

NTP Historical Controls Report

By Route and Vehicle

Wistar Han RATS

June 2013

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
Female F1
F1
F1 F2

the data would be shown as:

	Male		Female					
M1	M2	М3	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.

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Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Toxicology Data Management System

Page: 4

Report Date: 06/12/2013

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL

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	052032003	07/25/07	727	50(3)	33(642)	662.9	Tetrabromobisphenol A	
Female								
Battelle Columbus Laboratory	052032003	07/26/07	728	50(5)	34(678)	375.2	Tetrabromobisphenol A	

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL Page: 5

			Male				Female			
#All Organs: Benign Tumors										
		30/50 (60%)				38/50 (76%)				
Overall Incidence	Total	30/50 (60%)	Mean 60%	SD 0%	Total	38/50 (76%)	Mean 76%	SD 0%		
#All Organs: Malignant Tumors		8/50 (16%)				10/50 (20%)				
Overall Incidence	Total	8/50 (16%)	Mean 16%	SD 0%	Total	10/50 (20%)	Mean 20%	SD 0%		
#All Organs: Malignant and Benign T										
		34/50 (68%)				40/50 (80%)				
Overall Incidence	Total	34/50 (68%)	Mean 68%	SD 0%	Total	40/50 (80%)	Mean 80%	SD 0%		
#All Organs: Hemangioma	•••••									
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#All Organs: Hemangiosarcoma	•••••									
		3/50 (6%)				2/50 (4%)				
Overall Incidence	Total	3/50 (6%)	Mean 6%	SD 0%	Total	2/50 (4%)	Mean 4%	SD 0%		
#All Organs: Hemangiosarcoma or H	emangioma									
		4/50 (8%)				2/50 (4%)				
Overall Incidence	Total	4/50 (8%)	Mean 8%	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

Toxicology Data Management System

Contract/Lab: All Laboratories

Tumor Incidence for Selected Control Animal Groups

Page: 6 Report Date: 06/12/2013

Species: RATS
Strain: Wistar Han

Route: GAVAGE Vehicle: CORN OIL

Length of Study: CHRONIC

			Male				Female					
#All Organs: Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated 1/50 (2%) Overall Incidence Total 1/50 (2%) Mean 2% SD 0% Total 0/50 (0%) Mean 0% SD 0%												
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
#All Organs: Malignant Lymphoma:	Histiocytic, Lym	phocytic, Mixed, NOS, o	r Undifferentiated Ce	ell Type								
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%				
#All Organs: Mesothelioma: Benign	, Malignant, NOS	0/50 (0%)				0/50 (0%)						
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
#All Organs: Mesothelioma: Maligna	ant	0/50 (0%)				0/50 (0%)						
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
#All Organs: Osteoma												
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%				
#All Organs: Osteosarcoma		0/50 (0%)				0/50 (0%)						
Overall Incidence	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

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

				Male			Female	
#All Organs: Osteosarcoma or Osteoma		0/50 (0)%)			0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean (Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
*Adrenal Cortex: Adenoma)%)			1/50 (2%)		
Overall Incidence	Total	0/50 (0%)	Mean (0% SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
*Adrenal Cortex: Carcinoma		0/50 (0)%)			1/50 (2%)		
Overall Incidence	Total	0/50 (0%)	Mean (Total	1/50 (2%)	Mean 2%	SD 0%
*Adrenal Medulla: Pheochromocytoma Benign Overall Incidence)%) Mean (Total	2/49 (4%) 2/49 (4.08%)	Mean 4.08%	SD 0%
*Adrenal Medulla: Pheochromocytoma Maligna						, ,		35 076
Overall Incidence	Total	0/49 (0%)	Mean (0% SD 0%	Total	0/49 (0%)	Mean 0%	SD 0%
*Adrenal Medulla: Pheochromocytoma: Benigr		Malignant, NOS)%)			2/49 (4%)		
Overall Incidence	Total	0/49 (0%)	Mean (Total	2/49 (4.08%)	Mean 4.08%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL Page: 8

			Male				Female	
#Blood Vessel: Hemangiosarcoma								
	.	1/50 (2%)		05.00/	-	0/50 (0%)		OD 00/
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Bone Marrow: Hemangiosarcoma								
		0/50 (0%)		05 00/		0/50 (0%)		00.004
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Bone: Osteoma		0/50 (00)				0/50 (00)		
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
		` '			Total	` '		
#Bone: Osteosarcoma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Bone: Osteosarcoma or Osteoma								
		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Bone: Sarcoma								
		0/50 (0%)		05 00/		0/50 (0%)		00.004
Overall Incidence	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

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL **Page**: 9

			Male				Female			
*Brain: Glioma		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Brain: Glioma Malignant		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Brain: Granular Cell Tumor Beni		1/50 (2%)				0/50 (0%)				
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Brain: Meningioma Malignant		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Brain: Meningioma: Benign, Mal		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Brain: Oligodendroglioma, Glion	na, or Astrocy					(201)				
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL **Page:** 10

			Male				Female			
*Clitoral/Preputial Gland: Carcinoma										
Overall Incidence	Total	0/50 (0%) 0/50 (0%)) Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
*Clitoral/Preputial Gland: Carcinoma or Adenoma		0/50				(201)				
Overall Incidence	Total	0/50 (0%) 0/50 (0%)) Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
*Heart: Schwannoma Benign		0/50 (0%				1/50 (2%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
#Intestine Small: Duodenum: Leiomyosarcoma		0/50 (0%				1/50 (2%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
#Intestine Small: Jejunum: Leiomyosarcoma					•••••					
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#Intestine Small: Site Unspec Leiomyosarcoma										
Overall Incidence	Total	0/50 (0%) 0/50 (0%)) Mean 0%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%		

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL Page: 11

	1/50	(2%)				0/50 (0%)		
otal	1/50 (2%)		Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
		(2%)				0/50 (0%)		
otal	1/50 (2%)		Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
Epithelium:		(00()				0/50 (00/)		
otol		(0%)	Moon 09/	SD 09/	Total	` '	Moon 00/	SD 0%
	, ,					0/50 (0%)		3D 0%
	- 1					- ()		
otal	0/50 (0%)	` ,	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
		(0%)				0/50 (0%)		
otal	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
	0/50	(00()				0/50 (00/)		
otal		(U%)	Moon 09/	SD 0%	Total	` '	Moon 0%	SD 0%
	otal Epithelium: otal	1/50 otal 1/50 (2%) Epithelium: 0/50 otal 0/50 (0%) otal 0/50 (0%) otal 0/50 (0%) otal 0/50 (0%)	1/50 (2%) otal 1/50 (2%) Epithelium: 0/50 (0%) otal 0/50 (0%) 0/50 (0%) 0/50 (0%) otal 0/50 (0%) 0/50 (0%)	1/50 (2%) otal 1/50 (2%) Mean 2% Epithelium: 0/50 (0%) otal 0/50 (0%) Mean 0% 0/50 (0%) otal 0/50 (0%) Mean 0% 0/50 (0%) Mean 0% 0/50 (0%) Mean 0%	1/50 (2%) otal 1/50 (2%) Mean 2% SD 0% Epithelium: 0/50 (0%) otal 0/50 (0%) Mean 0% SD 0% 0/50 (0%) otal 0/50 (0%) Mean 0% SD 0% 0/50 (0%) Mean 0% SD 0% 0/50 (0%) otal 0/50 (0%) Mean 0% SD 0%	1/50 (2%) otal 1/50 (2%) Mean 2% SD 0% Total Epithelium: 0/50 (0%) otal 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) otal 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) otal 0/50 (0%)	1/50 (2%) Otal 1/50 (2%) Mean 2% SD 0% Total 0/50 (0%) Epithelium: 0/50 (0%) Otal 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) 0/50 (0%) Otal 0/50 (0%) Otal 0/50 (0%) Otal 0/50 (0%) Otal 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Otal 0/50 (0%)	1/50 (2%) otal 1/50 (2%) Mean 2% SD 0% Total 0/50 (0%) Mean 0% Epithelium: 0/50 (0%) Otal 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% O/50 (0%) O/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% O/50 (0%) O/50 (0%) Mean 0% O/50 (0%) Mean 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL Page: 12

