 344-TACONIC RATS MALE		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	9	9	9
		2	2	2	2	2	2	2	2	2	2	2	2	2	2
50%	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
		5	5	5	5	5	5	5	5	5	5	5	5	6	6
		1	2	3	4	5	6	7	8	9	9	9	9	0	0
* TOTALS															

ALIMENTARY SYSTEM

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	10														

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

NONE

INTEGUMENTARY SYSTEM

Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	10														
Skin, Site Of Application	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	10														
Hyperkeratosis			1	1		1	1	1							
	5 1.0														
Hyperplasia	2	2	2	2	1	1	1	1							
	8 1.5														

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 20307 - 03

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: RATS/F344/N Tac

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E Super)

CAS Number: 54464-57-2

Date Report Requested: 07/27/2011

Time Report Requested: 12:19:40

First Dose M/F: 12/12/06 / 12/13/06

Lab: MBA

	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
FISCHER 344-TACONIC RATS MALE		0	0	0	0	0	0	0	0	0	0	
		9	9	9	9	9	9	9	9	9	9	
50%		2	2	2	2	2	2	2	2	2	2	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	
		5	5	5	5	5	5	5	5	5	6	
		1	2	3	4	5	6	7	8	9	0	
* TOTALS												

MUSCULOSKELETAL SYSTEM

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

NONE

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	10
Nephropathy	2	2	2	1	2	1	2	2	2	1	10 1.7
Renal Tubule, Casts							1				1 1.0

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

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

DAY ON TEST		0	0	0	0	0	0	0	0	0	0
FISCHER 344-TACONIC RATS MALE		0	0	0	0	0	0	0	0	0	0
		9	9	9	9	9	9	9	9	9	9
100%		2	2	2	2	2	2	2	2	2	2
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
ANIMAL ID		6	6	6	6	6	6	6	6	7	7
		1	2	3	4	5	6	7	8	9	0
* TOTALS											

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	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

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

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

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
FISCHER 344-TACONIC RATS MALE	2	2	2	2	2	2	2	2	2	2
100%										
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
	6	6	6	6	6	6	6	6	6	7
	1	2	3	4	5	6	7	8	9	0

* TOTALS

Blood Vessel	+	+	+	M	+	+	+	+	+	+	9
Heart	+	+	+	+	+	+	+	+	+	+	10
Cardiomyopathy	1										1 1.0
Infiltration Cellular, Histiocyte, Focal				1							1 1.0

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	10
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	10
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	10
Pituitary Gland	+	+	+	+	+	+	+	+	I	+	9
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	10

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	10
Preputial Gland	+	M	+	+	+	+	+	+	+	+	9
Inflammation, Chronic			1								1 1.0
Prostate	+	+	+	+	+	+	+	+	+	+	10

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

FISCHER 344-TACONIC RATS MALE	DAY ON TEST										* TOTALS
	0	0	0	0	0	0	0	0	0	0	
100%	9	9	9	9	9	9	9	9	9	9	
ANIMAL ID	2	2	2	2	2	2	2	2	2	2	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	6	6	6	6	6	6	6	6	6	7	
	1	2	3	4	5	6	7	8	9	0	

Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	10
Testes	+	+	+	+	+	+	+	+	+	+	10

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	10
Lymph Node										+	1
Mediastinal, Hyperplasia, Lymphoid, Diffuse										3	1 3.0
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	10
Spleen	+	+	+	+	+	+	+	+	+	+	10
Thymus	+	+	+	+	+	+	+	+	+	+	10

INTEGUMENTARY SYSTEM

Mammary Gland	+	+	+	+	+	+	+	+	+	+	10
Skin	+	+	+	+	+	+	+	+	+	+	10
Skin, Site Of Application	+	+	+	+	+	+	+	+	+	+	10
Hyperkeratosis		1		1	1	1	2	1	1	1	8 1.1
Hyperplasia	1	2	1	2	1	1	2	1	1	1	10 1.3
Inflammation			1								1 1.0

