Test Type: CHRONIC

**Route: SKIN APPLICATION** 

Species/Strain: RATS/F 344/N

### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 07/06/2010 AVERAGE SEVERITY GRADES[b]

Methyl trans-styryl ketone CAS Number: 1896-62-4

Time Report Requested: 12:57:38 First Dose M/F: 04/05/04 / 04/05/04

Lab: SRI

F#2\_R2

C Number: C95003

**Lock Date:** 01/29/2007

Cage Range: ALL

Date Range: ALL

Reasons For Removal: ALL

Removal Date Range: ALL

Treatment Groups: Include ALL

Study Gender: Both

**TDMSE Version:** 2.2.0

**Route: SKIN APPLICATION** 

Species/Strain: RATS/F 344/N

Degeneration, Cystic

### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 07/06/2010 AVERAGE SEVERITY GRADES[b]

Methyl trans-styryl ketone CAS Number: 1896-62-4

Time Report Requested: 12:57:38 First Dose M/F: 04/05/04 / 04/05/04

Lab: SRI

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	30 MG/KG	90 MG/KG	
Disposition Summary					
Animals Initially In Study	50	50	50	50	
Early Deaths					
Moribund Sacrifice	15	14	19	17	
Natural Death	8	6	9	3	
Survivors					
Natural Death		1		1	
Terminal Sacrifice	27	29	22	29	
Animals Examined Microscopically	50	50	50	50	
ALIMENTARY SYSTEM					
Intestine Large, Cecum	(50)	(49)	(49)	(50)	
Angiectasis	, ,	, ,	, ,	1 [3.0]	
Edema	3 [2.3]	2 [2.0]	2 [2.5]	1 [4.0]	
Infiltration Cellular, Mixed Cell		1 [3.0]			
Intestine Large, Colon	(48)	(50)	(50)	(50)	
Edema				1 [3.0]	
Inflammation, Chronic			1 [2.0]		
Epithelium, Hyperplasia			1 [3.0]		
Intestine Large, Rectum	(46)	(48)	(48)	(48)	
Edema				1 [3.0]	
Epithelium, Hyperplasia			1 [2.0]		
Intestine Small, Duodenum	(49)	(50)	(50)	(50)	
Epithelium, Hyperplasia	4 [2.3]		3 [2.7]		
Intestine Small, Ileum	(49)	(48)	(49)	(48)	
Hemorrhage				1 [2.0]	
Intestine Small, Jejunum	(46)	(45)	(45)	(48)	
Inflammation, Chronic Active		1 [3.0]			
Epithelium, Hyperplasia			1 [2.0]		
Liver	(50)	(50)	(50)	(50)	
Angiectasis		1 [2.0]		1 [1.0]	
Basophilic Focus	20	23	19	27	
Clear Cell Focus	16	19	14	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)

4 [1.5]

3 [1.7]

1 [1.0]

4 [1.5]

### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 07/06/2010 AVERAGE SEVERITY GRADES[b]

Test Type: CHRONIC Methyl trans-styryl ketone
Route: SKIN APPLICATION CAS Number: 1896-62-4
Species/Strain: RATS/F 344/N

Time Report Requested: 12:57:38
First Dose M/F: 04/05/04 / 04/05/04

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	30 MG/KG	90 MG/KG	
		_	_	_	
Eosinophilic Focus	10	5	2	8	
Fibrosis			1 [2.0]		
Hematopoietic Cell Proliferation				1 [1.0]	
Hepatodiaphragmatic Nodule	3	9	6	7	
Infiltration Cellular, Mixed Cell	2 [1.0]	2 [2.0]	4 [1.8]	2 [2.0]	
Mixed Cell Focus	7	8	8	12	
Necrosis, Focal	1 [2.0]	1 [1.0]		2 [2.5]	
Thrombosis		1 [4.0]			
Bile Duct, Hyperplasia	40 [1.9]	31 [1.6]	29 [1.6]	37 [1.6]	
Centrilobular, Necrosis	3 [2.0]	5 [2.8]	4 [2.5]	3 [2.0]	
Hepatocyte, Hyperplasia, Focal	1 [3.0]	1 [2.0]	1 [2.0]	2 [1.5]	
Hepatocyte, Vacuolization Cytoplasmic	9 [2.8]	6 [2.3]	6 [3.0]	6 [2.3]	
Kupffer Cell, Pigmentation	1 [2.0]	1 [2.0]		1 [2.0]	
Oval Cell, Hyperplasia		1 [3.0]			
Mesentery	(15)	(14)	(7)	(12)	
Accessory Spleen	3	1		3	
Hemorrhage		1 [4.0]			
Mineralization		1 [3.0]			
Fat, Necrosis	9 [2.9]	8 [2.4]	6 [2.5]	8 [2.6]	
Oral Mucosa	(1)	(1)	(0)	(2)	
Pancreas	(49)	(50)	(49)	(50)	
Atrophy	32 [2.2]	27 [2.1]	27 [2.2]	26 [2.5]	
Cyst	14	10	7	10	
Acinus, Cytoplasmic Alteration	2 [3.5]	3 [3.0]	4 [3.0]	5 [2.8]	
Acinus, Hyperplasia, Focal	4 [2.0]	1 [3.0]	1 [3.0]	2 [3.0]	
Salivary Glands	(50)	(50)	(48)	(50)	
Atrophy	1 [1.0]	1 [1.0]	(10)	(00)	
Necrosis	. [•]	2 [2.0]			
Stomach, Forestomach	(50)	(50)	(50)	(50)	
Edema	3 [3.0]	1 [3.0]	6 [3.2]	3 [3.3]	
Erosion	1 [2.0]	. [0.0]	1 [2.0]	0 [0.0]	
Fibrosis	ر د.٠)		ا رح.٠٠	1 [3.0]	
Inflammation, Chronic Active	1 [3.0]	2 [2.5]		1 [0.0]	
Perforation	1 [0.0]	ک زک.ن]	1		
Ulcer	6 [3.3]	6 [3.3]	8 [3.8]	3 [3.7]	
Epithelium, Hyperplasia	8 [2.5]	6 [2.8]	8 [2.9]	5 [2.4]	

a - Number of animals examined microscopically at site and number of animals with lesion b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