				Male				Female		
*Kidney: Renal Tubule: Liposarcoma										
		0/50	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Liver: Hepatocellular Adenoma	1									
		0/50	(0%)				1/50 (2%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
*Liver: Hepatocellular Carcinom	na or Hepatocel	lular Adenoma 0/50	(0%)				1/50 (2%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
*Liver: Hepatocellular Carcinom		ar Adenoma, oı					1/50 (2%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
*Lung: Alveolar/Bronchiolar Ad	enoma	•••••								
		0/50	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Lung: Alveolar/Bronchiolar Ca	rcinoma or Alve	eolar/Bronchiola 0/50	ar Adenoma (0%)	a			0/50 (0%)			

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

				Male			Female			
#Lymph Node, Mesenteric: Hemangioma										
			(2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)		Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Lymph Node, Mesenteric: Hemangiosarcoma										
			(2%)				1/50 (2%)			
Overall Incidence	Total	1/50 (2%)		Mean 2%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
#Mammary Gland: Adenoma										
			(0%)				4/50 (8%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	4/50 (8%)	Mean 8%	SD 0%	
#Mammary Gland: Carcinoma										
Overall Incidence	Total	0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	
#Mammary Gland: Carcinoma or Adenoma										
		0/50	(0%)				4/50 (8%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	4/50 (8%)	Mean 8%	SD 0%	
#Mammary Gland: Fibroadenoma		4/50	(00()				0/50 /400/			
Overall Insidence	Tatal	1/50	(2%)	Mana 20/	CD 00/	Tatal	8/50 (16%)	Mann 400/	CD 00/	
Overall Incidence	Total	1/50 (2%)		Mean 2%	SD 0%	Total	8/50 (16%)	Mean 16%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

				Male			Female				
#Mammary Gland: Fibroma, Fibroadenoma or Adenoma											
Overall Incidence	Total	1/50 1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	12/50 (24%) 12/50 (24%)	Mean 24%	SD 0%		
#Mammary Gland: Fibroma, Fibroadenoma, Ca	roinomo or	Adanama		•••••							
Fibrollia, Fibroadellollia, Ca	rcinoma, or	1/50	(2%)				12/50 (24%)				
Overall Incidence	Total	1/50 (2%)	(270)	Mean 2%	SD 0%	Total	12/50 (24%)	Mean 24%	SD 0%		
#Mesentery: Hemangiosarcoma		0/50	(0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	` ,	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Mesentery: Schwannoma Malignant		0/50	(0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	` ,	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Nose: Olfactory Neuroblastoma			•••••								
,		0/50	(0%)				1/50 (2%)				
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
#Oral Cavity (Oral Mucosa, To Squamous Cell Carcinoma		nx, Tooth, Ging	jiva):								
	-	0/50	(0%)		00.00/	+	0/50 (0%)		00.004		
Overall Incidence	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

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL **Page:** 15

			Male			Female					
#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma 0/50 (0%) Overall Incidence Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% SD 0%											
	10tai		Weari 0%		10lai	0/50 (0%)		3D 0%			
#Oral Mucosa: Squamous Cell Carcino	oma	-4									
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			
*Ovary: Granulosa Cell Tumor I	Benign					0/50 (0%)					
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			
*Ovary: Granulosa Cell Tumor I						1/50 (2%)					
Overall Incidence					Total	1/50 (2%)	Mean 2%	SD 0%			
*Ovary: Granulosa Cell Tumor:	Benign, Maligna	nt, NOS									
Overall Incidence					Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%			
*Ovary: Sex Cord Stromal Tumo	or, Benign										
Overall Incidence					Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%			

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL **Page:** 16

			Male		Female							
*Pancreas: Adenoma												
		1/50 (2%)				0/50 (0%)						
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
*Pancreas: Carcinoma or Adenoma												
		1/50 (2%)				0/50 (0%)						
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
*Pituitary Gland: Pars Distali Adenoma												
		21/50 (42%)				21/50 (42%)						
Overall Incidence	Total	21/50 (42%)	Mean 42%	SD 0%	Total	21/50 (42%)	Mean 42%	SD 0%				
*Pituitary Gland: Pars Distali Carcinoma or Adenoma												
		21/50 (42%)				21/50 (42%)						
Overall Incidence	Total	21/50 (42%)	Mean 42%	SD 0%	Total	21/50 (42%)	Mean 42%	SD 0%				
*Pituitary Gland: Pars Interm Adenoma	edia:											
		2/50 (4%)				4/50 (8%)						
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	4/50 (8%)	Mean 8%	SD 0%				
*Pituitary Gland: Pars Interm Carcinoma or Adenoma												
		2/50 (4%)				4/50 (8%)						
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	4/50 (8%)	Mean 8%	SD 0%				

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

			Male			Female				
*Prostate: Adenoma		0/50 (0%)								
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%						
*Prostate: Carcinoma or Adenoma		0/50 (0%)								
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%						
*Salivary Glands: Myoepithelioma		1/50 (2%)				0/50 (0%)				
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Salivary Glands: Schwannoma Malignant		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Seminal Vesicle: Adenoma										
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%						
#Skeletal Muscle: Sarcoma		(5				(00)				
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL **Page:** 18

			Male		Female							
#Skin: Basal Cell Adenoma												
		2/50 (4%)				0/50 (0%)						
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
#Skin:	_											
Basal Cell Adenoma or	Basosquamous	•				0/50 (0%)						
Overall Incidence	Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
		······										
#Skin:		Danien au Triak	ith - li									
Basal Cell Adenoma, B	asosquamous 11	umor Benign, or Tricn 2/50 (4%)	oepitneiioma			0/50 (0%)						
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
#Skin:												
Basal Cell Carcinoma		1/50 (20/)				0/50 (00/)						
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%				
		1/30 (2/6)						JD 0/0				
#Skin:												
Basal Cell Carcinoma o	or Basosquamou		r NOS)									
		1/50 (2%)				0/50 (0%)						
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
#Skin:												
Basal Cell Carcinoma, NOS), or Trichoepitheli		oma, Basosquamous T	Tumor (benign, malign	ant or								
,		2/50 (4%)				0/50 (0%)						
Overall Incidence	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

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

			Male				Female				
#Skin: Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma 7/50 (14%) 0/50 (0%)											
Overall Incidence	Total	7/50 (14%)	Mean 14%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Skin: Fibroma		0/50 (0%)				0/50 (0%)					
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Skin: Fibroma, Fibrosarcoma	a, Sarcoma, Myxo	oma, Myxosarcoma, or F 0/50 (0%) 0/50 (0%)		SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			
	10tai										
#Skin: Fibrosarcoma	Total	0/50 (0%)	Maca OV	SD 0%	Total	0/50 (0%)	Magn 00/	SD 0%			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Skin: Fibrosarcoma, Sarcom	a, Myxosarcoma	, or Fibrous Histiocytom 0/50 (0%)	a			0/50 (0%)					
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Skin: Hamartoma		0/50 (0%)				0/50 (0%)					
Overall Incidence	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

