TDMS No. 99027 - 03 Test Type: CHRONIC Route: DOSED FEED P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

CHROMIUM PICOLINATE MONOHYDRATE

CAS Number: 27882-76-4

Species/Strain: RATS/F 344

Date Report Reqsted: 03/16/2007 **Time Report Reqsted:** 08:39:18 **First Dose M/F:** 08/12/02 / 08/12/02

Lab: SRI

F1_R2

C Number: C99027

Lock Date: 05/03/2005

Cage Range: ALL

Date Range: ALL

Reasons For Removal: ALL

Removal Date Range: ALL

Treatment Groups: Include ALL

TDMSE Version: 1.7.0

CHROMIUM PICOLINATE MONOHYDRATE

CAS Number: 27882-76-4

Date Report Reqsted: 03/16/2007 **Time Report Reqsted:** 08:39:18 **First Dose M/F:** 08/12/02 / 08/12/02

Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Disposition Summary					
Animals Initially in Study	50	50	50	50	
Early Deaths					
Moribund Sacrifice	11	9	12	19	
Natural Death	2	5	3	3	
Survivors					
Natural Death		0.0	2	00	
Terminal Sacrifice	37	36	33	28	
Animals Examined Microscopically	50	50	50	50	
ALIMENTARY SYSTEM					
Intestine Large, Cecum	(48)	(48)	(48)	(50)	
Intestine Large, Colon	(48)	(46)	(46)	(48)	
Ulcer				1 (2%)	
Intestine Large, Rectum	(48)	(48)	(48)	(50)	
Hemorrhage		1 (2%)			
Intestine Small, Duodenum	(49)	(48)	(48)	(50)	
Intestine Small, Ileum	(49)	(45)	(47)	(45)	
Liver	(50)	(50)	(50)	(50)	
Angiectasis		()	2 (4%)	()	
Basophilic Focus	27 (54%)	32 (64%)	29 (58%)	27 (54%)	
Clear Cell Focus	32 (64%)	32 (64%)	27 (54%)	26 (52%)	
Degeneration, Cystic	1 (2%)	1 (2%)	E (400()	1 (2%)	
Eosinophilic Focus	1 (2%)	3 (6%)	5 (10%)	1 (2%)	
Eosinophilic Focus, Multiple	2 (40()	2 (00/)	2 (00/)	1 (2%)	
Hemorrhage Hepatodiaphragmatic Nodule	2 (4%) 7 (14%)	3 (6%)	3 (6%) 6 (12%)	1 (2%) 3 (6%)	
Inflammation, Chronic	7 (14%) 1 (2%)	8 (16%)	6 (12%)	3 (6%) 1 (2%)	
Mixed Cell Focus	1 (2%) 4 (8%)			3 (6%)	
Necrosis, Focal	4 (8%) 5 (10%)	1 (2%)	4 (8%)	3 (6%) 1 (2%)	
Vacuolization Cytoplasmic	3 (10%)	1 (2%)	4 (0 /0)	1 (2/0)	
Bile Duct, Hyperplasia	23 (46%)	11 (22%)	14 (28%)	9 (18%)	
Centrilobular, Bile Stasis	23 (4070)	11 (22/0)	17 (2070)	1 (2%)	
Centrilobular, Necrosis	4 (8%)	3 (6%)	2 (4%)	3 (6%)	
Centrilobular, Hepatocyte, Atrophy	1 (070)	0 (070)	2 (170)	1 (2%)	
Hepatocyte, Vacuolization Cytoplasmic	8 (16%)	4 (8%)	9 (18%)	6 (12%)	
Portal Vein, Thrombosis, Focal	5 (1070)	1 (2%)	2 (10/0)	· (· = / · · /	

TDMS No. 99027 - 03 Test Type: CHRONIC

Route: DOSED FEED

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

CHROMIUM PICOLINATE MONOHYDRATE

CAS Number: 27882-76-4

Date Report Reqsted: 03/16/2007 **Time Report Reqsted:** 08:39:18 **First Dose M/F:** 08/12/02 / 08/12/02

Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Serosa, Fibrosis	1 (2%)				
Serosa, Pigmentation	1 (2%)				
Mesentery	(15)	(10)	(8)	(9)	
Accessory Spleen	3 (20%)	(- /	1 (13%)	(-)	
Hemorrhage	1 (7%)		(/		
Fat, Necrosis	10 (67%)	7 (70%)	5 (63%)	6 (67%)	
Oral Mucosa	(1)	(0)	(1)	(0)	
Hyperplasia	1 (100%)	(-)	()	(-)	
Pancreas	(49)	(50)	(50)	(50)	
Atrophy	37 (76%)	40 (80%)	35 (70%)	27 (54%)	
Acinus, Hyperplasia, Focal	6 (12%)	- ()	2 (4%)	2 (4%)	
Salivary Glands	(50)	(50)	(50)	(50)	
Atrophy	5 (10%)	6 (12%)	7 (14%)	5 (10%)	
Necrosis	- ()	1 (2%)	(())	· (· · · · · ·)	
Stomach, Forestomach	(49)	(49)	(50)	(50)	
Edema	1 (2%)	2 (4%)	4 (8%)	1 (2%)	
Erosion	1 (2%)	_ (. , , ,	1 (2%)	1 (2%)	
Hemorrhage	(=75)		1 (2%)	(=73)	
Hyperkeratosis	1 (2%)		(=,5)	1 (2%)	
Inflammation, Acute	(=75)	1 (2%)		(=73)	
Inflammation, Chronic Active		1 (2%)	1 (2%)		
Ulcer	2 (4%)	. (=73)	3 (6%)	3 (6%)	
Vacuolization Cytoplasmic	= (: / = /	1 (2%)	G (G75)	3 (3,0)	
Epithelium, Hyperplasia	3 (6%)	5 (10%)	4 (8%)	3 (6%)	
Stomach, Glandular	(49)	(49)	(50)	(50)	
Edema	(10)	(13)	1 (2%)	(66)	
Erosion	1 (2%)	1 (2%)	1 (2%)	3 (6%)	
Hyperplasia, Focal	. (= /*)	. (=73)	2 (4%)	3 (3,0)	
Ulcer	3 (6%)	1 (2%)	2 (4%)	1 (2%)	
Tongue	(1)	(2)	(0)	(1)	
Epithelium, Hyperplasia	(1)	2 (100%)	(0)	1 (100%)	
ARDIOVASCULAR SYSTEM		2 (10070)		(10070)	
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	48 (96%)	47 (94%)	47 (94%)	45 (90%)	
Fibrosis	40 (0070)	77 (3770)	77 (0770)	1 (2%)	
Thrombosis	3 (6%)	2 (4%)	4 (8%)	2 (4%)	
Artery, Mineralization	3 (0/0)	1 (2%)	- (0 /0)	۷ (٦/٥)	
Artery, Willieralization		I (∠%)			

TDMS No. 99027 - 03 Test Type: CHRONIC

Route: DOSED FEED

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

CHROMIUM PICOLINATE MONOHYDRATE

CAS Number: 27882-76-4

Date Report Reqsted: 03/16/2007 **Time Report Reqsted:** 08:39:18 **First Dose M/F:** 08/12/02 / 08/12/02

Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(49)	(50)	(50)	
Accessory Adrenal Cortical Nodule	5 (10%)	22 (45%)	23 (46%)	15 (30%)	
Angiectasis	1 (2%)	,	,	,	
Degeneration, Fatty	12 (24%)	7 (14%)	8 (16%)	8 (16%)	
Hematopoietic Cell Proliferation	,	,	,	1 (2%)	
Hemorrhage	1 (2%)	2 (4%)		()	
Hyperplasia, Focal	18 (36%)	22 (45%)	19 (38%)	21 (42%)	
Hypertrophy, Focal	12 (2273)	1 (2%)	(==,=,	_	
Necrosis	1 (2%)	(= / 5/		1 (2%)	
Capsule, Hyperplasia	((, , , ,		1 (2%)	(= / - /	
Adrenal Medulla	(50)	(49)	(50)	(50)	
Angiectasis	1 (2%)	(13)	(00)	(55)	
Hyperplasia	10 (20%)	2 (4%)	2 (4%)	4 (8%)	
Islets, Pancreatic	(50)	(50)	(50)	(50)	
Hyperplasia	6 (12%)	4 (8%)	3 (6%)	2 (4%)	
Parathyroid Gland	(45)	(48)	(49)	(47)	
Pituitary Gland	(50)	(49)	(50)	(50)	
Cyst	(00)	1 (2%)	(00)	(55)	
Pars Distalis, Angiectasis		. (= /3)		1 (2%)	
Pars Distalis, Cyst	2 (4%)	1 (2%)	2 (4%)	3 (6%)	
Pars Distalis, Hemorrhage	= (: / =)	. (= /3)	= (. , 5)	1 (2%)	
Pars Distalis, Hyperplasia, Focal	15 (30%)	13 (27%)	17 (34%)	18 (36%)	
Pars Distalis, Necrosis	10 (0070)	(=. /3)	(6.70)	1 (2%)	
Pars Intermedia, Cyst				1 (2%)	
Rathke's Cleft, Hemorrhage		1 (2%)		. (= /3)	
Thyroid Gland	(50)	(50)	(50)	(50)	
Ultimobranchial Cyst	1 (2%)	(55)	(00)	(55)	
C-cell, Hyperplasia	10 (20%)	5 (10%)	13 (26%)	6 (12%)	
Follicular Cell, Hyperplasia	15 (=575)	1 (2%)	(==,-=,	2 (1-73)	
GENERAL BODY SYSTEM					
Tissue NOS	(2)	(1)	(2)	(1)	
Hemorrhage	1 (50%)				
Necrosis, Focal			1 (50%)		

GENITAL SYSTEM

TDMS No. 99027 - 03 Test Type: CHRONIC

Route: DOSED FEED

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

CHROMIUM PICOLINATE MONOHYDRATE

CAS Number: 27882-76-4

Date Report Reqsted: 03/16/2007 **Time Report Reqsted:** 08:39:18 **First Dose M/F:** 08/12/02 / 08/12/02

Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Epididymis	(49)	(50)	(50)	(50)	
Granuloma Sperm	1 (2%)		1 (2%)		
Preputial Gland	(50)	(50)	(50)	(50)	
Atrophy				1 (2%)	
Cyst	4 (8%)	3 (6%)	3 (6%)	2 (4%)	
Hyperplasia	3 (6%)	1 (2%)		2 (4%)	
Inflammation, Chronic	26 (52%)	35 (70%)	30 (60%)	25 (50%)	
Prostate	(50)	(50)	(50)	(50)	
Cyst		1 (2%)	1 (2%)	1 (2%)	
Inflammation, Chronic	8 (16%)	12 (24%)	10 (20%)	11 (22%)	
Epithelium, Hyperplasia	4 (8%)	9 (18%)	11 (22%)	4 (8%)	
Seminal Vesicle	(50)	(50)	(50)	(50)	
Inflammation, Chronic	1 (2%)	, ,	, ,	` ,	
Bilateral, Cyst	,		1 (2%)		
Epithelium, Hyperplasia			1 (2%)		
Testes	(50)	(50)	(50)	(50)	
Mineralization	1 (2%)	,	,	,	
Thrombosis, Focal	1 (2%)				
Germinal Epithelium, Atrophy	11 (22%)	9 (18%)	12 (24%)	11 (22%)	
Interstitial Cell, Hyperplasia	(== /-/	3 (6%)	4 (8%)	5 (10%)	
HEMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(50)	(50)	(50)	
Depletion Cellular		1 (2%)			
Myelofibrosis	3 (6%)	1 (2%)		3 (6%)	
Lymph Node	(15)	(15)	(13)	(17)	
Hyperplasia, Lymphoid		1 (7%)			
Mediastinal, Ectasia		2 (13%)	1 (8%)	1 (6%)	
Mediastinal, Hemorrhage	2 (13%)	2 (13%)	1 (8%)	1 (6%)	
Mediastinal, Hyperplasia, Lymphoid	1 (7%)		1 (8%)	1 (6%)	
Mediastinal, Pigmentation	1 (7%)				
Pancreatic, Ectasia	1 (7%)	1 (7%)	2 (15%)	4 (24%)	
Pancreatic, Hemorrhage	2 (13%)	, ,	1 (8%)	1 (6%)	
Pancreatic, Hyperplasia, Lymphoid	1 (7%)		,	1 (6%)	
Pancreatic, Infiltration Cellular, Histiocyte	,			1 (6%)	
Renal, Ectasia		1 (7%)		,	
Renal, Hyperplasia, Lymphoid		1 (7%)			
Lymph Node, Mandibular	(2)	(0)	(1)	(2)	
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)	

TDMS No. 99027 - 03 Test Type: CHRONIC

Route: DOSED FEED

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

CHROMIUM PICOLINATE MONOHYDRATE

CAS Number: 27882-76-4

Date Report Reqsted: 03/16/2007 Time Report Reqsted: 08:39:18 First Dose M/F: 08/12/02 / 08/12/02

Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Atrophy	1 (2%)				
Ectasia	2 (4%)		2 (4%)	5 (10%)	
Hemorrhage	1 (2%)	1 (2%)	,	,	
Hyperplasia, Reticulum Cell	1 (2%)	,	1 (2%)	1 (2%)	
Spleen	(50)	(50)	(50)	(50)	
Fibrosis	, ,	, ,	1 (2%)	1 (2%)	
Hematopoietic Cell Proliferation	3 (6%)	1 (2%)	2 (4%)	4 (8%)	
Hemorrhage	1 (2%)				
Metaplasia, Osseous			1 (2%)		
Necrosis	2 (4%)				
Pigmentation	26 (52%)	29 (58%)	28 (56%)	33 (66%)	
Thrombosis				1 (2%)	
Lymphoid Follicle, Hyperplasia	20 (40%)	9 (18%)	8 (16%)	14 (28%)	
Thymus	(48)	(45)	(48)	(48)	
Atrophy	37 (77%)	40 (89%)	36 (75%)	35 (73%)	
Hemorrhage		1 (2%)			
TEGUMENTARY SYSTEM					
Mammary Gland Cyst Hyperplasia Skin Cyst Epithelial Inclusion Hyperkeratosis Inflammation, Chronic Ulcer Epidermis, Hyperplasia Pinna, Ulcer	(49) 3 (6%) 8 (16%) (50) 2 (4%)	(50) 1 (2%) 13 (26%) (50) 3 (6%)	(50) 3 (6%) 20 (40%) (50) 1 (2%) 3 (6%) 1 (2%) 1 (2%) 3 (6%)	(49) 6 (12%) 9 (18%) (50) 4 (8%) 1 (2%) 1 (2%)	
Mammary Gland Cyst Hyperplasia Skin Cyst Epithelial Inclusion Hyperkeratosis Inflammation, Chronic Ulcer Epidermis, Hyperplasia	3 (6%) 8 (16%) (50)	1 (2%) 13 (26%) (50) 3 (6%)	3 (6%) 20 (40%) (50) 1 (2%) 3 (6%) 1 (2%) 1 (2%)	6 (12%) 9 (18%) (50) 4 (8%) 1 (2%)	
Mammary Gland Cyst Hyperplasia Skin Cyst Epithelial Inclusion Hyperkeratosis Inflammation, Chronic Ulcer Epidermis, Hyperplasia Pinna, Ulcer JSCULOSKELETAL SYSTEM Bone	3 (6%) 8 (16%) (50) 2 (4%)	1 (2%) 13 (26%) (50) 3 (6%)	3 (6%) 20 (40%) (50) 1 (2%) 3 (6%) 1 (2%) 1 (2%) 3 (6%)	6 (12%) 9 (18%) (50) 4 (8%) 1 (2%)	
Mammary Gland Cyst Hyperplasia Skin Cyst Epithelial Inclusion Hyperkeratosis Inflammation, Chronic Ulcer Epidermis, Hyperplasia Pinna, Ulcer JSCULOSKELETAL SYSTEM Bone Osteopetrosis	3 (6%) 8 (16%) (50) 2 (4%) (50) 2 (4%)	1 (2%) 13 (26%) (50) 3 (6%) 3 (6%)	3 (6%) 20 (40%) (50) 1 (2%) 3 (6%) 1 (2%) 1 (2%) 3 (6%)	6 (12%) 9 (18%) (50) 4 (8%) 1 (2%) 1 (2%) 1 (2%)	
Mammary Gland Cyst Hyperplasia Skin Cyst Epithelial Inclusion Hyperkeratosis Inflammation, Chronic Ulcer Epidermis, Hyperplasia Pinna, Ulcer JSCULOSKELETAL SYSTEM Bone Osteopetrosis Skeletal Muscle	3 (6%) 8 (16%) (50) 2 (4%) (50) 2 (4%) (2)	1 (2%) 13 (26%) (50) 3 (6%)	3 (6%) 20 (40%) (50) 1 (2%) 3 (6%) 1 (2%) 1 (2%) 3 (6%)	6 (12%) 9 (18%) (50) 4 (8%) 1 (2%) 1 (2%)	
Mammary Gland Cyst Hyperplasia Skin Cyst Epithelial Inclusion Hyperkeratosis Inflammation, Chronic Ulcer Epidermis, Hyperplasia Pinna, Ulcer JSCULOSKELETAL SYSTEM Bone Osteopetrosis	3 (6%) 8 (16%) (50) 2 (4%) (50) 2 (4%)	1 (2%) 13 (26%) (50) 3 (6%) 3 (6%)	3 (6%) 20 (40%) (50) 1 (2%) 3 (6%) 1 (2%) 1 (2%) 3 (6%)	6 (12%) 9 (18%) (50) 4 (8%) 1 (2%) 1 (2%) 1 (2%)	

NERVOUS SYSTEM

TDMS No. 99027 - 03 Test Type: CHRONIC

Route: DOSED FEED

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

CHROMIUM PICOLINATE MONOHYDRATE

CAS Number: 27882-76-4

Date Report Reqsted: 03/16/2007 **Time Report Reqsted:** 08:39:18 **First Dose M/F:** 08/12/02 / 08/12/02

Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Brain	(50)	(50)	(50)	(50)	
Compression	5 (10%)	4 (8%)	4 (8%)	5 (10%)	
Edema, Focal Hemorrhage	6 (12%)	8 (16%)	5 (10%)	1 (2%) 1 (2%)	
Metaplasia, Lipocyte, Focal				1 (2%)	
Necrosis Thrombosis	1 (2%)	2 (4%) 1 (2%)	2 (4%)	1 (2%)	
RESPIRATORY SYSTEM					
Lung	(50)	(50)	(50)	(50)	
Fibrosis				1 (2%)	
Hemorrhage	2 (4%)	3 (6%)	3 (6%)		
Infiltration Cellular, Eosinophil		1 (2%)			
Infiltration Cellular, Histiocyte	43 (86%)	47 (94%)	41 (82%)	43 (86%)	
Inflammation, Chronic	- ((()	1 (2%)	3 (6%)	2 (4%)	
Metaplasia, Osseous	5 (10%)	4 (8%)	3 (6%)	2 (4%)	
Metaplasia, Squamous, Focal	(- ()	1 (2%)			
Alveolar Epithelium, Hyperplasia Alveolar Epithelium, Metaplasia, Squamous	13 (26%)	11 (22%)	15 (30%)	19 (38%) 1 (2%)	
Nose	(50)	(50)	(50)	(50)	
Foreign Body	12 (24%)	9 (18%)	6 (12%)	(50) 3 (6%)	
Inflammation, Chronic	11 (22%)	16 (32%)	11 (22%)	7 (14%)	
Thrombosis	11 (22 /6)	10 (32 %)	1 (2%)	7 (1470)	
Goblet Cell, Hyperplasia	1 (2%)	1 (2%)	1 (278)		
Respiratory Epithelium, Hyperplasia	1 (270)	1 (270)	1 (2%)		
Respiratory Epithelium, Metaplasia,		2 (4%)	1 (278)		
Squamous		2 (470)			
Trachea	(50)	(50)	(50)	(50)	
SPECIAL SENSES SYSTEM					
Ear	(1)	(0)	(0)	(0)	
Hemorrhage	1 (100%)	(5)	(0)	(=)	
External Ear, Inflammation, Acute	1 (100%)				
Eye	(50)	(50)	(50)	(50)	
Cataract	1 (2%)	3 (6%)	3 (6%)	2 (4%)	
Degeneration	. (-,-,	- (-,-)	1 (2%)	_ (· · · ·)	
Pigmentation, Hemosiderin, Focal			- (=,-,	1 (2%)	
Retinal Detachment, Focal				1 (2%)	

