



National Toxicology Program  
Department of Health and Human Services

# NTP Historical Controls Report

By Route and Vehicle

Wistar Han RATS

November 2014

# REPORT DESCRIPTION

This report shows the tumor rates of control group animals from selected studies. The studies used are shown on the Study Summary page.

This report is broken up into sections based on the route and vehicle used to deliver the chemical. The Table of Contents on Page 3 shows the different Route/Vehicle combinations. To see the data from all routes and vehicles combined into one set, you must run the "All Routes" report.

The individual tumor rates shown on the data pages of the report relate to the Study Summary page as follows: the tumor rates are shown in the same order as the Study Summary page, except that they are grouped horizontally in sets of three, with the males in the first set of three and the females in the second set. For example if the study summary showed the studies like this:

**Male**

M1

M2

M3

M4

M5

**Female**

F1

F2

F3

F4

F5

the data would be shown as:

<b>Male</b>			<b>Female</b>		
M1	M2	M3	F1	F2	F3
M4	M5		F4	F5	

Directly beneath the individual tumor rates on the data pages are the overall totals for that tumor/site combination. This includes the total tumors/animals, the overall mean (in parentheses), the mean of the study means, and the standard deviation of the study means.

Studies with no control animals of a particular gender are listed on the summary page with the Number of Animals shown as zero and the Start Date and Length of Study shown as "N/A". On the data pages there are blank spaces where tumor rates for these studies would normally be found, so that the male and female rates for the remaining studies can be easily compared.

# Table of Contents

Route	Vehicle	Page Number
GAVAGE	CORN OIL	4
GAVAGE	WATER	33
INHALATION	AIR	62

Version: Nov2014  
Contract/Lab: All Laboratories  
Species: RATS  
Strain: Wistar Han  
Length of Study: CHRONIC

**Toxicology Data Management System**  
Tumor Incidence for Selected Control Animal Groups  
Route: GAVAGE  
Vehicle: CORN OIL

Page: 4  
Report Date: 11/11/2014

**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
<b>Male</b>							
Southern Research Institute	052020903	08/26/08	729	49(3)	36(671)	673.4	Pentabromodiphenyl oxide (technical) (DE 71)
Battelle Columbus Laboratory	052032003	07/25/07	727	50(3)	33(642)	662.9	Tetrabromobisphenol A
<b>Female</b>							
Southern Research Institute	052020903	08/26/08	732	50(5)	37(678)	389.6	Pentabromodiphenyl oxide (technical) (DE 71)
Battelle Columbus Laboratory	052032003	07/26/07	728	50(5)	34(678)	375.2	Tetrabromobisphenol A

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 5  
 Report Date: 11/11/2014

		Male			Female		
<b>#All Organs:</b>							
<b>Benign Tumors</b>							
		33/49 (67%)	30/50 (60%)		37/50 (74%)	38/50 (76%)	
<b>Overall Incidence</b>	Total	63/99 (63.64%)	Mean 63.67%	SD 5.2%	Total	75/100 (75%)	Mean 75% SD 1.41%
.....							
<b>#All Organs:</b>							
<b>Malignant Tumors</b>							
		13/49 (27%)	8/50 (16%)		10/50 (20%)	10/50 (20%)	
<b>Overall Incidence</b>	Total	21/99 (21.21%)	Mean 21.27%	SD 7.45%	Total	20/100 (20%)	Mean 20% SD 0%
.....							
<b>#All Organs:</b>							
<b>Malignant and Benign Tumors</b>							
		36/49 (73%)	34/50 (68%)		40/50 (80%)	40/50 (80%)	
<b>Overall Incidence</b>	Total	70/99 (70.71%)	Mean 70.73%	SD 3.87%	Total	80/100 (80%)	Mean 80% SD 0%
.....							
<b>#All Organs:</b>							
<b>Hemangioma</b>							
		1/49 (2%)	1/50 (2%)		0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	2/99 (2.02%)	Mean 2.02%	SD 0.03%	Total	0/100 (0%)	Mean 0% SD 0%
.....							
<b>#All Organs:</b>							
<b>Hemangiosarcoma</b>							
		8/49 (16%)	3/50 (6%)		2/50 (4%)	2/50 (4%)	
<b>Overall Incidence</b>	Total	11/99 (11.11%)	Mean 11.16%	SD 7.3%	Total	4/100 (4%)	Mean 4% SD 0%
.....							
<b>#All Organs:</b>							
<b>Hemangiosarcoma or Hemangioma</b>							
		9/49 (18%)	4/50 (8%)		2/50 (4%)	2/50 (4%)	
<b>Overall Incidence</b>	Total	13/99 (13.13%)	Mean 13.18%	SD 7.33%	Total	4/100 (4%)	Mean 4% SD 0%

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

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 6  
 Report Date: 11/11/2014

		Male				Female			
<b>#All Organs:</b>									
<b>Histiocytic Sarcoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
<b>#All Organs:</b>									
<b>Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated</b>									
		1/49	(2%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	2/99	(2.02%)	Mean 2.02%	SD 0.03%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
<b>#All Organs:</b>									
<b>Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
<b>#All Organs:</b>									
<b>Mesothelioma: Benign, Malignant, NOS</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
<b>#All Organs:</b>									
<b>Mesothelioma: Malignant</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
<b>#All Organs:</b>									
<b>Osteoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%

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

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 7  
 Report Date: 11/11/2014

		Male				Female				
<b>#All Organs:</b>										
<b>Osteosarcoma</b>										
		0/49	(0%)	0/50	(0%)	1/50	(2%)	0/50	(0%)	
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	1/100	(1%)	Mean 1%	SD 1.41%
.....										
<b>#All Organs:</b>										
<b>Osteosarcoma or Osteoma</b>										
		0/49	(0%)	0/50	(0%)	1/50	(2%)	0/50	(0%)	
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	1/100	(1%)	Mean 1%	SD 1.41%
.....										
<b>*Adrenal Cortex:</b>										
<b>Adenoma</b>										
		0/49	(0%)	0/50	(0%)	1/50	(2%)	1/50	(2%)	
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	2/100	(2%)	Mean 2%	SD 0%
.....										
<b>*Adrenal Cortex:</b>										
<b>Carcinoma</b>										
		1/49	(2%)	0/50	(0%)	0/50	(0%)	1/50	(2%)	
<b>Overall Incidence</b>	Total	1/99	(1.01%)	Mean 1.02%	SD 1.44%	Total	1/100	(1%)	Mean 1%	SD 1.41%
.....										
<b>*Adrenal Medulla:</b>										
<b>Pheochromocytoma Benign</b>										
		0/49	(0%)	0/49	(0%)	1/50	(2%)	2/49	(4%)	
<b>Overall Incidence</b>	Total	0/98	(0%)	Mean 0%	SD 0%	Total	3/99	(3.03%)	Mean 3.04%	SD 1.47%
.....										
<b>*Adrenal Medulla:</b>										
<b>Pheochromocytoma Complex</b>										
		0/49	(0%)	0/49	(0%)	1/50	(2%)	0/49	(0%)	
<b>Overall Incidence</b>	Total	0/98	(0%)	Mean 0%	SD 0%	Total	1/99	(1.01%)	Mean 1%	SD 1.41%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 8  
 Report Date: 11/11/2014

		Male				Female				
<b>*Adrenal Medulla:</b>										
<b>Pheochromocytoma Malignant</b>										
		1/49	(2%)	0/49	(0%)	0/50	(0%)	0/49	(0%)	
<b>Overall Incidence</b>	Total	1/98	(1.02%)	Mean 1.02%	SD 1.44%	Total	0/99	(0%)	Mean 0%	SD 0%
.....										
<b>*Adrenal Medulla:</b>										
<b>Pheochromocytoma: Benign, Complex, Malignant, NOS</b>										
		1/49	(2%)	0/49	(0%)	2/50	(4%)	2/49	(4%)	
<b>Overall Incidence</b>	Total	1/98	(1.02%)	Mean 1.02%	SD 1.44%	Total	4/99	(4.04%)	Mean 4.04%	SD 0.06%
.....										
<b>#Blood Vessel:</b>										
<b>Hemangiosarcoma</b>										
		0/49	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)	
<b>Overall Incidence</b>	Total	1/99	(1.01%)	Mean 1%	SD 1.41%	Total	0/100	(0%)	Mean 0%	SD 0%
.....										
<b>*Bone Marrow:</b>										
<b>Hemangiosarcoma</b>										
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%	SD 0%
.....										
<b>#Bone:</b>										
<b>Osteoma</b>										
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%	SD 0%
.....										
<b>#Bone:</b>										
<b>Osteosarcoma</b>										
		0/49	(0%)	0/50	(0%)	1/50	(2%)	0/50	(0%)	
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	1/100	(1%)	Mean 1%	SD 1.41%

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



Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 9  
 Report Date: 11/11/2014

		Male				Female			
<b>#Bone:</b>									
<b>Osteosarcoma or Osteoma</b>									
		0/49	(0%)	0/50	(0%)	1/50	(2%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	1/100	(1%)	Mean 1% SD 1.41%
.....									
<b>#Bone:</b>									
<b>Sarcoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
<b>*Brain:</b>									
<b>Glioma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
<b>*Brain:</b>									
<b>Glioma Malignant</b>									
		1/49	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	1/99	(1.01%)	Mean 1.02%	SD 1.44%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
<b>*Brain:</b>									
<b>Granular Cell Tumor Benign</b>									
		1/49	(2%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	2/99	(2.02%)	Mean 2.02%	SD 0.03%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
<b>*Brain:</b>									
<b>Granular Cell Tumor Malignant</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 10  
 Report Date: 11/11/2014

		Male			Female		
<b>*Brain:</b>							
<b>Meningioma Malignant</b>							
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0% SD 0%
.....							
<b>*Brain:</b>							
<b>Meningioma: Benign, Malignant, NOS</b>							
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0% SD 0%
.....							
<b>*Brain:</b>							
<b>Oligodendroglioma, Glioma, or Astrocytoma</b>							
		1/49 (2%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	0/100 (0%)	Mean 0% SD 0%
.....							
<b>*Clitoral/Preputial Gland:</b>							
<b>Carcinoma</b>							
		1/49 (2%)	0/50 (0%)		0/49 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	0/99 (0%)	Mean 0% SD 0%
.....							
<b>*Clitoral/Preputial Gland:</b>							
<b>Carcinoma or Adenoma</b>							
		1/49 (2%)	0/50 (0%)		0/49 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	0/99 (0%)	Mean 0% SD 0%
.....							
<b>*Heart:</b>							
<b>Schwannoma Benign</b>							
		0/49 (0%)	0/50 (0%)		0/50 (0%)	1/50 (2%)	
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	1/100 (1%)	Mean 1% SD 1.41%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 11  
 Report Date: 11/11/2014

		Male				Female			
<b>*Heart:</b>									
<b>Schwannoma NOS</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
									SD 0%
-----									
<b>#Intestine Small: Duodenum:</b>									
<b>Fibroma</b>									
		1/49	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	1/99	(1.01%)	Mean 1.02%	SD 1.44%	Total	0/100	(0%)	Mean 0%
									SD 0%
-----									
<b>#Intestine Small: Duodenum:</b>									
<b>Leiomyosarcoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	1/50	(2%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	1/100	(1%)	Mean 1%
									SD 1.41%
-----									
<b>#Intestine Small: Jejunum:</b>									
<b>Leiomyoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
									SD 0%
-----									
<b>#Intestine Small: Jejunum:</b>									
<b>Leiomyosarcoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
									SD 0%
-----									
<b>#Intestine Small: Site Unspecified:</b>									
<b>Fibroma</b>									
		1/49	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	1/99	(1.01%)	Mean 1.02%	SD 1.44%	Total	0/100	(0%)	Mean 0%
									SD 0%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 12  
 Report Date: 11/11/2014

		Male				Female			
<b>#Intestine Small: Site Unspecified:</b>									
<b>Leiomyoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
									SD 0%
-----									
<b>#Intestine Small: Site Unspecified:</b>									
<b>Leiomyosarcoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	1/50	(2%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	1/100	(1%)	Mean 1%
									SD 1.41%
-----									
<b>*Islets, Pancreatic:</b>									
<b>Adenoma</b>									
		4/49	(8%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	5/99	(5.05%)	Mean 5.08%	SD 4.36%	Total	0/100	(0%)	Mean 0%
									SD 0%
-----									
<b>*Islets, Pancreatic:</b>									
<b>Carcinoma</b>									
		2/49	(4%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	2/99	(2.02%)	Mean 2.04%	SD 2.89%	Total	0/100	(0%)	Mean 0%
									SD 0%
-----									
<b>*Islets, Pancreatic:</b>									
<b>Carcinoma or Adenoma</b>									
		6/49	(12%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	7/99	(7.07%)	Mean 7.12%	SD 7.24%	Total	0/100	(0%)	Mean 0%
									SD 0%
-----									
<b>*Kidney: Pelvis and Transitional Epithelium:</b>									
<b>Papilloma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
									SD 0%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 13  
 Report Date: 11/11/2014

