TDMS No. 88105 - 03 Test Type: CHRONIC

Route: GAVAGE

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

ISOEUGENOL

CAS Number: 97-54-1

Species/Strain: RATS/F 344 Pathologist: Blackshear, P. - GRUMBEIN, S.

F1_R2

C Number: C88105

Lock Date: 01/21/2005

Cage Range: ALL

Date Range: ALL

Reasons For Removal: ALL

Removal Date Range: ALL

Treatment Groups: Include ALL

Date Report Reqsted: 09/28/2006 Time Report Reqsted: 17:46:24 First Dose M/F: 04/22/02 / 04/23/02

ISOEUGENOL

CAS Number: 97-54-1

Species/Strain: RATS/F 344 **Pathologist:** Blackshear, P. - GRUMBEIN, S.

TDMS No. 88105 - 03 Test Type: CHRONIC

Route: GAVAGE

Date Report Reqsted: 09/28/2006 **Time Report Reqsted:** 17:46:24 **First Dose M/F:** 04/22/02 / 04/23/02

FISCHER 344 RATS MALE	0 MG/KG	75 MG/KG	150 MG/KG	300 MG/KG	
Disposition Summary					
Animals Initially in Study Early Deaths	50	50	50	50	
Dosing Accident		1		2	
Moribund Sacrifice	14	9	14	11	
Natural Death	1	6	3	7	
Survivors					
Terminal Sacrifice	35	34	33	30	
Animals Examined Microscopically	50	50	50	50	
LIMENTARY SYSTEM					
Esophagus	(50)	(50)	(50)	(50)	
Perforation				2 (4%)	
Intestine Large, Cecum	(49)	(46)	(50)	(45)	
Inflammation, Acute		1 (2%)			
Intestine Large, Colon	(50)	(46)	(50)	(47)	
Parasite Metazoan	1 (2%)	1 (2%)	2 (4%)		
Intestine Large, Rectum	(50)	(46)	(50)	(48)	
Parasite Metazoan	4 (8%)	1 (2%)			
Intestine Small, Duodenum	(50)	(46)	(50)	(45)	
Inflammation, Acute				1 (2%)	
Intestine Small, Ileum	(50)	(46)	(50)	(45)	
Intestine Small, Jejunum	(50)	(46)	(50)	(45)	
Inflammation, Chronic			1 (2%)		
Liver	(50)	(50)	(50)	(48)	
Angiectasis	1 (2%)			2 (4%)	
Basophilic Focus	43 (86%)	34 (68%)	26 (52%)	18 (38%)	
Clear Cell Focus	27 (54%)	20 (40%)	19 (38%)	14 (29%)	
Degeneration, Cystic	4 (8%)	1 (2%)	2 (4%)	4 (8%)	
Eosinophilic Focus	8 (16%)	2 (4%)		2 (4%)	
Fatty Change	2 (4%)	1 (2%)	2 (4%)	2 (4%)	
Hematopoietic Cell Proliferation		1 (2%)			
Hepatodiaphragmatic Nodule	5 (10%)	3 (6%)	3 (6%)	3 (6%)	
Infarct				1 (2%)	
Malformation		1 (2%)			
Mixed Cell Focus	6 (12%)	4 (8%)	6 (12%)	2 (4%)	
Necrosis	1 (2%)				

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

ISOEUGENOL

CAS Number: 97-54-1

Species/Strain: RATS/F 344 **Pathologist:** Blackshear, P. - GRUMBEIN, S.