MUSCULOSKELETAL SYSTEM

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 2) Mild 4) Marked

FISCHER 344-TACONIC RATS MALE	DAY ON TEST										* TOTALS
	0	0	0	0	0	0	0	0	0	0	
100%	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	
	6	6	6	6	6	6	6	6	6	7	
	1	2	3	4	5	6	7	8	9	0	
Bone	+	+	+	+	+	+	+	+	+	+	10
NERVOUS SYSTEM											
Brain	+	+	+	+	+	+	+	+	+	+	10
RESPIRATORY SYSTEM											
Larynx	+	+	+	+	+	+	+	+	+	+	10
Lung	+	+	+	+	+	+	+	+	+	+	10
Infiltration Cellular, Histiocyte	2										1 2.0
Inflammation, Chronic	2	1		2		3				3	5 2.2
Nose	+	+	+	+	+	+	+	+	+	+	10
Trachea	+	+	+	+	+	+	+	+	+	+	10
SPECIAL SENSES SYSTEM											
Eye	+	+	+	+	+	+	+	+	+	+	10
Harderian Gland	+	+	+	+	+	+	+	+	+	+	10
URINARY SYSTEM											
Kidney	+	+	+	+	+	+	+	+	+	+	10
Nephropathy	2	2	1	2	2	2	2	2	2	2	10 1.9
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	10

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

TDMS No. 20307 - 03

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: RATS/F344/N Tac

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E Super)

CAS Number: 54464-57-2

Date Report Requested: 07/27/2011

Time Report Requested: 12:19:40

First Dose M/F: 12/12/06 / 12/13/06

Lab: MBA

*** END OF MALE DATA ***

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

FISCHER 344-TACONIC RATS FEMALE untreated	DAY ON TEST										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		
	2	2	2	2	2	2	2	2	2	2		
	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0		
	7	7	7	7	7	7	7	7	7	8		
	1	2	3	4	5	6	7	8	9	0		
											* TOTALS	

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	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
Inflammation, Chronic		2	3	2	2	1		2			6 2.0
Oral Mucosa	+	+	+	+	+	+	+	+	+	+	10
Pancreas	+	+	+	+	+	+	+	+	+	+	10
Salivary Glands	+	+	+	+	+	+	+	+	+	+	10
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10
Tongue	+	+	+	+	+	+	+	+	+	+	10

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

+ .. Tissue examined microscopically

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FISCHER 344-TACONIC RATS FEMALE untreated	DAY ON TEST										ANIMAL ID	
	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	
	2	2	2	2	2	2	2	2	2	2	2	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	7	7	7	7	7	7	7	7	7	8	8	
	1	2	3	4	5	6	7	8	9	0	0	
											* TOTALS	

CARDIOVASCULAR SYSTEM

Blood Vessel	+	+	+	M	+	+	+	+	+	+	9
Heart	+	+	+	+	+	+	+	+	+	+	10

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	10
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	10
Parathyroid Gland	+	+	+	M	+	+	+	+	+	+	9
Pituitary Gland	I	I	I	+	+	+	+	+	+	+	7
Pars Distalis, Cyst, Multiple, Focal									1		1 1.0
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	10

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Clitoral Gland	+	+	+	M	+	+	+	+	+	+	9
Ovary	+	+	+	+	+	+	+	+	+	+	10
Uterus	+	+	+	+	+	+	+	+	+	+	10

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+ .. Tissue examined microscopically

X .. Lesion present

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2) Mild 4) Marked

FISCHER 344-TACONIC RATS FEMALE untreated	DAY ON TEST										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		
	2	2	2	2	2	2	2	2	2	2		
	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0		
	7	7	7	7	7	7	7	7	7	8		
	1	2	3	4	5	6	7	8	9	0		
											* TOTALS	

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+		10				
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+		10				
Lymph Node, Mesenteric Infiltration Cellular, Histiocyte	+	+	+	+	M	+	+	+	+	+	1	1	2	1	9	4 1.3
Spleen	+	+	+	+	+	+	+	+	+	+		10				
Thymus	+	+	+	+	+	+	+	+	+	+		10				

INTEGUMENTARY SYSTEM

Mammary Gland	+	+	+	+	+	+	+	+	M	M		8
Skin	+	+	+	+	+	+	+	+	+	+		10
Skin, Site Of Application	+	+	+	+	+	+	+	+	+	+		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