TDMS No. 99027 - 03 Test Type: CHRONIC

Route: DOSED FEED

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

CHROMIUM PICOLINATE MONOHYDRATE

CAS Number: 27882-76-4

Date Report Reqsted: 03/16/2007 **Time Report Reqsted:** 08:39:18 **First Dose M/F:** 08/12/02 / 08/12/02

Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Retina, Degeneration	4 (20/)	1 (2%)			
Retina, Necrosis, Focal	1 (2%)	1 (2/8)		1 (2%)	
Harderian Gland	(50)	(50)	(50)	(50)	
Hyperplasia, Focal	(00)	1 (2%)	(55)	(00)	
Zymbal's Gland	(0)	(1)	(0)	(0)	
URINARY SYSTEM					
Kidney	(50)	(49)	(50)	(50)	
Cyst	1 (2%)	,	,	1 (2%)	
Infarct			2 (4%)	1 (2%)	
Inflammation, Suppurative	1 (2%)				
Nephropathy	50 (100%)	47 (96%)	47 (94%)	48 (96%)	
Thrombosis			1 (2%)		
Pelvis, Dilatation		2 (4%)			
Renal Tubule, Hyperplasia	3 (6%)		5 (10%)	3 (6%)	
Renal Tubule, Necrosis		1 (2%)			
Transitional Epithelium, Hyperplasia	1 (2%)	3 (6%)	1 (2%)	1 (2%)	
Urethra	(0)	(1)	(1)	(0)	
Angiectasis		1 (100%)			
Bulbourethral Gland, Cyst			1 (100%)		
Urinary Bladder	(50)	(50)	(50)	(50)	
Edema	1 (2%)				
Hemorrhage	1 (2%)	1 (2%)			
Inflammation, Chronic	1 (2%)		1 (2%)	1 (2%)	

*** END OF MALE ***

TDMS No. 99027 - 03 Test Type: CHRONIC

Route: DOSED FEED

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

CHROMIUM PICOLINATE MONOHYDRATE

CAS Number: 27882-76-4

Date Report Reqsted: 03/16/2007 **Time Report Reqsted:** 08:39:18 **First Dose M/F:** 08/12/02 / 08/12/02

Lab: SRI

FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Disposition Summary					
Animals Initially in Study Early Deaths	50	50	50	50	
Moribund Sacrifice	11	13	11	8	
Natural Death	3	2	3	2	
Survivors					
Natural Death	1			1	
Terminal Sacrifice	35	35	36	39	
Animals Examined Microscopically	50	50	50	50	
LIMENTARY SYSTEM					
Esophagus	(50)	(50)	(50)	(50)	
Infiltration Cellular, Lymphocyte	(33)	(55)	(00)	1 (2%)	
Intestine Large, Colon	(47)	(48)	(50)	(48)	
Intestine Small, Ileum	(46)	(49)	(50)	(47)	
Necrosis, Lymphoid	(- /	(- /	1 (2%)	,	
Liver	(50)	(50)	(50)	(50)	
Angiectasis	()	()	(/	1 (2%)	
Basophilic Focus	41 (82%)	44 (88%)	46 (92%)	44 (88%)	
Clear Cell Focus	27 (54%)	23 (46%)	22 (44%)	21 (42%)	
Degeneration, Cystic	,	1 (2%)	,	,	
Eosinophilic Focus		1 (2%)		1 (2%)	
Eosinophilic Focus, Multiple		, ,	1 (2%)	,	
Hemorrhage	1 (2%)	1 (2%)	1 (2%)		
Hepatodiaphragmatic Nodule	8 (16%)	8 (Ì6%́)	8 (16%)	8 (16%)	
Hypertrophy, Focal	1 (2%)				
Infiltration Cellular, Lymphocyte				1 (2%)	
Inflammation, Chronic	3 (6%)	1 (2%)	4 (8%)	2 (4%)	
Mixed Cell Focus		1 (2%)	4 (8%)	3 (6%)	
Necrosis, Focal	2 (4%)	·	2 (4%)	3 (6%)	
Thrombosis	2 (4%)	1 (2%)		1 (2%)	
Bile Duct, Hyperplasia	3 (6%)	6 (12%)	5 (10%)	2 (4%)	
Centrilobular, Necrosis	4 (8%)	1 (2%)	1 (2%)	1 (2%)	
Hepatocyte, Vacuolization Cytoplasmic	6 (12%)	3 (6%)	6 (12%)	5 (10%)	
Mesentery	(11)	(6)	(7)	(13)	
Accessory Spleen			1 (14%)	2 (15%)	
Fibrosis			1 (14%)		

