

Version: May2011
Contract/Lab: All Laboratories
Species: RATS
Strain: F 344/N
Length of Study: CHRONIC

Toxicology Data Management System
Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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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 Northwest	052001105	07/14/03	729	50(5)	23(678)	526.9	1-Bromopropane
Battelle Northwest	059901705	08/25/03	729	50(5)	28(686)	525.6	Diethylamine
Battelle Northwest	059302507	06/16/03	729	50(5)	20(668)	536.2	Tetralin
Female							
Battelle Northwest	052001105	07/14/03	730	50(5)	34(702)	386.5	1-Bromopropane
Battelle Northwest	059901705	08/25/03	730	50(5)	31(687)	378.3	Diethylamine
Battelle Northwest	059302507	06/16/03	730	50(5)	31(682)	370.8	Tetralin

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		Male			Female			
#All Organs:								
Benign Tumors								
		48/50 (96%)	44/50 (88%)	48/50 (96%)	45/50 (90%)	43/50 (86%)	40/50 (80%)	
Overall Incidence	Total	140/150 (93.33%)	Mean 93.33%	SD 4.62%	Total	128/150 (85.33%)	Mean 85.33%	SD 5.03%
.....								
#All Organs:								
Malignant Tumors								
		38/50 (76%)	31/50 (62%)	33/50 (66%)	26/50 (52%)	24/50 (48%)	25/50 (50%)	
Overall Incidence	Total	102/150 (68%)	Mean 68%	SD 7.21%	Total	75/150 (50%)	Mean 50%	SD 2%
.....								
#All Organs:								
Malignant and Benign Tumors								
		50/50 (100%)	49/50 (98%)	50/50 (100%)	49/50 (98%)	48/50 (96%)	46/50 (92%)	
Overall Incidence	Total	149/150 (99.33%)	Mean 99.33%	SD 1.15%	Total	143/150 (95.33%)	Mean 95.33%	SD 3.06%
.....								
#All Organs:								
Hemangioma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#All Organs:								
Hemangiosarcoma								
		0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#All Organs:								
Hemangiosarcoma or Hemangioma								
		0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%	Total	0/150 (0%)	Mean 0%	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:							
Histiocytic Sarcoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	2/150 (1.33%)	Mean 1.33% SD 2.31%
.....							
#All Organs:							
Leukemia: Erythrocytic							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
#All Organs:							
Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated							
		29/50 (58%)	25/50 (50%)	25/50 (50%)	16/50 (32%)	15/50 (30%)	17/50 (34%)
Overall Incidence	Total	79/150 (52.67%)	Mean 52.67%	SD 4.62%	Total	48/150 (32%)	Mean 32% SD 2%
.....							
#All Organs:							
Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
#All Organs:							
Mesothelioma: Benign							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
#All Organs:							
Mesothelioma: Benign, Malignant, NOS							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%

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		Male			Female			
#All Organs:								
Mesothelioma: Malignant								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#All Organs:								
Osteoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#All Organs:								
Osteosarcoma								
		2/50 (4%)	0/50 (0%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	5/150 (3.33%)	Mean 3.33%	SD 3.06%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#All Organs:								
Osteosarcoma or Osteoma								
		2/50 (4%)	0/50 (0%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	5/150 (3.33%)	Mean 3.33%	SD 3.06%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Adrenal Cortex:								
Adenoma								
		1/50 (2%)	1/50 (2%)	0/50 (0%)	3/50 (6%)	4/50 (8%)	8/50 (16%)	
Overall Incidence	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%	Total	15/150 (10%)	Mean 10%	SD 5.29%
.....								
*Adrenal Cortex:								
Carcinoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

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		Male				Female			
*Adrenal Medulla: Ganglioneuroma									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
*Adrenal Medulla: Hemangioma									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
*Adrenal Medulla: Pheochromocytoma Benign									
		10/50 (20%)	7/50 (14%)	9/50 (18%)		2/50 (4%)	0/50 (0%)	2/50 (4%)	
Overall Incidence	Total	26/150 (17.33%)	Mean 17.33%	SD 3.06%	Total	4/150 (2.67%)	Mean 2.67%	SD 2.31%	
.....									
*Adrenal Medulla: Pheochromocytoma Complex									
		1/50 (2%)	2/50 (4%)	0/50 (0%)		1/50 (2%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	3/150 (2%)	Mean 2%	SD 2%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
*Adrenal Medulla: Pheochromocytoma Malignant									
		0/50 (0%)	1/50 (2%)	4/50 (8%)		0/50 (0%)	0/50 (0%)	1/50 (2%)	
Overall Incidence	Total	5/150 (3.33%)	Mean 3.33%	SD 4.16%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
*Adrenal Medulla: Pheochromocytoma: Benign, Complex, Malignant, NOS									
		11/50 (22%)	10/50 (20%)	12/50 (24%)		3/50 (6%)	0/50 (0%)	3/50 (6%)	
Overall Incidence	Total	33/150 (22%)	Mean 22%	SD 2%	Total	6/150 (4%)	Mean 4%	SD 3.46%	