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

			Male			Female			
#Skin: Hemangiosarcoma									
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	
#Skin: Keratoacanthoma									
Overall Incidence	Total	4/50 (8%) 4/50 (8%)	Mean 8%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Skin: Lipoma		0/50 (09/)				0/50 (00/)			
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Skin: Liposarcoma		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Neurofibrosarcoma or						0/50 (0%)			
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Neurofibrosarcoma, Ne	eurofibroma, or S	chwannoma (benign, ma 2/50 (4%)	lignant or NOS)			0/50 (0%)			
Overall Incidence	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

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL Page: 21 Report Date: 06/12/2013

			Male			Female			
#Skin: Schwannoma Malignan	nt								
_		2/50 (4%)				0/50 (0%)			
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Squamous Cell Carcino	oma								
		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Squamous Cell Carcino or Carcinoma	oma, Basal Cell (Carcinoma, Basosquam 1/50 (2%)	ous Tumor (malignar	nt or NOS),		0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Squamous Cell Papillo	ma	1/50 (2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Squamous Cell Papillo						0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Squamous Cell Papillo		Squamous Cell Carcinon 5/50 (10%)				0/50 (0%)			
Overall Incidence	Total	5/50 (10%)	Mean 10%	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

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL Page: 22

			Male			Female					
#Skin: Squamous Cell Papilloma, Papilloma, or Keratoacanthoma 5/50 (10%) 0/50 (0%)											
Overall Incidence	Total	5/50 (10%)	Mean 10%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Skin: Sebaceous Gland: Adenoma											
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			
#Skin: Sebaceous Gland: Carcinoma or Adenoma		0/50 (0%)				0/50 (0%)					
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
*Spleen: Hemangiosarcoma		1/50 (2%)				0/50 (0%)					
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Stomach, Forestomach: Leiomyoma											
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			
#Stomach, Forestomach: Leiomyosarcoma		0/50 (0%)				0/50 (0%)					
Overall Incidence	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

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL **Page:** 23

				Male			Female			
#Stomach, Forestomach: Sarcoma										
			(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Stomach, Forestomach: Squamous Cell Carcinoma										
			(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Stomach, Forestomach: Squamous Cell Carcinoma or	•	0/50	(0%)	Maran 00/	OD 004	Total	0/50 (0%)	M 00/	OD 007	
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Stomach, Glandular: Leiomyosarcoma		0/50	(0%)				1/50 (2%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
#Stomach, Glandular: Sarcoma										
		0/50	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Testes:										
Adenoma		0/50	(0%)							

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL Page: 24

			Male	Female				
*Thymus: Sarcoma		0/49 (0%)				1/50 (2%)		
Overall Incidence	Total	0/49 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
*Thymus: Thymoma Benign						(201)		
Overall Incidence	Total	1/49 (2%) 1/49 (2.04%)	Mean 2.04%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%
*Thymus: Thymoma: Benign, Malign		1/49 (2%)				1/50 (2%)		
Overall Incidence	Total	1/49 (2.04%)	Mean 2.04%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
*Thyroid Gland: C-Cell: Adenoma		5/50 (10%)				7/50 (14%)		
Overall Incidence	Total	5/50 (10%)	Mean 10%	SD 0%	Total	7/50 (14%)	Mean 14%	SD 0%
*Thyroid Gland: C-Cell: Carcinoma		0/50 /02/				0/50 (00/)		
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
*Thyroid Gland: C-Cell: Carcinoma or Adenoma		-()				()		
Overall Incidence	Total	5/50 (10%) 5/50 (10%)	Mean 10%	SD 0%	Total	7/50 (14%) 7/50 (14%)	Mean 14%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL Page: 25 Report Date: 06/12/2013

			Male		0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% 3/50 (6%)			
*Thyroid Gland: Follicular Cell: Adenoma								
		3/50 (6%)				3/50 (6%)		
Overall Incidence	Total	3/50 (6%)	Mean 6%	SD 0%		3/50 (6%)	Mean 6%	SD 0%
*Thyroid Gland: Follicular Cell: Carcinoma								
		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%		0/50 (0%)	Mean 0%	SD 0%
*Thyroid Gland: Follicular Cell: Carcinoma or Adenoma								
		3/50 (6%)				` ,		
Overall Incidence	Total	3/50 (6%)	Mean 6%	SD 0%	Total	3/50 (6%)	Mean 6%	SD 0%
*Urinary Bladder: Carcinoma or Papilloma		1/50 (2%)				1/50 (2%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
*Urinary Bladder: Papilloma								
		1/50 (2%)				1/50 (2%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
#Uterus: Carcinoma								
						3/50 (6%)		
Overall Incidence					Total	3/50 (6%)	Mean 6%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL **Page:** 26

	Male			Female	
#Uterus: Polyp Stromal					
Overall Incidence		Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%
#Uterus: Sarcoma Stromal			(00)		
Overall Incidence		Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Uterus: Sarcoma Stromal or Polyp Stromal		•••••	2/50 (4%)		
Overall Incidence		Total	2/50 (4%)	Mean 4%	SD 0%
#Uterus: Schwannoma Malignant					
Overall Incidence		Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Uterus: Squamous Cell Papilloma					
Overall Incidence		Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Vagina: Leiomyoma			4/50 (00/)		
Overall Incidence		Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

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

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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:** 28

Report Date: 06/12/2013

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

Strain: Wistar Han

Species: RATS

Toxicology Data Management System

Contract/Lab: All Laboratories

Tumor Incidence for Selected Control Animal Groups

Page: 29

Report Date: 06/12/2013

Route: GAVAGE Vehicle: WATER

Length of Study: CHRONIC

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

Toxicology Data Management System

Contract/Lab: All Laboratories

Tumor Incidence for Selected Control Animal Groups

Page: 30 Report Date: 06/12/2013

Species: RATS
Strain: Wistar Han

Route: GAVAGE Vehicle: WATER

Length of Study: CHRONIC

			Male			1/50 (2%) al 1/50 (2%) Mean 2% SD 0% 0/50 (0%)				
#All Organs: Leukemia: Lymphocyti	c, Monocytic, Mo	ononuclear, or Undiffere	ntiated			0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	(/	Mean 0%	SD 0%		
#All Organs: Malignant Lymphoma:	Histiocytic, Lym	phocytic, Mixed, NOS, o	r Undifferentiated Ce	ell Type		1/50 (20/)				
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total		Mean 2%	SD 0%		
#All Organs: Mesothelioma: Benign	, Malignant, NOS	2/50 (4%)				0/50 (0%)				
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#All Organs: Mesothelioma: Maligna		2/50 (4%)	M 40/	OD 00/	T-1-1	0/50 (0%)	M 00/	OD 001		
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#All Organs: Osteoma		1/50 (2%)				0/50 (0%)				
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#All Organs: Osteosarcoma		4/50 /00/				0/50 (00/)				
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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:** 31

