

Version: Jun2013
Contract/Lab: All Laboratories
Species: RATS
Strain: F 344/N Tac
Length of Study: CHRONIC

Toxicology Data Management System
Tumor Incidence for Selected Control Animal Groups
Route: ORAL
Vehicle: WATER

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Study Summary

Laboratory Name	Study Number	Study Start Date	Length of Study in Days	Number of Animals Total and (#/Cage)	Number Surviving and (Mean Life Span)	Maximum Mean Weekly Body Weight	Chemical
Male							
Battelle Columbus Laboratory	059601405	10/26/06	726	50(3)	19(658)	528.0	Water disinfection byproducts (Bromodichloroacetic acid)
Female							
Battelle Columbus Laboratory	059601405	10/27/06	727	50(5)	34(694)	352.8	Water disinfection byproducts (Bromodichloroacetic acid)

NOTE: The text on page 2 ("Report Description") describes how the studies listed here are displayed on the data pages that follow.

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	Male				Female			
#All Organs:								
Benign Tumors								
		46/50 (92%)			41/50 (82%)			
Overall Incidence	Total	46/50 (92%)	Mean 92%	SD 0%	Total	41/50 (82%)	Mean 82%	SD 0%
.....								
#All Organs:								
Malignant Tumors								
		24/50 (48%)			23/50 (46%)			
Overall Incidence	Total	24/50 (48%)	Mean 48%	SD 0%	Total	23/50 (46%)	Mean 46%	SD 0%
.....								
#All Organs:								
Malignant and Benign Tumors								
		49/50 (98%)			47/50 (94%)			
Overall Incidence	Total	49/50 (98%)	Mean 98%	SD 0%	Total	47/50 (94%)	Mean 94%	SD 0%
.....								
#All Organs:								
Hemangioma								
		0/50 (0%)			1/50 (2%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
.....								
#All Organs:								
Hemangiosarcoma								
		0/50 (0%)			0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
#All Organs:								
Hemangiosarcoma or Hemangioma								
		0/50 (0%)			1/50 (2%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
.....								

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

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	Male				Female			
#All Organs:								
Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated								
		15/50 (30%)			19/50 (38%)			
Overall Incidence	Total	15/50 (30%)	Mean 30%	SD 0%	Total	19/50 (38%)	Mean 38%	SD 0%
.....								
#All Organs:								
Mesothelioma: Benign, Malignant, NOS								
		1/50 (2%)			0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
#All Organs:								
Mesothelioma: Malignant								
		1/50 (2%)			0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
#All Organs:								
Osteoma								
		1/50 (2%)			0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
#All Organs:								
Osteosarcoma or Osteoma								
		1/50 (2%)			0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
*Adrenal Cortex:								
Adenoma								
		2/50 (4%)			0/50 (0%)			
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								

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		Male			Female		
*Adrenal Medulla:							
Pheochromocytoma Benign							
		10/50 (20%)			1/50 (2%)		
Overall Incidence	Total	10/50 (20%)	Mean 20%	SD 0%	Total	1/50 (2%)	Mean 2% SD 0%
.....							
*Adrenal Medulla:							
Pheochromocytoma Malignant							
		0/50 (0%)			1/50 (2%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2% SD 0%
.....							
*Adrenal Medulla:							
Pheochromocytoma: Benign, Complex, Malignant, NOS							
		10/50 (20%)			2/50 (4%)		
Overall Incidence	Total	10/50 (20%)	Mean 20%	SD 0%	Total	2/50 (4%)	Mean 4% SD 0%
.....							
#Bone:							
Osteoma							
		1/50 (2%)			0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
#Bone:							
Osteosarcoma or Osteoma							
		1/50 (2%)			0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
*Brain:							
Astrocytoma Malignant							
		0/50 (0%)			0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%

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	Male				Female				
*Brain:									
Fibrous Histiocytoma									
		1/50	(2%)			0/50	(0%)		
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....									
*Brain:									
Glioma									
		0/50	(0%)			1/50	(2%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
.....									
*Brain:									
Granular Cell Tumor Benign									
		2/50	(4%)			0/50	(0%)		
Overall Incidence	Total	2/50	(4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....									
*Brain:									
Oligodendroglioma, Glioma, or Astrocytoma									
		0/50	(0%)			0/50	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....									
*Clitoral/Preputial Gland:									
Adenoma									
		2/50	(4%)			8/50	(16%)		
Overall Incidence	Total	2/50	(4%)	Mean 4%	SD 0%	Total	8/50 (16%)	Mean 16%	SD 0%
.....									
*Clitoral/Preputial Gland:									
Carcinoma									
		2/50	(4%)			1/50	(2%)		
Overall Incidence	Total	2/50	(4%)	Mean 4%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%