TDMS No. 88105 - 03 Test Type: CHRONIC

Route: GAVAGE

Date Report Reqsted: 09/28/2006 **Time Report Reqsted:** 17:46:24 **First Dose M/F:** 04/22/02 / 04/23/02

FISCHER 344 RATS MALE	0 MG/KG	75 MG/KG	150 MG/KG	300 MG/KG	
Bile Duct, Hyperplasia Centrilobular, Necrosis Hepatocyte, Vacuolization Cytoplasmic	39 (78%) 2 (4%)	39 (78%) 1 (2%)	32 (64%)	24 (50%) 1 (2%)	
Mesentery Fat, Hemorrhage	(12) 1 (8%)	(18)	(7)	1 (2%) (11)	
Fat, Necrosis Oral Mucosa Pancreas	10 (83%) (1) (50)	17 (94%) (0) (50)	7 (100%) (1) (50)	9 (82%) (3) (49)	
Basophilic Focus Metaplasia, Hepatocyte Acinus, Atrophy	1 (2%) 1 (2%) 22 (44%)	1 (2%) 21 (42%)	17 (34%)	10 (20%)	
Acinus, Hyperplasia Salivary Glands Hyperplasia	21 (42%) (50) 1 (2%)	12 (24%) (50)	13 (26%) (49)	19 (39%) (50)	
Stomach, Forestomach Hyperplasia, Squamous Inflammation	(50) 2 (4%) 1 (2%)	(49) 1 (2%)	(50) 3 (6%)	(49) 5 (10%)	
Ulcer Stomach, Glandular Atrophy Inflammation, Chronic Active	3 (6%) (50) 2 (4%)	1 (2%) (46) 3 (7%)	4 (8%) (50) 2 (4%) 1 (2%)	2 (4%) (45) 3 (7%)	
Mineralization Necrosis		1 (2%)	1 (2%)	1 (2%)	
CARDIOVASCULAR SYSTEM					
Heart Cardiomyopathy Thrombosis	(50) 48 (96%) 1 (2%)	(50) 44 (88%) 2 (4%)	(50) 47 (94%)	(50) 46 (92%)	
Pericardium, Inflammation, Acute	. ,	. ,		1 (2%)	
ENDOCRINE SYSTEM					
Adrenal Cortex Degeneration, Cystic	(50) 2 (4%)	(50)	(50)	(49)	
Hyperplasia Hypertrophy Vacuolization Cytoplasmic	31 (62%) 5 (10%)	22 (44%) 1 (2%) 2 (4%)	21 (42%) 4 (8%)	31 (63%) 1 (2%)	
Adrenal Medulla Hyperplasia	(50) 24 (48%)	(50) 18 (36%)	(50) 16 (32%)	(49) 15 (31%)	

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

ISOEUGENOL

CAS Number: 97-54-1

Species/Strain: RATS/F 344 **Pathologist:** Blackshear, P. - GRUMBEIN, S.

TDMS No. 88105 - 03

Test Type: CHRONIC

Route: GAVAGE

Date Report Reqsted: 09/28/2006 **Time Report Reqsted:** 17:46:24 **First Dose M/F:** 04/22/02 / 04/23/02

FISCHER 344 RATS MALE	0 MG/KG	75 MG/KG	150 MG/KG	300 MG/KG	
Islets, Pancreatic	(50)	(49)	(50)	(49)	
Hyperplasia	1 (2%)		1 (2%)		
Pituitary Gland	(50)	(48)	(47)	(47)	
Hemorrhage	- 4		- 4	1 (2%)	
Pars Distalis, Angiectasis	6 (12%)	()	3 (6%)	2 (4%)	
Pars Distalis, Hyperplasia	18 (36%)	20 (42%)	15 (32%)	16 (34%)	
Thyroid Gland	(50) 9 (18%)	(49)	(50)	(47) 9 (19%)	
C-cell, Hyperplasia Follicular Cell, Hyperplasia	3 (6%)	5 (10%) 3 (6%)	7 (14%)	5 (11%)	
GENERAL BODY SYSTEM					
None					
GENITAL SYSTEM					
Epididymis	(50)	(50)	(50)	(50)	
Granuloma Sperm	(50)	1 (2%)	(50)	(50)	
Preputial Gland	(50)	(49)	(50)	(50)	
Cyst Hyperplasia	1 (2%)	1 (2%) 2 (4%)	1 (2%)	4 (8%)	
Inflammation, Chronic Active	1 (2/0)	1 (2%)	1 (2/0)	4 (6 %)	
Prostate	(50)	(49)	(50)	(50)	
Hyperplasia	10 (20%)	9 (18%)	15 (30%)	11 (22%)	
Inflammation, Chronic Active	3 (6%)	1 (2%)	10 (0070)	3 (6%)	
Seminal Vesicle	(50)	(49)	(50)	(49)	
Hyperplasia				1 (2%)	
Testes	(50)	(50)	(50)	(50)	
Atrophy	1 (2%)	4 (8%)	3 (6%)		
Interstitial Cell, Hyperplasia	7 (14%)	2 (4%)	4 (8%)	1 (2%)	
HEMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(49)	(50)	(50)	
Hyperplasia, Reticulum Cell	(0)	(4)	1 (2%)	(4)	
Lymph Node	(3)	(4)	(4)	(4)	
Deep Cervical, Hyperplasia, Lymphoid Mediastinal, Ectasia	1 (220/\		1 (25%)		
Pancreatic, Inflammation, Chronic Active	1 (33%)		1 (25%)		
Lymph Node, Mesenteric	(50)	(48)	(50)	(47)	
Lymph Nodo, Modernone	(50)	(+0)	(30)	(11)	