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		Male				Female					
#Bone:											
Chordoma											
		1/50	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/150 (0.67%)		Mean 0.67%		SD 1.15%		Total		0/150 (0%)	
				Mean 0%						SD 0%	
.....											
#Bone:											
Osteoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150 (0%)		Mean 0%		SD 0%		Total		0/150 (0%)	
				Mean 0%						SD 0%	
.....											
#Bone:											
Osteosarcoma											
		1/50	(2%)	0/50	(0%)	3/50	(6%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	4/150 (2.67%)		Mean 2.67%		SD 3.06%		Total		0/150 (0%)	
				Mean 0%						SD 0%	
.....											
#Bone:											
Osteosarcoma or Osteoma											
		1/50	(2%)	0/50	(0%)	3/50	(6%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	4/150 (2.67%)		Mean 2.67%		SD 3.06%		Total		0/150 (0%)	
				Mean 0%						SD 0%	
.....											
*Brain:											
Astrocytoma Malignant											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150 (0%)		Mean 0%		SD 0%		Total		0/150 (0%)	
				Mean 0%						SD 0%	
.....											
*Brain:											
Ependymoma Benign											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150 (0%)		Mean 0%		SD 0%		Total		0/150 (0%)	
				Mean 0%						SD 0%	

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		Male				Female					
*Brain:											
Ependymoma Malignant											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
*Brain:											
Glioma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
*Brain:											
Glioma Benign											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
*Brain:											
Glioma Malignant											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	1/50	(2%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	
.....											
*Brain:											
Granular Cell Tumor Benign											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
*Brain:											
Oligodendroglioma Benign											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	

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		Male				Female			
*Brain:									
Oligodendroglioma Malignant									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
*Brain:									
Oligodendroglioma, Glioma, or Astrocytoma									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		1/50 (2%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
*Brain:									
Osteosarcoma									
		1/50 (2%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
*Brain:									
Schwannoma Malignant									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
*Clitoral/Preputial Gland:									
Adenoma									
		4/50 (8%)	0/50 (0%)	0/50 (0%)		3/49 (6%)	1/50 (2%)	0/50 (0%)	
Overall Incidence	Total	4/150 (2.67%)	Mean 2.67%	SD 4.62%	Total	4/149 (2.68%)	Mean 2.71%	SD 3.12%	
.....									
*Clitoral/Preputial Gland:									
Carcinoma									
		2/50 (4%)	1/50 (2%)	0/50 (0%)		1/49 (2%)	0/50 (0%)	4/50 (8%)	
Overall Incidence	Total	3/150 (2%)	Mean 2%	SD 2%	Total	5/149 (3.36%)	Mean 3.35%	SD 4.16%	

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		Male			Female		
*Clitoral/Preputial Gland: Carcinoma or Adenoma							
		6/50 (12%)	1/50 (2%)	0/50 (0%)	4/49 (8%)	1/50 (2%)	4/50 (8%)
Overall Incidence	Total	7/150 (4.67%)	Mean 4.67%	SD 6.43%	Total	9/149 (6.04%)	Mean 6.05% SD 3.51%
.....							
*Clitoral/Preputial Gland: Sarcoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/149 (0%)	Mean 0% SD 0%
.....							
#Ear: Neural Crest Tumor							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
#Esophagus: Lipoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
#Eye: Melanoma Benign							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
#Eye: Melanoma Malignant							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%

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		Male				Female					
#Eye:											
Schwannoma Malignant											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Harderian Gland:											
Adenoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Harderian Gland:											
Carcinoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Harderian Gland:											
Carcinoma or Adenoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
*Heart:											
Schwannoma Benign											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
*Heart:											
Schwannoma Malignant											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	

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#: Denominator is number of animals necropsied

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		Male				Female					
#Intestine Large: Colon/Rectum:											
Adenoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Intestine Large: Colon/Rectum:											
Carcinoma or Adenoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Intestine Large: Colon/Rectum:											
Hemangioma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Intestine Small: Duodenum:											
Carcinoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Intestine Small: Duodenum:											
Leiomyoma											
		0/50	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Intestine Small: Duodenum:											
Schwannoma Malignant											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	

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

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
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		Male				Female					
#Intestine Small: Ileum:											
Adenoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Intestine Small: Jejunum:											
Carcinoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Intestine Small: Jejunum:											
Granular Cell Tumor Malignant											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Intestine Small: Jejunum:											
Leiomyoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Intestine Small: Jejunum:											
Leiomyosarcoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Intestine Small: Site Unspecified:											
Adenoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	

