

Experiment Number: 99037 - 03
Test Type: 90-DAY
Route: GAVAGE
Species/Strain: RATS/F 344/N

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

alpha/beta Thujone mixture

CAS Number: 76231-76-0

Date Report Requested: 09/20/2016

Time Report Requested: 11:43:53

First Dose M/F: 08/13/02 / 08/12/02

Lab: SRI

NTP Study Number: C99037B
Lock Date: 04/04/2003
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: NONE

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FISCHER 344 RATS MALE	0 MG/KG	12.5 MG/KG	25 MG/KG	50 MG/KG	75 MG/KG	100 MG/KG
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Disposition Summary

Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Natural Death					2	7
Survivors						
Natural Death						1
Terminal Sacrifice	10	10	10	10	8	2
Animals Examined Microscopically	10	10	10	10	10	10

ALIMENTARY SYSTEM

Esophagus	(10)	(0)	(0)	(0)	(10)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(0)	(10)	(9)
Hemorrhage						1 (11%)
Inflammation, Chronic Active						1 (11%)
Intestine Large, Colon	(10)	(0)	(0)	(0)	(9)	(9)
Intestine Large, Rectum	(10)	(0)	(0)	(0)	(10)	(9)
Intestine Small, Duodenum	(10)	(0)	(0)	(0)	(10)	(9)
Intestine Small, Ileum	(10)	(0)	(0)	(0)	(8)	(8)
Intestine Small, Jejunum	(10)	(0)	(0)	(0)	(8)	(6)
Liver	(10)	(3)	(0)	(2)	(10)	(10)
Clear Cell Focus					1 (10%)	
Hematopoietic Cell Proliferation	3 (30%)				2 (20%)	1 (10%)
Hepatodiaphragmatic Nodule	4 (40%)	3 (100%)		1 (50%)	1 (10%)	2 (20%)
Inflammation, Chronic				1 (50%)	1 (10%)	1 (10%)
Vacuolization Cytoplasmic	5 (50%)				3 (30%)	
Mesentery	(1)	(0)	(0)	(0)	(0)	(0)
Accessory Spleen	1 (100%)					
Pancreas	(10)	(0)	(0)	(0)	(10)	(10)
Atrophy						1 (10%)
Acinus, Vacuolization Cytoplasmic					1 (10%)	2 (20%)
Salivary Glands	(10)	(0)	(0)	(0)	(10)	(10)
Parotid Gland, Basophilic Focus	9 (90%)				4 (40%)	5 (50%)
Stomach, Forestomach	(10)	(10)	(10)	(10)	(10)	(10)
Degeneration, Cystic					1 (10%)	1 (10%)

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

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FISCHER 344 RATS MALE	0 MG/KG	12.5 MG/KG	25 MG/KG	50 MG/KG	75 MG/KG	100 MG/KG
Hyperplasia, Squamous Stomach, Glandular Edema Erosion, Focal Hemorrhage Inflammation, Chronic Pigmentation Ulcer	(10)	(10)	(10)	(10)	1 (10%) (10) 1 (10%) 1 (10%) 1 (10%) 1 (10%) 1 (10%) 1 (10%)	1 (10%) (10) 1 (10%) 1 (10%) 1 (10%) 1 (10%) 1 (10%) 1 (10%)
CARDIOVASCULAR SYSTEM						
Heart Cardiomyopathy	(10) 6 (60%)	(0)	(0)	(0)	(10) 8 (80%)	(10) 2 (20%)
ENDOCRINE SYSTEM						
Adrenal Cortex Accessory Adrenal Cortical Nodule Hypertrophy Adrenal Medulla Parathyroid Gland Pituitary Gland Angiectasis Pars Distalis, Atrophy Pars Distalis, Hemorrhage Pars Distalis, Necrosis Rathke's Cleft, Dilatation Thyroid Gland Ultimobranchial Cyst	(10)	(10)	(10) 1 (10%)	(10) 1 (10%)	(10) 1 (10%) 1 (10%) 1 (10%) 1 (10%) 1 (10%) 1 (10%) 1 (10%) 1 (10%) 3 (30%)	(10) 1 (10%) 1 (10%) 1 (10%) 1 (10%) 1 (10%) 1 (10%) 2 (20%) 1 (10%) 1 (10%) 4 (40%) 1 (10%) 1 (10%)
GENERAL BODY SYSTEM						
None						