Test Type: CHRONIC

Pituitary Gland

**Route: SKIN APPLICATION** 

Species/Strain: RATS/F 344/N

# P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 07/06/2010 AVERAGE SEVERITY GRADES[b]

Methyl trans-styryl ketone CAS Number: 1896-62-4

Time Report Requested: 12:57:38 First Dose M/F: 04/05/04 / 04/05/04

Lab: SRI

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	30 MG/KG	90 MG/KG	
Stomach, Glandular	(50)	(50)	(50)	(50)	
Cyst	1		. ,	1	
Edema	1 [3.0]	3 [2.3]	2 [2.0]	1 [2.0]	
Erosion	7 [1.4]	5 [2.2]	6 [2.3]	4 [1.5]	
Inflammation, Chronic Active	1 [4.0]				
Mineralization		1 [3.0]			
Ulcer	4 [3.0]	3 [2.3]	1 [2.0]	1 [2.0]	
Epithelium, Hyperplasia				1 [3.0]	
Glands, Hyperplasia	1 [4.0]	2 [2.5]		3 [2.3]	
Tongue	(1)	(3)	(4)	(1)	
Epithelium, Hyperplasia	. ,	2 [2.0]	1 [1.0]	1 [2.0]	
CARDIOVASCULAR SYSTEM			_	<del>,</del>	
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	45 [2.5]	42 [2.5]	46 [2.6]	45 [2.4]	
Inflammation, Chronic	1 [3.0]		1 [2.0]		
Thrombosis	5 [2.4]	8 [3.4]	3 [3.0]	3 [3.3]	
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
Accessory Adrenal Cortical Nodule	25	21	23	26	
Atrophy		1 [4.0]	1 [3.0]		
Degeneration, Fatty	30 [1.7]	23 [1.7]	20 [2.3]	25 [1.6]	
Hyperplasia, Focal	12 [1.3]	3 [1.0]	4 [2.3]	6 [2.0]	
Hypertrophy, Focal	7 [1.4]	11 [1.7]	6 [1.8]	6 [1.8]	
Necrosis		1 [4.0]		- ·	
Adrenal Medulla	(49)	(50)	(50)	(50)	
Hyperplasia	22 [1.8]	17 [1.8]	11 [1.3]	20 [1.9]	
Islets, Pancreatic	(49)	(50)	(49)	(50)	
Hyperplasia	4 [1.5]	4 [1.3]	6 [1.7]	2 [1.0]	
Parathyroid Gland	(49)	(50)	(47)	(47)	
Hyperplasia	( - /	1 [2.0]	` /	` '	
71 * 1 *** **	<i>i</i> = - <i>i</i>	r=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)

(50)

(50)

(50)

(49)

Test Type: CHRONIC

**Route: SKIN APPLICATION** 

Species/Strain: RATS/F 344/N

# P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 07/06/2010 AVERAGE SEVERITY GRADES[b]

Methyl trans-styryl ketone CAS Number: 1896-62-4

Time Report Requested: 12:57:38

First Dose M/F: 04/05/04 / 04/05/04

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	30 MG/KG	90 MG/KG	
Pigmentation		1 [3.0]	2 [3.5]		
Pars Distalis, Angiectasis	2 [1.5]	1 [2.0]	_ [0.0]	6 [2.5]	
Pars Distalis, Atrophy	2[0]	1 [3.0]		0 [2.0]	
Pars Distalis, Cyst	2	2	3		
Pars Distalis, Cytoplasmic Alteration, Focal	_	1 [3.0]	1 [2.0]		
Pars Distalis, Hyperplasia	1 [1.0]	. [0.0]	. [=.0]	2 [2.0]	
Pars Distalis, Hyperplasia, Focal	9 [2.3]	9 [2.1]	5 [2.4]	10 [1.9]	
Pars Intermedia, Angiectasis	4 [2.3]	1 [2.0]	ر. ۱٫	3 [2.3]	
Pars Intermedia, Cyst	1	7		3	
Pars Intermedia, Hyperplasia, Focal	•	•	1 [2.0]	<b>o</b>	
Pars Nervosa, Infiltration Cellular, Mixed Cell	2 [2.0]		1 [2.0]		
Thyroid Gland	(46)	(45)	(43)	(49)	
Ultimobranchial Cyst	(40)	(40)	1 [3.0]	1 [3.0]	
C-cell, Hyperplasia	11 [1.3]	9 [1.2]	13 [1.6]	6 [1.2]	
Follicle, Cyst	3	3	10 [1.0]	0 [1.2]	
Follicle, Degeneration, Focal	3	3	1 [2.0]	1 [2.0]	
Follicular Cell, Hyperplasia	1 [2.0]		1 [2.0]	1 [2.0]	
i dilicular deli, rryperplasia	1 [2.0]				
GENERAL BODY SYSTEM					
Tissue NOS	(0)	(0)	(0)	(1)	
GENITAL SYSTEM					
Coagulating Gland	(0)	(1)	(0)	(1)	
Cyst	(0)	(.,	(0)	1	
Inflammation, Chronic		1 [3.0]			
Epididymis	(50)	(50)	(50)	(50)	
Granuloma Sperm	(00)	(00)	1 [3.0]	(00)	
Inflammation, Chronic	3 [2.0]	4 [2.3]	3 [2.0]		
Preputial Gland	(50)	(50)	(49)	(50)	
Cyst	(00)	4	(40)	(00)	
Inflammation, Chronic	14 [2.4]	19 [2.2]	18 [2.1]	13 [2.2]	
Prostate	(50)	(50)	(50)	(50)	
Hyperplasia	(30)	(30)	(30)	1 [4.0]	
ι ιγρειριαδία				۱ [ <del>4</del> .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)