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

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male				Female					
#Intestine Small: Site Unspecified: Carcinoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Intestine Small: Site Unspecified: Carcinoma or Adenoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Intestine Small: Site Unspecified: Granular Cell Tumor Malignant											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Intestine Small: Site Unspecified: Leiomyoma											
		0/50	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Intestine Small: Site Unspecified: Leiomyosarcoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Intestine Small: Site Unspecified: Schwannoma Malignant											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	

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

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male			Female			
*Islets, Pancreatic:								
Adenoma								
		0/50 (0%)	6/50 (12%)	3/50 (6%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	
Overall Incidence	Total	9/150 (6%)	Mean 6%	SD 6%	Total	2/150 (1.33%)	Mean 1.33%	SD 2.31%
.....								
*Islets, Pancreatic:								
Carcinoma								
		3/50 (6%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	5/150 (3.33%)	Mean 3.33%	SD 2.31%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
.....								
*Islets, Pancreatic:								
Carcinoma or Adenoma								
		3/50 (6%)	7/50 (14%)	4/50 (8%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	
Overall Incidence	Total	14/150 (9.33%)	Mean 9.33%	SD 4.16%	Total	3/150 (2%)	Mean 2%	SD 2%
.....								
*Kidney: Pelvis and Transitional Epithelium:								
Carcinoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/149 (0%)	Mean 0%	SD 0%
.....								
*Kidney: Pelvis and Transitional Epithelium:								
Carcinoma or Adenoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/149 (0%)	Mean 0%	SD 0%
.....								
*Kidney: Pelvis and Transitional Epithelium:								
Papilloma								
		1/50 (2%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/149 (0%)	Mean 0%	SD 0%

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

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male			Female		
*Kidney: Renal Tubule: Adenoma							
		1/50 (2%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/149 (0%)	Mean 0% SD 0%
.....							
*Kidney: Renal Tubule: Carcinoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	1/49 (2%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/149 (0.67%)	Mean 0.68% SD 1.18%
.....							
*Kidney: Renal Tubule: Carcinoma or Adenoma							
		1/50 (2%)	0/50 (0%)	0/50 (0%)	1/49 (2%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/149 (0.67%)	Mean 0.68% SD 1.18%
.....							
*Kidney: Renal Tubule: Hemangiosarcoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/149 (0%)	Mean 0% SD 0%
.....							
*Kidney: Renal Tubule: Lipoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/149 (0%)	Mean 0% SD 0%
.....							
*Kidney: Renal Tubule: Mesenchymal Tumor Benign							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/149 (0%)	Mean 0% SD 0%

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

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male			Female		
*Kidney: Renal Tubule: Mesenchymal Tumor Malignant							
Overall Incidence	Total	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)
		0/150 (0%)	Mean 0%	SD 0%	0/149 (0%)	Mean 0%	SD 0%
.....							
*Kidney: Renal Tubule: Nephroblastoma							
Overall Incidence	Total	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)
		0/150 (0%)	Mean 0%	SD 0%	0/149 (0%)	Mean 0%	SD 0%
.....							
*Kidney: Renal Tubule: Sarcoma							
Overall Incidence	Total	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)
		0/150 (0%)	Mean 0%	SD 0%	0/149 (0%)	Mean 0%	SD 0%
.....							
*Liver: Cholangioma							
Overall Incidence	Total	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
		0/150 (0%)	Mean 0%	SD 0%	0/150 (0%)	Mean 0%	SD 0%
.....							
*Liver: Hemangiosarcoma							
Overall Incidence	Total	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
		0/150 (0%)	Mean 0%	SD 0%	0/150 (0%)	Mean 0%	SD 0%
.....							
*Liver: Hepatocellular Adenoma							
Overall Incidence	Total	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
		1/150 (0.67%)	Mean 0.67%	SD 1.15%	1/150 (0.67%)	Mean 0.67%	SD 1.15%