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

FISCHER 344-TACONIC RATS FEMALE untreated	DAY ON TEST										ANIMAL ID				
	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	0				
	2	2	2	2	2	2	2	2	2	2	0				
	0	0	0	0	0	0	0	0	0	0	0				
	0	0	0	0	0	0	0	0	0	0	0				
	0	0	0	0	0	0	0	0	0	0	0				
	7	7	7	7	7	7	7	7	7	7	0				
	1	2	3	4	5	6	7	8	9	0					
															* TOTALS
Larynx	+	+	+	+	+	+	+	+	+	+					10
Lung	+	+	+	+	+	+	+	+	+	+					10
Inflammation, Chronic			2			1									2 1.5
Interstitial, Inflammation, Focal	2	1						1							3 1.3
Nose	+	+	+	+	+	+	+	+	+	+					10
Trachea	+	+	+	+	+	+	+	+	+	+					10
SPECIAL SENSES SYSTEM															
Ear			+												1
Eye	+	+	+	+	+	+	+	+	+	+					10
Harderian Gland	+	+	+	+	+	+	+	+	+	+					10
Inflammation, Chronic			1			2			1						3 1.3
URINARY SYSTEM															
Kidney	+	+	+	+	+	+	+	+	+	+					10
Nephropathy						1		1							2 1.0
Urinary Bladder	+	+	+	+	+		+	+	+	+					9

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

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

FISCHER 344-TACONIC RATS FEMALE vehicle	DAY ON TEST										ANIMAL ID
	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
	2	2	2	2	2	2	2	2	2	2	2
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	8	8	8	8	8	8	8	8	8	8	9
	1	2	3	4	5	6	7	8	9	0	
* TOTALS											

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	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 Inflammation, Chronic	+	+	+	+		2	1	1		2	1	10 5 1.4
Oral Mucosa	+	+	+	+	+	+	+	+	+	+	10	
Pancreas	+	+	+	+	+	+	+	+	+	+	10	
Salivary Glands	+	+	+	+	+	+	+	+	+	+	10	
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10	
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10	
Tongue	+	+	+	+	+	+	+	+	+	+	10	

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

FISCHER 344-TACONIC RATS FEMALE vehicle	DAY ON TEST										ANIMAL ID
	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
	2	2	2	2	2	2	2	2	2	2	2
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	8	8	8	8	8	8	8	8	8	8	9
	1	2	3	4	5	6	7	8	8	9	0
* TOTALS											

CARDIOVASCULAR SYSTEM

Blood Vessel	+	+	+	+	+	+	+	+	+	+	10
Heart	+	+	+	+	+	+	+	+	+	+	10
Cardiomyopathy			1								1 1.0

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	10
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	10
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	10
Pituitary Gland	I	+	+	+	I	I	I	I	I	+	4
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	10

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Clitoral Gland	+	+	+	+	+	+	+	+	+	+	10
Inflammation, Chronic										1	1 1.0
Ovary	+	+	+	+	+	+	+	+	+	+	10

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

FISCHER 344-TACONIC RATS FEMALE vehicle	DAY ON TEST										ANIMAL ID			
	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			
	2	2	2	2	2	2	2	2	2	2	2			
	0	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0	0			
	8	8	8	8	8	8	8	8	8	8	8			
	1	2	3	4	5	6	7	8	9	0	0			
													* TOTALS	
Uterus	+	+	+	+	+	+	+	+	+	+	+			10
HEMATOPOIETIC SYSTEM														
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+			10
Lymph Node Iliac, Hyperplasia, Diffuse	+											1		1 1.0
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+			10
Lymph Node, Mesenteric Infiltration Cellular, Histiocyte	+	+	+	+	+	+	+	+	+	+	+	2	2	1 1 2 2
Spleen	+	+	+	+	+	+	+	+	+	+	+			10
Thymus	+	+	+	+	+	+	+	+	+	+	+			10
INTEGUMENTARY SYSTEM														
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+			10
Skin	+	+	+	+	+	+	+	+	+	+	+			10
Skin, Site Of Application	+	+	+	+	+	+	+	+	+	+	+			10
MUSCULOSKELETAL SYSTEM														
Bone	+	+	+	+	+	+	+	+	+	+	+			10