Atrophy

**Route: SKIN APPLICATION** 

Species/Strain: RATS/F 344/N

# P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 07/06/2010 AVERAGE SEVERITY GRADES[b]

Methyl trans-styryl ketone **CAS Number:** 1896-62-4

Time Report Requested: 12:57:38 First Dose M/F: 04/05/04 / 04/05/04

Lab: SRI

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	30 MG/KG	90 MG/KG	
Inflammation, Chronic	33 [2.5]	42 [2.1]	39 [2.3]	42 [2.4]	
Epithelium, Hyperplasia	3 [1.3]	9 [1.3]	4 [1.5]	5 [1.0]	
Seminal Vesicle	(50)	(50)	(50)	(50)	
Degeneration			, ,	1 [3.0]	
Fibrosis	1 [3.0]				
Inflammation			1 [3.0]		
Inflammation, Chronic			2 [2.5]		
Testes	(50)	(50)	(50)	(50)	
Artery, Inflammation, Chronic	1 [2.0]	2 [1.0]	()	1 [2.0]	
Germinal Epithelium, Atrophy	30 [2.1]	35 [2.4]	27 [2.3]	36 [2.1]	
Interstitial Cell, Hyperplasia	6 [1.3]	13 [1.6]	8 [1.6]	7 [1.3]	
HEMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(50)	(50)	(50)	
Hyperplasia	2 [2.5]	7 [2.9]	10 [2.5]	3 [3.0]	
Myelofibrosis	2 [2.5]	2 [2.5]	1 [3.0]	1 [3.0]	
Thrombosis		1 [4.0]			
Lymph Node	(25)	(30)	(21)	(26)	
Deep Cervical, Ectasia			1 [3.0]		
Deep Cervical, Hyperplasia, Lymphoid	1 [2.0]		3 [2.7]		
Mediastinal, Ectasia	2 [3.0]	6 [2.8]	3 [3.0]	2 [3.5]	
Mediastinal, Hemorrhage	3 [2.3]	9 [1.9]	8 [2.4]	4 [2.3]	
Mediastinal, Hyperplasia, Lymphoid	2 [2.5]	8 [2.8]	7 [2.7]	6 [2.8]	
Mediastinal, Pigmentation	1 [2.0]	3 [2.3]	3 [2.7]	1 [2.0]	
Pancreatic, Ectasia	3 [4.0]	3 [3.3]	2 [3.5]	5 [3.4]	
Pancreatic, Hemorrhage		3 [1.3]	2 [2.5]		
Pancreatic, Hyperplasia, Histiocytic		1 [3.0]			
Pancreatic, Hyperplasia, Lymphoid		2 [2.5]		2 [2.0]	
Pancreatic, Pigmentation		2 [3.0]	1 [2.0]		
Lymph Node, Mandibular	(3)	(1)	(3)	(4)	
Ectasia	1 [3.0]	` '	1 [4.0]	1 [2.0]	
Hyperplasia, Lymphoid	1 [2.0]		- []	1 [2.0]	
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)	
Atrophy	(55)	(00)	(00)	(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)

2 [2.5]

**Route: SKIN APPLICATION** 

Species/Strain: RATS/F 344/N

### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 07/06/2010 AVERAGE SEVERITY GRADES[b]