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

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male				Female			
*Liver:									
Hepatocellular Carcinoma									
		2/50 (4%)	0/50 (0%)	0/50 (0%)		1/50 (2%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	2/150 (1.33%)	Mean 1.33%	SD 2.31%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
*Liver:									
Hepatocellular Carcinoma or Hepatoblastoma									
		2/50 (4%)	0/50 (0%)	0/50 (0%)		1/50 (2%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	2/150 (1.33%)	Mean 1.33%	SD 2.31%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
*Liver:									
Hepatocellular Carcinoma or Hepatocellular Adenoma									
		2/50 (4%)	0/50 (0%)	1/50 (2%)		1/50 (2%)	1/50 (2%)	0/50 (0%)	
Overall Incidence	Total	3/150 (2%)	Mean 2%	SD 2%	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%	
.....									
*Liver:									
Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma									
		2/50 (4%)	0/50 (0%)	1/50 (2%)		1/50 (2%)	1/50 (2%)	0/50 (0%)	
Overall Incidence	Total	3/150 (2%)	Mean 2%	SD 2%	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%	
.....									
*Liver:									
Ito Cell Tumor Benign									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
*Lung:									
Alveolar/Bronchiolar Adenoma									
		2/50 (4%)	0/50 (0%)	0/50 (0%)		1/50 (2%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	2/150 (1.33%)	Mean 1.33%	SD 2.31%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	

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

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
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		Male				Female							
*Lung:													
Alveolar/Bronchiolar Carcinoma													
		1/50	(2%)	1/50	(2%)	1/50	(2%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	3/150 (2%)		Mean 2%		SD 0%		Total 1/150 (0.67%)		Mean 0.67%		SD 1.15%	
.....													
*Lung:													
Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma													
		3/50	(6%)	1/50	(2%)	1/50	(2%)	2/50	(4%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	5/150 (3.33%)		Mean 3.33%		SD 2.31%		Total 2/150 (1.33%)		Mean 1.33%		SD 2.31%	
.....													
*Lung:													
Fibrosarcoma													
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150 (0%)		Mean 0%		SD 0%		Total 0/150 (0%)		Mean 0%		SD 0%	
.....													
*Lung:													
Hemangiosarcoma													
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150 (0%)		Mean 0%		SD 0%		Total 0/150 (0%)		Mean 0%		SD 0%	
.....													
*Lung:													
Squamous Cell Carcinoma													
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150 (0%)		Mean 0%		SD 0%		Total 0/150 (0%)		Mean 0%		SD 0%	
.....													
#Lymph Node:													
Hemangiosarcoma													
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150 (0%)		Mean 0%		SD 0%		Total 0/150 (0%)		Mean 0%		SD 0%	

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male			Female			
#Mammary Gland:								
Adenolipoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
#Mammary Gland:								
Adenoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 1/150 (0.67%)	1/50 (2%) Mean 0.67%	0/50 (0%) SD 1.15%
#Mammary Gland:								
Carcinoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	4/50 (8%) 16/150 (10.67%)	9/50 (18%) Mean 10.67%	3/50 (6%) SD 6.43%
#Mammary Gland:								
Carcinoma or Adenoma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	4/50 (8%) 17/150 (11.33%)	10/50 (20%) Mean 11.33%	3/50 (6%) SD 7.57%
#Mammary Gland:								
Fibroadenoma								
Overall Incidence	Total	2/50 (4%) 5/150 (3.33%)	2/50 (4%) Mean 3.33%	1/50 (2%) SD 1.15%	Total	25/50 (50%) 66/150 (44%)	27/50 (54%) Mean 44%	14/50 (28%) SD 14%
#Mammary Gland:								
Fibroma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male			Female		
#Mammary Gland:							
Fibroma, Fibroadenoma or Adenoma							
		2/50 (4%)	2/50 (4%)	1/50 (2%)	25/50 (50%)	27/50 (54%)	14/50 (28%)
Overall Incidence	Total	5/150 (3.33%)	Mean 3.33%	SD 1.15%	Total	66/150 (44%)	Mean 44%
						SD 14%	
.....							
#Mammary Gland:							
Fibroma, Fibroadenoma, Carcinoma, or Adenoma							
		2/50 (4%)	2/50 (4%)	1/50 (2%)	27/50 (54%)	30/50 (60%)	16/50 (32%)
Overall Incidence	Total	5/150 (3.33%)	Mean 3.33%	SD 1.15%	Total	73/150 (48.67%)	Mean 48.67%
						SD 14.74%	
.....							
#Mesentery:							
Fibrous Histiocytoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%
						SD 0%	
.....							
#Mesentery:							
Hemangiosarcoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%
						SD 0%	
.....							
#Mesentery:							
Lipoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%
						SD 0%	
.....							
#Mesentery:							
Schwannoma Malignant							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%
						SD 0%	

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: INHALATION
 Vehicle: AIR

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		Male				Female			
*Nose:									
Adenoma									
		0/50 (0%)	0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/149 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
*Nose:									
Squamous Cell Carcinoma									
		0/50 (0%)	0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/149 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva):									
Papilloma Squamous or Papilloma									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva):									
Squamous Cell Carcinoma									
		1/50 (2%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	1/50 (2%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva):									
Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma									
		1/50 (2%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	1/50 (2%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
#Oral Mucosa:									
Squamous Cell Carcinoma									
		1/50 (2%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%	