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		Male			Female		
*Clitoral/Preputial Gland:							
 Carcinoma or Adenoma							
		4/50 (8%)			8/50 (16%)		
Overall Incidence	Total	4/50 (8%)	Mean 8%	SD 0%	Total	8/50 (16%)	Mean 16% SD 0%
.....							
#Ear:							
 Neural Crest Tumor							
		1/50 (2%)			0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
#Harderian Gland:							
 Carcinoma							
		1/50 (2%)			0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
#Harderian Gland:							
 Carcinoma or Adenoma							
		1/50 (2%)			0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
*Heart:							
 Schwannoma Malignant							
		0/50 (0%)			0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
#Intestine Large: Colon/Rectum:							
 Adenoma							
		0/50 (0%)			1/50 (2%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2% SD 0%

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		Male			Female		
#Intestine Large: Colon/Rectum:							
Carcinoma or Adenoma							
		0/50	(0%)		1/50	(2%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50 (2%)
						Mean 2%	SD 0%
.....							
#Intestine Small: Ileum:							
Carcinoma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%
.....							
#Intestine Small: Jejunum:							
Carcinoma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%
.....							
#Intestine Small: Site Unspecified:							
Carcinoma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%
.....							
#Intestine Small: Site Unspecified:							
Carcinoma or Adenoma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%
.....							
*Islets, Pancreatic:							
Adenoma							
		0/50	(0%)		1/50	(2%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50 (2%)
						Mean 2%	SD 0%

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		Male			Female		
*Islets, Pancreatic:							
 Carcinoma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%
.....							
*Islets, Pancreatic:							
 Carcinoma or Adenoma							
		0/50	(0%)		1/50	(2%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50 (2%)
						Mean 2%	SD 0%
.....							
*Kidney: Renal Tubule:							
 Adenoma							
		1/50	(2%)		0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%
.....							
*Kidney: Renal Tubule:							
 Carcinoma or Adenoma							
		1/50	(2%)		0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%
.....							
*Kidney: Renal Tubule:							
 Lipoma							
		1/50	(2%)		0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%
.....							
*Liver:							
 Fibrous Histiocytoma							
		1/50	(2%)		0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%

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		Male				Female			
*Liver:									
Hemangioma									
		0/50	(0%)			1/50	(2%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50	(2%)	Mean 2% SD 0%
.....									
*Lung:									
Alveolar/Bronchiolar Adenoma									
		3/50	(6%)			0/50	(0%)		
Overall Incidence	Total	3/50	(6%)	Mean 6%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
*Lung:									
Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma									
		3/50	(6%)			0/50	(0%)		
Overall Incidence	Total	3/50	(6%)	Mean 6%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
*Lung:									
Fibrous Histiocytoma									
		1/50	(2%)			0/50	(0%)		
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
*Lung:									
Squamous Cell Carcinoma									
		1/50	(2%)			0/50	(0%)		
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
#Lymph Node:									
Fibrous Histiocytoma									
		1/50	(2%)			0/50	(0%)		
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									

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		Male				Female			
#Mammary Gland: Adenoma									
		0/50	(0%)			1/50	(2%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50	(2%)	Mean 2% SD 0%
.....									
#Mammary Gland: Carcinoma									
		0/50	(0%)			0/50	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
#Mammary Gland: Carcinoma or Adenoma									
		0/50	(0%)			1/50	(2%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50	(2%)	Mean 2% SD 0%
.....									
#Mammary Gland: Fibroadenoma									
		0/50	(0%)			28/50	(56%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	28/50	(56%)	Mean 56% SD 0%
.....									
#Mammary Gland: Fibroma, Fibroadenoma or Adenoma									
		0/50	(0%)			28/50	(56%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	28/50	(56%)	Mean 56% SD 0%
.....									
#Mammary Gland: Fibroma, Fibroadenoma, Carcinoma, or Adenoma									
		0/50	(0%)			28/50	(56%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	28/50	(56%)	Mean 56% SD 0%

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	Male				Female			
#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Papilloma Squamous or Papilloma								
		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma								
		1/50 (2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma								
		1/50 (2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
#Oral Mucosa: Squamous Cell Carcinoma								
		1/50 (2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
*Pancreas: Adenoma								
		1/50 (2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
*Pancreas: Carcinoma or Adenoma								
		1/50 (2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%