Methyl trans-styryl ketone CAS Number: 1896-62-4

Time Report Requested: 12:57:38 First Dose M/F: 04/05/04 / 04/05/04

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	30 MG/KG	90 MG/KG	
Ectasia	5 [2.2]	2 [2.0]	3 [2.0]	5 [2.2]	
Hemorrhage	4 [1.3]	3 [1.3]	4 [1.8]	8 [1.5]	
Hyperplasia, Histiocytic	4 [1.5]	1 [3.0]	4 [1.0]	0 [1.5]	
Hyperplasia, Lymphoid	3 [2.0]	12 [2.2]	7 [2.3]	11 [2.0]	
Pigmentation	2 [3.0]	1 [3.0]	1 [3.0]	11 [2.0]	
Spleen	(50)	(50)	(50)	(50)	
Accessory Spleen	1	1	(30)	1	
Fibrosis	3 [2.3]	ı	3 [3.0]	3 [2.3]	
Hematopoietic Cell Proliferation	20 [1.9]	21 [1.7]	24 [1.8]	19 [1.9]	
Hemorrhage	1 [4.0]	21[1.7]	1 [4.0]	1 [4.0]	
Necrosis	3 [3.0]	2 [4.0]	2 [3.5]	2 [3.5]	
Pigmentation	3 [3.0]	3 [3.0]	6 [3.0]	3 [3.0]	
Lymphoid Follicle, Atrophy		1 [3.0]	1 [2.0]	3 [3.0]	
Lymphoid Follicle, Hyperplasia	1 [2.0]	1 [3.0]	2 [2.0]		
Thymus	(50)	(50)	(46)	(49)	
Cyst	1	(30)	(40)	(43)	
Inflammation, Chronic	·		1 [4.0]		
INTEGUMENTARY SYSTEM					
Mammary Gland	(48)	(49)	(48)	(49)	
Hyperplasia	32 [2.9]	33 [3.0]	30 [3.1]	38 [2.8]	
Skin	(50)	(50)	(50)	(50)	
Cyst Epithelial Inclusion	1	1	(00)	1	
Hemorrhage	1 [2.0]	·		•	
Hyperkeratosis	. [2.0]			1 [2.0]	
Inflammation, Suppurative			1 [4.0]	. [=.0]	
Inflammation, Acute	1 [2.0]		. [0]		
Inflammation, Chronic	. [=.0]	1 [4.0]	2 [3.0]	2 [3.5]	
Ulcer	15 [3.5]	12 [3.8]	17 [3.4]	22 [3.9]	
Control, Hyperkeratosis	5 [1.0]	1 [1.0]	5 [1.0]	1 [1.0]	
Control Epidermis, Hyperplasia	2 [1.0]	4 [1.0]	3 [1.3]	5 [1.2]	
Epidermis, Hyperplasia	15 [3.4]	14 [3.1]	18 [3.3]	24 [3.5]	
Epidermis, Site Of Application, Hyperplasia	. 0 [0. 1]	3 [1.0]	3 [1.0]	29 [1.0]	
Site Of Application, Hyperkeratosis	20 [1.1]	13 [1.0]	33 [1.2]	47 [2.4]	

a - Number of animals examined microscopically at site and number of animals with lesion b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

Test Type: CHRONIC

Hemorrhage

Foreign Body

Nose

Infiltration Cellular, Histiocyte

Inflammation, Granulomatous

Alveolar Epithelium, Hyperplasia

Inflammation, Chronic

Metaplasia, Osseous

**Route: SKIN APPLICATION** 

Species/Strain: RATS/F 344/N

### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 07/06/2010 AVERAGE SEVERITY GRADES[b]

Methyl trans-styryl ketone CAS Number: 1896-62-4

Time Report Requested: 12:57:38

First Dose M/F: 04/05/04 / 04/05/04

Lab: SRI

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	30 MG/KG	90 MG/KG	
Site Of Application, Inflammation, Chronic				1 [2.0]	
MUSCULOSKELETAL SYSTEM					
Bone Fibrous Osteodystrophy	(50)	(50) 1 [3.0]	(50)	(50)	
Femur, Osteopetrosis Skeletal Muscle Atrophy	(1)	(3)	1 [4.0] (2) 1 [1.0]	(1)	
NERVOUS SYSTEM					
Brain	(50)	(50)	(50)	(50)	
Compression	17 [2.9]	19 [2.7]	20 [2.9]	18 [2.9]	
Fungus Hemorrhage		4 [1.8]	1 2 [1.5]		
Necrosis	2 [2.0]	1 [1.0]	2 [1.0]		
Pigmentation			1 [1.0]		
Perivascular, Inflammation, Pyogranulomatous			1 [2.0]		
Spinal Cord	(7)	(4)	(4)	(3)	
RESPIRATORY SYSTEM		-			
Lung Edema	(50)	(50) 3 [2.0]	(50)	(50)	
Foreign Body			1	1	

2 [2.0]

14 [1.4]

4 [1.0]

(50)

23

1 [1.0]

17 [1.2]

1 [2.0]

7 [1.1]

2 [2.0]

4 [2.0]

(50)

21

1 [1.0]

22 [1.2]

9 [1.3]

4 [1.0]

8 [1.8]

(50)

24

2 [1.5]

15 [1.4]

13 [1.3]

2 [1.0]

(49)

21

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)

**Route: SKIN APPLICATION** 

Species/Strain: RATS/F 344/N

# P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 07/06/2010 AVERAGE SEVERITY GRADES[b]

Methyl trans-styryl ketone **CAS Number:** 1896-62-4

Time Report Requested: 12:57:38

First Dose M/F: 04/05/04 / 04/05/04

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	30 MG/KG	90 MG/KG	
Fungus	2	9	11	12	
Inflammation, Chronic	25 [1.6]	24 [2.0]	31 [1.7]	30 [2.1]	
Olfactory Epithelium, Metaplasia, Respiratory	7 [1.3]	13 [1.3]	6 [1.8]	12 [1.5]	
Respiratory Epithelium, Hyperplasia	19 [1.4]	18 [1.9]	18 [1.7]	23 [2.0]	
Respiratory Epithelium, Metaplasia, Respiratory				1 [2.0]	
Respiratory Epithelium, Metaplasia, Squamous	3 [2.3]	7 [2.1]	15 [2.3]	13 [2.1]	
Turbinate, Necrosis	1 [2.0]				
SPECIAL SENSES SYSTEM					
Eye	(50)	(50)	(50)	(50)	
Cataract	1 [3.0]		1 [3.0]	2 [2.0]	
Inflammation, Acute		1 [3.0]			
Inflammation, Chronic			1 [3.0]		
Cornea, Hyperplasia			1 [2.0]		
Retina, Degeneration	3 [2.3]		3 [3.3]	6 [2.5]	
Harderian Gland	(50)	(50)	(50)	(50)	
Atrophy	( )	1 [2.0]	( /	,	
Hyperplasia, Focal	1 [1.0]		1 [1.0]	1 [2.0]	
Inflammation, Chronic	1 [4.0]	2 [3.0]	1 [2.0]		
Zymbal's Gland	(1)	(1)	(2)	(1)	
URINARY SYSTEM					
Kidney	(50)	(50)	(50)	(50)	
Cyst	( )	2	2	,	
Glomerulosclerosis			1 [3.0]		
Hydronephrosis			1 [2.0]		
Infarct	1 [2.0]		r -1		
Inflammation, Suppurative	L -J	1 [1.0]		3 [1.0]	
Inflammation, Chronic	19 [2.5]	14 [2.4]	16 [2.4]	16 [2.3]	
Nephropathy	44 [2.7]	47 [2.2]	46 [2.5]	47 [2.2]	
Papilla, Necrosis	[]	[=:=]	1 [3.0]	··· []	
Renal Tubule, Dilatation			1 [3.0]	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)