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GENITAL SYSTEM						
Epididymis	(10)	(0)	(0)	(0)	(10)	(10)
Preputial Gland	(10)	(0)	(0)	(0)	(10)	(10)
Prostate	(10)	(0)	(0)	(0)	(10)	(10)
Infiltration Cellular, Mixed Cell	1 (10%)					
Seminal Vesicle	(10)	(0)	(0)	(0)	(10)	(10)
Testes	(10)	(0)	(0)	(0)	(10)	(10)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(10)	(0)	(0)	(0)	(10)	(10)
Lymph Node	(0)	(0)	(0)	(0)	(0)	(2)
Hyperplasia, Lymphoid						1 (50%)
Pancreatic, Hemorrhage						1 (50%)
Lymph Node, Mandibular	(1)	(0)	(0)	(0)	(0)	(0)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(10)	(10)
Spleen	(10)	(0)	(0)	(0)	(10)	(10)
Congestion						4 (40%)
Pigmentation, Hemosiderin						1 (10%)
Thymus	(10)	(0)	(0)	(0)	(10)	(10)
Hemorrhage	1 (10%)				4 (40%)	6 (60%)
INTEGUMENTARY SYSTEM						
Mammary Gland	(10)	(0)	(0)	(0)	(7)	(8)
Skin	(10)	(0)	(0)	(0)	(10)	(10)
MUSCULOSKELETAL SYSTEM						
Bone	(10)	(0)	(0)	(0)	(10)	(10)
Skeletal Muscle	(10)	(0)	(0)	(0)	(2)	(10)

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NERVOUS SYSTEM						
Brain	(10)	(10)	(10)	(10)	(10)	(10)
Congestion					2 (20%)	6 (60%)
Hemorrhage					2 (20%)	4 (40%)
Pigmentation	1 (10%)					
Peripheral Nerve	(10)	(0)	(0)	(0)	(2)	(10)
Spinal Cord	(10)	(0)	(0)	(0)	(2)	(10)
RESPIRATORY SYSTEM						
Lung	(10)	(0)	(0)	(0)	(10)	(10)
Congestion					1 (10%)	8 (80%)
Hemorrhage	7 (70%)				4 (40%)	
Inflammation, Acute						1 (10%)
Inflammation, Chronic	1 (10%)					
Nose	(10)	(0)	(0)	(0)	(10)	(10)
Olfactory Epithelium, Degeneration					1 (10%)	
Trachea	(10)	(0)	(0)	(0)	(10)	(10)
SPECIAL SENSES SYSTEM						
Eye	(10)	(0)	(0)	(0)	(10)	(10)
Harderian Gland	(10)	(0)	(0)	(0)	(10)	(10)
Hemorrhage	1 (10%)					
Inflammation, Acute	1 (10%)					
URINARY SYSTEM						
Kidney	(10)	(10)	(10)	(10)	(10)	(10)
Nephropathy	8 (80%)	10 (100%)	10 (100%)	10 (100%)	9 (90%)	9 (90%)
Renal Tubule, Mineralization	1 (10%)	1 (10%)	2 (20%)	1 (10%)	1 (10%)	3 (30%)
Renal Tubule, Necrosis						1 (10%)
Urinary Bladder	(10)	(0)	(0)	(0)	(10)	(10)

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FISCHER 344 RATS MALE

0 MG/KG

12.5 MG/KG

25 MG/KG

50 MG/KG

75 MG/KG

100 MG/KG

*** END OF MALE ***

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FISCHER 344 RATS FEMALE	0 MG/KG	12.5 MG/KG	25 MG/KG	50 MG/KG	75 MG/KG	100 MG/KG
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Disposition Summary

Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Natural Death					8	9
Survivors						
Terminal Sacrifice	10	10	10	10	2	1
Animals Examined Microscopically	10	10	10	10	10	10

ALIMENTARY SYSTEM

Esophagus	(10)	(0)	(0)	(10)	(10)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(10)	(9)	(10)
Intestine Large, Colon	(10)	(0)	(0)	(10)	(10)	(10)
Hemorrhage					1 (10%)	
Intestine Large, Rectum	(10)	(0)	(0)	(10)	(10)	(10)
Intestine Small, Duodenum	(10)	(0)	(0)	(10)	(10)	(10)
Intestine Small, Ileum	(10)	(0)	(0)	(10)	(8)	(9)
Intestine Small, Jejunum	(10)	(0)	(0)	(10)	(9)	(10)
Liver	(10)	(1)	(2)	(10)	(10)	(10)
Hematopoietic Cell Proliferation	2 (20%)			4 (40%)	2 (20%)	1 (10%)
Hepatodiaphragmatic Nodule	1 (10%)	1 (100%)	2 (100%)	2 (20%)	1 (10%)	
Inflammation, Chronic	6 (60%)					
Necrosis					1 (10%)	
Vacuolization Cytoplasmic					2 (20%)	
Pancreas	(10)	(0)	(0)	(10)	(10)	(10)
Inflammation, Chronic						1 (10%)
Acinus, Vacuolization Cytoplasmic					1 (10%)	
Salivary Glands	(10)	(0)	(0)	(10)	(10)	(10)
Parotid Gland, Basophilic Focus	4 (40%)			6 (60%)	3 (30%)	9 (90%)
Parotid Gland, Necrosis, Focal	1 (10%)					
Stomach, Forestomach	(10)	(10)	(10)	(10)	(10)	(10)
Degeneration, Cystic					1 (10%)	1 (10%)
Edema					1 (10%)	
Stomach, Glandular	(10)	(10)	(10)	(10)	(10)	(10)
Edema					1 (10%)	3 (30%)

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Hemorrhage						2 (20%)
Infiltration Cellular, Eosinophil				1 (10%)		
Inflammation, Chronic				1 (10%)		
Mineralization				1 (10%)		
CARDIOVASCULAR SYSTEM						
Heart	(10)	(0)	(0)	(10)	(10)	(10)
Cardiomyopathy	2 (20%)			1 (10%)		2 (20%)
ENDOCRINE SYSTEM						
Adrenal Cortex	(10)	(10)	(10)	(10)	(10)	(10)
Adrenal Medulla	(10)	(10)	(10)	(10)	(10)	(10)
Parathyroid Gland	(10)	(0)	(0)	(9)	(10)	(8)
Pituitary Gland	(10)	(10)	(10)	(10)	(10)	(10)
Angiectasis					1 (10%)	1 (10%)
Congestion				1 (10%)		
Pars Distalis, Atrophy					3 (30%)	3 (30%)
Pars Distalis, Necrosis				1 (10%)	1 (10%)	
Rathke's Cleft, Dilatation			1 (10%)	5 (50%)	4 (40%)	5 (50%)
Thyroid Gland	(10)	(0)	(0)	(10)	(10)	(10)
Ectopic Thymus				1 (10%)	1 (10%)	
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Clitoral Gland	(10)	(0)	(0)	(10)	(10)	(10)
Ovary	(10)	(10)	(10)	(10)	(10)	(10)
Cyst	2 (20%)	2 (20%)		1 (10%)		

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Uterus	(10)	(3)	(1)	(10)	(10)	(10)
Dilatation	2 (20%)	2 (67%)	1 (100%)	1 (10%)		1 (10%)
Vagina	(10)	(10)	(10)	(10)	(10)	(10)
Cyst		1 (10%)				
HEMATOPOIETIC SYSTEM						
Bone Marrow	(10)	(0)	(0)	(10)	(10)	(10)
Lymph Node	(0)	(1)	(3)	(2)	(0)	(1)
Hemorrhage			1 (33%)	1 (50%)		
Hyperplasia, Lymphoid		1 (100%)				
Pancreatic, Hemorrhage				2 (100%)		1 (100%)
Pancreatic, Infiltration Cellular, Histiocyte			2 (67%)			
Lymph Node, Mesenteric	(10)	(0)	(0)	(10)	(10)	(10)
Hyperplasia, Lymphoid				1 (10%)	1 (10%)	
Spleen	(10)	(0)	(0)	(10)	(10)	(10)
Atrophy					1 (10%)	1 (10%)
Thymus	(10)	(0)	(0)	(10)	(10)	(10)
Hemorrhage					4 (40%)	4 (40%)
INTEGUMENTARY SYSTEM						
Mammary Gland	(10)	(0)	(0)	(10)	(10)	(10)
Skin	(10)	(0)	(0)	(10)	(10)	(10)
MUSCULOSKELETAL SYSTEM						
Bone	(10)	(0)	(0)	(10)	(10)	(10)
Skeletal Muscle	(10)	(0)	(0)	(0)	(2)	(10)
NERVOUS SYSTEM						
Brain	(10)	(10)	(10)	(10)	(10)	(10)

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FISCHER 344 RATS FEMALE	0 MG/KG	12.5 MG/KG	25 MG/KG	50 MG/KG	75 MG/KG	100 MG/KG
Congestion					3 (30%)	8 (80%)
Hemorrhage					4 (40%)	3 (30%)
Pigmentation			1 (10%)	6 (60%)	5 (50%)	4 (40%)
Peripheral Nerve	(10)	(0)	(0)	(0)	(2)	(10)
Spinal Cord	(10)	(0)	(0)	(0)	(4)	(10)
Congestion						2 (20%)
RESPIRATORY SYSTEM						
Lung	(10)	(0)	(0)	(10)	(10)	(10)
Congestion					2 (20%)	4 (40%)
Hemorrhage	8 (80%)			3 (30%)		
Alveolus, Infiltration Cellular, Histiocyte, Focal	1 (10%)				1 (10%)	
Nose	(10)	(0)	(0)	(10)	(10)	(10)
Trachea	(10)	(0)	(0)	(10)	(10)	(10)
SPECIAL SENSES SYSTEM						
Eye	(10)	(0)	(0)	(10)	(10)	(10)
Harderian Gland	(10)	(0)	(0)	(10)	(10)	(10)
URINARY SYSTEM						
Kidney	(10)	(10)	(10)	(10)	(10)	(10)
Nephropathy			1 (10%)	3 (30%)	2 (20%)	3 (30%)
Renal Tubule, Degeneration						1 (10%)
Renal Tubule, Mineralization	3 (30%)	8 (80%)	8 (80%)	8 (80%)	10 (100%)	9 (90%)
Renal Tubule, Necrosis					1 (10%)	
Urinary Bladder	(10)	(0)	(0)	(10)	(10)	(10)

*** END OF REPORT ***

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