				Male			0/50 (0%) Fotal 0/50 (0%) Mean 0% SD 0 1/50 (2%) Fotal 1/50 (2%) Mean 2% SD 0			
#All Organs: Osteosarcoma or Osteoma	a									
Overell Incidence	Total	,	(4%)	Maan 40/	SD 00/	Total	` '	Maon 00/	CD 00/	
Overall Incidence	Total	2/50 (4%)		Mean 4%	SD 0%	notai	0/50 (0%)	wiean 0%	SD 0%	
*Adrenal Cortex: Adenoma										
		,	2%)				` ,			
Overall Incidence	Total	1/50 (2%)		Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Adrenal Cortex: Carcinoma		0/50	(00/)				0/50 (00/)			
Overall Incidence	Total	0/50 (0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	` '	Moon 0%	SD 0%	
		, ,								
*Adrenal Medulla: Pheochromocytoma Benig	jn									
		,	(2%)				` '			
Overall Incidence	Total	1/50 (2%)		Mean 2%	SD 0%	Total	` '		SD 0%	
*Adrenal Medulla: Pheochromocytoma Malig										
,		0/50 ((0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Adrenal Medulla: Pheochromocytoma: Beni	gn, Complex,	_	2%)				1/50 (2%)			
Overall Incidence	Total	1/50 (2%)	*/	Mean 2%	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

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: 32

			Male				Female	
#Blood Vessel: Hemangiosarcoma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Bone Marrow: Hemangiosarcoma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Bone: Osteoma		1/50 (2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Bone: Osteosarcoma		1/50 (2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Bone: Osteosarcoma or Osteoma								
Overall Incidence	Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Bone: Sarcoma		1/50 (2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: WATER **Page:** 33

			Male			Female 0/50 (0%) 0/50 (0%) 0/50 (0%) Mean 0% SD 0% 0/50 (0%) Mean 0% SD 0% 0/50 (0%) Mean 0% SD 0% 0/50 (0%) Mean 0% SD 0%			
*Brain: Glioma Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	` '	Moon 09/	SD 00/	
	Total	0/50 (0%)				` '		3D 0%	
*Brain: Glioma Malignant		1/50 (2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	` '			
*Brain: Granular Cell Tumor Beni									
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)			
*Brain: Meningioma Malignant		0/50 (0%)							
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)			
*Brain: Meningioma: Benign, Mal									
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Brain: Oligodendroglioma, Glior	ma, or Astrocyt					0/50 (00/)			
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

				Male				Female	
*Clitoral/Preputial Gland: Carcinoma									
Overall Incidence	Total	1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	0/49 (0%) 0/49 (0%)	Mean 0%	SD 0%
*Clitoral/Preputial Gland: Carcinoma or Adenoma									
Overall Incidence	Total	1/50 (1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	0/49 (0%) 0/49 (0%)	Mean 0%	SD 0%
*Heart: Schwannoma Benign		0/50	(0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	` '	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Intestine Small: Duodenum: Leiomyosarcoma		0/50 ((0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Intestine Small: Jejunum: Leiomyosarcoma									
Overall Incidence	Total	0/50 (0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%
#Intestine Small: Site Unspec Leiomyosarcoma			(00/)				4/50 (00/)		
Overall Incidence	Total	0/50 (0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

			Male		0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% 0/50 (0%)			
*Islets, Pancreatic: Adenoma								
		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Islets, Pancreatic: Carcinoma or Adenoma								
		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Kidney: Pelvis and Transitio Papilloma	nal Epitheliu							
		0/50 (0%)				` '		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%		0/50 (0%)	Mean 0%	SD 0%
*Kidney: Renal Tubule: Adenoma								
		0/50 (0%)				, ,		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Kidney: Renal Tubule: Carcinoma or Adenoma								
		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Kidney: Renal Tubule: Lipoma								
		0/50 (0%)				1/50 (2%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

				Male			1/50 (2%) 1/50 (2%) Mean 2% SD 0% 1/50 (2%) 1/50 (2%) Mean 2% SD 0% 1/50 (2%) 1/50 (2%) Mean 2% SD 0%			
*Kidney: Renal Tubule: Liposarcoma										
		1/50	(2%)				` '			
Overall Incidence	Total	1/50 (2%)		Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Liver: Hepatocellular Adenoma	1									
		0/50	(0%)				1/50 (2%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
*Liver: Hepatocellular Carcinom	na or Hepatocel	lular Adenoma 0/50	(0%)				1/50 (2%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
*Liver: Hepatocellular Carcinom		ar Adenoma, or					1/50 (2%)			
Overall Incidence	Total	0/50 (0%)	,	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
*Lung: Alveolar/Bronchiolar Ado	enoma				•••••					
		0/50	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Lung: Alveolar/Bronchiolar Car	rcinoma or Alve	eolar/Bronchiola 0/50	ar Adenon (0%)	na			0/50 (0%)			

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

			Ma	le			Female			
#Lymph Node, Mesenteric: Hemangioma										
		0/50 (0%	,			0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Lymph Node, Mesenteric: Hemangiosarcoma										
		0/50 (0%	,			1/50 (2%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
#Mammary Gland: Adenoma										
		0/50 (0%	,			2/50 (4%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%		Total	2/50 (4%)	Mean 4%	SD 0%		
#Mammary Gland: Carcinoma		0/50 /00	()			C/FQ (400/)				
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%		Total	6/50 (12%) 6/50 (12%)	Mean 12%	SD 0%		
#Mammary Gland: Carcinoma or Adenoma										
		0/50 (0%	%)			8/50 (16%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	8/50 (16%)	Mean 16%	SD 0%		
#Mammary Gland: Fibroadenoma										
Occupation of James	T-1-1	0/50 (0%	,	OD 694	T	11/50 (22%)	Maria 0001	OD 00/		
Overall Incidence	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

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

			Male					Female			
#Mammary Gland: Fibroma, Fibroadenoma or Adenoma											
			(0%)				11/50 (22%)				
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	11/50 (22%)	Mean 22%	SD 0%		
#Mammary Gland: Fibroma, Fibroadenoma	ı, Carcinoma, or	Adenoma									
			(0%)				15/50 (30%)				
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	15/50 (30%)	Mean 30%	SD 0%		
#Mesentery: Hemangiosarcoma		0/50	(0%)				1/50 (2%)				
Overall Incidence	Total	0/50 (0%)	` ,	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
#Mesentery: Schwannoma Malignant			(2%)				0/50 (0%)				
Overall Incidence	Total	1/50 (2%)	` ,	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Nose: Olfactory Neuroblastom											
		0/50	(0%)				0/49 (0%)				
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/49 (0%)	Mean 0%	SD 0%		
#Oral Cavity (Oral Mucosa Squamous Cell Carcino	a, Tongue, Phary										
			(2%)				1/50 (2%)				
Overall Incidence	Total	1/50 (2%)		Mean 2%	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

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: WATER **Page:** 39

			Male			Female					
#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma 1/50 (2%) Overall Incidence Total 1/50 (2%) Mean 2% SD 0% Total 1/50 (2%) Mean 2% SD 0% Total 1/50 (2%) Mean 2% SD 0%											
Overall incidence	ı otal 	1/50 (2%)	Mean 2%	SD 0%	lotal	1/50 (2%)	Mean 2%	SD 0%			
#Oral Mucosa: Squamous Cell Carcinon	na	1/50 (2%)				1/50 (2%)					
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%			
*Ovary: Granulosa Cell Tumor Be	enign					0/50 (0%)					
Overall Incidence					Total	0/50 (0%)	Mean 0%	SD 0%			
*Ovary: Granulosa Cell Tumor Ma	alignant					0/50 (0%)					
Overall Incidence					Total	0/50 (0%)	Mean 0%	SD 0%			
*Ovary: Granulosa Cell Tumor: B	enign, Maligna	nt, NOS									
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			
*Ovary: Sex Cord Stromal Tumor	, Benign					0/50 /00/					
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