Test Type: CHRONIC

**Route: SKIN APPLICATION** 

Species/Strain: RATS/F 344/N

# P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 07/06/2010 AVERAGE SEVERITY GRADES[b]

Methyl trans-styryl ketone **CAS Number:** 1896-62-4

Time Report Requested: 12:57:38 First Dose M/F: 04/05/04 / 04/05/04

Lab: SRI

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	30 MG/KG	90 MG/KG	
Renal Tubule, Hyperplasia				1 [2.0]	
Renal Tubule, Necrosis	1 [4.0]	1 [1.0]		1 [2.0]	
Renal Tubule, Pigmentation	. [•]	. [•]		1 [2.0]	
Transitional Epithelium, Hyperplasia				1 [3.0]	
Urethra	(0)	(1)	(1)	(0)	
Angiectasis			1 [3.0]		
Urinary Bladder	(50)	(50)	(50)	(50)	
Hemorrhage		1 [2.0]	1 [4.0]		
Inflammation, Suppurative			1 [3.0]		
Inflammation, Chronic		1 [2.0]			
Transitional Epithelium, Hyperplasia		1 [2.0]		1 [2.0]	

\*\*\* 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)

Test Type: CHRONIC

**Route: SKIN APPLICATION** 

Species/Strain: RATS/F 344/N

### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 07/06/2010 AVERAGE SEVERITY GRADES[b]

Methyl trans-styryl ketone **CAS Number:** 1896-62-4

Time Report Requested: 12:57:38 First Dose M/F: 04/05/04 / 04/05/04

Lab: SRI

<b>Operation</b>						
FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	30 MG/KG	90 MG/KG		
Disposition Summary						
•						
Animals Initially In Study	50	50	50	50		
Early Deaths  Moribund Sacrifice	10	15	13	15		
Natural Death	10	11	10	9		
Survivors	10	11	10	3		
Terminal Sacrifice	30	24	27	26		
Animals Examined Microscopically	50	50	50	50		
ALIMENTARY SYSTEM						
Intestine Large, Cecum	(50)	(50)	(50)	(50)		
Edema	2 [2.0]	3 [2.7]	3 [2.0]	1 [3.0]		
Intestine Small, Duodenum	(50)	(50)	(50)	(49)		
Epithelium, Hyperplasia	, ,	,	1 [3.0]	2 [2.5]		
Intestine Small, Ileum	(48)	(48)	(49)	(46)		
Liver	(50)	(50)	(50)	(50)		
Angiectasis	1 [1.0]	2 [1.5]	1 [2.0]	1 [2.0]		
Basophilic Focus	37	37	38	34		
Clear Cell Focus	6	10	4	6		
Cyst			1	1		
Degeneration, Cystic		1 [3.0]				
Eosinophilic Focus	5	3	9	6		
Hematopoietic Cell Proliferation	2 [2.0]	1 [1.0]	1 [2.0]			
Hemorrhage		1 [3.0]	1 [3.0]			
Hepatodiaphragmatic Nodule	9	6	6	9		
Infiltration Cellular, Mixed Cell	6 [1.8]	7 [1.4]	9 [2.0]	6 [1.5]		
Mineralization				1 [3.0]		
Mixed Cell Focus	6	11	9	5		
Necrosis, Focal		2 [1.0]	1 [1.0]	2 [1.5]		
Necrosis, Diffuse		1 [2.0]				
Bile Duct, Hyperplasia	5 [1.6]	6 [1.5]	7 [1.6]	6 [1.7]		
Centrilobular, Necrosis	1 [1.0]	3 [2.7]	2 [3.5]	4 [2.5]		
Hepatocyte, Hyperplasia, Focal		3 [2.3]	1 [3.0]	2 [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)

Hepatocyte, Vacuolization Cytoplasmic

6 [2.5]

4 [2.8]

4 [2.3]

6 [2.8]

# P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 07/06/2010 AVERAGE SEVERITY GRADES[b]

Methyl trans-styryl ketone **CAS Number:** 1896-62-4

Time Report Requested: 12:57:38

First Dose M/F: 04/05/04 / 04/05/04

Test Type: CHRONIC							
Route: SKIN APPLICATION							
Species/Strain: RATS/F 344/N							
FISCHED 344 DATS FEMALE							