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: INHALATION
 Vehicle: AIR

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	Male				Female			
#Oral Mucosa:								
Squamous Cell Papilloma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Ovary:								
Cystadenoma								
						0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence					Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Ovary:								
Fibrosarcoma								
						0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence					Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Ovary:								
Granulosa Cell Tumor Benign								
						0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence					Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Ovary:								
Granulosa Cell Tumor Malignant								
						0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence					Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Ovary:								
Granulosa Cell Tumor: Benign, Malignant, NOS								
						0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence					Total	0/150 (0%)	Mean 0%	SD 0%

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

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male			Female		
*Ovary:							
Granulosa-Theca Tumor Benign							
			0/50 (0%)		0/50 (0%)	0/50 (0%)	
Overall Incidence		Total	0/150 (0%)		Mean 0%	SD 0%	
.....							
*Ovary:							
Granulosa-Theca Tumor Malignant							
			2/50 (4%)		0/50 (0%)	0/50 (0%)	
Overall Incidence		Total	2/150 (1.33%)		Mean 1.33%	SD 2.31%	
.....							
*Ovary:							
Schwannoma Malignant							
			0/50 (0%)		0/50 (0%)	0/50 (0%)	
Overall Incidence		Total	0/150 (0%)		Mean 0%	SD 0%	
.....							
*Ovary:							
Tubulostromal Adenoma							
			0/50 (0%)		0/50 (0%)	0/50 (0%)	
Overall Incidence		Total	0/150 (0%)		Mean 0%	SD 0%	
.....							
*Pancreas:							
Adenoma							
		0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/149 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%
.....							
*Pancreas:							
Carcinoma							
		0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/149 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%
.....							

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male			Female			
*Pancreas:								
Carcinoma or Adenoma								
		0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/149 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Pancreas:								
Mixed Tumor Benign								
		0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/149 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Pancreas:								
Mixed Tumor Malignant								
		0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/149 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Parathyroid Gland:								
Adenoma								
		0/46 (0%)	0/48 (0%)	0/48 (0%)	0/47 (0%)	1/43 (2%)	0/49 (0%)	
Overall Incidence	Total	0/142 (0%)	Mean 0%	SD 0%	Total	1/139 (0.72%)	Mean 0.78%	SD 1.34%
.....								
*Pituitary Gland: Pars Distalis or Unspecified Site:								
Adenoma								
		37/50 (74%)	31/50 (62%)	36/50 (72%)	35/50 (70%)	29/50 (58%)	36/49 (73%)	
Overall Incidence	Total	104/150 (69.33%)	Mean 69.33%	SD 6.43%	Total	100/149 (67.11%)	Mean 67.16%	SD 8.12%
.....								
*Pituitary Gland: Pars Distalis or Unspecified Site:								
Carcinoma								
		0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	0/49 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	2/149 (1.34%)	Mean 1.33%	SD 2.31%
.....								

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male			Female			
*Pituitary Gland: Pars Distalis or Unspecified Site:								
 Carcinoma or Adenoma								
		37/50 (74%)	31/50 (62%)	37/50 (74%)	35/50 (70%)	31/50 (62%)	36/49 (73%)	
Overall Incidence	Total	105/150 (70%)	Mean 70%	SD 6.93%	Total	102/149 (68.46%)	Mean 68.49%	SD 5.88%
.....								
*Pituitary Gland: Pars Distalis or Unspecified Site:								
 Ganglioneuroma								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/149 (0%)	Mean 0%	SD 0%
.....								
*Pituitary Gland: Pars Intermedia:								
 Adenoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/149 (0%)	Mean 0%	SD 0%
.....								
*Pituitary Gland: Pars Intermedia:								
 Carcinoma or Adenoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/149 (0%)	Mean 0%	SD 0%
.....								
*Pituitary Gland: Pars Nervosa:								
 Craniopharyngioma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/149 (0%)	Mean 0%	SD 0%
.....								
*Prostate:								
 Adenoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)				
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%				

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male			Female		
*Prostate:							
 Carcinoma or Adenoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)			
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%			
.....							
*Salivary Glands:							
 Carcinoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
*Salivary Glands:							
 Carcinoma or Adenoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
*Salivary Glands:							
 Sarcoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
*Salivary Glands:							
 Schwannoma Malignant							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
#Seminal Vesicle:							
 Adenoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)			
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%			

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

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male				Female					
#Skeletal Muscle:											
Fibrous Histiocytoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Skeletal Muscle:											
Hemangiosarcoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Skeletal Muscle:											
Rhabdomyosarcoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Skeletal Muscle:											
Rhabdomyosarcoma or Rhabdomyoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Skin:											
Basal Cell Adenoma											
		0/50	(0%)	0/50	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Skin:											
Basal Cell Adenoma or Basosquamous Tumor Benign											
		0/50	(0%)	0/50	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	Total	0/150	(0%)	Mean 0%	SD 0%	