			Male			Female						
*Pancreas: Adenoma												
		0/50 (0%)				0/50 (0%)						
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
*Pancreas: Carcinoma or Adenoma												
		0/50 (0%)				0/50 (0%)						
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
*Pituitary Gland: Pars Distali Adenoma												
		17/50 (34%)				32/50 (64%)						
Overall Incidence	Total	17/50 (34%)	Mean 34%	SD 0%	Total	32/50 (64%)	Mean 64%	SD 0%				
*Pituitary Gland: Pars Distali Carcinoma or Adenoma												
		17/50 (34%)				32/50 (64%)						
Overall Incidence	Total	17/50 (34%)	Mean 34%	SD 0%	Total	32/50 (64%)	Mean 64%	SD 0%				
*Pituitary Gland: Pars Interm Adenoma												
		1/50 (2%)				2/50 (4%)						
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	2/50 (4%)	Mean 4%	SD 0%				
*Pituitary Gland: Pars Interm Carcinoma or Adenoma												
		1/50 (2%)				2/50 (4%)						
Overall Incidence	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

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: WATER Page: 41

			Male				Female	
*Prostate: Adenoma								
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%				
*Prostate: Carcinoma or Adenoma								
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%				
*Salivary Glands: Myoepithelioma		0/50 (00()				0/40 (09/)		
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/49 (0%) 0/49 (0%)	Mean 0%	SD 0%
*Salivary Glands: Schwannoma Malignant		0/50 (0%)				0/49 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/49 (0%)	Mean 0%	SD 0%
#Seminal Vesicle: Adenoma								
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%				
#Skeletal Muscle: Sarcoma								
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

			Male			Female						
#Skin: Basal Cell Adenoma												
		2/50 (4%)		25.00/		0/50 (0%)	••	00.00				
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
#Skin: Basal Cell Adenoma or	Basosquamous	Tumor Benign										
	•	2/50 (4%)				0/50 (0%)						
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
#Skin: Basal Cell Adenoma, B		umor Benign, or Tricho				0/50 (0%)						
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
#Skin: Basal Cell Carcinoma		0/50 (0%)				0/50 (0%)						
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
#Skin: Basal Cell Carcinoma c	or Basosquamou	s Tumor (malignant or				0/50 (0%)						
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
#Skin: Basal Cell Carcinoma, NOS), or Trichoepitheli		oma, Basosquamous T	umor (benign, malign	ant or		0/50 (0%)						
		2/30 (4%)				0/30 (0/0)						

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories Tumor Incidence for Selected Control Animal Groups

Page: 43

Report Date: 06/12/2013

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Route: GAVAGE Vehicle: WATER

			Male				Female				
#Skin: Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma											
		6/50 (12%)				0/50 (0%)					
Overall Incidence	Total	6/50 (12%)	Mean 12%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Skin: Fibroma						0/50 /00/					
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			
#Skin: Fibroma, Fibrosarcoma Overall Incidence	a, Sarcoma, Myxo	oma, Myxosarcoma, or F 1/50 (2%) 1/50 (2%)	ibrous Histiocytoma Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			
#Skin: Fibrosarcoma		0/50 (0%)				0/50 (0%)					
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Skin: Fibrosarcoma, Sarcom	ıa, Myxosarcoma	, or Fibrous Histiocytom 0/50 (0%)	a			0/50 (0%)					
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Skin: Hamartoma		4/50 (20/)				0/50 (09/)					
		1/50 (2%)				0/50 (0%)					

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Strain: Wistar Han

Species: RATS

Toxicology Data Management System

Contract/Lab: All Laboratories Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE

Length of Study: CHRONIC

Vehicle: WATER

Page: 44

			Male			Female			
#Skin: Hemangiosarcoma		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Keratoacanthoma									
Overall Incidence	Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Skin: Lipoma		4/50 (00/)				0/50 (00/)			
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Skin: Liposarcoma		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Neurofibrosarcoma or S						2/50 (4%)			
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	2/50 (4%)	Mean 4%	SD 0%	
#Skin: Neurofibrosarcoma, Ne		chwannoma (benign, ma 2/50 (4%)				2/50 (4%)			
Overall Incidence	Total	2/50 (4%)	Mean 4%	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

Strain: Wistar Han

Species: RATS

Toxicology Data Management System

Page: 45

Report Date: 06/12/2013

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: WATER

Length of Study: CHRONIC

Contract/Lab: All Laboratories

			Male				Female	
#Skin: Schwannoma Malignant								
Overall Incidence	Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%	Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%
#Skin: Squamous Cell Carcinoma		1/50 (2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Skin: Squamous Cell Carcinoma or Carcinoma	, Basal Cell C	Carcinoma, Basosquamoı	ıs Tumor (malignan	nt or NOS),				
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Skin: Squamous Cell Papilloma		1/50 (2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Skin: Squamous Cell Papilloma o	or Papilloma	1/50 (2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Skin: Squamous Cell Papilloma,						0/50 (0%)		
Overall Incidence	Total	4/50 (8%)	Mean 8%	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

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: WATER **Page:** 46

			Male				Female				
#Skin: Squamous Cell Papilloma, Papilloma, or Keratoacanthoma 3/50 (6%) Overall Incidence Total 3/50 (6%) Mean 6% SD 0% Total 0/50 (0%) Mean 0% SD 0%											
Overall Incidence	Total	3/50 (6%)	Mean 6%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Skin: Sebaceous Gland: Adenoma		1/FO (20()				0/50 (09/)					
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			
#Skin: Sebaceous Gland: Carcinoma or Adenoma		1/50 (2%)				0/50 (0%)					
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
*Spleen: Hemangiosarcoma		0/50 (0%)				0/50 (0%)					
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Stomach, Forestomach: Leiomyoma											
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			
#Stomach, Forestomach: Leiomyosarcoma		1/50 (2%)				0/50 (0%)					
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: WATER Page: 47

				Male				Female		
#Stomach, Forestomach: Sarcoma										
		0/50	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Stomach, Forestomach: Squamous Cell Carcinoma										
Overall Incidence	Total	0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	
#Stomach, Forestomach: Squamous Cell Carcinoma of Overall Incidence	or Papillom a	a Squamous 0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	
#Stomach, Glandular: Leiomyosarcoma	Total	0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Stomach, Glandular: Sarcoma										
Overall Incidence	Total	0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Testes: Adenoma		2/50	(4%)							
Overall Incidence	Total	2/50 (4%)	` ,	Mean 4%	SD 0%					