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		Male			Female		
*Pancreas:							
Mixed Tumor Malignant							
		0/50 (0%)			0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
*Pituitary Gland: Pars Distalis or Unspecified Site:							
Adenoma							
		26/50 (52%)			23/50 (46%)		
Overall Incidence	Total	26/50 (52%)	Mean 52%	SD 0%	Total	23/50 (46%)	Mean 46% SD 0%
.....							
*Pituitary Gland: Pars Distalis or Unspecified Site:							
Carcinoma or Adenoma							
		26/50 (52%)			23/50 (46%)		
Overall Incidence	Total	26/50 (52%)	Mean 52%	SD 0%	Total	23/50 (46%)	Mean 46% SD 0%
.....							
*Prostate:							
Adenoma							
		1/50 (2%)					
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%			
.....							
*Prostate:							
Carcinoma or Adenoma							
		1/50 (2%)					
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%			
.....							
*Salivary Glands:							
Adenoma							
		0/50 (0%)			0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%

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		Male			Female		
*Salivary Glands:							
Carcinoma or Adenoma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%
.....							
#Skeletal Muscle:							
Fibrous Histiocytoma							
		1/50	(2%)		0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%
.....							
#Skin:							
Basal Cell Adenoma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%
.....							
#Skin:							
Basal Cell Adenoma or Basosquamous Tumor Benign							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%
.....							
#Skin:							
Basal Cell Adenoma, Basosquamous Tumor Benign, or Trichoepithelioma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%
.....							
#Skin:							
Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%

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		Male			Female		
#Skin:							
Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma							
		9/50 (18%)			0/50 (0%)		
Overall Incidence	Total	9/50 (18%)	Mean 18%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
#Skin:							
Fibroma							
		4/50 (8%)			2/50 (4%)		
Overall Incidence	Total	4/50 (8%)	Mean 8%	SD 0%	Total	2/50 (4%)	Mean 4% SD 0%
.....							
#Skin:							
Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma							
		6/50 (12%)			2/50 (4%)		
Overall Incidence	Total	6/50 (12%)	Mean 12%	SD 0%	Total	2/50 (4%)	Mean 4% SD 0%
.....							
#Skin:							
Fibrosarcoma							
		1/50 (2%)			0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
#Skin:							
Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma							
		2/50 (4%)			0/50 (0%)		
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
#Skin:							
Fibrous Histiocytoma							
		1/50 (2%)			0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Jun2013
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N Tac
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: ORAL
 Vehicle: WATER

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	Male				Female			
#Skin:								
Hamartoma								
		0/50	(0%)			0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)
.....								
#Skin:								
Keratoacanthoma								
		7/50	(14%)			0/50	(0%)	
Overall Incidence	Total	7/50	(14%)	Mean 14%	SD 0%	Total	0/50	(0%)
.....								
#Skin:								
Lipoma								
		1/50	(2%)			2/50	(4%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	2/50	(4%)
.....								
#Skin:								
Neurofibrosarcoma or Schwannoma (malignant or NOS)								
		0/50	(0%)			0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)
.....								
#Skin:								
Neurofibrosarcoma, Neurofibroma, or Schwannoma (benign, malignant or NOS)								
		0/50	(0%)			0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)
.....								
#Skin:								
Schwannoma Malignant								
		0/50	(0%)			0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)
.....								

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Jun2013
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N Tac
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: ORAL
Vehicle: WATER

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		Male			Female		
#Skin:							
Squamous Cell Carcinoma							
		0/50 (0%)			0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
#Skin:							
Squamous Cell Carcinoma, Basal Cell Carcinoma, Basosquamous Tumor (malignant or NOS), or Carcinoma							
		0/50 (0%)			0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
#Skin:							
Squamous Cell Papilloma							
		3/50 (6%)			0/50 (0%)		
Overall Incidence	Total	3/50 (6%)	Mean 6%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
#Skin:							
Squamous Cell Papilloma or Papilloma							
		3/50 (6%)			0/50 (0%)		
Overall Incidence	Total	3/50 (6%)	Mean 6%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
#Skin:							
Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma							
		9/50 (18%)			0/50 (0%)		
Overall Incidence	Total	9/50 (18%)	Mean 18%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
#Skin:							
Squamous Cell Papilloma, Papilloma, or Keratoacanthoma							
		9/50 (18%)			0/50 (0%)		
Overall Incidence	Total	9/50 (18%)	Mean 18%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Jun2013
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N Tac
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: ORAL
 Vehicle: WATER