		Male				Female			
<b>*Kidney: Renal Tubule: Adenoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
<b>*Kidney: Renal Tubule: Carcinoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
<b>*Kidney: Renal Tubule: Carcinoma or Adenoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
<b>*Kidney: Renal Tubule: Lipoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
<b>*Kidney: Renal Tubule: Liposarcoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
<b>*Liver: Hepatocellular Adenoma</b>									
		3/49	(6%)	0/50	(0%)	3/50	(6%)	1/50	(2%)
<b>Overall Incidence</b>	Total	3/99	(3.03%)	Mean 3.06%	SD 4.33%	Total	4/100	(4%)	Mean 4% SD 2.83%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 14  
 Report Date: 11/11/2014

	Male				Female			
<b>*Liver:</b>								
<b>Hepatocellular Carcinoma or Hepatocellular Adenoma</b>								
		3/49 (6%)	0/50 (0%)		3/50 (6%)	1/50 (2%)		
<b>Overall Incidence</b>	Total	3/99 (3.03%)	Mean 3.06%	SD 4.33%	Total	4/100 (4%)	Mean 4%	SD 2.83%
.....								
<b>*Liver:</b>								
<b>Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma</b>								
		3/49 (6%)	0/50 (0%)		3/50 (6%)	1/50 (2%)		
<b>Overall Incidence</b>	Total	3/99 (3.03%)	Mean 3.06%	SD 4.33%	Total	4/100 (4%)	Mean 4%	SD 2.83%
.....								
<b>*Lung:</b>								
<b>Alveolar/Bronchiolar Adenoma</b>								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
<b>*Lung:</b>								
<b>Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma</b>								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
<b>#Lymph Node:</b>								
<b>Hemangioma</b>								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
<b>#Lymph Node, Mesenteric:</b>								
<b>Hemangioma</b>								
		1/49 (2%)	1/50 (2%)		0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	2/99 (2.02%)	Mean 2.02%	SD 0.03%	Total	0/100 (0%)	Mean 0%	SD 0%

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

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 15  
 Report Date: 11/11/2014

	Male				Female			
<b>#Lymph Node, Mesenteric: Hemangiosarcoma</b>								
Overall Incidence	Total	7/49 (14%) 8/99 (8.08%)	1/50 (2%) Mean 8.14%	SD 8.69%	Total	2/50 (4%) 3/100 (3%)	1/50 (2%) Mean 3%	SD 1.41%
<b>#Mammary Gland: Adenoma</b>								
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 4/100 (4%)	4/50 (8%) Mean 4%	SD 5.66%
<b>#Mammary Gland: Carcinoma</b>								
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	1/50 (2%) 2/100 (2%)	1/50 (2%) Mean 2%	SD 0%
<b>#Mammary Gland: Carcinoma or Adenoma</b>								
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	1/50 (2%) 5/100 (5%)	4/50 (8%) Mean 5%	SD 4.24%
<b>#Mammary Gland: Fibroadenoma</b>								
Overall Incidence	Total	0/49 (0%) 1/99 (1.01%)	1/50 (2%) Mean 1%	SD 1.41%	Total	9/50 (18%) 17/100 (17%)	8/50 (16%) Mean 17%	SD 1.41%
<b>#Mammary Gland: Fibroma, Fibroadenoma or Adenoma</b>								
Overall Incidence	Total	0/49 (0%) 1/99 (1.01%)	1/50 (2%) Mean 1%	SD 1.41%	Total	9/50 (18%) 21/100 (21%)	12/50 (24%) Mean 21%	SD 4.24%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 16  
 Report Date: 11/11/2014

	Male				Female			
<b>#Mammary Gland:</b>								
<b>Fibroma, Fibroadenoma, Carcinoma, or Adenoma</b>								
		0/49 (0%)	1/50 (2%)		10/50 (20%)	12/50 (24%)		
<b>Overall Incidence</b>	Total	1/99 (1.01%)	Mean 1%	SD 1.41%	Total	22/100 (22%)	Mean 22%	SD 2.83%
.....								
<b>#Mesentery:</b>								
<b>Hemangiosarcoma</b>								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
<b>#Mesentery:</b>								
<b>Lipoma</b>								
		1/49 (2%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
<b>#Mesentery:</b>								
<b>Schwannoma Malignant</b>								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
<b>*Nose:</b>								
<b>Chondroma</b>								
		0/49 (0%)	0/50 (0%)		1/50 (2%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	1/100 (1%)	Mean 1%	SD 1.41%
.....								
<b>*Nose:</b>								
<b>Olfactory Neuroblastoma</b>								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	1/50 (2%)		
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	1/100 (1%)	Mean 1%	SD 1.41%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied



Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 17  
 Report Date: 11/11/2014

	Male				Female			
<b>#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma</b>								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
<b>#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma</b>								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
<b>#Oral Mucosa: Squamous Cell Carcinoma</b>								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
<b>*Ovary: Adenoma</b>								
					0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>					Total	0/100 (0%)	Mean 0%	SD 0%
.....								
<b>*Ovary: Cystadenoma</b>								
					0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>					Total	0/100 (0%)	Mean 0%	SD 0%
.....								
<b>*Ovary: Granulosa Cell Tumor Benign</b>								
					1/50 (2%)	0/50 (0%)		
<b>Overall Incidence</b>					Total	1/100 (1%)	Mean 1%	SD 1.41%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 18  
 Report Date: 11/11/2014

Male					Female									
<b>*Ovary:</b>														
<b>Granulosa Cell Tumor Malignant</b>														
					1/50	(2%)			1/50	(2%)				
<b>Overall Incidence</b>					Total	2/100	(2%)	Mean	2%	SD 0%				
.....														
<b>*Ovary:</b>														
<b>Granulosa Cell Tumor: Benign, Malignant, NOS</b>														
					2/50	(4%)			1/50	(2%)				
<b>Overall Incidence</b>					Total	3/100	(3%)	Mean	3%	SD 1.41%				
.....														
<b>*Ovary:</b>														
<b>Sex Cord Stromal Tumor, Benign</b>														
					0/50	(0%)			2/50	(4%)				
<b>Overall Incidence</b>					Total	2/100	(2%)	Mean	2%	SD 2.83%				
.....														
<b>*Ovary:</b>														
<b>Tubulostromal Adenoma</b>														
					0/50	(0%)			0/50	(0%)				
<b>Overall Incidence</b>					Total	0/100	(0%)	Mean	0%	SD 0%				
.....														
<b>*Pancreas:</b>														
<b>Adenoma</b>														
		1/46	(2%)	1/50	(2%)			0/50	(0%)	0/50	(0%)			
<b>Overall Incidence</b>	Total	2/96	(2.08%)	Mean	2.09%	SD	0.12%	Total	0/100	(0%)	Mean	0%	SD	0%
.....														
<b>*Pancreas:</b>														
<b>Carcinoma or Adenoma</b>														
		1/46	(2%)	1/50	(2%)			0/50	(0%)	0/50	(0%)			
<b>Overall Incidence</b>	Total	2/96	(2.08%)	Mean	2.09%	SD	0.12%	Total	0/100	(0%)	Mean	0%	SD	0%

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

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 19  
 Report Date: 11/11/2014

		Male			Female			
<b>*Parathyroid Gland:</b>								
<b>Adenoma</b>								
		2/47 (4%)	0/45 (0%)		1/49 (2%)	0/48 (0%)		
<b>Overall Incidence</b>	Total	2/92 (2.17%)	Mean 2.13%	SD 3.01%	Total	1/97 (1.03%)	Mean 1.02%	SD 1.44%
.....								
<b>*Pituitary Gland: Pars Distalis or Unspecified Site:</b>								
<b>Adenoma</b>								
		19/49 (39%)	21/50 (42%)		23/50 (46%)	21/50 (42%)		
<b>Overall Incidence</b>	Total	40/99 (40.4%)	Mean 40.39%	SD 2.28%	Total	44/100 (44%)	Mean 44%	SD 2.83%
.....								
<b>*Pituitary Gland: Pars Distalis or Unspecified Site:</b>								
<b>Carcinoma</b>								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
<b>*Pituitary Gland: Pars Distalis or Unspecified Site:</b>								
<b>Carcinoma or Adenoma</b>								
		19/49 (39%)	21/50 (42%)		23/50 (46%)	21/50 (42%)		
<b>Overall Incidence</b>	Total	40/99 (40.4%)	Mean 40.39%	SD 2.28%	Total	44/100 (44%)	Mean 44%	SD 2.83%
.....								
<b>*Pituitary Gland: Pars Intermedia:</b>								
<b>Adenoma</b>								
		0/49 (0%)	2/50 (4%)		1/50 (2%)	4/50 (8%)		
<b>Overall Incidence</b>	Total	2/99 (2.02%)	Mean 2%	SD 2.83%	Total	5/100 (5%)	Mean 5%	SD 4.24%
.....								
<b>*Pituitary Gland: Pars Intermedia:</b>								
<b>Carcinoma or Adenoma</b>								
		0/49 (0%)	2/50 (4%)		1/50 (2%)	4/50 (8%)		
<b>Overall Incidence</b>	Total	2/99 (2.02%)	Mean 2%	SD 2.83%	Total	5/100 (5%)	Mean 5%	SD 4.24%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 20  
 Report Date: 11/11/2014

		Male				Female			
<b>*Prostate:</b>									
<b>Adenoma</b>									
		0/49	(0%)	0/50	(0%)				
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%				
.....									
<b>*Prostate:</b>									
<b>Carcinoma or Adenoma</b>									
		0/49	(0%)	0/50	(0%)				
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%				
.....									
<b>*Salivary Glands:</b>									
<b>Adenoma</b>									
		1/46	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	1/96	(1.04%)	Mean 1.09%	SD 1.54%	Total 0/100	(0%)	Mean 0%	SD 0%
.....									
<b>*Salivary Glands:</b>									
<b>Carcinoma</b>									
		0/46	(0%)	0/50	(0%)	1/50	(2%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/96	(0%)	Mean 0%	SD 0%	Total 1/100	(1%)	Mean 1%	SD 1.41%
.....									
<b>*Salivary Glands:</b>									
<b>Carcinoma or Adenoma</b>									
		1/46	(2%)	0/50	(0%)	1/50	(2%)	0/50	(0%)
<b>Overall Incidence</b>	Total	1/96	(1.04%)	Mean 1.09%	SD 1.54%	Total 1/100	(1%)	Mean 1%	SD 1.41%
.....									
<b>*Salivary Glands:</b>									
<b>Myoepithelioma</b>									
		0/46	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	1/96	(1.04%)	Mean 1%	SD 1.41%	Total 0/100	(0%)	Mean 0%	SD 0%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 21  
 Report Date: 11/11/2014

		Male				Female				
<b>*Salivary Glands:</b>										
<b>Schwannoma Malignant</b>										
		0/46	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	
<b>Overall Incidence</b>	Total	0/96	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%	SD 0%
.....										
<b>#Seminal Vesicle:</b>										
<b>Adenoma</b>										
		0/49	(0%)	0/50	(0%)					
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%					
.....										
<b>#Skeletal Muscle:</b>										
<b>Hemangiosarcoma</b>										
		1/49	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	
<b>Overall Incidence</b>	Total	1/99	(1.01%)	Mean 1.02%	SD 1.44%	Total	0/100	(0%)	Mean 0%	SD 0%
.....										
<b>#Skeletal Muscle:</b>										
<b>Sarcoma</b>										
		0/49	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)	
<b>Overall Incidence</b>	Total	1/99	(1.01%)	Mean 1%	SD 1.41%	Total	0/100	(0%)	Mean 0%	SD 0%
.....										
<b>#Skin:</b>										
<b>Basal Cell Adenoma</b>										
		1/49	(2%)	2/50	(4%)	1/50	(2%)	0/50	(0%)	
<b>Overall Incidence</b>	Total	3/99	(3.03%)	Mean 3.02%	SD 1.39%	Total	1/100	(1%)	Mean 1%	SD 1.41%
.....										
<b>#Skin:</b>										
<b>Basal Cell Adenoma or Basosquamous Tumor Benign</b>										
		1/49	(2%)	2/50	(4%)	1/50	(2%)	0/50	(0%)	
<b>Overall Incidence</b>	Total	3/99	(3.03%)	Mean 3.02%	SD 1.39%	Total	1/100	(1%)	Mean 1%	SD 1.41%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 22  
 Report Date: 11/11/2014