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	30 MG/KG	90 MG/KG	
Kupffer Cell, Hyperplasia	1 [3.0]	1 [3.0]		1 [2.0]	
Kupffer Cell, Pigmentation		1 [2.0]			
Mesentery	(23)	(18)	(23)	(25)	
Accessory Spleen			4	3	
Fibrosis	1 [2.0]				
Hemorrhage	1 [3.0]				
Fat, Necrosis	22 [3.0]	17 [2.9]	21 [2.9]	20 [3.0]	
Pancreas	(49)	(50)	(50)	(49)	
Atrophy	14 [1.9]	8 [1.5]	13 [1.3]	20 [1.5]	
Cyst	13	16	15	30	
Necrosis			1 [3.0]		
Acinus, Cytoplasmic Alteration	2 [3.5]	2 [2.0]	1 [3.0]	2 [3.5]	
Acinus, Hyperplasia, Focal		1 [1.0]			
Salivary Glands	(50)	(50)	(50)	(50)	
Atrophy	3 [1.7]	2 [1.0]	2 [1.0]	2 [1.5]	
Cyst	1	1	1	,	
Stomach, Forestomach	(50)	(50)	(50)	(50)	
Edema	3 [3.0]	5 [2.6]	2 [3.0]	1 [4.0]	
Hyperplasia	2 (2 - 2)	1 [2.0]	11	,	
Inflammation, Chronic Active	3 [3.0]	2 [3.0]	2 [2.5]		
Perforation	2 (2 - 2)	r1	1	1	
Ulcer	4 [3.8]	8 [3.5]	3 [3.0]	4 [3.5]	
Epithelium, Hyperplasia	9 [2.7]	3 [3.3]	5 [3.2]	7 [2.6]	
Stomach, Glandular	(50)	(50)	(50)	(50)	
Edema	1 [2.0]	2 [2.0]	()	1 [3.0]	
Erosion	2 [2.0]	4 [2.0]	3 [1.7]	5 [2.0]	
Ulcer	1 [3.0]	1 [1.0]	1 [1.0]	1 [1.0]	
Tongue	(0)	(0)	(1)	(3)	
Epithelium, Hyperplasia	,	( )	1 [2.0]	2 [1.5]	
CARDIOVASCULAR SYSTEM					
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	36 [2.0]	35 [1.9]	35 [1.7]	35 [2.0]	
Thrombosis	30 [Z.U]	3 [3.0]	35 [1.7]	35 [2.0] 1 [4.0]	
1111011100515		၁ [၁.ပ]		1 [4.0]	

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: CHRONIC

**Route: SKIN APPLICATION** 

Species/Strain: RATS/F 344/N

# P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 07/06/2010 AVERAGE SEVERITY GRADES[b]

Methyl trans-styryl ketone **CAS Number:** 1896-62-4

Time Report Requested: 12:57:38 First Dose M/F: 04/05/04 / 04/05/04

Lab: SRI

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	30 MG/KG	90 MG/KG

NDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Accessory Adrenal Cortical Nodule	10	19	16	24
Angiectasis			1 [3.0]	
Atrophy		1 [3.0]		
Degeneration, Fatty	17 [2.3]	22 [2.1]	25 [2.3]	16 [2.2]
Hyperplasia, Focal	5 [1.4]	7 [2.0]	8 [2.1]	5 [1.6]
Hypertrophy, Focal	12 [1.9]	11 [1.9]	10 [1.9]	6 [2.2]
Necrosis			1 [2.0]	
Adrenal Medulla	(49)	(49)	(47)	(49)
Hyperplasia	5 [1.8]	3 [1.7]		3 [1.0]
Islets, Pancreatic	(49)	(50)	(50)	(49)
Hyperplasia		2 [1.5]		
Parathyroid Gland	(50)	(50)	(49)	(44)
Pituitary Gland	(50)	(50)	(50)	(50)
Pigmentation	, ,	, ,	2 [2.0]	
Pars Distalis, Angiectasis	7 [2.4]	2 [3.5]	9 [2.9]	8 [2.6]
Pars Distalis, Cyst	22	14	20	16
Pars Distalis, Cytoplasmic Alteration, Focal		1 [3.0]		1 [2.0]
Pars Distalis, Hyperplasia, Focal	10 [1.8]	4 [2.3]	11 [2.1]	9 [2.0]
Pars Distalis, Pigmentation				1 [2.0]
Pars Intermedia, Angiectasis	1 [3.0]	1 [2.0]	2 [2.5]	2 [2.5]
Pars Intermedia, Cyst	1	2	1	4
Pars Intermedia, Hyperplasia, Focal	1 [2.0]	_	1 [2.0]	•
Thyroid Gland	(50)	(50)	(49)	(50)
Ultimobranchial Cyst	1 [3.0]	(00)	3 [3.0]	1 [3.0]
C-cell, Hyperplasia	12 [1.3]	10 [1.4]	5 [2.0]	10 [1.3]
Follicle, Cyst	12 [1.0]	10 [1.4] 2	ل [۲.۵]	10 [1.3]
Follicular Cell, Hyperplasia		1 [1.0]		

#### **GENERAL BODY SYSTEM**

Tissue NOS (1) (1) (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)

# P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 07/06/2010 AVERAGE SEVERITY GRADES[b]

Methyl trans-styryl ketone **CAS Number:** 1896-62-4

Time Report Requested: 12:57:38

First Dose M/F: 04/05/04 / 04/05/04 Lab: SRI

Route: SKIN APPLICATION Species/Strain: RATS/F 344/N

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	30 MG/KG	90 MG/KG	
GENITAL SYSTEM					
Clitoral Gland	(50)	(50)	(50)	(50)	
Cyst	6	2	1	3	
Hyperplasia	3 [1.3]	1 [1.0]	2 [1.5]	3 [2.0]	
Inflammation, Chronic	9 [2.3]	5 [2.6]	5 [3.2]	5 [2.8]	
Ovary	(50)	(50)	(48)	(50)	
Cyst	10	7	2	<b>`</b> 5	
Interstitial Cell, Hyperplasia	1 [3.0]				
Uterus	(50)	(50)	(49)	(50)	
Hyperplasia, Cystic	5 [2.6]	4 [2.8]	9 [2.0]	4 [2.5]	
Vagina	(6)	(6)	(7)	(10)	
Cyst	( )	Ì	,	1	
HEMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(50)	(50)	(50)	
Angiectasis		1 [3.0]			
Hyperplasia	3 [2.7]	6 [2.7]	4 [3.3]	6 [2.5]	
Infiltration Cellular, Histiocyte	1 [2.0]	1 [2.0]			
Myelofibrosis		1 [2.0]	1 [1.0]		
Lymph Node	(16)	(13)	(14)	(12)	
Bronchial, Hyperplasia, Lymphoid	1 [3.0]	, ,	, ,	, ,	
Deep Cervical, Hemorrhage		1 [2.0]		1 [4.0]	
Deep Cervical, Pigmentation		1 [3.0]			
Mediastinal, Ectasia	1 [3.0]	1 [3.0]	2 [2.5]		
Mediastinal, Hemorrhage	1 [3.0]	6 [2.3]	7 [2.4]	4 [2.5]	
Mediastinal, Hyperplasia, Lymphoid	5 [2.4]	5 [2.4]	3 [2.3]	4 [2.5]	
Mediastinal, Pigmentation	5 [2.8]	8 [2.8]	6 [2.3]	4 [3.0]	
Pancreatic, Ectasia	1 [4.0]	1 [2.0]			
Pancreatic, Hemorrhage		1 [1.0]	1 [3.0]	2 [1.5]	
Pancreatic, Hyperplasia, Histiocytic		1 [3.0]	r1	i -1	
Pancreatic, Pigmentation	1 [3.0]	2 [3.0]	1 [3.0]		
Lymph Node, Mandibular	(3)	(2)	(3)	(3)	

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)

**Route: SKIN APPLICATION** 

Species/Strain: RATS/F 344/N

# P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 07/06/2010 AVERAGE SEVERITY GRADES[b]

Methyl trans-styryl ketone **CAS Number:** 1896-62-4

Time Report Requested: 12:57:38 First Dose M/F: 04/05/04 / 04/05/04

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	30 MG/KG	90 MG/KG	
Ectasia		1 [3.0]			
Hemorrhage		1 [3.0]			
Hyperplasia, Lymphoid		1 [2.0]			
Lymph Node, Mesenteric	(50)	(49)	(50)	(50)	
Atrophy	1 [2.0]	,	1 [2.0]	3 [2.7]	
Ectasia		1 [2.0]	2 [1.5]		
Hemorrhage	4 [1.5]	5 [2.0]	9 [1.4]	8 [1.1]	
Hyperplasia, Histiocytic	1 [3.0]	1 [2.0]			
Hyperplasia, Lymphoid	11 [2.3]	12 [2.2]	13 [2.1]	19 [2.2]	
Pigmentation	6 [3.0]	3 [3.0]	2 [3.0]	6 [3.0]	
Spleen	(50)	(50)	(50)	(50)	
Congestion			1 [4.0]		
Fibrosis	1 [3.0]		1 [2.0]	1 [4.0]	
Hematopoietic Cell Proliferation	33 [1.9]	34 [2.1]	29 [2.0]	29 [2.0]	
Hemorrhage	1 [4.0]			2 [3.5]	
Infiltration Cellular, Mixed Cell			1 [4.0]	1 [4.0]	
Metaplasia, Osseous			1 [2.0]		
Necrosis	2 [4.0]	1 [4.0]		1 [4.0]	
Pigmentation	15 [3.0]	12 [3.1]	10 [3.0]	15 [3.0]	
Lymphoid Follicle, Atrophy				3 [3.0]	
Lymphoid Follicle, Hyperplasia				2 [2.5]	
Thymus	(50)	(49)	(47)	(47)	
Atrophy		1 [3.0]	1 [2.0]	1 [1.0]	
Cyst			2	1	
INTEGUMENTARY SYSTEM					
Mammary Gland	(50)	(50)	(50)	(50)	
Hyperplasia	48 [2.9]	48 [2.7]	47 [2.6]	46 [2.7]	
Inflammation, Chronic		2 [3.5]			
Skin	(50)	(50)	(50)	(50)	
Cyst Epithelial Inclusion	1				
Hyperkeratosis	1 [4.0]	1 [4.0]			
Inflammation, Chronic	5 [3.2]	1 [3.0]	3 [3.0]		
Ulcer	3 [3.3]	4 [3.5]	3 [3.0]	4 [3.3]	

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)

**Route: SKIN APPLICATION** 

Species/Strain: RATS/F 344/N

### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 07/06/2010 AVERAGE SEVERITY GRADES[b]