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

ISOEUGENOL

CAS Number: 97-54-1

Species/Strain: RATS/F 344 **Pathologist:** Blackshear, P. - GRUMBEIN, S.

TDMS No. 88105 - 03 Test Type: CHRONIC

Route: GAVAGE

Date Report Reqsted: 09/28/2006 **Time Report Reqsted:** 17:46:24 **First Dose M/F:** 04/22/02 / 04/23/02

FISCHER 344 RATS MALE	0 MG/KG	75 MG/KG	150 MG/KG	300 MG/KG	
Spleen Fibrosis Hematopoietic Cell Proliferation Hemorrhage	(50) 2 (4%) 3 (6%) 1 (2%)	(46) 3 (7%)	(50) 2 (4%) 1 (2%)	(47) 2 (4%)	
Hyperplasia, Lymphoid Inflammation, Acute Necrosis Thymus	2 (4%) (47)	1 (2%) 1 (2%) 1 (2%) (43)	1 (2%) (49)	(48)	
INTEGUMENTARY SYSTEM					
Mammary Gland Skin Cyst Epithelial Inclusion	(50) (50)	(49) (50) 2 (4%)	(50) (50)	(50) (50) 2 (4%)	
MUSCULOSKELETAL SYSTEM					
Bone Skeletal Muscle	(50) (0)	(50) (2)	(50) (0)	(50) (1)	
NERVOUS SYSTEM					
Brain Hydrocephalus Thrombosis	(50) 2 (4%)	(50) 1 (2%)	(50)	(50)	
Meninges, Hemorrhage Peripheral Nerve Spinal Cord Hemorrhage	(0) (0)	(1) (1)	1 (2%) (1) (1) 1 (100%)	(O) (O)	
RESPIRATORY SYSTEM					
Lung Foreign Body Inflammation, Chronic Active Metaplasia, Squamous	(50) 1 (2%)	(50) 1 (2%) 2 (4%)	(50) 3 (6%) 1 (2%)	(50) 1 (2%)	
Thrombosis Alveolar Epithelium, Hyperplasia Alveolus, Infiltration Cellular, Histiocyte	27 (54%)	2 (4%) 1 (2%) 20 (40%)	16 (32%)	25 (50%) 1 (2%)	

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

CAS Number: 97-54-1

Pathologist: Blackshear, P. - GRUMBEIN, S. Species/Strain: RATS/F 344

Date Report Reqsted: 09/28/2006 Time Report Reqsted: 17:46:24 First Dose M/F: 04/22/02 / 04/23/02