	Male					Female								
<b>#Skin:</b>														
<b>Basal Cell Adenoma, Basosquamous Tumor Benign, or Trichoepithelioma</b>														
		1/49	(2%)	2/50	(4%)			1/50	(2%)	0/50	(0%)			
<b>Overall Incidence</b>	Total	3/99 (3.03%)		Mean	3.02%	SD	1.39%	Total	1/100 (1%)		Mean	1%	SD	1.41%
.....														
<b>#Skin:</b>														
<b>Basal Cell Carcinoma</b>														
		0/49	(0%)	1/50	(2%)			0/50	(0%)	0/50	(0%)			
<b>Overall Incidence</b>	Total	1/99 (1.01%)		Mean	1%	SD	1.41%	Total	0/100 (0%)		Mean	0%	SD	0%
.....														
<b>#Skin:</b>														
<b>Basal Cell Carcinoma or Basosquamous Tumor (malignant or NOS)</b>														
		0/49	(0%)	1/50	(2%)			0/50	(0%)	0/50	(0%)			
<b>Overall Incidence</b>	Total	1/99 (1.01%)		Mean	1%	SD	1.41%	Total	0/100 (0%)		Mean	0%	SD	0%
.....														
<b>#Skin:</b>														
<b>Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma</b>														
		1/49	(2%)	2/50	(4%)			1/50	(2%)	0/50	(0%)			
<b>Overall Incidence</b>	Total	3/99 (3.03%)		Mean	3.02%	SD	1.39%	Total	1/100 (1%)		Mean	1%	SD	1.41%
.....														
<b>#Skin:</b>														
<b>Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma</b>														
		3/49	(6%)	7/50	(14%)			1/50	(2%)	0/50	(0%)			
<b>Overall Incidence</b>	Total	10/99 (10.1%)		Mean	10.06%	SD	5.57%	Total	1/100 (1%)		Mean	1%	SD	1.41%
.....														
<b>#Skin:</b>														
<b>Fibroma</b>														
		1/49	(2%)	0/50	(0%)			0/50	(0%)	0/50	(0%)			
<b>Overall Incidence</b>	Total	1/99 (1.01%)		Mean	1.02%	SD	1.44%	Total	0/100 (0%)		Mean	0%	SD	0%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 23  
 Report Date: 11/11/2014

	Male					Female				
<b>#Skin:</b>										
<b>Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma</b>										
		1/49 (2%)	0/50 (0%)			0/50 (0%)	0/50 (0%)			
<b>Overall Incidence</b>	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	0/100 (0%)	Mean 0%	SD 0%		
.....										
<b>#Skin:</b>										
<b>Fibrosarcoma</b>										
		0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)			
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%		
.....										
<b>#Skin:</b>										
<b>Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma</b>										
		0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)			
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%		
.....										
<b>#Skin:</b>										
<b>Hamartoma</b>										
		0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)			
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%		
.....										
<b>#Skin:</b>										
<b>Hemangiosarcoma</b>										
		0/49 (0%)	0/50 (0%)			0/50 (0%)	1/50 (2%)			
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	1/100 (1%)	Mean 1%	SD 1.41%		
.....										
<b>#Skin:</b>										
<b>Keratoacanthoma</b>										
		2/49 (4%)	4/50 (8%)			0/50 (0%)	0/50 (0%)			
<b>Overall Incidence</b>	Total	6/99 (6.06%)	Mean 6.04%	SD 2.77%	Total	0/100 (0%)	Mean 0%	SD 0%		

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 24  
 Report Date: 11/11/2014

		Male				Female					
<b>#Skin:</b>											
Lipoma											
		0/49	(0%)	0/50	(0%)			0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%	SD 0%	
.....											
<b>#Skin:</b>											
Liposarcoma											
		0/49	(0%)	0/50	(0%)			0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%	SD 0%	
.....											
<b>#Skin:</b>											
Neurofibrosarcoma or Schwannoma (malignant or NOS)											
		0/49	(0%)	2/50	(4%)			0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	2/99	(2.02%)	Mean 2%	SD 2.83%	Total	0/100	(0%)	Mean 0%	SD 0%	
.....											
<b>#Skin:</b>											
Neurofibrosarcoma, Neurofibroma, or Schwannoma (benign, malignant or NOS)											
		0/49	(0%)	2/50	(4%)			0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	2/99	(2.02%)	Mean 2%	SD 2.83%	Total	0/100	(0%)	Mean 0%	SD 0%	
.....											
<b>#Skin:</b>											
Schwannoma Malignant											
		0/49	(0%)	2/50	(4%)			0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	2/99	(2.02%)	Mean 2%	SD 2.83%	Total	0/100	(0%)	Mean 0%	SD 0%	
.....											
<b>#Skin:</b>											
Squamous Cell Carcinoma											
		0/49	(0%)	0/50	(0%)			0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%	SD 0%	

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied



Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 25  
 Report Date: 11/11/2014

	Male					Female				
<b>#Skin:</b>										
<b>Squamous Cell Carcinoma, Basal Cell Carcinoma, Basosquamous Tumor (malignant or NOS), or Carcinoma</b>										
<b>Overall Incidence</b>	Total	0/49 (0%)	1/50 (2%)	Mean 1%	SD 1.41%	Total	0/50 (0%)	0/50 (0%)	Mean 0%	SD 0%
		1/99 (1.01%)					0/100 (0%)			
<b>#Skin:</b>										
<b>Squamous Cell Papilloma</b>										
<b>Overall Incidence</b>	Total	0/49 (0%)	1/50 (2%)	Mean 1%	SD 1.41%	Total	0/50 (0%)	0/50 (0%)	Mean 0%	SD 0%
		1/99 (1.01%)					0/100 (0%)			
<b>#Skin:</b>										
<b>Squamous Cell Papilloma or Papilloma</b>										
<b>Overall Incidence</b>	Total	0/49 (0%)	1/50 (2%)	Mean 1%	SD 1.41%	Total	0/50 (0%)	0/50 (0%)	Mean 0%	SD 0%
		1/99 (1.01%)					0/100 (0%)			
<b>#Skin:</b>										
<b>Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma</b>										
<b>Overall Incidence</b>	Total	2/49 (4%)	5/50 (10%)	Mean 7.04%	SD 4.18%	Total	0/50 (0%)	0/50 (0%)	Mean 0%	SD 0%
		7/99 (7.07%)					0/100 (0%)			
<b>#Skin:</b>										
<b>Squamous Cell Papilloma, Papilloma, or Keratoacanthoma</b>										
<b>Overall Incidence</b>	Total	2/49 (4%)	5/50 (10%)	Mean 7.04%	SD 4.18%	Total	0/50 (0%)	0/50 (0%)	Mean 0%	SD 0%
		7/99 (7.07%)					0/100 (0%)			
<b>#Skin: Sebaceous Gland:</b>										
<b>Adenoma</b>										
<b>Overall Incidence</b>	Total	0/49 (0%)	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	0/50 (0%)	Mean 0%	SD 0%
		0/99 (0%)					0/100 (0%)			

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

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 26  
 Report Date: 11/11/2014

		Male				Female			
<b>#Skin: Sebaceous Gland:</b>									
<b>Carcinoma or Adenoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
.....									
<b>*Spleen:</b>									
<b>Hemangiosarcoma</b>									
		1/47	(2%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	2/97	(2.06%)	Mean 2.06%	SD 0.09%	Total	0/100	(0%)	Mean 0%
.....									
<b>#Stomach, Forestomach:</b>									
<b>Fibrosarcoma</b>									
		1/49	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	1/99	(1.01%)	Mean 1.02%	SD 1.44%	Total	0/100	(0%)	Mean 0%
.....									
<b>#Stomach, Forestomach:</b>									
<b>Leiomyoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
.....									
<b>#Stomach, Forestomach:</b>									
<b>Leiomyosarcoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
.....									
<b>#Stomach, Forestomach:</b>									
<b>Sarcoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 27  
 Report Date: 11/11/2014

		Male				Female			
<b>#Stomach, Forestomach:</b>									
<b>Squamous Cell Carcinoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
									SD 0%
.....									
<b>#Stomach, Forestomach:</b>									
<b>Squamous Cell Carcinoma or Papilloma Squamous</b>									
		1/49	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	1/99	(1.01%)	Mean 1.02%	SD 1.44%	Total	0/100	(0%)	Mean 0%
									SD 0%
.....									
<b>#Stomach, Forestomach:</b>									
<b>Squamous Cell Papilloma</b>									
		1/49	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	1/99	(1.01%)	Mean 1.02%	SD 1.44%	Total	0/100	(0%)	Mean 0%
									SD 0%
.....									
<b>#Stomach, Glandular:</b>									
<b>Fibrosarcoma</b>									
		1/49	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	1/99	(1.01%)	Mean 1.02%	SD 1.44%	Total	0/100	(0%)	Mean 0%
									SD 0%
.....									
<b>#Stomach, Glandular:</b>									
<b>Leiomyosarcoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	1/50	(2%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	1/100	(1%)	Mean 1%
									SD 1.41%
.....									
<b>#Stomach, Glandular:</b>									
<b>Sarcoma</b>									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
									SD 0%

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

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 28  
 Report Date: 11/11/2014

		Male				Female			
<b>*Testes:</b>									
<b>Adenoma</b>									
		2/49	(4%)	0/50	(0%)				
<b>Overall Incidence</b>	Total	2/99	(2.02%)	Mean 2.04%	SD 2.89%				
.....									
<b>*Testes:</b>									
<b>Hemangiosarcoma</b>									
		0/49	(0%)	0/50	(0%)				
<b>Overall Incidence</b>	Total	0/99	(0%)	Mean 0%	SD 0%				
.....									
<b>*Thymus:</b>									
<b>Sarcoma</b>									
		0/45	(0%)	0/49	(0%)	0/50	(0%)	1/50	(2%)
<b>Overall Incidence</b>	Total	0/94	(0%)	Mean 0%	SD 0%	Total 1/100	(1%)	Mean 1%	SD 1.41%
.....									
<b>*Thymus:</b>									
<b>Thymoma Benign</b>									
		0/45	(0%)	1/49	(2%)	0/50	(0%)	1/50	(2%)
<b>Overall Incidence</b>	Total	1/94	(1.06%)	Mean 1.02%	SD 1.44%	Total 1/100	(1%)	Mean 1%	SD 1.41%
.....									
<b>*Thymus:</b>									
<b>Thymoma: Benign, Malignant, NOS</b>									
		0/45	(0%)	1/49	(2%)	0/50	(0%)	1/50	(2%)
<b>Overall Incidence</b>	Total	1/94	(1.06%)	Mean 1.02%	SD 1.44%	Total 1/100	(1%)	Mean 1%	SD 1.41%
.....									
<b>*Thyroid Gland:</b>									
<b>Carcinoma</b>									
		0/45	(0%)	0/50	(0%)	0/45	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/95	(0%)	Mean 0%	SD 0%	Total 0/95	(0%)	Mean 0%	SD 0%
.....									

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 29  
 Report Date: 11/11/2014

		Male			Female		
<b>*Thyroid Gland: C-Cell: Adenoma</b>							
		11/45 (24%)	5/50 (10%)		7/45 (16%)	7/50 (14%)	
<b>Overall Incidence</b>	Total	16/95 (16.84%)	Mean 17.22%	SD 10.21%	Total	14/95 (14.74%)	Mean 14.78% SD 1.1%
.....							
<b>*Thyroid Gland: C-Cell: Carcinoma</b>							
		0/45 (0%)	0/50 (0%)		0/45 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/95 (0%)	Mean 0%	SD 0%	Total	0/95 (0%)	Mean 0% SD 0%
.....							
<b>*Thyroid Gland: C-Cell: Carcinoma or Adenoma</b>							
		11/45 (24%)	5/50 (10%)		7/45 (16%)	7/50 (14%)	
<b>Overall Incidence</b>	Total	16/95 (16.84%)	Mean 17.22%	SD 10.21%	Total	14/95 (14.74%)	Mean 14.78% SD 1.1%
.....							
<b>*Thyroid Gland: Follicular Cell: Adenoma</b>							
		1/45 (2%)	3/50 (6%)		1/45 (2%)	3/50 (6%)	
<b>Overall Incidence</b>	Total	4/95 (4.21%)	Mean 4.11%	SD 2.67%	Total	4/95 (4.21%)	Mean 4.11% SD 2.67%
.....							
<b>*Thyroid Gland: Follicular Cell: Carcinoma</b>							
		0/45 (0%)	0/50 (0%)		0/45 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/95 (0%)	Mean 0%	SD 0%	Total	0/95 (0%)	Mean 0% SD 0%
.....							
<b>*Thyroid Gland: Follicular Cell: Carcinoma or Adenoma</b>							
		1/45 (2%)	3/50 (6%)		1/45 (2%)	3/50 (6%)	
<b>Overall Incidence</b>	Total	4/95 (4.21%)	Mean 4.11%	SD 2.67%	Total	4/95 (4.21%)	Mean 4.11% SD 2.67%

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

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 30  
 Report Date: 11/11/2014