TDMS No. 99027 - 03 Test Type: CHRONIC

Route: DOSED FEED

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

CHROMIUM PICOLINATE MONOHYDRATE

CAS Number: 27882-76-4

Date Report Reqsted: 03/16/2007 **Time Report Reqsted:** 08:39:18 **First Dose M/F:** 08/12/02 / 08/12/02

Lab: SRI

FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Fat, Necrosis	11 (100%)	6 (100%)	5 (71%)	12 (92%)	
Oral Mucosa	(0)	(0)	(1)	(0)	
Pancreas	(49)	(50)	(50)	(50)	
Atrophy	21 (43%)	27 (54%)	27 (54%)	26 (52%)	
Metaplasia, Hepatocyte		1 (2%)		. (==()	
Necrosis	. (==()			1 (2%)	
Acinus, Hyperplasia, Focal	1 (2%)	1 —->	1 (2%)	1 (2%)	
Salivary Glands	(50)	(50)	(50)	(50)	
Atrophy	11 (22%)	19 (38%)	19 (38%)	16 (32%)	
Cyst		1 (2%)			
Vacuolization Cytoplasmic			1 (2%)		
Stomach, Forestomach	(49)	(50)	(50)	(50)	
Edema	1 (2%)	1 (2%)		1 (2%)	
Erosion				1 (2%)	
Inflammation, Acute	1 (2%)				
Inflammation, Chronic Active	1 (2%)				
Ulcer	1 (2%)	2 (4%)	1 (2%)	2 (4%)	
Epithelium, Hyperplasia	2 (4%)	1 (2%)	1 (2%)	1 (2%)	
Stomach, Glandular	(49)	(50)	(50)	(50)	
Edema		3 (6%)			
Erosion	2 (4%)	3 (6%)	1 (2%)	2 (4%)	
Inflammation, Acute		1 (2%)			
Ulcer	1 (2%)	1 (2%)			
Tongue	(1)	(0)	(3)	(2)	
Hyperkeratosis			1 (33%)		
Epithelium, Hyperplasia	1 (100%)		2 (67%)	2 (100%)	
CARDIOVASCULAR SYSTEM					
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	44 (88%)	44 (88%)	47 (94%)	46 (92%)	
Inflammation, Chronic	44 (00%)	44 (00%)	1 (2%)	40 (92%)	
Thrombosis	3 (6%)		1 (2%)		
THIOHIDOSIS	3 (6%)				
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
Accessory Adrenal Cortical Nodule	4 (8%)	10 (20%)	9 (18%)	9 (18%)	
Angiectasis	1 (2%)	1 (2%)	2 (4%)	3 (1070)	
Degeneration, Cystic	1 (2/0)	3 (6%)	2 (470)		
Degeneration, Oystic		3 (0 /0)			

TDMS No. 99027 - 03 Test Type: CHRONIC

Route: DOSED FEED

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

CHROMIUM PICOLINATE MONOHYDRATE

CAS Number: 27882-76-4

Date Report Reqsted: 03/16/2007 Time Report Reqsted: 08:39:18 First Dose M/F: 08/12/02 / 08/12/02

Lab: SRI

FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
	- 4	- 4	- 4	- ()	
Degeneration, Fatty	6 (12%)	5 (10%)	2 (4%)	3 (6%)	
Hematopoietic Cell Proliferation		- 4	1 (2%)		
Hemorrhage	1 (2%)	3 (6%)	1 (2%)		
Hyperplasia, Focal	12 (24%)	20 (40%)	26 (52%)	24 (48%)	
Hypertrophy	2 (4%)	5 (10%)	3 (6%)	7 (14%)	
Hypertrophy, Focal			1 (2%)		
Necrosis	2 (4%)		1 (2%)	1 (2%)	
Vacuolization Cytoplasmic	1 (2%)	2 (4%)		1 (2%)	
Adrenal Medulla	(50)	(49)	(50)	(50)	
Hyperplasia		4 (8%)		1 (2%)	
Islets, Pancreatic	(49)	(50)	(50)	(50)	
Angiectasis, Focal		1 (2%)			
Hyperplasia	1 (2%)	2 (4%)	3 (6%)	1 (2%)	
Parathyroid Gland	(48)	(49)	(48)	(43)	
Pituitary Gland	(49)	(50)	(50)	(50)	
Hemorrhage	, ,	, ,	1 (2%)	1 (2%)	
Pars Distalis, Angiectasis	1 (2%)	1 (2%)	3 (6%)	1 (2%)	
Pars Distalis, Cyst	11 (22%)	8 (Ì6%)	9 (18%)	11 (22%)	
Pars Distalis, Hyperplasia, Focal	15 (̀31%)́	7 (14%)	9 (18%)	12 (24%)	
Pars Distalis, Infiltration Cellular,	,	1 (2%)	,	,	
Mononuclear Cell		,			
Pars Distalis, Pigmentation		1 (2%)			
Pars Intermedia, Angiectasis	1 (2%)	(/	1 (2%)		
Pars Intermedia, Cyst	1 (2%)		2 (4%)	1 (2%)	
Rathke's Cleft, Hemorrhage	1 (2%)		1 (2%)		
Thyroid Gland	(49)	(50)	(50)	(50)	
Ultimobranchial Cyst	1 (2%)	5 (10%)	()	()	
C-cell, Hyperplasia	25 (51%)	29 (58%)	24 (48%)	21 (42%)	

GENERAL BODY SYSTEM

None

GENITAL S	SYSTEM
-----------	--------

TDMS No. 99027 - 03 Test Type: CHRONIC

Route: DOSED FEED

Clitoral Gland	(50)	(50)	(50)	(50)
Cyst	2 (4%)	5 (10%)	2 (4%)	5 (10%)
Hyperplasia	8 (16%)	10 (20%)	11 (22%)	4 (8%)
Inflammation, Chronic	4 (8%)	5 (10%)	3 (6%)	3 (6%)
Ovary	(50)	(50)	(50)	(50)

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

CHROMIUM PICOLINATE MONOHYDRATE

CAS Number: 27882-76-4

Route: DOSED FEED CAS Number: 27882Species/Strain: RATS/F 344

TDMS No. 99027 - 03 Test Type: CHRONIC **Date Report Reqsted:** 03/16/2007 **Time Report Reqsted:** 08:39:18 **First Dose M/F:** 08/12/02 / 08/12/02

Lab: SRI

FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Cyst	8 (16%)	5 (10%)	6 (12%)	7 (14%)	
Uterus	(50)	(50)	(50)	(50)	
Angiectasis	, ,	, ,	, ,	1 (2%)	
Hemorrhage	1 (2%)				
Hyperplasia, Cystic	17 (34%)	30 (60%)	24 (48%)	19 (38%)	
Inflammation, Suppurative	1 (2%)	1 (2%)		1 (2%)	
Inflammation, Chronic		1 (2%)	1 (2%)		
Cervix, Hemorrhage	1 (2%)				
Vagina	(5)	(6)	(1)	(3)	
Inflammation				1 (33%)	
EMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(50)	(50)	(50)	
Infiltration Cellular, Histiocyte		1 (2%)			
Myelofibrosis	2 (4%)	3 (6%)	1 (2%)		
Lymph Node	(9)	(10)	(11)	(7)	
Deep Cervical, Ectasia	1 (11%)				
Deep Cervical, Hemorrhage	1 (11%)				
Deep Cervical, Hyperplasia, Lymphoid	1 (11%)				
Mediastinal, Ectasia	3 (33%)	2 (20%)	1 (9%)	1 (14%)	
Mediastinal, Hemorrhage	2 (22%)	2 (20%)	3 (27%)		
Mediastinal, Hyperplasia				1 (14%)	
Mediastinal, Hyperplasia, Lymphoid	1 (11%)		2 (18%)	1 (14%)	
Mediastinal, Pigmentation	2 (22%)				
Mediastinal, Pigmentation, Hemosiderin		2 (20%)			
Pancreatic, Ectasia			1 (9%)		
Pancreatic, Hemorrhage		1 (10%)	1 (9%)	1 (14%)	
Pancreatic, Hyperplasia, Lymphoid			1 (9%)	1 (14%)	
Pancreatic, Pigmentation				1 (14%)	
Lymph Node, Mandibular	(1)	(3)	(1)	(0)	
Ectasia	1 (100%)	1 (33%)	1 (100%)		
Hyperplasia, Lymphoid	1 (100%)				
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)	
Ectasia			1 (2%)	• •	
Hemorrhage	1 (2%)		• •		
Hyperplasia, Reticulum Cell	• •		1 (2%)		
Pigmentation, Hemosiderin	1 (2%)	1 (2%)	, ,		
Spleen	(50)	(50)	(50)	(49)	
Fibrosis	• •	2 (4%)	1 (2%)		

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

CHROMIUM PICOLINATE MONOHYDRATE

CAS Number: 27882-76-4

Date Report Reqsted: 03/16/2007 **Time Report Reqsted:** 08:39:18 **First Dose M/F:** 08/12/02 / 08/12/02

Lab: SRI

FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Hematopoietic Cell Proliferation Hemorrhage Hyperplasia, Lymphoid, Focal Infarct	4 (8%)	5 (10%)	1 (2%) 1 (2%) 1 (2%)	2 (4%) 1 (2%) 1 (2%)	
Pigmentation Thrombosis	40 (80%)	43 (86%)	44 (88%)	1 (2%) 44 (90%) 1 (2%)	
Lymphoid Follicle, Hyperplasia Thymus Atrophy Cyst	7 (14%) (46) 37 (80%)	5 (10%) (48) 37 (77%)	7 (14%) (49) 45 (92%) 1 (2%)	6 (12%) (48) 45 (94%)	
NTEGUMENTARY SYSTEM					
Mammary Gland Cyst Hyperplasia Skin Cyst Epithelial Inclusion Fibrosis Hyperkeratosis Inflammation, Chronic Ulcer Epidermis, Hyperplasia Sebaceous Gland, Hyperplasia	(50) 8 (16%) 37 (74%) (50)	(49) 2 (4%) 38 (78%) (50) 1 (2%) 2 (4%)	(50) 33 (66%) (50) 3 (6%) 1 (2%) 2 (4%) 1 (2%)	(50) 1 (2%) 42 (84%) (50) 2 (4%) 2 (4%) 1 (2%) 1 (2%) 1 (2%)	
MUSCULOSKELETAL SYSTEM					
Bone Osteopetrosis	(50)	(50) 1 (2%)	(50)	(50)	
NERVOUS SYSTEM					
Brain Compression Gliosis Hemorrhage Spinal Cord	(50) 9 (18%) 1 (2%) 2 (4%) (2)	(50) 10 (20%) 1 (2%) (4)	(50) 11 (22%) 2 (4%) (3)	(50) 13 (26%) 3 (6%) (1)	

TDMS No. 99027 - 03 Test Type: CHRONIC

Route: DOSED FEED

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

CHROMIUM PICOLINATE MONOHYDRATE

CAS Number: 27882-76-4

Date Report Reqsted: 03/16/2007 **Time Report Reqsted:** 08:39:18 **First Dose M/F:** 08/12/02 / 08/12/02

Lab: SRI

FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
ESPIRATORY SYSTEM					
Lung	(50)	(50)	(50)	(50)	
Congestion				1 (2%)	
Foreign Body	- (()		. (55.1)	2 (4%)	
Hemorrhage	3 (6%)	1 (2%)	1 (2%)	4 (8%)	
Hyperplasia, Lymphoid	10 (000()	47 (0.40()	47 (0.40()	1 (2%)	
Infiltration Cellular, Histiocyte	49 (98%)	47 (94%)	47 (94%)	46 (92%)	
Inflammation, Chronic	2 (4%)	4 (8%)	3 (6%)	8 (16%)	
Metaplasia, Osseous	2 (4%)	2 (4%)	1 (2%)		
Metaplasia, Squamous	4 (00()	1 (2%)			
Necrosis Thrombosis	1 (2%)			4 (20/)	
	1 (2%)	E (100/)	6 (430/)	1 (2%)	
Alveolar Epithelium, Hyperplasia	6 (12%)	5 (10%)	6 (12%)	4 (8%)	
Alveolar Epithelium, Metaplasia, Squamous Serosa, Hyperplasia	1 (2%)	1 (2%)			
Nose	(50)	(50)	(50)	(50)	
Foreign Body	(30)	1 (2%)	(30)	1 (2%)	
Inflammation, Chronic	5 (10%)	4 (8%)	3 (6%)	3 (6%)	
Nasolacrimal Duct, Cyst	3 (1070)	4 (070)	3 (070)	1 (2%)	
Turbinate, Dysplasia			1 (2%)	(270)	
PECIAL SENSES SYSTEM					
Eye	(47)	(49)	(50)	(50)	
Cataract	2 (4%)	2 (4%)	1 (2%)	2 (4%)	
Edema	1 (2%)				
Hemorrhage		1 (2%)			
Inflammation, Chronic				1 (2%)	
Retinal Detachment	1 (2%)				
Bilateral, Retinal Detachment		1 (2%)			
Cornea, Hyperplasia				1 (2%)	
Retina, Degeneration	1 (2%)	2 (4%)	1 (2%)	1 (2%)	
Harderian Gland	(50)	(50)	(50)	(50)	
Hyperplasia, Focal Zymbal's Gland	(1)	(0)	1 (2%) (0)	(0)	

URINARY SYSTEM

TDMS No. 99027 - 03 Test Type: CHRONIC

Route: DOSED FEED

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

CHROMIUM PICOLINATE MONOHYDRATE

CAS Number: 27882-76-4

Date Report Reqsted: 03/16/2007 **Time Report Reqsted:** 08:39:18 **First Dose M/F:** 08/12/02 / 08/12/02

Lab: SRI

FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM	
Kidney	(47)	(50)	(50)	(50)	
Cyst	()	1 (2%)	()	()	
Infarct, Chronic		,	1 (2%)		
Infiltration Cellular, Lymphocyte				1 (2%)	
Nephropathy	46 (98%)	47 (94%)	48 (96%)	50 (100%)	
Thrombosis	1 (2%)	1 (2%)			
Papilla, Inflammation, Suppurative			1 (2%)		
Renal Tubule, Hyperplasia	1 (2%)		1 (2%)	2 (4%)	
Transitional Epithelium, Hyperplasia			1 (2%)		
Transitional Epithelium, Mineralization, Focal		1 (2%)			
Urinary Bladder	(50)	(50)	(49)	(50)	
Edema			1 (2%)	1 (2%)	
Hyperplasia, Lymphoid		1 (2%)			

*** END OF REPORT ***

TDMS No. 99027 - 03 Test Type: CHRONIC

Route: DOSED FEED

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