Lab: BNW

FISCHER 344 RATS MALE	0 MG/KG	75 MG/KG	150 MG/KG	300 MG/KG	
Bronchiole, Hyperplasia		1 (2%)	1 (2%)	1 (2%)	
Perivascular, Inflammation, Chronic Active		1 (2%)	(=77)	(= / 5/	
Nose	(50)	(48)	(49)	(49)	
Foreign Body	3 (6%)	,	3 (6%)	4 (8%)	
Inflammation, Suppurative	12 (24%)	11 (23%)	13 (27%)	12 (24%)	
Inflammation, Chronic	2 (4%)	1 (2%)	2 (4%)	2 (4%)	
Thrombosis	, ,	, ,	1 (2%)	,	
Glands, Dilatation		2 (4%)	1 (2%)	2 (4%)	
Nasolacrimal Duct, Cyst		, ,	1 (2%)	,	
Nasolacrimal Duct, Inflammation			, ,	1 (2%)	
Olfactory Epithelium, Accumulation, Hyaline Droplet	50 (100%)	37 (77%)	42 (86%)	42 (86%)	
Olfactory Epithelium, Atrophy	1 (2%)	5 (10%)	9 (18%)	13 (27%)	
Olfactory Epithelium, Degeneration	1 (2%)		2 (4%)	6 (12%)	
Olfactory Epithelium, Hyperplasia				1 (2%)	
Olfactory Epithelium, Hyperplasia, Basal Cell			1 (2%)		
Olfactory Epithelium, Metaplasia,	4 (8%)	6 (13%)	10 (20%)	15 (31%)	
Respiratory					
Olfactory Epithelium, Metaplasia, Squamous	1 (2%)	1 (2%)			
Respiratory Epithelium, Accumulation,	3 (6%)	5 (10%)	1 (2%)	2 (4%)	
Hyaline Droplet					
Respiratory Epithelium, Hyperplasia	12 (24%)	3 (6%)	14 (29%)	8 (16%)	
Respiratory Epithelium, Metaplasia,	1 (2%)	4 (8%)	3 (6%)	5 (10%)	
Squamous					
Pleura	(0)	(0)	(0)	(2)	
Inflammation, Acute				2 (100%)	
Trachea	(50)	(49)	(50)	(48)	
Epithelium, Necrosis		1 (2%)			
ECIAL SENSES SYSTEM					
Eye	(50)	(46)	(50)	(45)	
Cataract		1 (2%)		2 (4%)	
Retina, Atrophy	4	1 (2%)	1 (2%)	2 (4%)	
Harderian Gland	(50)	(47)	(50)	(45)	
Hyperplasia	1 (2%)	5 (11%)	5 (10%)	1 (2%)	
Inflammation, Chronic Active	1 (2%)		4-1	(-)	
Zymbal's Gland	(2)	(1)	(0)	(0)	

URINARY SYSTEM

TDMS No. 88105 - 03 Test Type: CHRONIC

Route: GAVAGE

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

ISOEUGENOL

CAS Number: 97-54-1

Species/Strain: RATS/F 344 **Pathologist:** Blackshear, P. - GRUMBEIN, S.

TDMS No. 88105 - 03

Test Type: CHRONIC

Route: GAVAGE

Date Report Reqsted: 09/28/2006 **Time Report Reqsted:** 17:46:24 **First Dose M/F:** 04/22/02 / 04/23/02

Lab: BNW

FISCHER 344 RATS MALE	0 MG/KG	75 MG/KG	150 MG/KG	300 MG/KG	
Kidney	(50)	(48)	(50)	(49)	
Cyst	()	(-7	()	1 (2%)	
Degeneration, Mucoid, Focal				1 (2%)	
Hyperplasia, Oncocytic Inflammation, Suppurative				1 (2%) 1 (2%)	
Nephropathy	49 (98%)	46 (96%)	47 (94%)	47 (96%)	
Renal Tubule, Degeneration, Hyaline	,	,	,	1 (2%)	
Transitional Epithelium, Hyperplasia		1 (2%)		2 (4%)	
Urinary Bladder	(50)	(48)	(50)	(47)	

*** END OF MALE ***

ISOEUGENOL

CAS Number: 97-54-1

Pathologist: Blackshear, P. - GRUMBEIN, S.