	Male					Female					
<b>*Urinary Bladder: Carcinoma or Papilloma</b>											
		0/49	(0%)	1/50	(2%)		0/50	(0%)	1/50	(2%)	
<b>Overall Incidence</b>	Total	1/99 (1.01%)		Mean	1%	SD	1.41%		Total	1/100 (1%)	
				Mean	1%	SD	1.41%				
<b>*Urinary Bladder: Papilloma</b>											
		0/49	(0%)	1/50	(2%)		0/50	(0%)	1/50	(2%)	
<b>Overall Incidence</b>	Total	1/99 (1.01%)		Mean	1%	SD	1.41%		Total	1/100 (1%)	
				Mean	1%	SD	1.41%				
<b>#Uterus: Adenoma</b>											
							1/50	(2%)	0/50	(0%)	
<b>Overall Incidence</b>	Total			Mean	1%	SD	1.41%		Total	1/100 (1%)	
				Mean	1%	SD	1.41%				
<b>#Uterus: Carcinoma</b>											
							1/50	(2%)	3/50	(6%)	
<b>Overall Incidence</b>	Total			Mean	4%	SD	2.83%		Total	4/100 (4%)	
				Mean	4%	SD	2.83%				
<b>#Uterus: Granular Cell Tumor Benign</b>											
							1/50	(2%)	0/50	(0%)	
<b>Overall Incidence</b>	Total			Mean	1%	SD	1.41%		Total	1/100 (1%)	
				Mean	1%	SD	1.41%				
<b>#Uterus: Hemangiosarcoma</b>											
							0/50	(0%)	0/50	(0%)	
<b>Overall Incidence</b>	Total			Mean	0%	SD	0%		Total	0/100 (0%)	
				Mean	0%	SD	0%				

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 31  
 Report Date: 11/11/2014

	Male	Female
<b>#Uterus:</b> Leiomyosarcoma		
Overall Incidence	Total 0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0% SD 0%
<b>#Uterus:</b> Malignant Mixed Mullerian Tumor		
Overall Incidence	Total 1/50 (2%) 1/100 (1%)	0/50 (0%) Mean 1% SD 1.41%
<b>#Uterus:</b> Polyp Stromal		
Overall Incidence	Total 3/50 (6%) 5/100 (5%)	2/50 (4%) Mean 5% SD 1.41%
<b>#Uterus:</b> Sarcoma Stromal		
Overall Incidence	Total 0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0% SD 0%
<b>#Uterus:</b> Sarcoma Stromal or Polyp Stromal		
Overall Incidence	Total 3/50 (6%) 5/100 (5%)	2/50 (4%) Mean 5% SD 1.41%
<b>#Uterus:</b> Schwannoma Malignant		
Overall Incidence	Total 1/50 (2%) 1/100 (1%)	0/50 (0%) Mean 1% SD 1.41%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: GAVAGE  
 Vehicle: CORN OIL

Page: 32  
 Report Date: 11/11/2014

				Male					Female
<b>#Uterus:</b>									
<b>Squamous Cell Papilloma</b>									
					0/50 (0%)		0/50 (0%)		
<b>Overall Incidence</b>				Total	0/100 (0%)		Mean 0%		SD 0%
.....									
<b>#Vagina:</b>									
<b>Fibrosarcoma</b>									
					0/50 (0%)		0/50 (0%)		
<b>Overall Incidence</b>				Total	0/100 (0%)		Mean 0%		SD 0%
.....									
<b>#Vagina:</b>									
<b>Leiomyoma</b>									
					0/50 (0%)		1/50 (2%)		
<b>Overall Incidence</b>				Total	1/100 (1%)		Mean 1%		SD 1.41%
.....									
<b>#Vagina:</b>									
<b>Polyp</b>									
					0/50 (0%)		0/50 (0%)		
<b>Overall Incidence</b>				Total	0/100 (0%)		Mean 0%		SD 0%
.....									
<b>#Zymbal's Gland:</b>									
<b>Carcinoma</b>									
		0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%	
.....									
<b>#Zymbal's Gland:</b>									
<b>Carcinoma or Adenoma</b>									
		0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%	

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied



Version: Nov2014  
Contract/Lab: All Laboratories  
Species: RATS  
Strain: Wistar Han  
Length of Study: CHRONIC

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

Page: 33  
Report Date: 11/11/2014

### 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	052020303	07/18/07	727	50(3)	35(687)	632.7	Green tea extract
Female							
Battelle Columbus Laboratory	052020303	07/19/07	729	50(5)	26(671)	369.7	Green tea extract

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 34  
 Report Date: 11/11/2014

	Male				Female			
<b>#All Organs:</b>								
<b>Benign Tumors</b>								
		26/50 (52%)			38/50 (76%)			
<b>Overall Incidence</b>	Total	26/50 (52%)	Mean 52%	SD 0%	Total	38/50 (76%)	Mean 76%	SD 0%
.....								
<b>#All Organs:</b>								
<b>Malignant Tumors</b>								
		12/50 (24%)			16/50 (32%)			
<b>Overall Incidence</b>	Total	12/50 (24%)	Mean 24%	SD 0%	Total	16/50 (32%)	Mean 32%	SD 0%
.....								
<b>#All Organs:</b>								
<b>Malignant and Benign Tumors</b>								
		36/50 (72%)			43/50 (86%)			
<b>Overall Incidence</b>	Total	36/50 (72%)	Mean 72%	SD 0%	Total	43/50 (86%)	Mean 86%	SD 0%
.....								
<b>#All Organs:</b>								
<b>Hemangioma</b>								
		0/50 (0%)			0/50 (0%)			
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
<b>#All Organs:</b>								
<b>Hemangiosarcoma</b>								
		0/50 (0%)			2/50 (4%)			
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	2/50 (4%)	Mean 4%	SD 0%
.....								
<b>#All Organs:</b>								
<b>Hemangiosarcoma or Hemangioma</b>								
		0/50 (0%)			2/50 (4%)			
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	2/50 (4%)	Mean 4%	SD 0%
.....								

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 35  
 Report Date: 11/11/2014

		Male			Female		
<b>#All Organs:</b>							
<b>Histiocytic Sarcoma</b>							
		0/50 (0%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>#All Organs:</b>							
<b>Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated</b>							
		0/50 (0%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>#All Organs:</b>							
<b>Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type</b>							
		0/50 (0%)			1/50 (2%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2% SD 0%
.....							
<b>#All Organs:</b>							
<b>Mesothelioma: Benign, Malignant, NOS</b>							
		2/50 (4%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>#All Organs:</b>							
<b>Mesothelioma: Malignant</b>							
		2/50 (4%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>#All Organs:</b>							
<b>Osteoma</b>							
		1/50 (2%)			0/50 (0%)		
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 36  
 Report Date: 11/11/2014

	Male				Female			
<b>#All Organs:</b>								
<b>Osteosarcoma</b>								
		1/50	(2%)			0/50	(0%)	
<b>Overall Incidence</b>	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
<b>#All Organs:</b>								
<b>Osteosarcoma or Osteoma</b>								
		2/50	(4%)			0/50	(0%)	
<b>Overall Incidence</b>	Total	2/50	(4%)	Mean 4%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
<b>*Adrenal Cortex:</b>								
<b>Adenoma</b>								
		1/50	(2%)			0/50	(0%)	
<b>Overall Incidence</b>	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
<b>*Adrenal Cortex:</b>								
<b>Carcinoma</b>								
		0/50	(0%)			0/50	(0%)	
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
<b>*Adrenal Medulla:</b>								
<b>Pheochromocytoma Benign</b>								
		1/50	(2%)			1/50	(2%)	
<b>Overall Incidence</b>	Total	1/50	(2%)	Mean 2%	SD 0%	Total	1/50	(2%)
							Mean 2%	SD 0%
.....								
<b>*Adrenal Medulla:</b>								
<b>Pheochromocytoma Complex</b>								
		0/50	(0%)			0/50	(0%)	
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 37  
 Report Date: 11/11/2014

		Male			Female		
<b>*Adrenal Medulla:</b>							
<b>Pheochromocytoma Malignant</b>							
		0/50 (0%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>*Adrenal Medulla:</b>							
<b>Pheochromocytoma: Benign, Complex, Malignant, NOS</b>							
		1/50 (2%)			1/50 (2%)		
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	1/50 (2%)	Mean 2% SD 0%
.....							
<b>#Blood Vessel:</b>							
<b>Hemangiosarcoma</b>							
		0/50 (0%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>*Bone Marrow:</b>							
<b>Hemangiosarcoma</b>							
		0/50 (0%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>#Bone:</b>							
<b>Osteoma</b>							
		1/50 (2%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>#Bone:</b>							
<b>Osteosarcoma</b>							
		1/50 (2%)			0/50 (0%)		
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 38  
 Report Date: 11/11/2014

		Male			Female		
<b>#Bone:</b>							
<b>Osteosarcoma or Osteoma</b>							
		2/50 (4%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>#Bone:</b>							
<b>Sarcoma</b>							
		1/50 (2%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>*Brain:</b>							
<b>Glioma</b>							
		0/50 (0%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>*Brain:</b>							
<b>Glioma Malignant</b>							
		1/50 (2%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>*Brain:</b>							
<b>Granular Cell Tumor Benign</b>							
		2/50 (4%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>*Brain:</b>							
<b>Granular Cell Tumor Malignant</b>							
		0/50 (0%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 39  
 Report Date: 11/11/2014

		Male			Female		
<b>*Brain:</b>							
<b>Meningioma Malignant</b>							
		0/50	(0%)		0/50	(0%)	
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%
.....							
<b>*Brain:</b>							
<b>Meningioma: Benign, Malignant, NOS</b>							
		0/50	(0%)		0/50	(0%)	
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%
.....							
<b>*Brain:</b>							
<b>Oligodendroglioma, Glioma, or Astrocytoma</b>							
		1/50	(2%)		0/50	(0%)	
<b>Overall Incidence</b>	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%
.....							
<b>*Clitoral/Preputial Gland:</b>							
<b>Carcinoma</b>							
		1/50	(2%)		0/49	(0%)	
<b>Overall Incidence</b>	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/49 (0%)
							Mean 0%
							SD 0%
.....							
<b>*Clitoral/Preputial Gland:</b>							
<b>Carcinoma or Adenoma</b>							
		1/50	(2%)		0/49	(0%)	
<b>Overall Incidence</b>	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/49 (0%)
							Mean 0%
							SD 0%
.....							
<b>*Heart:</b>							
<b>Schwannoma Benign</b>							
		0/50	(0%)		0/50	(0%)	
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 40  
 Report Date: 11/11/2014

		Male			Female		
<b>*Heart:</b>							
<b>Schwannoma NOS</b>							
		0/50	(0%)		0/50	(0%)	
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
.....							
<b>#Intestine Small: Duodenum:</b>							
<b>Fibroma</b>							
		0/50	(0%)		0/50	(0%)	
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
.....							
<b>#Intestine Small: Duodenum:</b>							
<b>Leiomyosarcoma</b>							
		0/50	(0%)		0/50	(0%)	
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
.....							
<b>#Intestine Small: Jejunum:</b>							
<b>Leiomyoma</b>							
		0/50	(0%)		0/50	(0%)	
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
.....							
<b>#Intestine Small: Jejunum:</b>							
<b>Leiomyosarcoma</b>							
		0/50	(0%)		1/50	(2%)	
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50 (2%)
.....							
<b>#Intestine Small: Site Unspecified:</b>							
<b>Fibroma</b>							
		0/50	(0%)		0/50	(0%)	
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 41  
 Report Date: 11/11/2014

		Male				Female			
<b>#Intestine Small: Site Unspecified:</b>									
<b>Leiomyoma</b>									
		0/50	(0%)			0/50	(0%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
<b>#Intestine Small: Site Unspecified:</b>									
<b>Leiomyosarcoma</b>									
		0/50	(0%)			1/50	(2%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50	(2%)	Mean 2% SD 0%
.....									
<b>*Islets, Pancreatic:</b>									
<b>Adenoma</b>									
		0/50	(0%)			0/50	(0%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
<b>*Islets, Pancreatic:</b>									
<b>Carcinoma</b>									
		0/50	(0%)			0/50	(0%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
<b>*Islets, Pancreatic:</b>									
<b>Carcinoma or Adenoma</b>									
		0/50	(0%)			0/50	(0%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
<b>*Kidney: Pelvis and Transitional Epithelium:</b>									
<b>Papilloma</b>									
		0/50	(0%)			0/50	(0%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 42  
 Report Date: 11/11/2014

		Male				Female			
<b>*Kidney: Renal Tubule: Adenoma</b>									
		0/50	(0%)			0/50	(0%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	0/50	(0%)	Mean 0%	SD 0%
.....									
<b>*Kidney: Renal Tubule: Carcinoma</b>									
		0/50	(0%)			0/50	(0%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	0/50	(0%)	Mean 0%	SD 0%
.....									
<b>*Kidney: Renal Tubule: Carcinoma or Adenoma</b>									
		0/50	(0%)			0/50	(0%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	0/50	(0%)	Mean 0%	SD 0%
.....									
<b>*Kidney: Renal Tubule: Lipoma</b>									
		0/50	(0%)			1/50	(2%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	1/50	(2%)	Mean 2%	SD 0%
.....									
<b>*Kidney: Renal Tubule: Liposarcoma</b>									
		1/50	(2%)			0/50	(0%)		
<b>Overall Incidence</b>	Total	1/50	(2%)	Mean 2%	SD 0%	0/50	(0%)	Mean 0%	SD 0%
.....									
<b>*Liver: Hepatocellular Adenoma</b>									
		0/50	(0%)			1/50	(2%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	1/50	(2%)	Mean 2%	SD 0%

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

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 43  
 Report Date: 11/11/2014

	Male				Female			
<b>*Liver:</b>								
<b>Hepatocellular Carcinoma or Hepatocellular Adenoma</b>								
		0/50 (0%)			1/50 (2%)			
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
.....								
<b>*Liver:</b>								
<b>Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma</b>								
		0/50 (0%)			1/50 (2%)			
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
.....								
<b>*Lung:</b>								
<b>Alveolar/Bronchiolar Adenoma</b>								
		0/50 (0%)			0/50 (0%)			
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
<b>*Lung:</b>								
<b>Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma</b>								
		0/50 (0%)			0/50 (0%)			
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
<b>#Lymph Node:</b>								
<b>Hemangioma</b>								
		0/50 (0%)			0/50 (0%)			
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
<b>#Lymph Node, Mesenteric:</b>								
<b>Hemangioma</b>								
		0/50 (0%)			0/50 (0%)			
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 44  
 Report Date: 11/11/2014

		Male				Female			
<b>#Lymph Node, Mesenteric:</b>									
<b>Hemangiosarcoma</b>									
		0/50	(0%)			1/50	(2%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50	(2%)	Mean 2% SD 0%
.....									
<b>#Mammary Gland:</b>									
<b>Adenoma</b>									
		0/50	(0%)			2/50	(4%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	2/50	(4%)	Mean 4% SD 0%
.....									
<b>#Mammary Gland:</b>									
<b>Carcinoma</b>									
		0/50	(0%)			6/50	(12%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	6/50	(12%)	Mean 12% SD 0%
.....									
<b>#Mammary Gland:</b>									
<b>Carcinoma or Adenoma</b>									
		0/50	(0%)			8/50	(16%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	8/50	(16%)	Mean 16% SD 0%
.....									
<b>#Mammary Gland:</b>									
<b>Fibroadenoma</b>									
		0/50	(0%)			11/50	(22%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	11/50	(22%)	Mean 22% SD 0%
.....									
<b>#Mammary Gland:</b>									
<b>Fibroma, Fibroadenoma or Adenoma</b>									
		0/50	(0%)			11/50	(22%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	11/50	(22%)	Mean 22% SD 0%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 45  
 Report Date: 11/11/2014

	Male				Female				
<b>#Mammary Gland:</b>									
Fibroma, Fibroadenoma, Carcinoma, or Adenoma									
		0/50	(0%)			15/50	(30%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	15/50 (30%)	Mean 30%	SD 0%
.....									
<b>#Mesentery:</b>									
Hemangiosarcoma									
		0/50	(0%)			1/50	(2%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
.....									
<b>#Mesentery:</b>									
Lipoma									
		0/50	(0%)			0/50	(0%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....									
<b>#Mesentery:</b>									
Schwannoma Malignant									
		1/50	(2%)			0/50	(0%)		
<b>Overall Incidence</b>	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....									
<b>*Nose:</b>									
Chondroma									
		0/50	(0%)			0/49	(0%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/49 (0%)	Mean 0%	SD 0%
.....									
<b>*Nose:</b>									
Olfactory Neuroblastoma									
		0/50	(0%)			0/49	(0%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/49 (0%)	Mean 0%	SD 0%
.....									

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 46  
 Report Date: 11/11/2014

	Male				Female			
<b>#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma</b>								
		1/50 (2%)			1/50 (2%)			
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
.....								
<b>#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma</b>								
		1/50 (2%)			1/50 (2%)			
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
.....								
<b>#Oral Mucosa: Squamous Cell Carcinoma</b>								
		1/50 (2%)			1/50 (2%)			
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
.....								
<b>*Ovary: Adenoma</b>								
					0/50 (0%)			
<b>Overall Incidence</b>					Total	0/50 (0%)	Mean 0%	SD 0%
.....								
<b>*Ovary: Cystadenoma</b>								
					0/50 (0%)			
<b>Overall Incidence</b>					Total	0/50 (0%)	Mean 0%	SD 0%
.....								
<b>*Ovary: Granulosa Cell Tumor Benign</b>								
					0/50 (0%)			
<b>Overall Incidence</b>					Total	0/50 (0%)	Mean 0%	SD 0%

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

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 47  
 Report Date: 11/11/2014

Male					Female					
<b>*Ovary:</b>										
<b>Granulosa Cell Tumor Malignant</b>										
					0/50 (0%)					
<b>Overall Incidence</b>					Total		0/50 (0%)		Mean 0%    SD 0%	
.....										
<b>*Ovary:</b>										
<b>Granulosa Cell Tumor: Benign, Malignant, NOS</b>										
					0/50 (0%)					
<b>Overall Incidence</b>					Total		0/50 (0%)		Mean 0%    SD 0%	
.....										
<b>*Ovary:</b>										
<b>Sex Cord Stromal Tumor, Benign</b>										
					0/50 (0%)					
<b>Overall Incidence</b>					Total		0/50 (0%)		Mean 0%    SD 0%	
.....										
<b>*Ovary:</b>										
<b>Tubulostromal Adenoma</b>										
					0/50 (0%)					
<b>Overall Incidence</b>					Total		0/50 (0%)		Mean 0%    SD 0%	
.....										
<b>*Pancreas:</b>										
<b>Adenoma</b>										
					0/50 (0%)					
<b>Overall Incidence</b>					Total		0/50 (0%)		Mean 0%    SD 0%	
.....										
<b>*Pancreas:</b>										
<b>Carcinoma or Adenoma</b>										
					0/50 (0%)					
<b>Overall Incidence</b>					Total		0/50 (0%)		Mean 0%    SD 0%	
.....										

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

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 48  
 Report Date: 11/11/2014

		Male			Female		
<b>*Parathyroid Gland:</b>							
<b>Adenoma</b>							
		0/47 (0%)			0/47 (0%)		
<b>Overall Incidence</b>	Total	0/47 (0%)	Mean 0%	SD 0%	Total	0/47 (0%)	Mean 0% SD 0%
.....							
<b>*Pituitary Gland: Pars Distalis or Unspecified Site:</b>							
<b>Adenoma</b>							
		17/50 (34%)			32/50 (64%)		
<b>Overall Incidence</b>	Total	17/50 (34%)	Mean 34%	SD 0%	Total	32/50 (64%)	Mean 64% SD 0%
.....							
<b>*Pituitary Gland: Pars Distalis or Unspecified Site:</b>							
<b>Carcinoma</b>							
		0/50 (0%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>*Pituitary Gland: Pars Distalis or Unspecified Site:</b>							
<b>Carcinoma or Adenoma</b>							
		17/50 (34%)			32/50 (64%)		
<b>Overall Incidence</b>	Total	17/50 (34%)	Mean 34%	SD 0%	Total	32/50 (64%)	Mean 64% SD 0%
.....							
<b>*Pituitary Gland: Pars Intermedia:</b>							
<b>Adenoma</b>							
		1/50 (2%)			2/50 (4%)		
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	2/50 (4%)	Mean 4% SD 0%
.....							
<b>*Pituitary Gland: Pars Intermedia:</b>							
<b>Carcinoma or Adenoma</b>							
		1/50 (2%)			2/50 (4%)		
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	2/50 (4%)	Mean 4% SD 0%

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



Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 49  
 Report Date: 11/11/2014

		Male				Female			
<b>*Prostate:</b>									
<b>Adenoma</b>									
		0/50	(0%)						
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%				
.....									
<b>*Prostate:</b>									
<b>Carcinoma or Adenoma</b>									
		0/50	(0%)						
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%				
.....									
<b>*Salivary Glands:</b>									
<b>Adenoma</b>									
		0/50	(0%)			0/49	(0%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	0/49	(0%)	Mean 0%	SD 0%
.....									
<b>*Salivary Glands:</b>									
<b>Carcinoma</b>									
		0/50	(0%)			0/49	(0%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	0/49	(0%)	Mean 0%	SD 0%
.....									
<b>*Salivary Glands:</b>									
<b>Carcinoma or Adenoma</b>									
		0/50	(0%)			0/49	(0%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	0/49	(0%)	Mean 0%	SD 0%
.....									
<b>*Salivary Glands:</b>									
<b>Myoepithelioma</b>									
		0/50	(0%)			0/49	(0%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	0/49	(0%)	Mean 0%	SD 0%

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

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 50  
 Report Date: 11/11/2014

		Male			Female		
<b>*Salivary Glands:</b>							
<b>Schwannoma Malignant</b>							
		0/50	(0%)		0/49	(0%)	
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/49 (0%)
							Mean 0%
							SD 0%
.....							
<b>#Seminal Vesicle:</b>							
<b>Adenoma</b>							
		0/50	(0%)				
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%		
.....							
<b>#Skeletal Muscle:</b>							
<b>Hemangiosarcoma</b>							
		0/50	(0%)		0/50	(0%)	
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%
.....							
<b>#Skeletal Muscle:</b>							
<b>Sarcoma</b>							
		0/50	(0%)		0/50	(0%)	
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%
.....							
<b>#Skin:</b>							
<b>Basal Cell Adenoma</b>							
		2/50	(4%)		0/50	(0%)	
<b>Overall Incidence</b>	Total	2/50	(4%)	Mean 4%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%
.....							
<b>#Skin:</b>							
<b>Basal Cell Adenoma or Basosquamous Tumor Benign</b>							
		2/50	(4%)		0/50	(0%)	
<b>Overall Incidence</b>	Total	2/50	(4%)	Mean 4%	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 51  
 Report Date: 11/11/2014

	Male				Female			
<b>#Skin:</b>								
<b>Basal Cell Adenoma, Basosquamous Tumor Benign, or Trichoepithelioma</b>								
		2/50	(4%)			0/50	(0%)	
<b>Overall Incidence</b>	Total	2/50	(4%)	Mean 4%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
<b>Basal Cell Carcinoma</b>								
		0/50	(0%)			0/50	(0%)	
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
<b>Basal Cell Carcinoma or Basosquamous Tumor (malignant or NOS)</b>								
		0/50	(0%)			0/50	(0%)	
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
<b>Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma</b>								
		2/50	(4%)			0/50	(0%)	
<b>Overall Incidence</b>	Total	2/50	(4%)	Mean 4%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
<b>Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma</b>								
		6/50	(12%)			0/50	(0%)	
<b>Overall Incidence</b>	Total	6/50	(12%)	Mean 12%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
<b>Fibroma</b>								
		1/50	(2%)			0/50	(0%)	
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 52  
 Report Date: 11/11/2014

	Male				Female			
<b>#Skin:</b>								
Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma								
		1/50 (2%)				0/50 (0%)		
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
Fibrosarcoma								
		0/50 (0%)				0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma								
		0/50 (0%)				0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
Hamartoma								
		1/50 (2%)				0/50 (0%)		
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
Hemangiosarcoma								
		0/50 (0%)				0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
Keratoacanthoma								
		2/50 (4%)				0/50 (0%)		
<b>Overall Incidence</b>	Total	2/50 (4%)	Mean 4%	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 53  
 Report Date: 11/11/2014

	Male				Female			
<b>#Skin:</b>								
Lipoma								
		1/50	(2%)			0/50	(0%)	
<b>Overall Incidence</b>	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
Liposarcoma								
		0/50	(0%)			0/50	(0%)	
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
Neurofibrosarcoma or Schwannoma (malignant or NOS)								
		2/50	(4%)			2/50	(4%)	
<b>Overall Incidence</b>	Total	2/50	(4%)	Mean 4%	SD 0%	Total	2/50	(4%)
							Mean 4%	SD 0%
.....								
<b>#Skin:</b>								
Neurofibrosarcoma, Neurofibroma, or Schwannoma (benign, malignant or NOS)								
		2/50	(4%)			2/50	(4%)	
<b>Overall Incidence</b>	Total	2/50	(4%)	Mean 4%	SD 0%	Total	2/50	(4%)
							Mean 4%	SD 0%
.....								
<b>#Skin:</b>								
Schwannoma Malignant								
		2/50	(4%)			2/50	(4%)	
<b>Overall Incidence</b>	Total	2/50	(4%)	Mean 4%	SD 0%	Total	2/50	(4%)
							Mean 4%	SD 0%
.....								
<b>#Skin:</b>								
Squamous Cell Carcinoma								
		1/50	(2%)			0/50	(0%)	
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 54  
 Report Date: 11/11/2014

	Male				Female			
<b>#Skin:</b>								
<b>Squamous Cell Carcinoma, Basal Cell Carcinoma, Basosquamous Tumor (malignant or NOS), or Carcinoma</b>								
		1/50	(2%)			0/50	(0%)	
<b>Overall Incidence</b>	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....								
<b>#Skin:</b>								
<b>Squamous Cell Papilloma</b>								
		1/50	(2%)			0/50	(0%)	
<b>Overall Incidence</b>	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....								
<b>#Skin:</b>								
<b>Squamous Cell Papilloma or Papilloma</b>								
		1/50	(2%)			0/50	(0%)	
<b>Overall Incidence</b>	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....								
<b>#Skin:</b>								
<b>Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma</b>								
		4/50	(8%)			0/50	(0%)	
<b>Overall Incidence</b>	Total	4/50	(8%)	Mean 8%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....								
<b>#Skin:</b>								
<b>Squamous Cell Papilloma, Papilloma, or Keratoacanthoma</b>								
		3/50	(6%)			0/50	(0%)	
<b>Overall Incidence</b>	Total	3/50	(6%)	Mean 6%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....								
<b>#Skin: Sebaceous Gland:</b>								
<b>Adenoma</b>								
		1/50	(2%)			0/50	(0%)	
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 55  
 Report Date: 11/11/2014