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Da

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

			Male			Female			
*Thymus: Sarcoma									
		0/49 (0%)				0/49 (0%)			
Overall Incidence	Total	0/49 (0%)	Mean 0%	SD 0%	Total	0/49 (0%)	Mean 0%	SD 0%	
*Thymus: Thymoma Benign									
		2/49 (4%)				3/49 (6%)			
Overall Incidence	Total	2/49 (4.08%)	Mean 4.08%	SD 0%	Total	3/49 (6.12%)	Mean 6.12%	SD 0%	
*Thymus: Thymoma: Benign, Malign		2/49 (4%)				3/49 (6%)			
Overall Incidence	Total	2/49 (4.08%)	Mean 4.08%	SD 0%	Total	3/49 (6.12%)	Mean 6.12%	SD 0%	
*Thyroid Gland: C-Cell: Adenoma		4/50 (8%)				3/50 (6%)			
Overall Incidence	Total	4/50 (8%)	Mean 8%	SD 0%	Total	3/50 (6%)	Mean 6%	SD 0%	
*Thyroid Gland: C-Cell: Carcinoma									
		0/50 (0%)				1/50 (2%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
*Thyroid Gland: C-Cell: Carcinoma or Adenoma									
	.	4/50 (8%)	NA 00/	OD 00/	T	4/50 (8%)	NA 00/	OD 00/	
Overall Incidence	Total	4/50 (8%)	Mean 8%	SD 0%	Total	4/50 (8%)	Mean 8%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Species: RATS

Strain: Wistar Han

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

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Report Date: 06/12/2013

Route: GAVAGE Vehicle: WATER

Length of Study: CHRONIC

Contract/Lab: All Laboratories

Male **Female** *Thyroid Gland: Follicular Cell: Adenoma 0/50 (0%)1/50 (2%)0/50 (0%) **Overall Incidence** Total Mean 0% SD 0% Total 1/50 (2%) Mean 2% SD 0% *Thyroid Gland: Follicular Cell: Carcinoma 0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% SD 0% *Thyroid Gland: Follicular Cell: Carcinoma or Adenoma 0/50 (0%)1/50 (2%)Overall Incidence Total 0/50 (0%) Mean 0% SD 0% Total 1/50 (2%) Mean 2% SD 0% *Urinary Bladder: Carcinoma or Papilloma 0/50 (0%)0/49 (0%)SD 0% **Overall Incidence** Total 0/50 (0%) Mean 0% SD 0% Total 0/49 (0%) Mean 0% *Urinary Bladder: **Papilloma** 0/50 (0%)0/49 (0%)**Overall Incidence** Total 0/50 (0%) Mean 0% SD 0% Total 0/49 (0%) Mean 0% SD 0% #Uterus: Carcinoma 3/50 (6%)**Overall Incidence** Total Mean 6% SD 0% 3/50 (6%)

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

	Male	Female				
#Uterus: Polyp Stromal						
Overall Incidence		Total	3/50 (6%) 3/50 (6%)	Mean 6%	SD 0%	
#Uterus: Sarcoma Stromal						
Overall Incidence		Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	
#Uterus: Sarcoma Stromal or Polyp Stromal			(201)			
Overall Incidence		Total	4/50 (8%) 4/50 (8%)	Mean 8%	SD 0%	
#Uterus: Schwannoma Malignant						
Overall Incidence		Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	
#Uterus: Squamous Cell Papilloma			•••••			
Overall Incidence		Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Vagina: Leiomyoma						
Overall Incidence		Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

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

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

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Report Date: 06/12/2013

Study Summary

Laboratory Name	Study Number	Study Start Date	Length of Study in Days	Number of Animals Total and (#/Cage)	Number Surviving and (Mean Life Span)	Maximum Mean Weekly Body Weight	Chemical
					Male		
Battelle Northwest	052051503	04/14/08	729	50(5)	33(688)	602.8	Metal working fluids (CIMSTAR 3800)
					Female		
Battelle Northwest	052051503	04/14/08	731	50(5)	35(700)	384.9	Metal working fluids (CIMSTAR 3800)

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

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			Male			Female				
#All Organs: Benign Tumors										
•		32/50 (64%)				42/50 (84%)				
Overall Incidence	Total	32/50 (64%)	Mean 64%	SD 0%	Total	42/50 (84%)	Mean 84%	SD 0%		
#All Organs: Malignant Tumors										
		13/50 (26%)				11/50 (22%)				
Overall Incidence	Total	13/50 (26%)	Mean 26%	SD 0%	Total	11/50 (22%)	Mean 22%	SD 0%		
#All Organs: Malignant and Benign To	umors									
		37/50 (74%)				43/50 (86%)				
Overall Incidence	Total	37/50 (74%)	Mean 74%	SD 0%	Total	43/50 (86%)	Mean 86%	SD 0%		
#All Organs: Hemangioma		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#All Organs: Hemangiosarcoma										
		3/50 (6%)				1/50 (2%)				
Overall Incidence	Total	3/50 (6%)	Mean 6%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
#All Organs: Hemangiosarcoma or He	emangioma									
		3/50 (6%)				1/50 (2%)				
Overall Incidence	Total	3/50 (6%)	Mean 6%	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

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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				Male				Female			
#All Organs: Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated 0/50 (0%) 0/50 (0%)											
Overall Incidence	Total	0/50 (0%)	()	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#All Organs: Malignant Lymphoma: Hist	tiocytic, Lymp	hocytic, Mixed	, NOS, or	Undifferentiated Ce	II Type						
			(0%)				2/50 (4%)				
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	2/50 (4%)	Mean 4%	SD 0%		
#All Organs: Mesothelioma: Benign, Ma	lignant, NOS	1/50	(2%)				0/50 (0%)				
Overall Incidence	Total	1/50 (2%)	(,	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#All Organs: Mesothelioma: Malignant		1/50	(2%)				0/50 (0%)				
Overall Incidence	Total	1/50 (2%)	(=75)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#All Organs: Osteoma		0/50	(00()				0/50 (00/)				
Overall Incidence	Total	0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#All Organs: Osteosarcoma											
• " " "	T		(2%)		05.00/	-	0/50 (0%)	M 00/	OD .00/		
Overall Incidence	Total	1/50 (2%)		Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

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				Male			Female			
#All Organs: Osteosarcoma or Osteoma										
Overall Incidence	Total	1/50 1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
		1/30 (2/8)					0/30 (0 %)			
*Adrenal Cortex: Adenoma										
			(4%)		05.00/		2/50 (4%)		00.00	
Overall Incidence	Total	2/50 (4%)		Mean 4%	SD 0%	Total	2/50 (4%)	Mean 4%	SD 0%	
*Adrenal Cortex: Carcinoma										
		1/50	(2%)		05.00/		0/50 (0%)		00.00	
Overall Incidence	Total	1/50 (2%)		Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Adrenal Medulla: Pheochromocytoma Benigr	1									
Overall Incidence	Total	4/50 4/50 (8%)	(8%)	Mean 8%	SD 0%	Total	1/49 (2%) 1/49 (2.04%)	Mean 2.04%	SD 0%	
*Adrenal Medulla: Pheochromocytoma Malign										
,		0/50	(0%)				1/49 (2%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	1/49 (2.04%)	Mean 2.04%	SD 0%	
*Adrenal Medulla: Pheochromocytoma: Benig		Malignant, NOS					2/49 (4%)			
Overall Incidence	Total	4/50 (8%)	, ,	Mean 8%	SD 0%	Total	2/49 (4.08%)	Mean 4.08%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