Date Report Reqsted: 09/28/2006 **Time Report Reqsted:** 17:46:24 **First Dose M/F:** 04/22/02 / 04/23/02

Lab: BNW

FISCHER 344 RATS FEMALE	0 MG/KG	75 MG/KG	150 MG/KG	300 MG/KG	
Disposition Summary					
Animals Initially in Study	50	50	50	50	
Early Deaths					
Dosing Accident	45	1	0	0	
Moribund Sacrifice	15	8	9 7	9	
Natural Death	2	6	/	10	
Survivors Moribund Sacrifice				4	
Terminal Sacrifice	33	35	34	1 30	
Animals Examined Microscopically	50	50	50	50 50	
Animais Examined Microscopicany	30	30	30	30	
LIMENTARY SYSTEM					
Esophagus	(50)	(50)	(50)	(50)	
Perforation		1 (2%)			
Intestine Large, Colon	(50)	(48)	(47)	(48)	
Parasite Metazoan	2 (4%)	1 (2%)	1 (2%)		
Intestine Large, Rectum	(49)	(48)	(47)	(48)	
Parasite Metazoan	1 (2%)	1 (2%)	1 (2%)	2 (4%)	
Intestine Small, Ileum	(49)	(47)	(45)	(45)	
Parasite Metazoan			1 (2%)		
Liver	(50)	(50)	(50)	(50)	
Angiectasis			2 (4%)	3 (6%)	
Basophilic Focus	50 (100%)	49 (98%)	48 (96%)	46 (92%)	
Clear Cell Focus	12 (24%)	9 (18%)	9 (18%)	10 (20%)	
Degeneration, Cystic	1 (2%)				
Eosinophilic Focus	2 (4%)	2 (4%)	5 (10%)	5 (10%)	
Fatty Change	2 (4%)		1 (2%)		
Hepatodiaphragmatic Nodule	8 (16%)	11 (22%)	7 (14%)	4 (8%)	
Mixed Cell Focus	5 (10%)	7 (14%)	3 (6%)	3 (6%)	
Necrosis		1 (2%)			
Bile Duct, Hyperplasia	3 (6%)	4 (8%)	4 (8%)	4 (8%)	
Hepatocyte, Mitotic Alteration				1 (2%)	
Mesentery	(11)	(11)	(11)	(14)	
Fat, Hemorrhage	1 (9%)				
Fat, Necrosis	11 (100%)	10 (91%)	11 (100%)	13 (93%)	
Oral Mucosa	(0)	(1)	(0)	(1)	
Pancreas	(50)	(49)	(48)	(50)	

TDMS No. 88105 - 03 Test Type: CHRONIC

Species/Strain: RATS/F 344

Route: GAVAGE

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

ISOEUGENOL

CAS Number: 97-54-1

Species/Strain: RATS/F 344 **Pathologist:** Blackshear, P. - GRUMBEIN, S.

TDMS No. 88105 - 03 Test Type: CHRONIC

Route: GAVAGE

Date Report Reqsted: 09/28/2006 **Time Report Reqsted:** 17:46:24 **First Dose M/F:** 04/22/02 / 04/23/02