		Male			Female		
<b>#Skin: Sebaceous Gland:</b>							
<b>Carcinoma or Adenoma</b>							
		1/50 (2%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>*Spleen:</b>							
<b>Hemangiosarcoma</b>							
		0/50 (0%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>#Stomach, Forestomach:</b>							
<b>Fibrosarcoma</b>							
		0/50 (0%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>#Stomach, Forestomach:</b>							
<b>Leiomyoma</b>							
		0/50 (0%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>#Stomach, Forestomach:</b>							
<b>Leiomyosarcoma</b>							
		1/50 (2%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>#Stomach, Forestomach:</b>							
<b>Sarcoma</b>							
		0/50 (0%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 56  
 Report Date: 11/11/2014

		Male			Female		
<b>#Stomach, Forestomach:</b>							
<b>Squamous Cell Carcinoma</b>							
		0/50 (0%)			1/50 (2%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2% SD 0%
.....							
<b>#Stomach, Forestomach:</b>							
<b>Squamous Cell Carcinoma or Papilloma Squamous</b>							
		0/50 (0%)			1/50 (2%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2% SD 0%
.....							
<b>#Stomach, Forestomach:</b>							
<b>Squamous Cell Papilloma</b>							
		0/50 (0%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>#Stomach, Glandular:</b>							
<b>Fibrosarcoma</b>							
		0/50 (0%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>#Stomach, Glandular:</b>							
<b>Leiomyosarcoma</b>							
		0/50 (0%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>#Stomach, Glandular:</b>							
<b>Sarcoma</b>							
		0/50 (0%)			0/50 (0%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 57  
 Report Date: 11/11/2014

		Male				Female			
<b>*Testes:</b>									
<b>Adenoma</b>									
		2/50	(4%)						
<b>Overall Incidence</b>	Total	2/50	(4%)	Mean 4%	SD 0%				
.....									
<b>*Testes:</b>									
<b>Hemangiosarcoma</b>									
		0/50	(0%)						
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%				
.....									
<b>*Thymus:</b>									
<b>Sarcoma</b>									
		0/49	(0%)			0/49	(0%)		
<b>Overall Incidence</b>	Total	0/49	(0%)	Mean 0%	SD 0%	Total	0/49	(0%)	Mean 0% SD 0%
.....									
<b>*Thymus:</b>									
<b>Thymoma Benign</b>									
		2/49	(4%)			3/49	(6%)		
<b>Overall Incidence</b>	Total	2/49	(4.08%)	Mean 4.08%	SD 0%	Total	3/49	(6.12%)	Mean 6.12% SD 0%
.....									
<b>*Thymus:</b>									
<b>Thymoma: Benign, Malignant, NOS</b>									
		2/49	(4%)			3/49	(6%)		
<b>Overall Incidence</b>	Total	2/49	(4.08%)	Mean 4.08%	SD 0%	Total	3/49	(6.12%)	Mean 6.12% SD 0%
.....									
<b>*Thyroid Gland:</b>									
<b>Carcinoma</b>									
		0/50	(0%)			0/50	(0%)		
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 58  
 Report Date: 11/11/2014

		Male			Female		
<b>*Thyroid Gland: C-Cell: Adenoma</b>							
Overall Incidence	Total	4/50 (8%)	Mean 8%	SD 0%	Total	3/50 (6%)	Mean 6% SD 0%
.....							
<b>*Thyroid Gland: C-Cell: Carcinoma</b>							
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2% SD 0%
.....							
<b>*Thyroid Gland: C-Cell: Carcinoma or Adenoma</b>							
Overall Incidence	Total	4/50 (8%)	Mean 8%	SD 0%	Total	4/50 (8%)	Mean 8% SD 0%
.....							
<b>*Thyroid Gland: Follicular Cell: Adenoma</b>							
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2% SD 0%
.....							
<b>*Thyroid Gland: Follicular Cell: Carcinoma</b>							
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
<b>*Thyroid Gland: Follicular Cell: Carcinoma or Adenoma</b>							
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

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 59  
 Report Date: 11/11/2014

	Male				Female			
<b>*Urinary Bladder: Carcinoma or Papilloma</b>								
		0/50 (0%)			0/49 (0%)			
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/49 (0%)	Mean 0%	SD 0%
.....								
<b>*Urinary Bladder: Papilloma</b>								
		0/50 (0%)			0/49 (0%)			
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/49 (0%)	Mean 0%	SD 0%
.....								
<b>#Uterus: Adenoma</b>								
					0/50 (0%)			
<b>Overall Incidence</b>					Total	0/50 (0%)	Mean 0%	SD 0%
.....								
<b>#Uterus: Carcinoma</b>								
					3/50 (6%)			
<b>Overall Incidence</b>					Total	3/50 (6%)	Mean 6%	SD 0%
.....								
<b>#Uterus: Granular Cell Tumor Benign</b>								
					0/50 (0%)			
<b>Overall Incidence</b>					Total	0/50 (0%)	Mean 0%	SD 0%
.....								
<b>#Uterus: Hemangiosarcoma</b>								
					0/50 (0%)			
<b>Overall Incidence</b>					Total	0/50 (0%)	Mean 0%	SD 0%
.....								

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 60  
 Report Date: 11/11/2014

	Male		Female	
<b>#Uterus:</b> Leiomyosarcoma				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%
<b>#Uterus:</b> Malignant Mixed Mullerian Tumor				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%
<b>#Uterus:</b> Polyp Stromal				
Overall Incidence	Total	3/50 (6%)	Mean 6%	SD 0%
<b>#Uterus:</b> Sarcoma Stromal				
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%
<b>#Uterus:</b> Sarcoma Stromal or Polyp Stromal				
Overall Incidence	Total	4/50 (8%)	Mean 8%	SD 0%
<b>#Uterus:</b> Schwannoma Malignant				
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 61  
 Report Date: 11/11/2014

				Male					Female
<b>#Uterus:</b>									
<b>Squamous Cell Papilloma</b>									
						0/50 (0%)			
<b>Overall Incidence</b>				Total	0/50 (0%)	Mean 0%	SD 0%		
.....									
<b>#Vagina:</b>									
<b>Fibrosarcoma</b>									
						0/50 (0%)			
<b>Overall Incidence</b>				Total	0/50 (0%)	Mean 0%	SD 0%		
.....									
<b>#Vagina:</b>									
<b>Leiomyoma</b>									
						0/50 (0%)			
<b>Overall Incidence</b>				Total	0/50 (0%)	Mean 0%	SD 0%		
.....									
<b>#Vagina:</b>									
<b>Polyp</b>									
						1/50 (2%)			
<b>Overall Incidence</b>				Total	1/50 (2%)	Mean 2%	SD 0%		
.....									
<b>#Zymbal's Gland:</b>									
<b>Carcinoma</b>									
						1/50 (2%)			
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
.....									
<b>#Zymbal's Gland:</b>									
<b>Carcinoma or Adenoma</b>									
						1/50 (2%)			
<b>Overall Incidence</b>	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: Nov2014  
Contract/Lab: All Laboratories  
Species: RATS  
Strain: Wistar Han  
Length of Study: CHRONIC

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

Page: 62  
Report Date: 11/11/2014

**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
<b>Male</b>							
Battelle Northwest	052060103	09/22/08	729	50(5)	30(672)	606.7	Antimony trioxide
Battelle Northwest	052051503	04/14/08	729	50(5)	33(688)	602.8	Metal working fluids (CIMSTAR 3800)
Battelle Northwest	052052303	07/20/09	729	50(5)	36(696)	622.2	Metal working fluids (Trim VX)
<b>Female</b>							
Battelle Northwest	052060103	09/22/08	730	50(5)	39(704)	395.6	Antimony trioxide
Battelle Northwest	052051503	04/14/08	731	50(5)	35(700)	384.9	Metal working fluids (CIMSTAR 3800)
Battelle Northwest	052052303	07/20/09	731	50(5)	30(681)	391.1	Metal working fluids (Trim VX)

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 63  
 Report Date: 11/11/2014

		Male			Female		
<b>#All Organs:</b>							
<b>Benign Tumors</b>							
		34/50 (68%)	32/50 (64%)	24/50 (48%)	33/50 (66%)	42/50 (84%)	42/50 (84%)
<b>Overall Incidence</b>	Total	90/150 (60%)	Mean 60%	SD 10.58%	Total	117/150 (78%)	Mean 78% SD 10.39%
.....							
<b>#All Organs:</b>							
<b>Malignant Tumors</b>							
		6/50 (12%)	13/50 (26%)	4/50 (8%)	17/50 (34%)	11/50 (22%)	13/50 (26%)
<b>Overall Incidence</b>	Total	23/150 (15.33%)	Mean 15.33%	SD 9.45%	Total	41/150 (27.33%)	Mean 27.33% SD 6.11%
.....							
<b>#All Organs:</b>							
<b>Malignant and Benign Tumors</b>							
		36/50 (72%)	37/50 (74%)	26/50 (52%)	40/50 (80%)	43/50 (86%)	47/50 (94%)
<b>Overall Incidence</b>	Total	99/150 (66%)	Mean 66%	SD 12.17%	Total	130/150 (86.67%)	Mean 86.67% SD 7.02%
.....							
<b>#All Organs:</b>							
<b>Hemangioma</b>							
		1/50 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
<b>Overall Incidence</b>	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
<b>#All Organs:</b>							
<b>Hemangiosarcoma</b>							
		3/50 (6%)	3/50 (6%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)
<b>Overall Incidence</b>	Total	6/150 (4%)	Mean 4%	SD 3.46%	Total	2/150 (1.33%)	Mean 1.33% SD 1.15%
.....							
<b>#All Organs:</b>							
<b>Hemangiosarcoma or Hemangioma</b>							
		4/50 (8%)	3/50 (6%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	0/50 (0%)
<b>Overall Incidence</b>	Total	8/150 (5.33%)	Mean 5.33%	SD 3.06%	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

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 64  
 Report Date: 11/11/2014

		Male			Female		
<b>#All Organs:</b>							
<b>Histiocytic Sarcoma</b>							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	2/150 (1.33%)	Mean 1.33% SD 2.31%
.....							
<b>#All Organs:</b>							
<b>Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated</b>							
		1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
<b>#All Organs:</b>							
<b>Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type</b>							
		0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	1/50 (2%)
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	3/150 (2%)	Mean 2% SD 2%
.....							
<b>#All Organs:</b>							
<b>Mesothelioma: Benign, Malignant, NOS</b>							
		0/50 (0%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
<b>Overall Incidence</b>	Total	3/150 (2%)	Mean 2%	SD 2%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
<b>#All Organs:</b>							
<b>Mesothelioma: Malignant</b>							
		0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
<b>Overall Incidence</b>	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
<b>#All Organs:</b>							
<b>Osteoma</b>							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 65  
 Report Date: 11/11/2014

		Male			Female			
<b>#All Organs:</b>								
<b>Osteosarcoma</b>								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>#All Organs:</b>								
<b>Osteosarcoma or Osteoma</b>								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>*Adrenal Cortex:</b>								
<b>Adenoma</b>								
		3/50 (6%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	6/150 (4%)	Mean 4%	SD 2%	Total	2/150 (1.33%)	Mean 1.33%	SD 2.31%
.....								
<b>*Adrenal Cortex:</b>								
<b>Carcinoma</b>								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>*Adrenal Medulla:</b>								
<b>Pheochromocytoma Benign</b>								
		1/49 (2%)	4/50 (8%)	0/50 (0%)	0/49 (0%)	1/49 (2%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	5/149 (3.36%)	Mean 3.35%	SD 4.16%	Total	1/148 (0.68%)	Mean 0.68%	SD 1.18%
.....								
<b>*Adrenal Medulla:</b>								
<b>Pheochromocytoma Complex</b>								
		1/49 (2%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/49 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/149 (0.67%)	Mean 0.68%	SD 1.18%	Total	0/148 (0%)	Mean 0%	SD 0%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 66  
 Report Date: 11/11/2014