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			Male			Female			
#Blood Vessel: Hemangiosarcoma		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Bone Marrow: Hemangiosarcoma		1/50 (2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Bone: Osteoma	•••••	0/50 (09/)				0/50 (00/)			
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Bone: Osteosarcoma		1/50 (2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Bone: Osteosarcoma or Osteoma									
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Bone: Sarcoma		0/50 /0%				0/50 /00/			
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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				Male			Female			
*Brain: Glioma										
Overall Incidence	Total	2/50 2/50 (4%)	(4%)	Mean 4%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Brain: Glioma Malignant		- /								
Overall Incidence	Total	0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Brain: Granular Cell Tumor Benig		0/50	(0%)				2/50 (4%)			
Overall Incidence	Total	0/50 (0%)	(076)	Mean 0%	SD 0%	Total	2/50 (4%)	Mean 4%	SD 0%	
*Brain: Meningioma Malignant		1/50	(2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	(= /0)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Brain: Meningioma: Benign, Malig	ınant, NOS	1/50	(20/)				0/50 (09/)			
Overall Incidence	Total	1/50 1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Brain: Oligodendroglioma, Glioma	a, or Astrocy	toma								
Overall Incidence	Total	0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male			Female			
*Clitoral/Preputial Gland: Carcinoma		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Clitoral/Preputial Gland: Carcinoma or Adenoma		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Heart: Schwannoma Benign		1/50 (2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Intestine Small: Duodenum: Leiomyosarcoma		0/50 (0%)		OD 00/	Total	0/50 (0%)	M 00/	00.00	
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Intestine Small: Jejunum: Leiomyosarcoma		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Intestine Small: Site Unspec Leiomyosarcoma						0/50 (00/)			
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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: 59

				Male			Female				
*Islets, Pancreatic: Adenoma											
Overall Incidence	Total	0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	1/49 (2%) 1/49 (2.04%)	Mean 2.04%	SD 0%		
*Islets, Pancreatic: Carcinoma or Adenoma											
Overall Incidence	Total	0/50 (0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	1/49 (2%) 1/49 (2.04%)	Mean 2.04%	SD 0%		
*Kidney: Pelvis and Transition	nal Epitheliu										
Overall Incidence	Total	1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
*Kidney: Renal Tubule: Adenoma							1/50 (2%)				
Overall Incidence	Total	0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
*Kidney: Renal Tubule: Carcinoma or Adenoma											
Overall Incidence	Total	0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%		
*Kidney: Renal Tubule: Lipoma											
Overall Incidence	Total	0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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: 60

			Male			Female			
*Kidney: Renal Tubule: Liposarcoma									
-		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Liver: Hepatocellular Adenoma		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Liver: Hepatocellular Carcinoma	or Hepatocel					0/50 (0%)			
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Liver: Hepatocellular Carcinoma,	Hepatocellul	ar Adenoma, or Hepatob	lastoma			0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Lung: Alveolar/Bronchiolar Aden	oma	1/FO (20()				0/50 (09/)			
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Lung: Alveolar/Bronchiolar Carci	noma or Alve	eolar/Bronchiolar Adenor 1/50 (2%)	ma			0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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: 61

				Male			Female			
#Lymph Node, Mesenteric: Hemangioma										
		,)%)		25 22/		0/50 (0%)		05 00/	
Overall Incidence	Total	0/50 (0%)	Mean	0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Lymph Node, Mesenteric: Hemangiosarcoma										
		,	5%)				1/50 (2%)			
Overall Incidence	Total	3/50 (6%)	Mean	6%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
#Mammary Gland: Adenoma										
		,)%)				2/50 (4%)			
Overall Incidence	Total	0/50 (0%)	Mean		SD 0%	Total	2/50 (4%)	Mean 4%	SD 0%	
#Mammary Gland: Carcinoma		0/50 /0	2007				A/F0 (00/)			
Overall Incidence	Total	0/50 (0%)	0%) Mean		SD 0%	Total	4/50 (8%) 4/50 (8%)	Mean 8%	SD 0%	
#Mammary Gland: Carcinoma or Adenoma										
		0/50 (0)%)				6/50 (12%)			
Overall Incidence	Total	0/50 (0%)	Mean	0%	SD 0%	Total	6/50 (12%)	Mean 12%	SD 0%	
#Mammary Gland: Fibroadenoma										
	.	,)%)	001	OD 00/	.	9/50 (18%)	100/	OD 00/	
Overall Incidence	Total	0/50 (0%)	Mean	υ%	SD 0%	Total	9/50 (18%)	Mean 18%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

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			Male				Female				
#Mammary Gland: Fibroma, Fibroadenoma or Adenoma											
		0/50 (0%)				11/50 (22%)					
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	11/50 (22%)	Mean 22%	SD 0%			
#Mammary Gland: Fibroma, Fibroadenoma	, Carcinoma, or	Adenoma									
	, , .	0/50 (0%)				13/50 (26%)					
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	13/50 (26%)	Mean 26%	SD 0%			
#Mesentery: Hemangiosarcoma		0/50 (0%)				0/50 (0%)					
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
		, ,				, ,					
#Mesentery: Schwannoma Malignant		0/50 (0%)				0/50 (0%)					
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
*Nose: Olfactory Neuroblastom	a										
		0/50 (0%)				0/50 (0%)					
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Oral Cavity (Oral Mucosa Squamous Cell Carcinor		nx, Tooth, Gingiva):									
		0/50 (0%)				0/50 (0%)					
Overall Incidence	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

Strain: Wistar Han

Species: RATS

Toxicology Data Management System

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Mean 0%

SD 0%

Report Date: 06/12/2013

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

Length of Study: CHRONIC

Contract/Lab: All Laboratories

Male Female **#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva):** Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma 0/50 (0%)0/50 (0%)0/50 (0%) **Overall Incidence** Total Mean 0% SD 0% Total 0/50 (0%) Mean 0% SD 0% **#Oral Mucosa: Squamous Cell Carcinoma** 0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% SD 0% *Ovary: **Granulosa Cell Tumor Benign** 1/50 (2%)Overall Incidence Total 1/50 (2%) Mean 2% SD 0% *Ovary: **Granulosa Cell Tumor Malignant** 0/50 (0%)**Overall Incidence** Total Mean 0% SD 0% 0/50 (0%) *Ovarv: Granulosa Cell Tumor: Benign, Malignant, NOS 1/50 (2%)**Overall Incidence** Total 1/50 (2%) Mean 2% SD 0% Sex Cord Stromal Tumor, Benign 0/50 (0%)

Total

0/50 (0%)

Overall Incidence

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

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			Male				Female				
*Pancreas: Adenoma											
		1/50 (2%)				0/49 (0%)					
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/49 (0%)	Mean 0%	SD 0%			
*Pancreas: Carcinoma or Adenoma											
		1/50 (2%)				0/49 (0%)					
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/49 (0%)	Mean 0%	SD 0%			
*Pituitary Gland: Pars Distali Adenoma		eified Site:				25/50 /70%					
Overall Incidence	Total	16/49 (33%) 16/49 (32.65%)	Mean 32.65%	SD 0%	Total	35/50 (70%) 35/50 (70%)	Mean 70%	SD 0%			
		` ,				, ,					
*Pituitary Gland: Pars Distali Carcinoma or Adenoma	s or Unspec										
		16/49 (33%)				35/50 (70%)					
Overall Incidence	Total	16/49 (32.65%)	Mean 32.65%	SD 0%	Total	35/50 (70%)	Mean 70%	SD 0%			
*Pituitary Gland: Pars Interm											
		2/49 (4%)				1/50 (2%)					
Overall Incidence	Total	2/49 (4.08%)	Mean 4.08%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%			
*Pituitary Gland: Pars Interm Carcinoma or Adenoma	edia:										
		2/49 (4%)				1/50 (2%)					
Overall Incidence	Total	2/49 (4.08%)	Mean 4.08%	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

