

**TDMS No.** 99027 - 03

**Test Type:** CHRONIC

**Route:** DOSED FEED

**Species/Strain:** RATS/F 344

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC  
LESIONS ABRIDGED) (a)**

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

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

Test Type: CHRONIC

Time Report Requested: 08:39:18

Route: DOSED FEED

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

Species/Strain: RATS/F 344

Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM
<b>Disposition Summary</b>				
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			2	
Terminal Sacrifice	37	36	33	28
Animals Examined Microscopically	50	50	50	50
<b>ALIMENTARY SYSTEM</b>				
Intestine Large, Cecum	(48)	(48)	(48)	(50)
Intestine Large, Colon	(48)	(46)	(46)	(48)
Adenoma	1 (2%)			
Intestine Large, Rectum	(48)	(48)	(48)	(50)
Intestine Small, Duodenum	(49)	(48)	(48)	(50)
Carcinoma	1 (2%)			
Intestine Small, Ileum	(49)	(45)	(47)	(45)
Liver	(50)	(50)	(50)	(50)
Cholangioma	1 (2%)			
Hepatocellular Adenoma			1 (2%)	1 (2%)
Hepatocellular Adenoma, Multiple	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Mesentery	(15)	(10)	(8)	(9)
Hemangiosarcoma	1 (7%)			
Oral Mucosa	(1)	(0)	(1)	(0)
Squamous Cell Carcinoma			1 (100%)	
Pancreas	(49)	(50)	(50)	(50)
Acinus, Adenoma		1 (2%)	1 (2%)	1 (2%)
Salivary Glands	(50)	(50)	(50)	(50)
Schwannoma Malignant				1 (2%)
Stomach, Forestomach	(49)	(49)	(50)	(50)
Sarcoma		1 (2%)		
Stomach, Glandular	(49)	(49)	(50)	(50)
Squamous Cell Carcinoma, Metastatic, Lung	1 (2%)			
Tongue	(1)	(2)	(0)	(1)
Squamous Cell Papilloma	1 (100%)			

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

Test Type: CHRONIC

Time Report Requested: 08:39:18

Route: DOSED FEED

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

Species/Strain: RATS/F 344

Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM
<b>CARDIOVASCULAR SYSTEM</b>				
Heart	(50)	(50)	(50)	(50)
Schwannoma Malignant	1 (2%)		1 (2%)	1 (2%)
Squamous Cell Carcinoma, Metastatic, Lung	1 (2%)			
<b>ENDOCRINE SYSTEM</b>				
Adrenal Cortex	(50)	(49)	(50)	(50)
Adenoma			1 (2%)	1 (2%)
Adrenal Medulla	(50)	(49)	(50)	(50)
Pheochromocytoma Benign	8 (16%)	9 (18%)	7 (14%)	7 (14%)
Pheochromocytoma Complex		1 (2%)		
Pheochromocytoma Malignant	3 (6%)	3 (6%)	3 (6%)	
Bilateral, Pheochromocytoma Benign			1 (2%)	
Islets, Pancreatic	(50)	(50)	(50)	(50)
Adenoma	1 (2%)	3 (6%)	1 (2%)	3 (6%)
Carcinoma	1 (2%)		1 (2%)	
Parathyroid Gland	(45)	(48)	(49)	(47)
Adenoma	1 (2%)	1 (2%)		
Pituitary Gland	(50)	(49)	(50)	(50)
Pars Distalis, Adenoma	10 (20%)	11 (22%)	15 (30%)	14 (28%)
Thyroid Gland	(50)	(50)	(50)	(50)
C-cell, Adenoma	5 (10%)	6 (12%)	1 (2%)	2 (4%)
C-cell, Carcinoma	4 (8%)	1 (2%)	1 (2%)	2 (4%)
Follicular Cell, Adenoma	2 (4%)	1 (2%)		
<b>GENERAL BODY SYSTEM</b>				
Tissue NOS	(2)	(1)	(2)	(1)
Hemangiosarcoma			1 (50%)	
Squamous Cell Carcinoma, Metastatic, Lung	1 (50%)			
<b>GENITAL SYSTEM</b>				
Epididymis	(49)	(50)	(50)	(50)
Preputial Gland	(50)	(50)	(50)	(50)

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CHROMIUM PICOLINATE MONOHYDRATE