		Male			Female			
<b>*Adrenal Medulla:</b>								
<b>Pheochromocytoma Malignant</b>								
		0/49 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	1/49 (2%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/149 (0%)	Mean 0%	SD 0%	Total	1/148 (0.68%)	Mean 0.68%	SD 1.18%
.....								
<b>*Adrenal Medulla:</b>								
<b>Pheochromocytoma: Benign, Complex, Malignant, NOS</b>								
		2/49 (4%)	4/50 (8%)	0/50 (0%)	0/49 (0%)	2/49 (4%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	6/149 (4.03%)	Mean 4.03%	SD 4%	Total	2/148 (1.35%)	Mean 1.36%	SD 2.36%
.....								
<b>#Blood Vessel:</b>								
<b>Hemangiosarcoma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>*Bone Marrow:</b>								
<b>Hemangiosarcoma</b>								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>#Bone:</b>								
<b>Osteoma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>#Bone:</b>								
<b>Osteosarcoma</b>								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 67  
 Report Date: 11/11/2014

		Male			Female			
<b>#Bone:</b>								
<b>Osteosarcoma or Osteoma</b>								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>#Bone:</b>								
<b>Sarcoma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>*Brain:</b>								
<b>Glioma</b>								
		0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	2/150 (1.33%)	Mean 1.33%	SD 2.31%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>*Brain:</b>								
<b>Glioma Malignant</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>*Brain:</b>								
<b>Granular Cell Tumor Benign</b>								
		1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	3/150 (2%)	Mean 2%	SD 2%
.....								
<b>*Brain:</b>								
<b>Granular Cell Tumor Malignant</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 68  
 Report Date: 11/11/2014

		Male			Female			
<b>*Brain:</b>								
<b>Meningioma Malignant</b>								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>*Brain:</b>								
<b>Meningioma: Benign, Malignant, NOS</b>								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>*Brain:</b>								
<b>Oligodendroglioma, Glioma, or Astrocytoma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>*Clitoral/Preputial Gland:</b>								
<b>Carcinoma</b>								
		0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/149 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>*Clitoral/Preputial Gland:</b>								
<b>Carcinoma or Adenoma</b>								
		0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/149 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>*Heart:</b>								
<b>Schwannoma Benign</b>								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 69  
 Report Date: 11/11/2014

		Male			Female			
<b>*Heart:</b>								
<b>Schwannoma NOS</b>								
		1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>#Intestine Small: Duodenum:</b>								
<b>Fibroma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>#Intestine Small: Duodenum:</b>								
<b>Leiomyosarcoma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>#Intestine Small: Jejunum:</b>								
<b>Leiomyoma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
.....								
<b>#Intestine Small: Jejunum:</b>								
<b>Leiomyosarcoma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>#Intestine Small: Site Unspecified:</b>								
<b>Fibroma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 70  
 Report Date: 11/11/2014

		Male			Female		
<b>#Intestine Small: Site Unspecified:</b>							
<b>Leiomyoma</b>							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total 1/150 (0.67%)	Mean 0.67%	SD 1.15%
.....							
<b>#Intestine Small: Site Unspecified:</b>							
<b>Leiomyosarcoma</b>							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total 0/150 (0%)	Mean 0%	SD 0%
.....							
<b>*Islets, Pancreatic:</b>							
<b>Adenoma</b>							
		0/50 (0%)	0/50 (0%)	5/50 (10%)	0/50 (0%)	1/49 (2%)	0/50 (0%)
<b>Overall Incidence</b>	Total	5/150 (3.33%)	Mean 3.33%	SD 5.77%	Total 1/149 (0.67%)	Mean 0.68%	SD 1.18%
.....							
<b>*Islets, Pancreatic:</b>							
<b>Carcinoma</b>							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total 0/149 (0%)	Mean 0%	SD 0%
.....							
<b>*Islets, Pancreatic:</b>							
<b>Carcinoma or Adenoma</b>							
		0/50 (0%)	0/50 (0%)	5/50 (10%)	0/50 (0%)	1/49 (2%)	0/50 (0%)
<b>Overall Incidence</b>	Total	5/150 (3.33%)	Mean 3.33%	SD 5.77%	Total 1/149 (0.67%)	Mean 0.68%	SD 1.18%
.....							
<b>*Kidney: Pelvis and Transitional Epithelium:</b>							
<b>Papilloma</b>							
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 71  
 Report Date: 11/11/2014

		Male				Female			
<b>*Kidney: Renal Tubule: Adenoma</b>									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	1/50 (2%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
<b>*Kidney: Renal Tubule: Carcinoma</b>									
		0/50 (0%)	0/50 (0%)	1/50 (2%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
<b>*Kidney: Renal Tubule: Carcinoma or Adenoma</b>									
		0/50 (0%)	0/50 (0%)	1/50 (2%)		0/50 (0%)	1/50 (2%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
<b>*Kidney: Renal Tubule: Lipoma</b>									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
<b>*Kidney: Renal Tubule: Liposarcoma</b>									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
<b>*Liver: Hepatocellular Adenoma</b>									
		0/50 (0%)	0/50 (0%)	1/50 (2%)		1/50 (2%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 72  
 Report Date: 11/11/2014

		Male				Female			
<b>*Liver:</b>									
<b>Hepatocellular Carcinoma or Hepatocellular Adenoma</b>									
		0/50 (0%)	0/50 (0%)	1/50 (2%)		1/50 (2%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
<b>*Liver:</b>									
<b>Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma</b>									
		0/50 (0%)	0/50 (0%)	1/50 (2%)		1/50 (2%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
<b>*Lung:</b>									
<b>Alveolar/Bronchiolar Adenoma</b>									
		3/50 (6%)	1/50 (2%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	4/150 (2.67%)	Mean 2.67%	SD 3.06%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
<b>*Lung:</b>									
<b>Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma</b>									
		3/50 (6%)	1/50 (2%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	4/150 (2.67%)	Mean 2.67%	SD 3.06%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
<b>#Lymph Node:</b>									
<b>Hemangioma</b>									
		0/50 (0%)	0/50 (0%)	1/50 (2%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
<b>#Lymph Node, Mesenteric:</b>									
<b>Hemangioma</b>									
		1/50 (2%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 73  
 Report Date: 11/11/2014

		Male			Female			
<b>#Lymph Node, Mesenteric:</b>								
<b>Hemangiosarcoma</b>								
		2/50 (4%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	5/150 (3.33%)	Mean 3.33%	SD 3.06%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
.....								
<b>#Mammary Gland:</b>								
<b>Adenoma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	4/50 (8%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	6/150 (4%)	Mean 4%	SD 4%
.....								
<b>#Mammary Gland:</b>								
<b>Carcinoma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	5/50 (10%)	4/50 (8%)	4/50 (8%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	13/150 (8.67%)	Mean 8.67%	SD 1.15%
.....								
<b>#Mammary Gland:</b>								
<b>Carcinoma or Adenoma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	5/50 (10%)	6/50 (12%)	8/50 (16%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	19/150 (12.67%)	Mean 12.67%	SD 3.06%
.....								
<b>#Mammary Gland:</b>								
<b>Fibroadenoma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	7/50 (14%)	9/50 (18%)	2/50 (4%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	18/150 (12%)	Mean 12%	SD 7.21%
.....								
<b>#Mammary Gland:</b>								
<b>Fibroma, Fibroadenoma or Adenoma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	7/50 (14%)	11/50 (22%)	6/50 (12%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	24/150 (16%)	Mean 16%	SD 5.29%

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

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 74  
 Report Date: 11/11/2014

		Male				Female			
<b>#Mammary Gland:</b>									
<b>Fibroma, Fibroadenoma, Carcinoma, or Adenoma</b>									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		10/50 (20%)	13/50 (26%)	9/50 (18%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	32/150 (21.33%)	Mean 21.33%	SD 4.16%	
.....									
<b>#Mesentery:</b>									
<b>Hemangiosarcoma</b>									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
<b>#Mesentery:</b>									
<b>Lipoma</b>									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
<b>#Mesentery:</b>									
<b>Schwannoma Malignant</b>									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
<b>*Nose:</b>									
<b>Chondroma</b>									
		1/50 (2%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
<b>*Nose:</b>									
<b>Olfactory Neuroblastoma</b>									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 75  
 Report Date: 11/11/2014

		Male				Female			
<b>#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva):</b>									
<b>Squamous Cell Carcinoma</b>									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
<b>#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva):</b>									
<b>Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma</b>									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
<b>#Oral Mucosa:</b>									
<b>Squamous Cell Carcinoma</b>									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
<b>*Ovary:</b>									
<b>Adenoma</b>									
						2/50 (4%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total				Total	2/150 (1.33%)	Mean 1.33%	SD 2.31%	
.....									
<b>*Ovary:</b>									
<b>Cystadenoma</b>									
						1/50 (2%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total				Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
<b>*Ovary:</b>									
<b>Granulosa Cell Tumor Benign</b>									
						0/50 (0%)	1/50 (2%)	0/50 (0%)	
<b>Overall Incidence</b>	Total				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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 76  
 Report Date: 11/11/2014

		Male			Female			
<b>*Ovary:</b>								
<b>Granulosa Cell Tumor Malignant</b>								
			0/50 (0%)		0/50 (0%)	1/50 (2%)		
<b>Overall Incidence</b>		Total	1/150 (0.67%)		Mean 0.67%	SD 1.15%		
.....								
<b>*Ovary:</b>								
<b>Granulosa Cell Tumor: Benign, Malignant, NOS</b>								
			0/50 (0%)		1/50 (2%)	1/50 (2%)		
<b>Overall Incidence</b>		Total	2/150 (1.33%)		Mean 1.33%	SD 1.15%		
.....								
<b>*Ovary:</b>								
<b>Sex Cord Stromal Tumor, Benign</b>								
			0/50 (0%)		0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>		Total	0/150 (0%)		Mean 0%	SD 0%		
.....								
<b>*Ovary:</b>								
<b>Tubulostromal Adenoma</b>								
			2/50 (4%)		0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>		Total	2/150 (1.33%)		Mean 1.33%	SD 2.31%		
.....								
<b>*Pancreas:</b>								
<b>Adenoma</b>								
		0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%	Total	0/149 (0%)	Mean 0%	SD 0%
.....								
<b>*Pancreas:</b>								
<b>Carcinoma or Adenoma</b>								
		0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	2/150 (1.33%)	Mean 1.33%	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 77  
 Report Date: 11/11/2014

		Male			Female			
<b>*Parathyroid Gland:</b>								
<b>Adenoma</b>								
		0/44 (0%)	0/43 (0%)	0/39 (0%)	0/39 (0%)	0/47 (0%)	1/42 (2%)	
<b>Overall Incidence</b>	Total	0/126 (0%)	Mean 0%	SD 0%	Total	1/128 (0.78%)	Mean 0.79%	SD 1.37%
.....								
<b>*Pituitary Gland: Pars Distalis or Unspecified Site:</b>								
<b>Adenoma</b>								
		14/50 (28%)	16/49 (33%)	14/50 (28%)	19/50 (38%)	35/50 (70%)	34/50 (68%)	
<b>Overall Incidence</b>	Total	44/149 (29.53%)	Mean 29.55%	SD 2.69%	Total	88/150 (58.67%)	Mean 58.67%	SD 17.93%
.....								
<b>*Pituitary Gland: Pars Distalis or Unspecified Site:</b>								
<b>Carcinoma</b>								
		0/50 (0%)	0/49 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/149 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
.....								
<b>*Pituitary Gland: Pars Distalis or Unspecified Site:</b>								
<b>Carcinoma or Adenoma</b>								
		14/50 (28%)	16/49 (33%)	14/50 (28%)	20/50 (40%)	35/50 (70%)	34/50 (68%)	
<b>Overall Incidence</b>	Total	44/149 (29.53%)	Mean 29.55%	SD 2.69%	Total	89/150 (59.33%)	Mean 59.33%	SD 16.77%
.....								
<b>*Pituitary Gland: Pars Intermedia:</b>								
<b>Adenoma</b>								
		1/50 (2%)	2/49 (4%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	
<b>Overall Incidence</b>	Total	4/149 (2.68%)	Mean 2.69%	SD 1.2%	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%
.....								
<b>*Pituitary Gland: Pars Intermedia:</b>								
<b>Carcinoma or Adenoma</b>								
		1/50 (2%)	2/49 (4%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	
<b>Overall Incidence</b>	Total	4/149 (2.68%)	Mean 2.69%	SD 1.2%	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

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 78  
 Report Date: 11/11/2014

		Male			Female		
<b>*Prostate:</b>							
<b>Adenoma</b>							
		1/50 (2%)	1/50 (2%)	0/50 (0%)			
<b>Overall Incidence</b>	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%			
.....							
<b>*Prostate:</b>							
<b>Carcinoma or Adenoma</b>							
		1/50 (2%)	1/50 (2%)	0/50 (0%)			
<b>Overall Incidence</b>	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%			
.....							
<b>*Salivary Glands:</b>							
<b>Adenoma</b>							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
<b>*Salivary Glands:</b>							
<b>Carcinoma</b>							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
<b>*Salivary Glands:</b>							
<b>Carcinoma or Adenoma</b>							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
<b>*Salivary Glands:</b>							
<b>Myoepithelioma</b>							
		1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 79  
 Report Date: 11/11/2014

		Male			Female			
<b>*Salivary Glands:</b>								
<b>Schwannoma Malignant</b>								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>#Seminal Vesicle:</b>								
<b>Adenoma</b>								
		0/50 (0%)	1/50 (2%)	0/50 (0%)				
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%				
.....								
<b>#Skeletal Muscle:</b>								
<b>Hemangiosarcoma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>#Skeletal Muscle:</b>								
<b>Sarcoma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
<b>Basal Cell Adenoma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
<b>Basal Cell Adenoma or Basosquamous Tumor Benign</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 80  
 Report Date: 11/11/2014

		Male				Female					
<b>#Skin:</b>											
<b>Basal Cell Adenoma, Basosquamous Tumor Benign, or Trichoepithelioma</b>											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
<b>#Skin:</b>											
<b>Basal Cell Carcinoma</b>											
		0/50	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
<b>#Skin:</b>											
<b>Basal Cell Carcinoma or Basosquamous Tumor (malignant or NOS)</b>											
		0/50	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
<b>#Skin:</b>											
<b>Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma</b>											
		0/50	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
<b>#Skin:</b>											
<b>Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma</b>											
		1/50	(2%)	2/50	(4%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	4/150	(2.67%)	Mean 2.67%	SD 1.15%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
<b>#Skin:</b>											
<b>Fibroma</b>											
		2/50	(4%)	1/50	(2%)	1/50	(2%)	2/50	(4%)	0/50	(0%)
<b>Overall Incidence</b>	Total	4/150	(2.67%)	Mean 2.67%	SD 1.15%	Total	2/150	(1.33%)	Mean 1.33%	SD 2.31%	

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied



Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 81  
 Report Date: 11/11/2014

	Male					Female				
<b>#Skin:</b>										
<b>Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma</b>										
		2/50 (4%)	2/50 (4%)	1/50 (2%)		2/50 (4%)	0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	5/150 (3.33%)	Mean 3.33%	SD 1.15%	Total	2/150 (1.33%)	Mean 1.33%	SD 2.31%		
.....										
<b>#Skin:</b>										
<b>Fibrosarcoma</b>										
		0/50 (0%)	1/50 (2%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%		
.....										
<b>#Skin:</b>										
<b>Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma</b>										
		0/50 (0%)	1/50 (2%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%		
.....										
<b>#Skin:</b>										
<b>Hamartoma</b>										
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%		
.....										
<b>#Skin:</b>										
<b>Hemangiosarcoma</b>										
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%		
.....										
<b>#Skin:</b>										
<b>Keratoacanthoma</b>										
		1/50 (2%)	1/50 (2%)	1/50 (2%)		0/50 (0%)	0/50 (0%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	3/150 (2%)	Mean 2%	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 82  
 Report Date: 11/11/2014

		Male			Female			
<b>#Skin:</b>								
Lipoma								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
Liposarcoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
.....								
<b>#Skin:</b>								
Neurofibrosarcoma or Schwannoma (malignant or NOS)								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
Neurofibrosarcoma, Neurofibroma, or Schwannoma (benign, malignant or NOS)								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
Schwannoma Malignant								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
Squamous Cell Carcinoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 83  
 Report Date: 11/11/2014

		Male			Female			
<b>#Skin:</b>								
<b>Squamous Cell Carcinoma, Basal Cell Carcinoma, Basosquamous Tumor (malignant or NOS), or Carcinoma</b>								
<b>Overall Incidence</b>	Total	0/50 (0%) 1/150 (0.67%)	1/50 (2%) Mean 0.67%	0/50 (0%) SD 1.15%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
<b>#Skin:</b>								
<b>Squamous Cell Papilloma</b>								
<b>Overall Incidence</b>	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%
<b>#Skin:</b>								
<b>Squamous Cell Papilloma or Papilloma</b>								
<b>Overall Incidence</b>	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%
<b>#Skin:</b>								
<b>Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma</b>								
<b>Overall Incidence</b>	Total	1/50 (2%) 3/150 (2%)	1/50 (2%) Mean 2%	1/50 (2%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
<b>#Skin:</b>								
<b>Squamous Cell Papilloma, Papilloma, or Keratoacanthoma</b>								
<b>Overall Incidence</b>	Total	1/50 (2%) 3/150 (2%)	1/50 (2%) Mean 2%	1/50 (2%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
<b>#Skin: Sebaceous Gland:</b>								
<b>Adenoma</b>								
<b>Overall Incidence</b>	Total	0/50 (0%) 1/150 (0.67%)	0/50 (0%) Mean 0.67%	1/50 (2%) SD 1.15%	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 84  
 Report Date: 11/11/2014

		Male			Female			
<b>#Skin: Sebaceous Gland:</b>								
<b>Carcinoma or Adenoma</b>								
		0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>*Spleen:</b>								
<b>Hemangiosarcoma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>#Stomach, Forestomach:</b>								
<b>Fibrosarcoma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
<b>#Stomach, Forestomach:</b>								
<b>Leiomyoma</b>								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
.....								
<b>#Stomach, Forestomach:</b>								
<b>Leiomyosarcoma</b>								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
.....								
<b>#Stomach, Forestomach:</b>								
<b>Sarcoma</b>								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 85  
 Report Date: 11/11/2014

		Male				Female					
<b>#Stomach, Forestomach:</b>											
<b>Squamous Cell Carcinoma</b>											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
<b>#Stomach, Forestomach:</b>											
<b>Squamous Cell Carcinoma or Papilloma Squamous</b>											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
<b>#Stomach, Forestomach:</b>											
<b>Squamous Cell Papilloma</b>											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
<b>#Stomach, Glandular:</b>											
<b>Fibrosarcoma</b>											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
<b>#Stomach, Glandular:</b>											
<b>Leiomyosarcoma</b>											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	1/50	(2%)	0/50	(0%)
<b>Overall Incidence</b>	Total	0/150	(0%)	Mean 0%	SD 0%	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	
.....											
<b>#Stomach, Glandular:</b>											
<b>Sarcoma</b>											
		0/50	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
<b>Overall Incidence</b>	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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 86  
 Report Date: 11/11/2014

		Male			Female		
<b>*Testes:</b>							
<b>Adenoma</b>							
		6/50 (12%)	2/50 (4%)	0/50 (0%)			
<b>Overall Incidence</b>	Total	8/150 (5.33%)	Mean 5.33%	SD 6.11%			
.....							
<b>*Testes:</b>							
<b>Hemangiosarcoma</b>							
		1/50 (2%)	0/50 (0%)	0/50 (0%)			
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%			
.....							
<b>*Thymus:</b>							
<b>Sarcoma</b>							
		0/41 (0%)	0/40 (0%)	0/48 (0%)	0/46 (0%)	0/48 (0%)	0/48 (0%)
<b>Overall Incidence</b>	Total	0/129 (0%)	Mean 0%	SD 0%	Total 0/142 (0%)	Mean 0%	SD 0%
.....							
<b>*Thymus:</b>							
<b>Thymoma Benign</b>							
		3/41 (7%)	1/40 (3%)	3/48 (6%)	6/46 (13%)	5/48 (10%)	8/48 (17%)
<b>Overall Incidence</b>	Total	7/129 (5.43%)	Mean 5.36%	SD 2.53%	Total 19/142 (13.38%)	Mean 13.38%	SD 3.14%
.....							
<b>*Thymus:</b>							
<b>Thymoma: Benign, Malignant, NOS</b>							
		3/41 (7%)	1/40 (3%)	3/48 (6%)	6/46 (13%)	5/48 (10%)	8/48 (17%)
<b>Overall Incidence</b>	Total	7/129 (5.43%)	Mean 5.36%	SD 2.53%	Total 19/142 (13.38%)	Mean 13.38%	SD 3.14%
.....							
<b>*Thyroid Gland:</b>							
<b>Carcinoma</b>							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/49 (0%)
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total 1/149 (0.67%)	Mean 0.67%	SD 1.15%

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

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 87  
 Report Date: 11/11/2014

		Male			Female		
<b>*Thyroid Gland: C-Cell: Adenoma</b>							
		5/50 (10%)	7/50 (14%)	3/50 (6%)	4/50 (8%)	3/50 (6%)	7/49 (14%)
<b>Overall Incidence</b>	Total	15/150 (10%)	Mean 10%	SD 4%	Total	14/149 (9.4%)	Mean 9.43% SD 4.32%
.....							
<b>*Thyroid Gland: C-Cell: Carcinoma</b>							
		1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/49 (0%)
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/149 (0.67%)	Mean 0.67% SD 1.15%
.....							
<b>*Thyroid Gland: C-Cell: Carcinoma or Adenoma</b>							
		6/50 (12%)	7/50 (14%)	3/50 (6%)	5/50 (10%)	3/50 (6%)	7/49 (14%)
<b>Overall Incidence</b>	Total	16/150 (10.67%)	Mean 10.67%	SD 4.16%	Total	15/149 (10.07%)	Mean 10.1% SD 4.14%
.....							
<b>*Thyroid Gland: Follicular Cell: Adenoma</b>							
		0/50 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/49 (0%)
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	2/149 (1.34%)	Mean 1.33% SD 1.15%
.....							
<b>*Thyroid Gland: Follicular Cell: Carcinoma</b>							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	1/49 (2%)
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	3/149 (2.01%)	Mean 2.01% SD 0.02%
.....							
<b>*Thyroid Gland: Follicular Cell: Carcinoma or Adenoma</b>							
		0/50 (0%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	2/50 (4%)	1/49 (2%)
<b>Overall Incidence</b>	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	5/149 (3.36%)	Mean 3.35% SD 1.13%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 88  
 Report Date: 11/11/2014

		Male				Female			
<b>*Urinary Bladder: Carcinoma or Papilloma</b>									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
<b>*Urinary Bladder: Papilloma</b>									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
<b>#Uterus: Adenoma</b>									
						0/50 (0%)	0/50 (0%)	1/50 (2%)	
<b>Overall Incidence</b>	Total				Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
<b>#Uterus: Carcinoma</b>									
						3/50 (6%)	1/50 (2%)	1/50 (2%)	
<b>Overall Incidence</b>	Total				Total	5/150 (3.33%)	Mean 3.33%	SD 2.31%	
.....									
<b>#Uterus: Granular Cell Tumor Benign</b>									
						0/50 (0%)	0/50 (0%)	1/50 (2%)	
<b>Overall Incidence</b>	Total				Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
<b>#Uterus: Hemangiosarcoma</b>									
						1/50 (2%)	0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total				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: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 89  
 Report Date: 11/11/2014

	Male	Female
<b>#Uterus:</b> Leiomyosarcoma		
Overall Incidence	Total 1/50 (2%) 1/150 (0.67%)	0/50 (0%) Mean 0.67% SD 1.15%
<b>#Uterus:</b> Malignant Mixed Mullerian Tumor		
Overall Incidence	Total 0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0% SD 0%
<b>#Uterus:</b> Polyp Stromal		
Overall Incidence	Total 2/50 (4%) 13/150 (8.67%)	5/50 (10%) Mean 8.67% SD 4.16%
<b>#Uterus:</b> Sarcoma Stromal		
Overall Incidence	Total 1/50 (2%) 4/150 (2.67%)	2/50 (4%) Mean 2.67% SD 1.15%
<b>#Uterus:</b> Sarcoma Stromal or Polyp Stromal		
Overall Incidence	Total 3/50 (6%) 16/150 (10.67%)	6/50 (12%) Mean 10.67% SD 4.16%
<b>#Uterus:</b> Schwannoma Malignant		
Overall Incidence	Total 0/50 (0%) 2/150 (1.33%)	0/50 (0%) Mean 1.33% SD 2.31%

\*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Wistar Han  
 Length of Study: CHRONIC

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

Page: 90  
 Report Date: 11/11/2014

		Male			Female		
<b>#Uterus:</b>							
<b>Squamous Cell Papilloma</b>							
			0/50 (0%)		1/50 (2%)	0/50 (0%)	
<b>Overall Incidence</b>		Total	1/150 (0.67%)		Mean 0.67%	SD 1.15%	
.....							
<b>#Vagina:</b>							
<b>Fibrosarcoma</b>							
			0/50 (0%)		0/50 (0%)	1/50 (2%)	
<b>Overall Incidence</b>		Total	1/150 (0.67%)		Mean 0.67%	SD 1.15%	
.....							
<b>#Vagina:</b>							
<b>Leiomyoma</b>							
			0/50 (0%)		0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>		Total	0/150 (0%)		Mean 0%	SD 0%	
.....							
<b>#Vagina:</b>							
<b>Polyp</b>							
			0/50 (0%)		0/50 (0%)	0/50 (0%)	
<b>Overall Incidence</b>		Total	0/150 (0%)		Mean 0%	SD 0%	
.....							
<b>#Zymbal's Gland:</b>							
<b>Carcinoma</b>							
		0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
<b>Overall Incidence</b>	Total	3/150 (2%)	Mean 2%	SD 2%	Total	0/150 (0%)	Mean 0%
.....							
<b>#Zymbal's Gland:</b>							
<b>Carcinoma or Adenoma</b>							
		0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
<b>Overall Incidence</b>	Total	3/150 (2%)	Mean 2%	SD 2%	Total	0/150 (0%)	Mean 0%

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