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

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			Male				Female		
*Prostate: Adenoma		1/50 (2%)							
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%					
*Prostate: Carcinoma or Adenoma		1/50 (2%)							
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%					
*Salivary Glands: Myoepithelioma		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Salivary Glands: Schwannoma Malignant						0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Seminal Vesicle: Adenoma									•••••
Overell Incidence	Total	1/50 (2%)	Maon 20/	SD 00/					
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%					
#Skeletal Muscle: Sarcoma		0/50 (09/)				0/50 (09/)			
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male				Female				
#Skin: Basal Cell Adenoma 0/50 (0%) 0/50 (0%)											
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			
#Skin: Basal Cell Adenoma or	Basosquamous	Tumor Benian									
		0/50 (0%)				0/50 (0%)					
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Skin: Basal Cell Adenoma, B		umor Benign, or Tricho				0/50 (0%)					
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Skin: Basal Cell Carcinoma		1/50 (2%)				0/50 (0%)					
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Skin:				•••••							
Basal Cell Carcinoma o	or Basosquamou	s Tumor (malignant or 1/50 (2%)	NOS)			0/50 (0%)					
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Skin: Basal Cell Carcinoma, I NOS), or Trichoepitheli		oma, Basosquamous T	umor (benign, maligna	ant or							
		1/50 (2%)				0/50 (0%)					
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

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

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^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male				Female	
#Skin: Hemangiosarcoma								
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Skin: Keratoacanthoma								
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Skin: Lipoma		4/50 (00/)				0/50 (00/)		
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Skin: Liposarcoma		0/50 (0%)				1/50 (2%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
#Skin: Neurofibrosarcoma or S	Schwannoma (m	alignant or NOS) 0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Skin: Neurofibrosarcoma, Neu		chwannoma (benign, ma 0/50 (0%)				0/50 (0%)		
Overall Incidence	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

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

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			Male				Female		
#Skin: Schwannoma Malignant									
		0/50 (0%	b)			0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Squamous Cell Carcinoma									
		0/50 (0%	b)			0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Squamous Cell Carcinoma, or Carcinoma	Basal Cell C	Carcinoma, Basosqu		nt or NOS),		0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Squamous Cell Papilloma		0/50 (0%	o)			0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Squamous Cell Papilloma o	r Papilloma		,			0/50 (00/)			
Overall Incidence	Total	0/50 (0% 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
Overall illeliderice	ı Ulal	0/30 (0%)	IVIEAN U%	U%	10tai	(070)	IVIEAN U70	JU U%	
#Skin: Squamous Cell Papilloma, F	Papilloma, S	•		ma		0/50 (00/)			
Overell lesidence	Tatal	1/50 (2%	,	CD 00/	Tatal	0/50 (0%)	Mana 00/	CD 00/	
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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				Male			Female				
#Skin: Squamous Cell Papilloma, Papilloma, or Keratoacanthoma 1/50 (2%) Overall Incidence Total 1/50 (2%) Mean 2% SD 0% Total 0/50 (0%) Mean 0% SD 0%											
Overall Incidence	Total	1/50 (2%)		Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Skin: Sebaceous Gland: Adenoma		0/50 //	(00/)				0/50 (00/)				
Overall Incidence	Total	0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#Skin: Sebaceous Gland: Carcinoma or Adenoma			0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	,	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Spleen: Hemangiosarcoma			[0%]				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Stomach, Forestomach: Leiomyoma											
Overall Incidence	Total	1/50 (2%)	[2%]	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#Stomach, Forestomach: Leiomyosarcoma		0/50 (0%)				1/50 (2%)				
Overall Incidence	Total	0/50 (0%)	(= : = /	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

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				Male				Female	
#Stomach, Forestomach: Sarcoma									
		1/50	(2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)		Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Stomach, Forestomach: Squamous Cell Carcinoma							(00)		
Overall Incidence	Total	0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Stomach, Forestomach: Squamous Cell Carcinoma of Overall Incidence	or Papilloma Total	a Squamous 0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Stomach, Glandular:	Total		` '	Mean 0%	SD 0%	Total	` '	Mean 0%	SD 0%
Leiomyosarcoma		0/50	(0%)				1/50 (2%)		
Overall Incidence	Total	0/50 (0%)	` '	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
#Stomach, Glandular: Sarcoma									
		1/50	(2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)		Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Testes: Adenoma		2/50	(4%)						

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

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			Male				Female	
*Thymus: Sarcoma								
		0/40 (0%)				0/48 (0%)		
Overall Incidence	Total	0/40 (0%)	Mean 0%	SD 0%	Total	0/48 (0%)	Mean 0%	SD 0%
*Thymus: Thymoma Benign								
		1/40 (3%)				5/48 (10%)		
Overall Incidence	Total	1/40 (2.5%)	Mean 2.5%	SD 0%	Total	5/48 (10.42%)	Mean 10.42%	SD 0%
*Thymus: Thymoma: Benign, Maligna	ant, NOS							
		1/40 (3%)				5/48 (10%)		
Overall Incidence	Total	1/40 (2.5%)	Mean 2.5%	SD 0%	Total	5/48 (10.42%)	Mean 10.42%	SD 0%
*Thyroid Gland: C-Cell: Adenoma		7/50 (14%)				3/50 (6%)		
Overall Incidence	Total	7/50 (14%)	Mean 14%	SD 0%	Total	3/50 (6%)	Mean 6%	SD 0%
*Thyroid Gland: C-Cell: Carcinoma								
		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Thyroid Gland: C-Cell: Carcinoma or Adenoma								
		7/50 (14%)				3/50 (6%)		
Overall Incidence	Total	7/50 (14%)	Mean 14%	SD 0%	Total	3/50 (6%)	Mean 6%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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				Male			Female			
*Thyroid Gland: Follicular Cell: Adenoma	:									
			(2%)				1/50 (2%)			
Overall Incidence	Total	1/50 (2%)		Mean 2%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
*Thyroid Gland: Follicular Cell: Carcinoma										
			(0%)				1/50 (2%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
*Thyroid Gland: Follicular Cell: Carcinoma or Adenoma		4/50	(00()				0/50 (404)			
Overall Incidence	Total	1/50 1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%	
		, ,				TOLAI	2/30 (4%)	Wearr 4%	٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠	
*Urinary Bladder: Carcinoma or Papilloma		- 1	()							
Overall Incidence	Total	0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
		` '					0/50 (0%)			
*Urinary Bladder: Papilloma										
			(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Uterus: Carcinoma										
							1/50 (2%)			
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

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

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	Male		Female				
#Uterus: Polyp Stromal							
Overall Incidence		Total	5/50 (10%) 5/50 (10%)	Mean 10%	SD 0%		
#Uterus: Sarcoma Stromal							
Overall Incidence		Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%		
#Uterus: Sarcoma Stromal or Polyp Stromal							
Overall Incidence		Total	6/50 (12%) 6/50 (12%)	Mean 12%	SD 0%		
#Uterus: Schwannoma Malignant							
Overall Incidence		Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#Uterus: Squamous Cell Papilloma							
Overall Incidence		Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%		
#Vagina: Leiomyoma			0/50 (0%)				
Overall Incidence		Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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

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			Male			Female			
#Vagina: Polyp						0/50 (00/)			
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Zymbal's Gland: Carcinoma									
Overall Incidence	Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Zymbal's Gland: Carcinoma or Adenoma									
		2/50 (4%)				0/50 (0%)			
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied