

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

NTP Study Number: C20609
Lock Date: 07/01/2013
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-NCTR RATS MALE	Control 0 ppm	Usnic 30 ppm	Usnic 60 ppm	Usnic 120 ppm	Usnic 360 ppm	Usnic 720 ppm
Disposition Summary						
Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Survivors						
Terminal Sacrifice	10	10	10	10	10	10
Animals Examined Microscopically	10	10	10	10	10	10
ALIMENTARY SYSTEM						
Esophagus	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Colon	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Rectum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Duodenum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Ileum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Jejunum	(10)	(0)	(0)	(0)	(0)	(10)
Liver	(10)	(10)	(10)	(10)	(10)	(10)
Angiectasis				1 (10%)		
Eosinophilic Focus					1 (10%)	
Inflammation, Chronic		1 (10%)	3 (30%)	3 (30%)	8 (80%)	10 (100%)
Hepatocyte, Degeneration	1 (10%)		3 (30%)	4 (40%)	10 (100%)	10 (100%)
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Acinus, Degeneration						1 (10%)
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(10)
CARDIOVASCULAR SYSTEM						
Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)
Heart	(10)	(0)	(0)	(0)	(0)	(10)
Cardiomyopathy	9 (90%)					7 (70%)

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

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FISCHER 344 RATS-NCTR RATS MALE	Control 0 ppm	Usnic 30 ppm	Usnic 60 ppm	Usnic 120 ppm	Usnic 360 ppm	Usnic 720 ppm
ENDOCRINE SYSTEM						
Adrenal Cortex	(10)	(0)	(0)	(0)	(0)	(10)
Adrenal Medulla	(10)	(0)	(0)	(0)	(0)	(10)
Islets, Pancreatic	(10)	(0)	(0)	(0)	(0)	(10)
Parathyroid Gland	(10)	(0)	(0)	(0)	(0)	(9)
Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Pars Distalis, Cyst	2 (20%)					
Pars Intermedia, Cyst						1 (10%)
Thyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)
Ectopic Thymus	4 (40%)					1 (10%)
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Epididymis	(10)	(0)	(0)	(0)	(0)	(10)
Preputial Gland	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Suppurative	2 (20%)					6 (60%)
Inflammation, Chronic Active	1 (10%)					1 (10%)
Duct, Dilatation						4 (40%)
Prostate	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Suppurative	1 (10%)					
Seminal Vesicle	(10)	(0)	(0)	(0)	(0)	(10)
Testes	(10)	(0)	(0)	(0)	(0)	(10)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Mandibular	(10)	(0)	(0)	(0)	(0)	(10)
Infiltration Cellular, Plasma Cell						1 (10%)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(10)

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FISCHER 344 RATS-NCTR RATS MALE	Control 0 ppm	Usnic 30 ppm	Usnic 60 ppm	Usnic 120 ppm	Usnic 360 ppm	Usnic 720 ppm
Hyperplasia, Lymphoid	1 (10%)					2 (20%)
Infiltration Cellular, Mast Cell	8 (80%)					7 (70%)
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Thymus	(10)	(0)	(0)	(0)	(0)	(10)
INTEGUMENTARY SYSTEM						
Mammary Gland	(9)	(0)	(0)	(0)	(0)	(7)
Skin	(10)	(0)	(0)	(0)	(0)	(10)
MUSCULOSKELETAL SYSTEM						
Bone, Femur	(10)	(0)	(0)	(0)	(0)	(10)
NERVOUS SYSTEM						
Brain, Brain Stem	(10)	(0)	(0)	(0)	(0)	(10)
Brain, Cerebellum	(10)	(0)	(0)	(0)	(0)	(10)
Brain, Cerebrum	(10)	(0)	(0)	(0)	(0)	(10)
RESPIRATORY SYSTEM						
Lung	(10)	(0)	(0)	(0)	(0)	(10)
Infiltration Cellular, Histiocyte						1 (10%)
Nose	(10)	(0)	(0)	(0)	(0)	(10)
Trachea	(10)	(0)	(0)	(0)	(0)	(10)
SPECIAL SENSES SYSTEM						
Eye	(10)	(0)	(0)	(0)	(0)	(10)
Harderian Gland	(10)	(0)	(0)	(0)	(0)	(10)

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FISCHER 344 RATS-NCTR RATS MALE	Control 0 ppm	Usnic 30 ppm	Usnic 60 ppm	Usnic 120 ppm	Usnic 360 ppm	Usnic 720 ppm
URINARY SYSTEM						
Kidney	(10)	(0)	(0)	(10)	(10)	(10)
Hydronephrosis					2 (20%)	5 (50%)
Nephropathy	10 (100%)			10 (100%)	10 (100%)	9 (90%)
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

*** END OF MALE ***

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FISCHER 344 RATS-NCTR RATS FEMALE	Control 0 ppm	Usnic 30 ppm	Usnic 60 ppm	Usnic 120 ppm	Usnic 360 ppm	Usnic 720 ppm
Disposition Summary						
Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Survivors						
Terminal Sacrifice	10	10	10	10	10	10
Animals Examined Microscopically	10					10
ALIMENTARY SYSTEM						
Esophagus	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Colon	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Rectum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Duodenum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Ileum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Jejunum	(10)	(0)	(0)	(0)	(0)	(10)
Liver	(10)	(0)	(0)	(0)	(0)	(10)
Angiectasis						1 (10%)
Bile Duct, Hyperplasia						1 (10%)
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(10)
CARDIOVASCULAR SYSTEM						
Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)
Heart	(10)	(0)	(0)	(0)	(0)	(10)
Cardiomyopathy	7 (70%)					7 (70%)
ENDOCRINE SYSTEM						
Adrenal Cortex	(10)	(0)	(0)	(0)	(0)	(10)
Adrenal Medulla	(10)	(0)	(0)	(0)	(0)	(10)

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FISCHER 344 RATS-NCTR RATS FEMALE	Control 0 ppm	Usnic 30 ppm	Usnic 60 ppm	Usnic 120 ppm	Usnic 360 ppm	Usnic 720 ppm
Islets, Pancreatic	(10)	(0)	(0)	(0)	(0)	(10)
Parathyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)
Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Thyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)
Cyst						1 (10%)
Ectopic Thymus	1 (10%)					3 (30%)
Ultimobranchial Cyst						1 (10%)

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Clitoral Gland	(10)	(0)	(0)	(0)	(0)	(10)
Infiltration Cellular, Lymphocyte	3 (30%)					3 (30%)
Inflammation, Suppurative	1 (10%)					1 (10%)
Inflammation, Chronic Active	2 (20%)					2 (20%)
Duct, Dilatation						2 (20%)
Ovary	(10)	(0)	(0)	(0)	(0)	(10)
Uterus	(10)	(0)	(0)	(0)	(0)	(10)
Lumen, Dilatation	3 (30%)					1 (10%)

HEMATOPOIETIC SYSTEM

Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Mandibular	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(10)
Hyperplasia, Lymphoid	3 (30%)					1 (10%)
Infiltration Cellular, Mast Cell	9 (90%)					10 (100%)
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Thymus	(10)	(0)	(0)	(0)	(0)	(10)

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FISCHER 344 RATS-NCTR RATS FEMALE	Control 0 ppm	Usnic 30 ppm	Usnic 60 ppm	Usnic 120 ppm	Usnic 360 ppm	Usnic 720 ppm
INTEGUMENTARY SYSTEM						
Mammary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Skin	(10)	(0)	(0)	(0)	(0)	(10)
MUSCULOSKELETAL SYSTEM						
Bone, Femur	(10)	(0)	(0)	(0)	(0)	(10)
NERVOUS SYSTEM						
Brain, Brain Stem	(10)	(0)	(0)	(0)	(0)	(10)
Brain, Cerebellum	(10)	(0)	(0)	(0)	(0)	(10)
Brain, Cerebrum	(10)	(0)	(0)	(0)	(0)	(10)
RESPIRATORY SYSTEM						
Lung	(10)	(0)	(0)	(0)	(0)	(10)
Infiltration Cellular, Histiocyte	1 (10%)					1 (10%)
Nose	(10)	(0)	(0)	(0)	(0)	(10)
Trachea	(10)	(0)	(0)	(0)	(0)	(10)
SPECIAL SENSES SYSTEM						
Eye	(10)	(0)	(0)	(0)	(0)	(10)
Harderian Gland	(10)	(0)	(0)	(0)	(0)	(10)
Infiltration Cellular, Lymphocyte	3 (30%)					
URINARY SYSTEM						
Kidney	(10)	(0)	(0)	(0)	(0)	(10)
Cyst	2 (20%)					1 (10%)
Mineralization	10 (100%)					10 (100%)

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FISCHER 344 RATS-NCTR RATS FEMALE	Control 0 ppm	Usnic 30 ppm	Usnic 60 ppm	Usnic 120 ppm	Usnic 360 ppm	Usnic 720 ppm
Nephropathy	2 (20%)					10 (100%)
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

*** END OF REPORT ***

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