FISCHER 344 RATS FEMALE	0 MG/KG	75 MG/KG	150 MG/KG	300 MG/KG	
Basophilic Focus Acinus, Atrophy Acinus, Hyperplasia Salivary Glands Stomach, Forestomach Hyperplasia, Squamous Inflammation Ulcer Stomach, Glandular Atrophy Mineralization Tongue Tooth	1 (2%) 9 (18%) 5 (10%) (49) (50) 2 (4%) 1 (2%) 1 (2%) (50) 1 (2%) 3 (6%) (0)	4 (8%) 2 (4%) (50) (50) (47) 3 (6%) 1 (2%) (0) (1)	2 (4%) (50) (49) 1 (2%) 2 (4%) (46) 2 (4%) (1) (0)	4 (8%) 5 (10%) (50) (50) 2 (4%) 1 (2%) 2 (4%) (47) 3 (6%) 1 (2%) (0)	
CARDIOVASCULAR SYSTEM Heart Cardiomyopathy Pericardium, Inflammation, Granulomatous Pericardium, Inflammation, Acute	(50) 41 (82%)	(50) 42 (84%) 1 (2%)	(50) 38 (76%)	(50) 39 (78%) 1 (2%) 1 (2%)	
ENDOCRINE SYSTEM					
Adrenal Cortex Degeneration, Cystic Hyperplasia Hypertrophy Necrosis	(50) 25 (50%) 4 (8%) 1 (2%)	(50) 2 (4%) 17 (34%) 3 (6%) 2 (4%)	(47) 4 (9%) 18 (38%) 2 (4%) 1 (2%)	(49) 3 (6%) 18 (37%) 2 (4%)	
Vacuolization Cytoplasmic Adrenal Medulla Hyperplasia Islets, Pancreatic Parathyroid Gland Hyperplasia	(50) 5 (10%) (50) (47) 1 (2%)	(50) 6 (12%) (49) (44)	(46) 5 (11%) (47) (48)	1 (2%) (49) 5 (10%) (49) (44)	
Pituitary Gland Cyst Pars Distalis, Angiectasis Pars Distalis, Hyperplasia Thyroid Gland C-cell, Hyperplasia	(50) 1 (2%) 3 (6%) 17 (34%) (50) 9 (18%)	(48) 2 (4%) 21 (44%) (46) 4 (9%)	(49) 2 (4%) 21 (43%) (46) 7 (15%)	(49) 3 (6%) 20 (41%) (48) 6 (13%)	

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

ISOEUGENOL

CAS Number: 97-54-1

Pathologist: Blackshear, P. - GRUMBEIN, S.

Date Report Reqsted: 09/28/2006 **Time Report Reqsted:** 17:46:24 **First Dose M/F:** 04/22/02 / 04/23/02

Lab: BNW

FISCHER 344 RATS FEMALE	0 MG/KG	75 MG/KG	150 MG/KG	300 MG/KG	
Follicular Cell, Hyperplasia	2 (4%)	2 (4%)			
GENERAL BODY SYSTEM					
None					
GENITAL SYSTEM					
Clitoral Gland Hyperplasia Inflammation, Chronic Active Ovary Cyst Uterus Inflammation, Acute Necrosis	(48) 7 (15%) (50) 1 (2%) (50) 1 (2%)	(50) 5 (10%) 1 (2%) (50) 6 (12%) (50)	(49) 5 (10%) (49) 1 (2%) (49) 1 (2%)	(50) 4 (8%) 1 (2%) (50) 4 (8%) (50)	
Endometrium, Hyperplasia, Cystic Vagina Inflammation, Suppurative	2 (4%)	(0)	1 (2%) (1) 1 (100%)	(0)	
HEMATOPOIETIC SYSTEM					
Bone Marrow Hyperplasia, Reticulum Cell Lymph Node Deep Cervical, Ectasia Deep Cervical, Hemorrhage Lymph Node, Mesenteric Spleen Hematopoietic Cell Proliferation Inflammation, Granulomatous	(50) 1 (2%) (0) (50) (50)	(49) 1 (2%) (3) 1 (33%) (49) (49) 1 (2%)	(49) 1 (2%) (3) (48) (49) 2 (4%) 1 (2%)	(49) (3) 1 (33%) 1 (33%) (49) (49) 3 (6%) 1 (2%)	
Necrosis Thymus Inflammation, Acute	(47)	(47)	(46)	1 (2%) (49) 1 (2%)	
INTEGUMENTARY SYSTEM					
Mammary Gland Galactocele	(49)	(50)	(50)	(49) 1 (2%)	

TDMS No. 88105 - 03

Test Type: CHRONIC

Species/Strain: RATS/F 344

Route: GAVAGE

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

ISOEUGENOL

CAS Number: 97-54-1

Species/Strain: RATS/F 344 **Pathologist:** Blackshear, P. - GRUMBEIN, S.