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male				Female			
#Skin:									
Basal Cell Adenoma, Basosquamous Tumor Benign, or Trichoepithelioma									
		0/50 (0%)	0/50 (0%)	1/50 (2%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
#Skin:									
Basal Cell Carcinoma									
		0/50 (0%)	1/50 (2%)	3/50 (6%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	4/150 (2.67%)	Mean 2.67%	SD 3.06%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
#Skin:									
Basal Cell Carcinoma or Basosquamous Tumor (malignant or NOS)									
		0/50 (0%)	1/50 (2%)	3/50 (6%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	4/150 (2.67%)	Mean 2.67%	SD 3.06%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
#Skin:									
Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma									
		0/50 (0%)	1/50 (2%)	4/50 (8%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	5/150 (3.33%)	Mean 3.33%	SD 4.16%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
#Skin:									
Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma									
		1/50 (2%)	1/50 (2%)	5/50 (10%)		1/50 (2%)	1/50 (2%)	1/50 (2%)	
Overall Incidence	Total	7/150 (4.67%)	Mean 4.67%	SD 4.62%	Total	3/150 (2%)	Mean 2%	SD 0%	
.....									
#Skin:									
Fibroma									
		3/50 (6%)	1/50 (2%)	3/50 (6%)		2/50 (4%)	1/50 (2%)	0/50 (0%)	
Overall Incidence	Total	7/150 (4.67%)	Mean 4.67%	SD 2.31%	Total	3/150 (2%)	Mean 2%	SD 2%	

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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	Male					Female				
#Skin:										
Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma										
		3/50 (6%)	2/50 (4%)	6/50 (12%)		2/50 (4%)	1/50 (2%)	0/50 (0%)		
Overall Incidence	Total	11/150 (7.33%)	Mean 7.33%	SD 4.16%	Total	3/150 (2%)	Mean 2%	SD 2%		
.....										
#Skin:										
Fibrosarcoma										
		0/50 (0%)	0/50 (0%)	3/50 (6%)		0/50 (0%)	0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	3/150 (2%)	Mean 2%	SD 3.46%	Total	0/150 (0%)	Mean 0%	SD 0%		
.....										
#Skin:										
Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma										
		0/50 (0%)	1/50 (2%)	3/50 (6%)		0/50 (0%)	0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	4/150 (2.67%)	Mean 2.67%	SD 3.06%	Total	0/150 (0%)	Mean 0%	SD 0%		
.....										
#Skin:										
Fibrous Histiocytoma										
		0/50 (0%)	1/50 (2%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%		
.....										
#Skin:										
Hemangioma										
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%		
.....										
#Skin:										
Hemangiosarcoma										
		0/50 (0%)	0/50 (0%)	1/50 (2%)		0/50 (0%)	0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%		

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

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male			Female			
#Skin:								
Keratoacanthoma								
		0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%
.....								
#Skin:								
Lipoma								
		2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	2/150 (1.33%)	Mean 1.33%	SD 2.31%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#Skin:								
Liposarcoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#Skin:								
Neural Crest Tumor								
		1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
.....								
#Skin:								
Neural Crest Tumor, Malignant								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#Skin:								
Neurofibroma or Schwannoma benign								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
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		Male			Female		
#Skin:							
Neurofibrosarcoma or Schwannoma (malignant or NOS)							
		0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
#Skin:							
Neurofibrosarcoma, Neurofibroma, or Schwannoma (benign, malignant or NOS)							
		0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
#Skin:							
Sarcoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
#Skin:							
Schwannoma Benign							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
#Skin:							
Schwannoma Malignant							
		0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
#Skin:							
Squamous Cell Carcinoma							
		1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/150 (0.67%)	Mean 0.67% SD 1.15%

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

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: INHALATION
 Vehicle: AIR

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		Male			Female			
#Skin:								
Squamous Cell Carcinoma, Basal Cell Carcinoma, Basosquamous Tumor (malignant or NOS), or Carcinoma								
Overall Incidence	Total	1/50 (2%) 5/150 (3.33%)	1/50 (2%) Mean 3.33%	3/50 (6%) SD 2.31%	Total	0/50 (0%) 1/150 (0.67%)	0/50 (0%) Mean 0.67%	1/50 (2%) SD 1.15%
#Skin:								
Squamous Cell Papilloma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
#Skin:								
Squamous Cell Papilloma or Papilloma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
#Skin:								
Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma								
Overall Incidence	Total	1/50 (2%) 2/150 (1.33%)	0/50 (0%) Mean 1.33%	1/50 (2%) SD 1.15%	Total	1/50 (2%) 3/150 (2%)	1/50 (2%) Mean 2%	1/50 (2%) SD 0%
#Skin:								
Squamous Cell Papilloma, Papilloma, or Keratoacanthoma								
Overall Incidence	Total	0/50 (0%) 1/150 (0.67%)	0/50 (0%) Mean 0.67%	1/50 (2%) SD 1.15%	Total	1/50 (2%) 2/150 (1.33%)	1/50 (2%) Mean 1.33%	0/50 (0%) SD 1.15%
#Skin:								
Trichoepithelioma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%