Methyl trans-styryl ketone **CAS Number:** 1896-62-4

Time Report Requested: 12:57:38

First Dose M/F: 04/05/04 / 04/05/04

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	30 MG/KG	90 MG/KG	
Control, Hyperkeratosis	6 [1.0]	5 [1.0]		3 [1.0]	
Control, Epidermis, Hyperplasia	1 [1.0]				
Control Epidermis, Hyperplasia	5 [1.0]	4 [1.0]	3 [1.0]	5 [1.0]	
Epidermis, Hyperplasia	10 [3.3]	5 [3.4]	6 [3.3]	4 [3.5]	
Epidermis, Ulcer	1 [1.0]				
Epidermis, Site Of Application, Hyperplasia	1 [1.0]	1 [1.0]	5 [1.0]	39 [1.2]	
Site Of Application, Hyperkeratosis	9 [1.1]	11 [1.0]	20 [1.0]	47 [2.3]	
MUSCULOSKELETAL SYSTEM					
Bone	(50)	(50)	(50)	(50)	
Fibrous Osteodystrophy				1 [3.0]	
Femur, Osteopetrosis		2 [2.5]	1 [3.0]		
Skeletal Muscle	(1)	(1)	(1)	(0)	
NERVOUS SYSTEM					
Brain	(50)	(50)	(50)	(50)	
Compression	21 [3.0]	28 [2.6]	15 [2.9]	17 [2.7]	
Hemorrhage	8 [1.8]	3 [3.0]	2 [2.5]	2 [3.0]	
Necrosis	1 [2.0]	3 [2.0]	1 [2.0]	2 [2.0]	
Spinal Cord	(1)	(3)	(2)	(3)	
Atrophy		1 [3.0]			
RESPIRATORY SYSTEM					
Lung	(50)	(50)	(50)	(50)	
Edema	. ,	1 [2.0]	, ,	• ,	
Foreign Body		- ·		1	
Hemorrhage	7 [2.1]	4 [1.3]	3 [1.7]	7 [1.3]	
Infiltration Cellular, Histiocyte	14 [1.1]	16 [1.3]	19 [1.4]	22 [1.4]	
Inflammation, Chronic	10 [1.2]	8 [1.1]	12 [1.3]	7 [1.0]	
Metaplasia, Osseous	1 [1.0]	3 [1.0]		3 [1.0]	
Pigmentation	4 [1.5]	4 [2.0]	8 [1.5]	4 [1.5]	

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)

# P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 07/06/2010 AVERAGE SEVERITY GRADES[b]

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344/N

Methyl trans-styryl ketone **CAS Number:** 1896-62-4

Time Report Requested: 12:57:38 First Dose M/F: 04/05/04 / 04/05/04

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	30 MG/KG	90 MG/KG	
Abordon Frithelium I burendaria	5 [4 0]	4 [0.0]	0.10.01	4 [4 5]	
Alveolar Epithelium, Hyperplasia	5 [1.2]	1 [2.0]	6 [2.3]	4 [1.5]	
Bronchiole, Hyperplasia Serosa, Hyperplasia	1 [2 0]			1 [2.0] 1 [1.0]	
	1 [2.0]	(EO)	(FO)		
Nose	(48) 2	(50) 1	(50) 5	(50) 3	
Foreign Body Inflammation, Chronic		· ·			
	8 [1.1]	1 [2.0]	4 [2.5]	9 [1.0]	
Olfactory Epithelium, Metaplasia, Respiratory	2 [1.0]		0.10.01	2 [1.5]	
Respiratory Epithelium, Hyperplasia	5 [1.2]		3 [2.3]	4 [1.3]	
Respiratory Epithelium, Metaplasia, Squamous	1 [1.0]		2 [3.0]		
SPECIAL SENSES SYSTEM					
Eye	(50)	(50)	(50)	(49)	
Cataract	2 [2.5]	3 [2.3]	3 [2.7]	3 [3.0]	
Inflammation, Acute	_ []	1 [3.0]	- []	2 [5.5]	
Inflammation, Chronic Active		1 [2.0]			
Retina, Degeneration	4 [3.0]	4 [3.3]	4 [2.5]	4 [3.5]	
Harderian Gland	(50)	(50)	(50)	(50)	
Atrophy	1 [2.0]	1 [2.0]	1 [2.0]	()	
Hyperplasia, Focal	2 [1.0]	2 [1.0]	. []		
Inflammation, Chronic	,	1 [2.0]	1 [2.0]	1 [3.0]	
URINARY SYSTEM					
Kidney	(50)	(50)	(50)	(50)	
Cyst	()	1	2	1	
Infarct		·	2 [2.0]	·	
Inflammation, Chronic	4 [2.3]	6 [2.0]	6 [2.2]	3 [2.0]	
Inflammation, Chronic Active	. [=.0]	1 [3.0]	° []	0 [=.0]	
Metaplasia, Lipocyte	1 [3.0]	. [0.0]			
Nephropathy	45 [1.8]	41 [2.0]	43 [1.8]	40 [2.0]	
Renal Tubule, Accumulation, Hyaline Droplet	1 [3.0]	2 [2.0]	3 [3.0]	2 [2.5]	
Renal Tubule, Dilatation	1 [3.0]	ـ رح.٠٠	o [0.0]	1 [2.0]	
Renal Tubule, Hyperplasia	, [0.0]			1 [1.0]	
Renal Tubule, Pigmentation	1 [2.0]	1 [3.0]	2 [2.0]	2 [2.5]	
rana. rabaio, riginoritation	. [2.0]	. [0.0]	رح.٠٠	رح.٠٠	

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: CHRONIC

**Route: SKIN APPLICATION** 

Species/Strain: RATS/F 344/N

# P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 07/06/2010 AVERAGE SEVERITY GRADES[b]

Methyl trans-styryl ketone **CAS Number:** 1896-62-4

Time Report Requested: 12:57:38 First Dose M/F: 04/05/04 / 04/05/04

Lab: SRI

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	30 MG/KG	90 MG/KG	
Transitional Epithelium, Hyperplasia	1 [2.0]		1 [3.0]		
Urinary Bladder	(50)	(50)	(49)	(50)	
Hemorrhage	1 [3.0]			1 [3.0]	
Metaplasia, Squamous		1 [3.0]			

\*\*\* 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)