TDMS No. 88105 - 03

Test Type: CHRONIC

Route: GAVAGE

Date Report Reqsted: 09/28/2006 **Time Report Reqsted:** 17:46:24 **First Dose M/F:** 04/22/02 / 04/23/02

FISCHER 344 RATS FEMALE	0 MG/KG	75 MG/KG	150 MG/KG	300 MG/KG	
Hyperplasia Skin	1 (2%) (50)	(50)	(50)	(50)	
MUSCULOSKELETAL SYSTEM					
Bone Hyperostosis	(50)	(50)	(50) 1 (2%)	(50)	
NERVOUS SYSTEM					
Brain Hemorrhage Hydrocephalus	(50) 1 (2%)	(50)	(50) 1 (2%)	(50)	
RESPIRATORY SYSTEM					
Lung Cyst	(50)	(50)	(50)	(50) 1 (2%)	
Inflammation, Acute Inflammation, Chronic Active Alveolar Epithelium, Hyperplasia	1 (2%) 2 (4%) 17 (34%)	4 (8%) 11 (22%)	3 (6%) 16 (32%)	3 (6%) 2 (4%) 14 (28%)	
Alveolus, Infiltration Cellular, Histiocyte Bronchiole, Hyperplasia Nose Foreign Body	1 (2%) (50) 1 (2%)	(49)	1 (2%) (49)	1 (2%) 1 (2%) (49)	
Inflammation, Suppurative Inflammation, Chronic	3 (6%) 5 (10%)	5 (10%) 4 (8%)	2 (4%)	3 (6%) 2 (4%)	
Thrombosis Glands, Dilatation Glands, Hyperplasia	1 (2%) 2 (4%)	1 (2%) 1 (2%)	1 (2%) 1 (2%)	2 (4%) 1 (2%)	
Olfactory Epithelium, Accumulation, Hyaline Droplet	48 (96%)	36 (73%)	37 (76%)	33 (67%)	
Olfactory Epithelium, Atrophy Olfactory Epithelium, Degeneration Olfactory Epithelium, Metaplasia, Respiratory	5 (10%)	5 (10%)	1 (2%) 9 (18%)	4 (8%) 12 (24%)	
Olfactory Epithelium, Metaplasia, Squamous Respiratory Epithelium, Accumulation, Hyaline Droplet	3 (6%) 4 (8%)	3 (6%)	2 (4%)	1 (2%)	
Respiratory Epithelium, Hyperplasia	6 (12%)	9 (18%)	4 (8%)	6 (12%)	

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

ISOEUGENOL

CAS Number: 97-54-1

Species/Strain: RATS/F 344 **Pathologist:** Blackshear, P. - GRUMBEIN, S.

TDMS No. 88105 - 03

Test Type: CHRONIC

Route: GAVAGE

Date Report Reqsted: 09/28/2006 **Time Report Reqsted:** 17:46:24 **First Dose M/F:** 04/22/02 / 04/23/02

Lab: BNW

FISCHER 344 RATS FEMALE	0 MG/KG	75 MG/KG	150 MG/KG	300 MG/KG	
Respiratory Epithelium, Metaplasia, Squamous	2 (4%)	2 (4%)		2 (4%)	
Respiratory Epithelium, Necrosis Pleura Inflammation, Suppurative	(0)	1 (2%) (0)	(0)	(1) 1 (100%)	
Trachea Inflammation, Suppurative	(50)	(49)	(48)	(49) 1 (2%)	
SPECIAL SENSES SYSTEM					
Eye	(49)	(46)	(47)	(48)	
Cataract Cornea, Inflammation, Acute		1 (2%)	3 (6%)		
Cornea, Mineralization Retina, Atrophy	1 (2%) 1 (2%)		3 (6%)	1 (2%)	
Zymbal's Gland	(0)	(1)	(0)	(1)	
JRINARY SYSTEM					
Kidney Infarct Inflammation, Suppurative	(50)	(49) 1 (2%)	(47)	(50) 1 (2%) 2 (4%)	
Nephropathy Renal Tubule, Necrosis	41 (82%) 1 (2%)	39 (80%)	40 (85%)	40 (80%)	
Transitional Epithelium, Hyperplasia	1 (2%)		1 (2%)	2 (4%)	
Urinary Bladder Inflammation, Chronic Active	(50)	(50)	(48)	(49) 1 (2%)	

*** END OF REPORT ***

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