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

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
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		Male				Female					
#Skin: Sebaceous Gland:											
Adenoma											
		0/50	(0%)	1/50	(2%)	2/50	(4%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	3/150	(2%)	Mean 2%		SD 2%		Total	0/150	(0%)	Mean 0%
											SD 0%
.....											
#Skin: Sebaceous Gland:											
Carcinoma or Adenoma											
		0/50	(0%)	1/50	(2%)	2/50	(4%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	3/150	(2%)	Mean 2%		SD 2%		Total	0/150	(0%)	Mean 0%
											SD 0%
.....											
#Spinal Cord:											
Astrocytoma Benign											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%		SD 0%		Total	0/150	(0%)	Mean 0%
											SD 0%
.....											
#Spinal Cord:											
Astrocytoma Malignant											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%		SD 0%		Total	0/150	(0%)	Mean 0%
											SD 0%
.....											
#Spinal Cord:											
Glioma Malignant											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%		SD 0%		Total	0/150	(0%)	Mean 0%
											SD 0%
.....											
*Spleen:											
Fibrosarcoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%		SD 0%		Total	0/150	(0%)	Mean 0%
											SD 0%

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

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male				Female					
*Spleen:											
Fibrous Histiocytoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
*Spleen:											
Hemangiosarcoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
*Spleen:											
Leiomyosarcoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
*Spleen:											
Sarcoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Stomach, Forestomach:											
Leiomyosarcoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Stomach, Forestomach:											
Squamous Cell Carcinoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
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Vehicle: AIR

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		Male				Female					
#Stomach, Forestomach:											
Squamous Cell Carcinoma or Papilloma Squamous											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Stomach, Forestomach:											
Squamous Cell Papilloma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Stomach, Glandular:											
Carcinoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Stomach, Glandular:											
Carcinoma or Adenoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Stomach, Glandular:											
Lipoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Stomach, Glandular:											
Sarcoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	

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

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male			Female		
*Testes:							
Adenoma							
		34/50 (68%)	36/50 (72%)	29/50 (58%)			
Overall Incidence	Total	99/150 (66%)	Mean 66%	SD 7.21%			
.....							
*Testes:							
Hemangioma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)			
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%			
.....							
*Thymus:							
Thymoma Benign							
		0/43 (0%)	0/44 (0%)	0/47 (0%)	1/46 (2%)	0/48 (0%)	0/44 (0%)
Overall Incidence	Total	0/134 (0%)	Mean 0%	SD 0%	Total 1/138 (0.72%)	Mean 0.72%	SD 1.26%
.....							
*Thymus:							
Thymoma Malignant							
		0/43 (0%)	0/44 (0%)	0/47 (0%)	0/46 (0%)	0/48 (0%)	0/44 (0%)
Overall Incidence	Total	0/134 (0%)	Mean 0%	SD 0%	Total 0/138 (0%)	Mean 0%	SD 0%
.....							
*Thymus:							
Thymoma NOS							
		0/43 (0%)	0/44 (0%)	0/47 (0%)	0/46 (0%)	1/48 (2%)	0/44 (0%)
Overall Incidence	Total	0/134 (0%)	Mean 0%	SD 0%	Total 1/138 (0.72%)	Mean 0.69%	SD 1.2%
.....							
*Thymus:							
Thymoma: Benign, Malignant, NOS							
		0/43 (0%)	0/44 (0%)	0/47 (0%)	1/46 (2%)	1/48 (2%)	0/44 (0%)
Overall Incidence	Total	0/134 (0%)	Mean 0%	SD 0%	Total 2/138 (1.45%)	Mean 1.42%	SD 1.23%

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

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male			Female			
*Thyroid Gland: C-Cell: Adenoma								
		5/50 (10%)	7/50 (14%)	5/50 (10%)	3/50 (6%)	4/50 (8%)	3/50 (6%)	
Overall Incidence	Total	17/150 (11.33%)	Mean 11.33%	SD 2.31%	Total	10/150 (6.67%)	Mean 6.67%	SD 1.15%
.....								
*Thyroid Gland: C-Cell: Carcinoma								
		4/50 (8%)	1/50 (2%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	7/150 (4.67%)	Mean 4.67%	SD 3.06%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
.....								
*Thyroid Gland: C-Cell: Carcinoma or Adenoma								
		9/50 (18%)	8/50 (16%)	6/50 (12%)	4/50 (8%)	4/50 (8%)	3/50 (6%)	
Overall Incidence	Total	23/150 (15.33%)	Mean 15.33%	SD 3.06%	Total	11/150 (7.33%)	Mean 7.33%	SD 1.15%
.....								
*Thyroid Gland: Follicular Cell: Adenoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Thyroid Gland: Follicular Cell: Carcinoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Thyroid Gland: Follicular Cell: Carcinoma or Adenoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male				Female					
#Tissue NOS:											
Paraganglioma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Tongue:											
Squamous Cell Carcinoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	1/50	(2%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	
.....											
#Tongue:											
Squamous Cell Carcinoma or Papilloma Squamous											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	1/50	(2%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	
.....											
#Tongue:											
Squamous Cell Papilloma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Tooth:											
Adamantinoma Malignant											
		0/50	(0%)	0/50	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Tooth:											
Odontoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	

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

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
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		Male				Female			
*Urinary Bladder:									
 Carcinoma									
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%
									SD 0%
.....									
*Urinary Bladder:									
 Carcinoma or Papilloma									
		0/50	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	Total	0/150	(0%)	Mean 0%
									SD 0%
.....									
*Urinary Bladder:									
 Hemangiosarcoma									
		0/50	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	Total	0/150	(0%)	Mean 0%
									SD 0%
.....									
*Urinary Bladder:									
 Papilloma									
		0/50	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	Total	0/150	(0%)	Mean 0%
									SD 0%
.....									
#Uterus:									
 Adenoma									
						0/50	(0%)	1/50	(2%)
Overall Incidence						Total	2/150	(1.33%)	Mean 1.33%
									SD 1.15%
.....									
#Uterus:									
 Carcinoma									
						0/50	(0%)	0/50	(0%)
Overall Incidence						Total	1/150	(0.67%)	Mean 0.67%
									SD 1.15%
.....									

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

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: INHALATION
 Vehicle: AIR

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	Male	Female
#Uterus: Deciduoma Benign		
Overall Incidence	Total 0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0% SD 0%
#Uterus: Leiomyosarcoma		
Overall Incidence	Total 0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0% SD 0%
#Uterus: Polyp Stromal		
Overall Incidence	Total 8/50 (16%) 22/150 (14.67%)	8/50 (16%) Mean 14.67% SD 2.31%
#Uterus: Sarcoma		
Overall Incidence	Total 0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0% SD 0%
#Uterus: Sarcoma Stromal		
Overall Incidence	Total 2/50 (4%) 2/150 (1.33%)	0/50 (0%) Mean 1.33% SD 2.31%
#Uterus: Sarcoma Stromal or Polyp Stromal		
Overall Incidence	Total 10/50 (20%) 24/150 (16%)	8/50 (16%) Mean 16% SD 4%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

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 Tumor Incidence for Selected Control Animal Groups
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		Male			Female		
#Uterus:							
Schwannoma Malignant							
			0/50 (0%)		0/50 (0%)	0/50 (0%)	
Overall Incidence		Total	0/150 (0%)		Mean 0%	SD 0%	
.....							
#Vagina:							
Polyp							
			0/50 (0%)		0/50 (0%)	0/50 (0%)	
Overall Incidence		Total	0/150 (0%)		Mean 0%	SD 0%	
.....							
#Vagina:							
Sarcoma							
			1/50 (2%)		0/50 (0%)	0/50 (0%)	
Overall Incidence		Total	1/150 (0.67%)		Mean 0.67%	SD 1.15%	
.....							
#Vagina:							
Schwannoma Malignant							
			0/50 (0%)		0/50 (0%)	0/50 (0%)	
Overall Incidence		Total	0/150 (0%)		Mean 0%	SD 0%	
.....							
#Zymbal's Gland:							
Adenoma							
		0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	2/150 (1.33%)	Mean 1.33%	SD 2.31%	Total	0/150 (0%)	Mean 0%
.....							
#Zymbal's Gland:							
Carcinoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	2/150 (1.33%)	Mean 1.33%
.....							

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: F 344/N
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: INHALATION
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		Male				Female								
#Zymbal's Gland:														
Carcinoma or Adenoma														
		0/50	(0%)	2/50	(4%)	0/50	(0%)	1/50	(2%)	0/50	(0%)	1/50	(2%)	
Overall Incidence	Total	2/150 (1.33%)		Mean	1.33%	SD	2.31%	Total	2/150 (1.33%)		Mean	1.33%	SD	1.15%

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