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

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

FISCHER 344-TACONIC RATS FEMALE vehicle	DAY ON TEST										ANIMAL ID	
	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	
	2	2	2	2	2	2	2	2	2	2	2	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	8	8	8	8	8	8	8	8	8	8	9	
	1	2	3	4	5	6	7	8	9	0		
											* TOTALS	

NERVOUS SYSTEM

Brain + + + + + + + + + + 10

RESPIRATORY SYSTEM

Larynx + + + + + + + + + + 10

Lung + + + + + + + + + + 10
 Inflammation, Chronic 1 3 2 3 2.0
 Mineralization 1 1 1.0
 Interstitium, Inflammation, Focal 1 1 1.0

Nose + + + + + + + + + + 10

Trachea + + + + + + + + + + 10

SPECIAL SENSES SYSTEM

Eye + + + + + + + + + + 10

Harderian Gland + + + + + + + + + + 10
 Inflammation, Chronic 1 1 1.0

URINARY SYSTEM

Kidney + + + + + + + + + + 10
 Inflammation, Chronic 1 1 2 1.0
 Mineralization 1 1 1.0
 Nephropathy 1 1 1.0

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

TDMS No. 20307 - 03

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: RATS/F344/N Tac

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E Super)

CAS Number: 54464-57-2

Date Report Requested: 07/27/2011

Time Report Requested: 12:19:40

First Dose M/F: 12/12/06 / 12/13/06

Lab: MBA

FISCHER 344-TACONIC RATS FEMALE vehicle	DAY ON TEST	0	0	0	0	0	0	0	0	0	* TOTALS
		0	0	0	0	0	0	0	0	0	
		9	9	9	9	9	9	9	9	9	
		2	2	2	2	2	2	2	2	2	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		8	8	8	8	8	8	8	8	9	
		1	2	3	4	5	6	7	8	9	

Urinary Bladder

+ + M + + + + + + +

9

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

FISCHER 344-TACONIC RATS FEMALE 6.25%	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	
		2	2	2	2	2	2	2	2	2	2	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	1	1	
		9	9	9	9	9	9	9	9	9	0	
		1	2	3	4	5	6	7	8	9	0	
												* TOTALS

ALIMENTARY SYSTEM

Liver	+	+	+	+	+	+	+	+	+	+	10
Inflammation, Chronic	1	1			1		1	3	2	2	7 1.6

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

NONE

INTEGUMENTARY SYSTEM

Skin	+	+	+	+	+	+	+	+	+	+	10
Skin, Site Of Application	+	+	+	+	+	+	+	+	+	+	10
Hyperplasia				1							1 1.0

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

FISCHER 344-TACONIC RATS FEMALE 6.25%	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9	9	9	9	9	9	9	9	9	9	9	9	9	9
		2	2	2	2	2	2	2	2	2	2	2	2	2	2
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	1	0	0	0
		9	9	9	9	9	9	9	9	9	9	9	9	9	9
		1	2	3	4	5	6	7	8	9	9	0	0	0	0

* TOTALS

MUSCULOSKELETAL SYSTEM

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

NONE

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
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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

FISCHER 344-TACONIC RATS FEMALE 12.5%	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	* TOTALS
		0	0	0	0	0	0	0	0	0	0	
		9	9	9	9	9	9	9	9	9	9	
		2	2	2	2	2	2	2	2	2	2	
	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	

ALIMENTARY SYSTEM

Liver	+	+	+	+	+	+	+	+	+	+	10
Inflammation, Chronic	1		1	1	1	1	1	1	1	1	9 1.0

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

NONE

INTEGUMENTARY SYSTEM

Skin	+	+	+	+	+	+	+	+	+	+	10
Skin, Site Of Application	+	+	+	+	+	+	+	+	+	+	10
Hyperkeratosis				1			1	1	1		4 1.0

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

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

TDMS No. 20307 - 03

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: RATS/F344/N Tac

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E Super)

CAS Number: 54464-57-2

Date Report Requested: 07/27/2011

Time Report Requested: 12:19:40

First Dose M/F: 12/12/06 / 12/13/06

Lab: MBA

FISCHER 344-TACONIC RATS FEMALE 12.5%	DAY ON TEST	0	0	0	0	0	0	0	0	0	* TOTALS
		0	0	0	0	0	0	0	0	0	
		9	9	9	9	9	9	9	9	9	
		2	2	2	2	2	2	2	2	2	
	ANIMAL ID	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	
		0	0	0	0	0	0	0	0	1	
		1	2	3	4	5	6	7	8	9	
										0	
Hyperplasia				1	1		1	1	1	5 1.0	

MUSCULOSKELETAL SYSTEM

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

NONE

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
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

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

FISCHER 344-TACONIC RATS FEMALE 25%	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	* TOTALS
		0	0	0	0	0	0	0	0	0	0	
		9	9	9	9	9	9	9	9	9	9	
		2	2	2	2	2	2	2	2	2	2	
	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	
		1	1	1	1	1	1	1	1	1	2	
		1	2	3	4	5	6	7	8	9	0	

ALIMENTARY SYSTEM

Liver	+	+	+	+	+	+	+	+	+	+	10
Inflammation, Chronic	1					2	2	1		1	5 1.4

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

NONE

INTEGUMENTARY SYSTEM

Skin	+	+	+	+	+	+	+	+	+	+	10
Skin, Site Of Application	+	+	+	+	+	+	+	+	+	+	10
Hyperkeratosis	1			2	1		2		1		5 1.4

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

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

TDMS No. 20307 - 03

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: RATS/F344/N Tac

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E Super)

CAS Number: 54464-57-2

Date Report Requested: 07/27/2011

Time Report Requested: 12:19:40

First Dose M/F: 12/12/06 / 12/13/06

Lab: MBA

FISCHER 344-TACONIC RATS FEMALE 25%	DAY ON TEST										* TOTALS
	0 0 9 2	0 0 9 2	0 0 9 2	0 0 9 2	0 0 9 2	0 0 9 2	0 0 9 2	0 0 9 2	0 0 9 2	0 0 9 2	
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	
	1	1	1	1	1	1	1	1	1	2	
	1	2	3	4	5	6	7	8	9	0	
Hyperplasia	1	1	2	1	1	1	2				7 1.3

MUSCULOSKELETAL SYSTEM

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

NONE

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	10
Inflammation, Chronic										1	1 1.0
Mineralization		1						1			2 1.0

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

FISCHER 344-TACONIC RATS FEMALE 50%	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	
		2	2	2	2	2	2	2	2	2	2	
	ANIMAL ID	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		
		2	2	2	2	2	2	2	2	3		
		1	2	3	4	5	6	7	8	9	0	
* TOTALS												

ALIMENTARY SYSTEM

Liver	+	+	+	+	+	+	+	+	+	+	10
Inflammation, Chronic		2		1			1		2	1	5 1.4

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

NONE

INTEGUMENTARY SYSTEM

Skin	+	+	+	+	+	+	+	+	+	+	10
Skin, Site Of Application	+	+	+	+	+	+	+	+	+	+	10
Hyperkeratosis		1	1	1	1	2		2		1	7 1.3

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

FISCHER 344-TACONIC RATS FEMALE 50%	DAY ON TEST										* TOTALS
	0 0 9 2	0 0 9 2	0 0 9 2	0 0 9 2	0 0 9 2	0 0 9 2	0 0 9 2	0 0 9 2	0 0 9 2	0 0 9 2	
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	
	2	2	2	2	2	2	2	2	2	3	
	1	1	2	1	2			2		1	
Hyperplasia											7 1.4

MUSCULOSKELETAL SYSTEM

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

NONE

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	10
Pelvis, Inflammation, Chronic						2					1 2.0

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

FISCHER 344-TACONIC RATS FEMALE 100%	DAY ON TEST										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		
	2	2	2	2	2	2	2	2	2	2		
	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		
	3	3	3	3	3	3	3	3	3	3		
	1	2	3	4	5	6	7	8	9	4		
											* TOTALS	

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	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 Inflammation, Chronic	+	+	+	+	+	+	+	+	+	+	10	5 1.4
Oral Mucosa	+	+	+	+	+	+	+	+	+	+	10	
Pancreas	+	+	+	+	+	+	+	+	+	+	10	
Salivary Glands	+	+	+	+	+	+	+	+	+	+	10	
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10	
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10	
Tongue	+	+	+	+	+	+	+	+	+	+	10	

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FISCHER 344-TACONIC RATS FEMALE 100%	DAY ON TEST	0	0	0	0	0	0	0	0	0	* TOTALS
		0	0	0	0	0	0	0	0	0	
		9	9	9	9	9	9	9	9	9	
		2	2	2	2	2	2	2	2	2	
	ANIMAL ID	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	
		3	3	3	3	3	3	3	3	4	
		1	2	3	4	5	6	7	8	9	
		0	0	0	0	0	0	0	0	0	

CARDIOVASCULAR SYSTEM

Blood Vessel	+	+	+	+	+	+	+	+	+	10
Heart	+	+	+	+	+	+	+	+	+	10

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	10
Adrenal Medulla	+	+	+	+	+	+	+	+	+	10
Parathyroid Gland	+	+	+	+	+	+	+	+	+	10
Pituitary Gland	+	+	+	+	+	+	+	+	+	10
Thyroid Gland	+	+	+	+	+	+	+	+	+	10

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Clitoral Gland	+	+	+	+	+	+	+	+	+	10
Ovary	+	+	+	+	+	+	+	+	+	10
Uterus	+	+	+	+	+	+	+	+	+	10

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DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	FISCHER 344-TACONIC RATS FEMALE	0	0	0	0	0	0	0	0	0
100%	9	9	9	9	9	9	9	9	9	9
ANIMAL ID	2	2	2	2	2	2	2	2	2	2
	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
	3	3	3	3	3	3	3	3	3	4
	1	2	3	4	5	6	7	8	9	0
* TOTALS										

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	10
Infiltration Cellular, Histiocyte	2	2	2	2			3				5 2.2
Spleen	+	+	+	+	+	+	+	+	+	+	10
Thymus	+	+	+	+	+	+	+	+	+	+	10

INTEGUMENTARY SYSTEM

Mammary Gland	+	+	+	+	+	+	+	+	+	+	10
Skin	+	+	+	+	+	+	+	+	+	+	10
Skin, Site Of Application	+	+	+	+	+	+	+	+	+	+	10
Hyperkeratosis	2		2		2	1	2	2		2	7 1.9
Hyperplasia	2		2		3	1	2	2	1	2	8 1.9
Dermis, Inflammation, Suppurative				1							1 1.0
Hair Follicle, Necrosis				2							1 2.0

MUSCULOSKELETAL SYSTEM

Bone	+	+	+	+	+	+	+	+	+	+	10
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NERVOUS SYSTEM

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	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	0		
	2	2	2	2	2	2	2	2	2	2	0		
	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0		
	1	1	1	1	1	1	1	1	1	1	0		
	3	3	3	3	3	3	3	3	3	3	0		
	1	2	3	4	5	6	7	8	9	4	0		
													* TOTALS
Brain	+	+	+	+	+	+	+	+	+	+			10
RESPIRATORY SYSTEM													
Larynx	+	+	+	+	+	+	+	+	+	+			10
Lung	+	+	+	+	+	+	+	+	+	+			10
Infiltration Cellular, Histiocyte											1		1 1.0
Inflammation, Chronic							3						1 3.0
Interstitialium, Inflammation, Focal				1									1 1.0
Nose	+	+	+	+	+	+	+	+	+	+			10
Trachea	+	+	+	+	+	+	+	+	+	+			10
SPECIAL SENSES SYSTEM													
Ear									+				1
Eye	+	+	+	+	+	+	+	+	+	+			10
Harderian Gland	+	+	+	+	+	+	+	+	+	+			10
Inflammation, Chronic			1				1			1			3 1.0
URINARY SYSTEM													
Kidney	+	+	+	+	+	+	+	+	+	+			10
Mineralization							2						1 2.0
Urinary Bladder	+	+	+	+	+	+	+	+	+	+			10

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TDMS No. 20307 - 03

Test Type: 90-DAY

Route: SKIN APPLICATION

Species/Strain: RATS/F344/N Tac

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)- (Iso-E Super)

CAS Number: 54464-57-2

Date Report Requested: 07/27/2011

Time Report Requested: 12:19:40

First Dose M/F: 12/12/06 / 12/13/06

Lab: MBA

*** END OF REPORT ***

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