Time Report Requested: 08:39:18

Route: DOSED FEED

CAS Number: 27882-76-4

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

Species/Strain: RATS/F 344

Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM
Adenoma	1 (2%)	1 (2%)	7 (14%)	4 (8%)
Prostate	(50)	(50)	(50)	(50)
Seminal Vesicle	(50)	(50)	(50)	(50)
Testes	(50)	(50)	(50)	(50)
Schwannoma Malignant			1 (2%)	
Bilateral, Interstitial Cell, Adenoma	37 (74%)	37 (74%)	26 (52%)	30 (60%)
Interstitial Cell, Adenoma	10 (20%)	8 (16%)	15 (30%)	9 (18%)
<b>HEMATOPOIETIC SYSTEM</b>				
Bone Marrow	(50)	(50)	(50)	(50)
Squamous Cell Carcinoma, Metastatic, Lung	1 (2%)			
Lymph Node	(15)	(15)	(13)	(17)
Axillary, Carcinoma, Metastatic, Thyroid Gland				1 (6%)
Mediastinal, Carcinoma, Metastatic, Thyroid Gland				1 (6%)
Pancreatic, Squamous Cell Carcinoma, Metastatic, Lung	1 (7%)			
Lymph Node, Mandibular	(2)	(0)	(1)	(2)
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Spleen	(50)	(50)	(50)	(50)
Hemangiosarcoma	1 (2%)			
Leiomyosarcoma	1 (2%)			
Thymus	(48)	(45)	(48)	(48)
<b>INTEGUMENTARY SYSTEM</b>				
Mammary Gland	(49)	(50)	(50)	(49)
Carcinoma			1 (2%)	
Fibroadenoma	2 (4%)		1 (2%)	2 (4%)
Skin	(50)	(50)	(50)	(50)
Basal Cell Adenoma	1 (2%)			2 (4%)
Basal Cell Carcinoma		1 (2%)		
Hemangiopericytoma				1 (2%)
Keratoacanthoma	3 (6%)	2 (4%)	2 (4%)	1 (2%)
Osteosarcoma			1 (2%)	
Squamous Cell Carcinoma, Metastatic, Lung	1 (2%)			
Squamous Cell Papilloma		2 (4%)	1 (2%)	

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Test Type: CHRONIC

CHROMIUM PICOLINATE MONOHYDRATE

Time Report Requested: 08:39:18

Route: DOSED FEED

CAS Number: 27882-76-4

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

Species/Strain: RATS/F 344

Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM
Pinna, Neural Crest Tumor	1 (2%)			
Subcutaneous Tissue, Fibroma	4 (8%)	3 (6%)	2 (4%)	4 (8%)
Subcutaneous Tissue, Lipoma		1 (2%)	1 (2%)	
Subcutaneous Tissue, Sarcoma		1 (2%)		
<b>MUSCULOSKELETAL SYSTEM</b>				
Bone	(50)	(50)	(50)	(50)
Skeletal Muscle	(2)	(1)	(0)	(3)
Hemangioma				1 (33%)
<b>NERVOUS SYSTEM</b>				
Brain	(50)	(50)	(50)	(50)
Granular Cell Tumor Benign	2 (4%)	1 (2%)		1 (2%)
<b>RESPIRATORY SYSTEM</b>				
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma		1 (2%)	1 (2%)	1 (2%)
Alveolar/Bronchiolar Carcinoma		1 (2%)	1 (2%)	
Alveolar/Bronchiolar Carcinoma, Multiple		1 (2%)		
Carcinoma, Metastatic, Thyroid Gland	1 (2%)			1 (2%)
Hemangioma		1 (2%)		
Sarcoma, Metastatic, Skin		1 (2%)		
Schwannoma Malignant, Metastatic, Salivary Glands				1 (2%)
Squamous Cell Carcinoma	1 (2%)			
Nose	(50)	(50)	(50)	(50)
Trachea	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Thyroid Gland	1 (2%)			
<b>SPECIAL SENSES SYSTEM</b>				
Ear	(1)	(0)	(0)	(0)
Eye	(50)	(50)	(50)	(50)
Harderian Gland	(50)	(50)	(50)	(50)
Zymbal's Gland	(0)	(1)	(0)	(0)

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Species/Strain: RATS/F 344

Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM
Carcinoma		1 (100%)		
<b>URINARY SYSTEM</b>				
Kidney	(50)	(49)	(50)	(50)
Lipoma				1 (2%)
Squamous Cell Carcinoma, Metastatic, Lung	1 (2%)			
Renal Tubule, Carcinoma			1 (2%)	
Urethra	(0)	(1)	(1)	(0)
Urinary Bladder	(50)	(50)	(50)	(50)
<b>SYSTEMIC LESIONS</b>				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma				2 (4%)
Leukemia Mononuclear	19 (38%)	16 (32%)	22 (44%)	16 (32%)
Lymphoma Malignant		1 (2%)		1 (2%)
Mesothelioma Benign			2 (4%)	
Mesothelioma Malignant	1 (2%)	3 (6%)	1 (2%)	2 (4%)

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

\* Number of animals with any tissue examined microscopically

Test Type: CHRONIC

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

Species/Strain: RATS/F 344

Lab: SRI

FISCHER 344 RATS MALE	0 PPM	2000 PPM	10000 PPM	50000 PPM
<b>Tumor Summary for Males</b>				
Total Animals with Primary Neoplasms (b)	50	49	49	49
Total Primary Neoplasms	126	121	123	112
Total Animals with Benign Neoplasms	49	48	46	46
Total Benign Neoplasms	91	90	85	87
Total Animals with Malignant Neoplasms	27	25	27	23
Total Malignant Neoplasms	34	31	36	25
Total Animals with Metastatic Neoplasms	2	2		3
Total Metastatic Neoplasms	9	2		4
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain-Benign or Malignant	1			
Total Uncertain Neoplasms	1			

\*\*\* END OF MALE \*\*\*

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

b - Primary tumors: all tumors except metastatic tumors

Test Type: CHRONIC

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Route: DOSED FEED

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

Species/Strain: RATS/F 344

Lab: SRI

FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM
<b>Disposition Summary</b>				
Animals Initially in Study	50	50	50	50
Early Deaths				
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
<b>ALIMENTARY SYSTEM</b>				
Esophagus	(50)	(50)	(50)	(50)
Intestine Large, Colon	(47)	(48)	(50)	(48)
Adenoma			1 (2%)	
Schwannoma Malignant			1 (2%)	
Intestine Small, Ileum	(46)	(49)	(50)	(47)
Liver	(50)	(50)	(50)	(50)
Hepatocellular Adenoma	2 (4%)	1 (2%)	1 (2%)	
Hepatocellular Adenoma, Multiple		1 (2%)		
Mesentery	(11)	(6)	(7)	(13)
Oral Mucosa	(0)	(0)	(1)	(0)
Squamous Cell Carcinoma			1 (100%)	
Pancreas	(49)	(50)	(50)	(50)
Salivary Glands	(50)	(50)	(50)	(50)
Stomach, Forestomach	(49)	(50)	(50)	(50)
Stomach, Glandular	(49)	(50)	(50)	(50)
Tongue	(1)	(0)	(3)	(2)
Squamous Cell Papilloma			1 (33%)	
<b>CARDIOVASCULAR SYSTEM</b>				
Heart	(50)	(50)	(50)	(50)
Schwannoma Malignant		1 (2%)	1 (2%)	1 (2%)
<b>ENDOCRINE SYSTEM</b>				

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



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CHROMIUM PICOLINATE MONOHYDRATE

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Route: DOSED FEED

CAS Number: 27882-76-4

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

Species/Strain: RATS/F 344

Lab: SRI

FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM
Adrenal Cortex	(50)	(50)	(50)	(50)
Adenoma	2 (4%)		1 (2%)	
Adrenal Medulla	(50)	(49)	(50)	(50)
Pheochromocytoma Benign	1 (2%)	3 (6%)	2 (4%)	1 (2%)
Pheochromocytoma Malignant	2 (4%)			
Islets, Pancreatic	(49)	(50)	(50)	(50)
Adenoma	2 (4%)	1 (2%)		
Parathyroid Gland	(48)	(49)	(48)	(43)
Adenoma		1 (2%)		
Pituitary Gland	(49)	(50)	(50)	(50)
Carcinoma		1 (2%)		
Pars Distalis, Adenoma	24 (49%)	22 (44%)	22 (44%)	25 (50%)
Pars Distalis, Carcinoma	1 (2%)		2 (4%)	
Thyroid Gland	(49)	(50)	(50)	(50)
C-cell, Adenoma	3 (6%)	4 (8%)	6 (12%)	4 (8%)
C-cell, Carcinoma	1 (2%)	1 (2%)		2 (4%)
Follicular Cell, Carcinoma		1 (2%)		

## GENERAL BODY SYSTEM

None

## GENITAL SYSTEM

Clitoral Gland	(50)	(50)	(50)	(50)
Adenoma	10 (20%)	2 (4%)	8 (16%)	10 (20%)
Bilateral, Adenoma				1 (2%)
Ovary	(50)	(50)	(50)	(50)
Granulosa Cell Tumor Malignant		1 (2%)		
Granulosa-Theca Tumor Benign	1 (2%)		1 (2%)	
Uterus	(50)	(50)	(50)	(50)
Adenoma			1 (2%)	
Polyp Stromal	10 (20%)	8 (16%)	13 (26%)	12 (24%)
Vagina	(5)	(6)	(1)	(3)
Polyp				1 (33%)

## HEMATOPOIETIC SYSTEM

Bone Marrow	(50)	(50)	(50)	(50)
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CHROMIUM PICOLINATE MONOHYDRATE

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Species/Strain: RATS/F 344

Lab: SRI

FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM
Lymph Node Mediastinal, Carcinoma, Metastatic, Thyroid Gland	(9) 1 (11%)	(10)	(11)	(7)
Lymph Node, Mandibular	(1)	(3)	(1)	(0)
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Spleen	(50)	(50)	(50)	(49)
Lipoma				1 (2%)
Thymus	(46)	(48)	(49)	(48)
<b>INTEGUMENTARY SYSTEM</b>				
Mammary Gland	(50)	(49)	(50)	(50)
Adenoma	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Carcinoma			1 (2%)	2 (4%)
Fibroadenoma	29 (58%)	29 (59%)	32 (64%)	31 (62%)
Fibroadenoma, Multiple		1 (2%)		
Fibrosarcoma			1 (2%)	
Skin	(50)	(50)	(50)	(50)
Basal Cell Adenoma		1 (2%)	1 (2%)	
Basal Cell Carcinoma				1 (2%)
Keratoacanthoma		2 (4%)	1 (2%)	
Trichoepithelioma				1 (2%)
Subcutaneous Tissue, Fibroma		2 (4%)	1 (2%)	2 (4%)
Subcutaneous Tissue, Fibrosarcoma				2 (4%)
<b>MUSCULOSKELETAL SYSTEM</b>				
Bone	(50)	(50)	(50)	(50)
<b>NERVOUS SYSTEM</b>				
Brain	(50)	(50)	(50)	(50)
Granular Cell Tumor Benign			1 (2%)	
Oligodendroglioma Malignant			1 (2%)	
Spinal Cord	(2)	(4)	(3)	(1)
<b>RESPIRATORY SYSTEM</b>				

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Species/Strain: RATS/F 344

Lab: SRI

FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma	1 (2%)	2 (4%)		1 (2%)
Alveolar/Bronchiolar Carcinoma			1 (2%)	
Pheochromocytoma Malignant, Metastatic, Adrenal Medulla	1 (2%)			
Nose	(50)	(50)	(50)	(50)
<b>SPECIAL SENSES SYSTEM</b>				
Eye	(47)	(49)	(50)	(50)
Harderian Gland	(50)	(50)	(50)	(50)
Adenoma				1 (2%)
Zymbal's Gland	(1)	(0)	(0)	(0)
Carcinoma	1 (100%)			
<b>URINARY SYSTEM</b>				
Kidney	(47)	(50)	(50)	(50)
Urinary Bladder	(50)	(50)	(49)	(50)
<b>SYSTEMIC LESIONS</b>				
Multiple Organs	*(50)	*(50)	*(50)	*(50)
Histiocytic Sarcoma	1 (2%)			
Leukemia Mononuclear	9 (18%)	10 (20%)	15 (30%)	6 (12%)
Lymphoma Malignant			1 (2%)	

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

\* Number of animals with any tissue examined microscopically

Test Type: CHRONIC

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Species/Strain: RATS/F 344

Lab: SRI

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FISCHER 344 RATS FEMALE	0 PPM	2000 PPM	10000 PPM	50000 PPM
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**Tumor Summary for Females**

Total Animals with Primary Neoplasms (b)	47	47	49	49
Total Primary Neoplasms	101	96	119	106
Total Animals with Benign Neoplasms	45	44	45	48
Total Benign Neoplasms	86	81	94	92
Total Animals with Malignant Neoplasms	15	13	21	13
Total Malignant Neoplasms	15	15	25	14
Total Animals with Metastatic Neoplasms	3			
Total Metastatic Neoplasms	9			
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain-Benign or Malignant				
Total Uncertain Neoplasms				

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\*\*\* END OF REPORT \*\*\*

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

b - Primary tumors: all tumors except metastatic tumors