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	Male				Female			
#Skin:								
Trichoepithelioma								
		0/50	(0%)			0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)
.....								
#Stomach, Forestomach:								
Squamous Cell Carcinoma or Papilloma Squamous								
		1/50	(2%)			0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)
.....								
#Stomach, Forestomach:								
Squamous Cell Papilloma								
		1/50	(2%)			0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)
.....								
*Testes:								
Adenoma								
		34/50	(68%)					
Overall Incidence	Total	34/50	(68%)	Mean 68%	SD 0%			
.....								
*Thymus:								
Thymoma Malignant								
		0/48	(0%)			1/48	(2%)	
Overall Incidence	Total	0/48	(0%)	Mean 0%	SD 0%	Total	1/48	(2.08%)
.....								
*Thymus:								
Thymoma: Benign, Malignant, NOS								
		0/48	(0%)			1/48	(2%)	
Overall Incidence	Total	0/48	(0%)	Mean 0%	SD 0%	Total	1/48	(2.08%)
.....								

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Jun2013
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N Tac
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: ORAL
 Vehicle: WATER

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		Male			Female		
*Thyroid Gland: C-Cell: Adenoma							
Overall Incidence	Total	7/50 (14%)	Mean 14%	SD 0%	Total	11/50 (22%)	Mean 22% SD 0%
.....							
*Thyroid Gland: C-Cell: Carcinoma							
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
*Thyroid Gland: C-Cell: Carcinoma or Adenoma							
Overall Incidence	Total	8/50 (16%)	Mean 16%	SD 0%	Total	11/50 (22%)	Mean 22% SD 0%
.....							
*Thyroid Gland: Follicular Cell: Adenoma							
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
*Thyroid Gland: Follicular Cell: Carcinoma							
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
*Thyroid Gland: Follicular Cell: Carcinoma or Adenoma							
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Jun2013
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N Tac
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: ORAL
Vehicle: WATER

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	Male				Female			
#Tongue:								
Squamous Cell Carcinoma or Papilloma Squamous								
		0/50	(0%)			0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)
.....								
#Tongue:								
Squamous Cell Papilloma								
		0/50	(0%)			0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)
.....								
#Uterus:								
Deciduoma NOS								
						1/50	(2%)	
Overall Incidence						Total	1/50	(2%)
							Mean 2%	SD 0%
.....								
#Uterus:								
Fibrous Histiocytoma								
						1/50	(2%)	
Overall Incidence						Total	1/50	(2%)
							Mean 2%	SD 0%
.....								
#Uterus:								
Hemangiosarcoma								
						0/50	(0%)	
Overall Incidence						Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
#Uterus:								
Leiomyoma								
						0/50	(0%)	
Overall Incidence						Total	0/50	(0%)
							Mean 0%	SD 0%
.....								

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Jun2013
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N Tac
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: ORAL
Vehicle: WATER

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Male				Female			
#Uterus:							
Leiomyosarcoma							
				1/50	(2%)		
Overall Incidence				Total	1/50 (2%)	Mean 2%	SD 0%
.....							
#Uterus:							
Polyp Stromal							
				4/50	(8%)		
Overall Incidence				Total	4/50 (8%)	Mean 8%	SD 0%
.....							
#Uterus:							
Sarcoma Stromal							
				1/50	(2%)		
Overall Incidence				Total	1/50 (2%)	Mean 2%	SD 0%
.....							
#Uterus:							
Sarcoma Stromal or Polyp Stromal							
				5/50	(10%)		
Overall Incidence				Total	5/50 (10%)	Mean 10%	SD 0%
.....							
#Zymbal's Gland:							
Adenoma							
		0/50	(0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%
							SD 0%
.....							
#Zymbal's Gland:							
Carcinoma							
		1/50	(2%)				
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%
							SD 0%
.....							

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Jun2013
Contract/Lab: All Laboratories
Species: RATS
Strain: F 344/N Tac
Length of Study: CHRONIC

Toxicology Data Management System
Tumor Incidence for Selected Control Animal Groups
Route: ORAL
Vehicle: WATER

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Report Date: 06/12/2013

	Male				Female			
#Zymbal's Gland:								
Carcinoma or Adenoma								
		1/50 (2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%

*: Denominator is number of animals with tissues examined microscopically
#: Denominator is number of animals necropsied