Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Toxicology Data Management System

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Report Date: 11/11/2014

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

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL Page: 5

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

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

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL Page: 6

			Male			Female			
#All Organs: Histiocytic Sarcoma									
•		0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%	
#All Organs: Leukemia: Lymphocyti	c, Monocytic, Mo	ononuclear, or Undiffere	ntiated						
	-	1/49 (2%)	1/50 (2%)			0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	2/99 (2.02%)	Mean 2.02%	SD 0.03%	Total	0/100 (0%)	Mean 0%	SD 0%	
#All Organs: Malignant Lymphoma: Overall Incidence	Total	phocytic, Mixed, NOS, or 0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	I Type SD 0%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%	
#All Organs: Mesothelioma: Benign		;				(201)	(00)		
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%	
#All Organs: Mesothelioma: Maligna	ınt								
		0/49 (0%)	0/50 (0%)	05.00/		0/50 (0%)	0/50 (0%)	25 22/	
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%	
#All Organs: Osteoma		0/40 /627	0/50 (05)			0/50 (00)	0/50 (00)		
	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 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: GAVAGE Vehicle: CORN OIL Page: 7

			Male				Female	
#All Organs: Osteosarcoma								
Overall Incidence	Total	0/49 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	1/50 (2%)	0/50 (0%) Mean 1%	CD 4 440/
Overall incidence	Total	0/99 (0%)	wean 0%	SD 0%	Total	1/100 (1%)	wean 1%	SD 1.41%
#All Organs: Osteosarcoma or Osteoma		-1						
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	1/50 (2%) 1/100 (1%)	0/50 (0%) Mean 1%	SD 1.41%
	10tai	0/99 (0%)		3D 0%		1/100 (1%)		3D 1.41%
*Adrenal Cortex: Adenoma								
Overall Insidence	Tatal	0/49 (0%)	0/50 (0%)	CD 00/	Tatal	1/50 (2%)	1/50 (2%)	CD 00/
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	2/100 (2%)	Mean 2%	SD 0%
*Adrenal Cortex: Carcinoma								
Occupation of the second	T-1-1	1/49 (2%)	0/50 (0%)	OD 4 440/	T-1-1	0/50 (0%)	1/50 (2%)	OD 4 440/
Overall Incidence	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	1/100 (1%)	Mean 1%	SD 1.41%
*Adrenal Medulla: Pheochromocytoma Benign								
		0/49 (0%)	0/49 (0%)			1/50 (2%)	2/49 (4%)	
Overall Incidence	Total	0/98 (0%)	Mean 0%	SD 0%	Total	3/99 (3.03%)	Mean 3.04%	SD 1.47%
*Adrenal Medulla: Pheochromocytoma Comple	ex							
		0/49 (0%)	0/49 (0%)			1/50 (2%)	0/49 (0%)	
Overall Incidence	Total	0/98 (0%)	Mean 0%	SD 0%	Total	1/99 (1.01%)	Mean 1%	SD 1.41%

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

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL Page: 8

			Male				Female	
*Adrenal Medulla: Pheochromocytoma Ma	lignant							
		1/49 (2%)	0/49 (0%)			0/50 (0%)	0/49 (0%)	
Overall Incidence	Total	1/98 (1.02%)	Mean 1.02%	SD 1.44%	Total	0/99 (0%)	Mean 0%	SD 0%
*Adrenal Medulla: Pheochromocytoma: Bo	enign, Complex	, Malignant, NOS						
		1/49 (2%)	0/49 (0%)			2/50 (4%)	2/49 (4%)	
Overall Incidence	Total	1/98 (1.02%)	Mean 1.02%	SD 1.44%	Total	4/99 (4.04%)	Mean 4.04%	SD 0.06%
#Blood Vessel: Hemangiosarcoma		0/40 /00/)	4/50 /00/			0/50 (00/)	0/50 (00/)	
Overall Incidence	Total	0/49 (0%) 1/99 (1.01%)	1/50 (2%) Mean 1%	SD 1.41%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%
		, ,			10tai			
*Bone Marrow: Hemangiosarcoma								
	.	0/49 (0%)	0/50 (0%)	00.00/	-	0/50 (0%)	0/50 (0%)	OD 00/
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
#Bone: Osteoma								
		0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
#Bone: Osteosarcoma								
		0/49 (0%)	0/50 (0%)	00.00		1/50 (2%)	0/50 (0%)	00
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	1/100 (1%)	Mean 1%	SD 1.41%

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

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL Page: 9

			Male				Female	
#Bone: Osteosarcoma or Osteoma								
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	1/50 (2%) 1/100 (1%)	0/50 (0%) Mean 1%	SD 1.41%
#Bone: Sarcoma	•••••							
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%
*Brain: Glioma								
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%
*Brain: Glioma Malignant		1/49 (2%)	0/50 (0%)			0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/99 (1.01%)	0/50 (0%) Mean 1.02%	SD 1.44%	Total	0/100 (0%)	Mean 0%	SD 0%
*Brain: Granular Cell Tumor Benigi			•••••					
Overall Incidence	Total	1/49 (2%) 2/99 (2.02%)	1/50 (2%) Mean 2.02%	SD 0.03%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%
*Brain: Granular Cell Tumor Maligr	nant	0/40 (00/)	0/50 (0%)			0/50 (0%)	0/50 (00/)	
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 0/100 (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: CORN OIL **Page:** 10

			Male			Female						
*Brain: Meningioma Malignant 0/49 (0%) 0/50 (0%) 0/50 (0%) 0/50 (0%)												
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%				
*Brain:	lianent NOS											
Meningioma: Benign, Ma	ilighant, NOS	0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)					
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%				
*Brain: Oligodendroglioma, Glio	ma, or Astrocy	/toma 1/49 (2%)	0/50 (0%)			0/50 (0%)	0/50 (0%)					
Overall Incidence	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	0/100 (0%)	Mean 0%	SD 0%				
*Clitoral/Preputial Gland: Carcinoma		1/49 (2%)	0/50 (0%)			0/49 (0%)	0/50 (0%)					
Overall Incidence	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	0/99 (0%)	Mean 0%	SD 0%				
*Clitoral/Preputial Gland: Carcinoma or Adenoma												
		1/49 (2%)	0/50 (0%)			0/49 (0%)	0/50 (0%)					
Overall Incidence	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	0/99 (0%)	Mean 0%	SD 0%				
*Heart: Schwannoma Benign		0/40 /00/	0/50 /00/			0/50 (00/)	4/50 (20/)					
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%		0/50 (0%) 1/100 (1%)	1/50 (2%) Mean 1%	SD 1.41%				

^{*:} 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: 11

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

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

^{#:} Denominator is number of animals necropsied

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	
#Intestine Small: Site Uns	specified:							
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%
#Intestine Small: Site Uns Leiomyosarcoma	specified:				•••••			
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 1/100 (1%)	1/50 (2%) Mean 1%	SD 1.41%
*Islets, Pancreatic: Adenoma		4/40 (00)	4/50 (00/)			0/50 (00/)	0/50 (00)	
Overall Incidence	Total	4/49 (8%) 5/99 (5.05%)	1/50 (2%) Mean 5.08%	SD 4.36%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%
*Islets, Pancreatic: Carcinoma						0/50 (0%)	0/50 (00/)	
Overall Incidence	Total	2/49 (4%) 2/99 (2.02%)	0/50 (0%) Mean 2.04%	SD 2.89%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%
*Islets, Pancreatic: Carcinoma or Adenoma								
Overall Incidence	Total	6/49 (12%) 7/99 (7.07%)	1/50 (2%) Mean 7.12%	SD 7.24%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%
*Kidney: Pelvis and Trans Papilloma	sitional Epitheliu				•••••			
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 0/100 (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: CORN OIL **Page:** 13

			Male				Female	
*Kidney: Renal Tubule: Adenoma								
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%
*Kidney: Renal Tubule: Carcinoma								
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%
*Kidney: Renal Tubule: Carcinoma or Adenoma		0/40 (00)	0/50 (00/)			0/50 (00/)	0/50 (00/)	
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%
*Kidney: Renal Tubule: Lipoma		0/40 /00/)	0/50 (00/)			0/50 (00/)	0/50 (004)	
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%
*Kidney: Renal Tubule: Liposarcoma								
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%
*Liver: Hepatocellular Adenoma		0/40 /65:1	0/50 (00.1)			0/50 (00/)	4/50 (004)	
Overall Incidence	Total	3/49 (6%) 3/99 (3.03%)	0/50 (0%) Mean 3.06%	SD 4.33%	Total	3/50 (6%) 4/100 (4%)	1/50 (2%) Mean 4%	SD 2.83%

^{*:} 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	
na or Hepatoce	Ilular Adenoma						
•	3/49 (6%)	0/50 (0%)			3/50 (6%)	1/50 (2%)	
Total	3/99 (3.03%)	Mean 3.06%	SD 4.33%	Total	4/100 (4%)	Mean 4%	SD 2.83%
na, Hepatocellu	ılar Adenoma, or Hepatol	olastoma					
•	3/49 (6%)	0/50 (0%)			3/50 (6%)	1/50 (2%)	
Total	3/99 (3.03%)	Mean 3.06%	SD 4.33%	Total	4/100 (4%)	Mean 4%	SD 2.83%
enoma	0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)	
Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
					0/50 (0%)	0/50 (0%)	
Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
•••••							
	0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)	
Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
:	4/40 /00/	4/50 (20/)			0/50 (00/)	0/50 (09/)	
Total	1/49 (2%) 2/99 (2.02%)	1/50 (2%) Mean 2.02%	SD 0.03%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%
	Total Total Total Total Henoma Total Total Total Total Total	Total 3/99 (3.03%) na, Hepatocellular Adenoma, or Hepatol 3/49 (6%) Total 3/99 (3.03%) lenoma 0/49 (0%) Total 0/99 (0%) rcinoma or Alveolar/Bronchiolar Adeno 0/49 (0%) Total 0/99 (0%) Total 0/99 (0%) Total 0/99 (0%) : 1/49 (2%)	Total 3/99 (3.03%) Mean 3.06% Total 3/99 (3.03%) Mean 3.06% Total 3/99 (3.03%) Mean 3.06% Total 3/99 (6%) 0/50 (0%) Total 3/99 (3.03%) Mean 3.06% Henoma 0/49 (0%) 0/50 (0%) Total 0/99 (0%) Mean 0% Total 0/99 (0%) 0/50 (0%) Total 0/99 (0%) Mean 0% Total 0/99 (0%) Mean 0%	na or Hepatocellular Adenoma			

^{*:} 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 Report Date: 11/11/2014

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

^{*:} 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:** 16

			Male		Female							
#Mammary Gland: Fibroma, Fibroadenoma, Carcinoma, or Adenoma												
		0/49 (0%)	1/50 (2%)			10/50 (20%)	12/50 (24%)					
Overall Incidence	Total	1/99 (1.01%)	Mean 1%	SD 1.41%	Total	22/100 (22%)	Mean 22%	SD 2.83%				
#Mesentery: Hemangiosarcoma												
		0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)					
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%				
#Mesentery: Lipoma												
		1/49 (2%)	0/50 (0%)	00		0/50 (0%)	0/50 (0%)	22.00/				
Overall Incidence	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	0/100 (0%)	Mean 0%	SD 0%				
#Mesentery: Schwannoma Malignant		2(42 (224)	0/50 (00/)			0/50 (00/)	0(50 (004)					
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%				
		` '										
*Nose: Chondroma												
		0/49 (0%)	0/50 (0%)			1/50 (2%)	0/50 (0%)					
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	1/100 (1%)	Mean 1%	SD 1.41%				
*Nose: Olfactory Neuroblastoma												
		0/49 (0%)	0/50 (0%)			0/50 (0%)	1/50 (2%)					
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	1/100 (1%)	Mean 1%	SD 1.41%				

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

^{#:} Denominator is number of animals necropsied

Strain: Wistar Han

Species: RATS

Toxicology Data Management System

Contract/Lab: All Laboratories

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE

Page: 17

Report Date: 11/11/2014

Vehicle: CORN OIL

Length of Study: CHRONIC

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

^{*:} 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	
*Ovary: Granulosa Cell Tumor Ma	llignant					4/50 (001)	4/50 (00)	
Overall Incidence					Total	1/50 (2%) 2/100 (2%)	1/50 (2%) Mean 2%	SD 0%
*Ovary: Granulosa Cell Tumor: Be	enign, Maligna	ant, NOS						
Overall Incidence					Total	2/50 (4%) 3/100 (3%)	1/50 (2%) Mean 3%	SD 1.41%
*Ovary: Sex Cord Stromal Tumor,	Benign					0/50 /00/	0/50 (40/)	
Overall Incidence					Total	0/50 (0%) 2/100 (2%)	2/50 (4%) Mean 2%	SD 2.83%
*Ovary: Tubulostromal Adenoma						0/50 (0%)	0/50 (0%)	
Overall Incidence					Total	0/100 (0%)	Mean 0%	SD 0%
*Pancreas: Adenoma								
Overall Incidence	Total	1/46 (2%) 2/96 (2.08%)	1/50 (2%) Mean 2.09%	SD 0.12%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%
*Pancreas: Carcinoma or Adenoma								
Overall Incidence	Total	1/46 (2%) 2/96 (2.08%)	1/50 (2%) Mean 2.09%	SD 0.12%	Total	0/50 (0%) 0/100 (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: CORN OIL **Page:** 19

			Male		23/50 (46%) 21/50 (42%)							
*Parathyroid Gland: Adenoma 2/47 (4%) 0/45 (0%) 1/49 (2%) 0/48 (0%)												
		2/47 (4%)	0/45 (0%)			1/49 (2%)	0/48 (0%)					
Overall Incidence	Total	2/92 (2.17%)	Mean 2.13%	SD 3.01%		` '		SD 1.44%				
Pituitary Gland: Pars Distali Adenoma	s or Unspec	ified Site:										
		19/49 (39%)	21/50 (42%)			23/50 (46%)	21/50 (42%)					
Overall Incidence	Total	40/99 (40.4%)	Mean 40.39%	SD 2.28%	Total	44/100 (44%)	Mean 44%	SD 2.83%				
Pituitary Gland: Pars Distali Carcinoma		ified Site:				0/50 (00/)	0/50 (00/)					
		0/49 (0%)	0/50 (0%)	OD 00/		, ,	` '	05.00/				
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%		, ,		SD 0%				
Pituitary Gland: Pars Distali Carcinoma or Adenoma	s or Unspec	ified Site:										
		19/49 (39%)	21/50 (42%)			23/50 (46%)	21/50 (42%)					
Overall Incidence	Total	40/99 (40.4%)	Mean 40.39%	SD 2.28%	Total	44/100 (44%)	Mean 44%	SD 2.83%				
Pituitary Gland: Pars Interm Adenoma												
		0/49 (0%)	2/50 (4%)			1/50 (2%)	4/50 (8%)					
Overall Incidence	Total	2/99 (2.02%)	Mean 2%	SD 2.83%	Total	5/100 (5%)	Mean 5%	SD 4.24%				
Pituitary Gland: Pars Interm Carcinoma or Adenoma	edia:											
		0/49 (0%)	2/50 (4%)			1/50 (2%)	4/50 (8%)					
Overall Incidence		2/99 (2.02%)				5/100 (5%)						

^{*:} 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				0/50 (0%) 0/50 (0%)			
*Prostate: Adenoma		2/12 / (251)						
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%				
*Prostate: Carcinoma or Adenoma		0/49 (0%)	0/50 (0%)					
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%				
*Salivary Glands: Adenoma								
Overall Incidence	Total	1/46 (2%) 1/96 (1.04%)	0/50 (0%) Mean 1.09%	SD 1.54%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%
*Salivary Glands: Carcinoma								
Overall Incidence	Total	0/46 (0%) 0/96 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	1/50 (2%) 1/100 (1%)	0/50 (0%) Mean 1%	SD 1.41%
*Salivary Glands: Carcinoma or Adenoma								
Overall Incidence	Total	1/46 (2%) 1/96 (1.04%)	0/50 (0%) Mean 1.09%	SD 1.54%	Total	1/50 (2%) 1/100 (1%)	0/50 (0%) Mean 1%	SD 1.41%
*Salivary Glands: Myoepithelioma		0/40 /(00/)	4/50 (00%)			0/50 /00/	0/50 (00/)	
Overall Incidence	Total	0/46 (0%) 1/96 (1.04%)	1/50 (2%) Mean 1%	SD 1.41%	Total	0/50 (0%) 0/100 (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: CORN OIL Page: 21

			Male		Female Total 0/50 (0%) 0/50 (0%) 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) 0/50 (0%) 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) 0/50 (0%) 0/50 (0%) Mean 0% SD 0%			
*Salivary Glands: Schwannoma Malignant								
Overall Incidence	Total	0/46 (0%) 0/96 (0%)	0/50 (0%) Mean 0%	SD 0%		0/100 (0%)	Mean 0%	
#Seminal Vesicle: Adenoma								
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%				
#Skeletal Muscle: Hemangiosarcoma		4/40 (00)	0/50 /00/			0/50 (00/)	0/50 (00()	
Overall Incidence	Total	1/49 (2%) 1/99 (1.01%)	0/50 (0%) Mean 1.02%	SD 1.44%	Total	` '	,	SD 0%
#Skeletal Muscle: Sarcoma		0/49 (0%)	1/50 (2%)			0/50 (0%)	0/50 (09/)	
Overall Incidence	Total	1/99 (1.01%)	Mean 1%	SD 1.41%		0/100 (0%)	Mean 0%	
#Skin: Basal Cell Adenoma								
Overall Incidence	Total	1/49 (2%) 3/99 (3.03%)	2/50 (4%) Mean 3.02%	SD 1.39%	Total	1/50 (2%) 1/100 (1%)	0/50 (0%) Mean 1%	SD 1.41%
#Skin: Basal Cell Adenoma or Ba		s Tumor Benign 1/49 (2%)	2/50 (4%)			1/50 (2%)	0/50 (0%)	
Overall Incidence	Total	3/99 (3.03%)	Mean 3.02%	SD 1.39%	Total	1/100 (1%)	Mean 1%	SD 1.41%

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

^{#:} Denominator is number of animals necropsied

Species: RATS

Strain: Wistar Han

Toxicology Data Management System

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Report Date: 11/11/2014

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

nor incidence for Selected Control A **Route:** GAVAGE

Route: GAVAGE
Vehicle: CORN OIL

Length of Study: CHRONIC

		Male					Female	
#Skin:		Tumor Bonian or Trickes	nithaliama					
basai Celi Adenoma, b	asosquamous i	Tumor Benign, or Trichoe 1/49 (2%)	2/50 (4%)			1/50 (2%)	0/50 (0%)	
Overall Incidence	Total	3/99 (3.03%)	Mean 3.02%	SD 1.39%	Total	1/100 (1%)	Mean 1%	SD 1.41%
#Skin: Basal Cell Carcinoma								
		0/49 (0%)	1/50 (2%)			0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/99 (1.01%)	Mean 1%	SD 1.41%	Total	0/100 (0%)	Mean 0%	SD 0%
#Skin: Basal Cell Carcinoma o	or Basosquamo	us Tumor (malignant or N	OS)					
		0/49 (0%)	1/50 (2%)			0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/99 (1.01%)	Mean 1%	SD 1.41%	Total	0/100 (0%)	Mean 0%	SD 0%
#Skin: Basal Cell Carcinoma, NOS), or Trichoepitheli		oma, Basosquamous Tur		nt or		4/50 (00()	0/50 (00/)	
Overall Incidence	Total	1/49 (2%) 3/99 (3.03%)	2/50 (4%) Mean 3.02%	SD 1.39%	Total	1/50 (2%) 1/100 (1%)	0/50 (0%) Mean 1%	SD 1.41%
Overall incluence	10tai		Wear 3.02%		I Ulai	1/100 (1%)		30 1.41%
		na, Basosq. Tumor (M or leratoacanthoma, Trichoep 3/49 (6%)		na,		1/50 (2%)	0/50 (0%)	
Overall Incidence	Total	10/99 (10.1%)	Mean 10.06%	SD 5.57%	Total	1/100 (1%)	Mean 1%	SD 1.41%
#Skin: Fibroma								
		1/49 (2%)	0/50 (0%)			0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	0/100 (0%)	Mean 0%	SD 0%

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

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

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

			Male				Female				
#Skin: Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma 1/49 (2%) 0/50 (0%) Overall Incidence Total 1/99 (1.01%) Mean 1.02% SD 1.44% Total 0/100 (0%) Mean 0% SD 0%											
Overall Incidence	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	0/100 (0%)	Mean 0%	SD 0%			
#Skin: Fibrosarcoma											
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%			
#Skin: Fibrosarcoma, Sarcoma	a, Myxosarcoma	a, or Fibrous Histiocytom 0/49 (0%)	a 0/50 (0%)			0/50 (0%)	0/50 (0%)				
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%			
#Skin: Hamartoma		0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)				
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%			
#Skin: Hemangiosarcoma											
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 1/100 (1%)	1/50 (2%) Mean 1%	SD 1.41%			
#Skin: Keratoacanthoma		2/49 (4%)	4/EO (99/\			0/50 /09/\	0/50 (09/)				
Overall Incidence	Total	2/49 (4%) 6/99 (6.06%)	4/50 (8%) Mean 6.04%	SD 2.77%	Total	0/50 (0%) 0/100 (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: 24

			Male		Female 0/50 (0%) 0/50 (0%) Total 0/100 (0%) Mean 0% SD 0% 0/50 (0%) 0/50 (0%) Total 0/100 (0%) Mean 0% SD 0% 0/50 (0%) 0/50 (0%) Total 0/100 (0%) 0/50 (0%) Total 0/100 (0%) Mean 0% SD 0%			
#Skin: Lipoma								
		0/49 (0%)	0/50 (0%)			` '	(/	
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
#Skin: Liposarcoma								
		0/49 (0%)	0/50 (0%)			` ,	` '	
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
#Skin: Neurofibrosarcoma or S	Schwannoma (m	nalignant or NOS) 0/49 (0%)	2/50 (4%)			0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	2/99 (2.02%)	Mean 2%	SD 2.83%	Total	0/100 (0%)	Mean 0%	SD 0%
#Skin: Neurofibrosarcoma, Ne	urofibroma, or \$	Schwannoma (benign, mal	lignant or NOS) 2/50 (4%)			0/50 (0%)	0/50 (0%)	
#Skin:	urofibroma, or \$	Schwannoma (benign, mal 0/49 (0%) 2/99 (2.02%)	lignant or NOS) 2/50 (4%) Mean 2%	SD 2.83%	Total Total			SD 0% SD 0%
#Skin: Neurofibrosarcoma, Net	urofibroma, or S	Schwannoma (benign, mal 0/49 (0%) 2/99 (2.02%)	lignant or NOS) 2/50 (4%) Mean 2%	SD 2.83%		0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	
#Skin: Neurofibrosarcoma, Neu Overall Incidence #Skin: Schwannoma Malignand	urofibroma, or S	Schwannoma (benign, mal 0/49 (0%) 2/99 (2.02%) 0/49 (0%)	lignant or NOS) 2/50 (4%) Mean 2%	SD 2.83%	Total	0/50 (0%) 0/100 (0%) 0/50 (0%)	0/50 (0%) Mean 0% 0/50 (0%)	SD 0%
#Skin: Neurofibrosarcoma, Neurof	urofibroma, or S	Schwannoma (benign, mal 0/49 (0%) 2/99 (2.02%)	lignant or NOS) 2/50 (4%) Mean 2%	SD 2.83%		0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	
#Skin: Neurofibrosarcoma, Neu Overall Incidence #Skin: Schwannoma Malignand	urofibroma, or \$ Total t	Schwannoma (benign, mal 0/49 (0%) 2/99 (2.02%) 0/49 (0%)	lignant or NOS) 2/50 (4%) Mean 2%	SD 2.83%	Total	0/50 (0%) 0/100 (0%) 0/50 (0%)	0/50 (0%) Mean 0% 0/50 (0%)	SD 0%

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

^{#:} Denominator is number of animals necropsied

Strain: Wistar Han

Species: RATS

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Page: 25

Report Date: 11/11/2014

Route: GAVAGE

Length of Study: CHRONIC

Contract/Lab: All Laboratories

Vehicle: CORN OIL

			Male				Female	
#Skin: Squamous Cell Carcinoma or Carcinoma	a, Basal Cell			or NOS),				
Overall Incidence	Total	0/49 (0%) 1/99 (1.01%)	1/50 (2%) Mean 1%	SD 1.41%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%
		` ,				` '		
#Skin: Squamous Cell Papilloma		0/40 (00/)	4/50 (00/)			0/50 (00/)	0/50 (00/)	
Overall Incidence	Total	0/49 (0%)	1/50 (2%)	SD 1.41%	Total	0/50 (0%)	0/50 (0%) Mean 0%	SD 0%
Overall Incidence	Total	1/99 (1.01%)	Mean 1%	SD 1.41%	Total	0/100 (0%)		SD 0%
#Skin: Squamous Cell Papilloma	or Papilloma	1						
		0/49 (0%)	1/50 (2%)			0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/99 (1.01%)	Mean 1%	SD 1.41%	Total	0/100 (0%)	Mean 0%	SD 0%
#Skin: Squamous Cell Papilloma	, Papilloma, \$	Squamous Cell Carcinom 2/49 (4%)	a or Keratoacanthom 5/50 (10%)	a		0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	7/99 (7.07%)	Mean 7.04%	SD 4.18%	Total	0/100 (0%)	Mean 0%	SD 0%
#Skin: Squamous Cell Papilloma		or Keratoacanthoma	5/50 (10%)			0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	2/49 (4%) 7/99 (7.07%)	5/50 (10%) Mean 7.04%	SD 4.18%	Total	0/50 (0%)	0/50 (0%) Mean 0%	SD 0%
#Skin: Sebaceous Gland: Adenoma		0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/49 (0%)	Mean 0%	SD 0%	Total	0/30 (0%)	0/50 (0%) Mean 0%	SD 0%
Overall including	i Otai	0/33 (0/0)	IVICALI U/U	OD 070	i Ulai	0/100 (0/0)	MEAN 070	3D 070

^{*:} 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: 26

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

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

^{#:} Denominator is number of animals necropsied

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		0/50 (0%) 0/50 (0%) Total 0/100 (0%) Mean 0% SD 0% 0/50 (0%) 0/50 (0%) Total 0/100 (0%) Mean 0% SD 0% 0/50 (0%) 0/50 (0%) Total 0/100 (0%) Mean 0% SD 0%			Female				
#Stomach, Forestomach: Squamous Cell Carcinoma 0/49 (0%) 0/50 (0%) 0/50 (0%) 0/50 (0%) 0/50 (0%)												
		0/49 (0%)	0/50 (0%)			` ,	0/50 (0%)					
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%		, ,	Mean 0%	SD 0%				
#Stomach, Forestomach: Squamous Cell Carcinoma	or Papillom	na Squamous										
·	•	1/49 (2%)	0/50 (0%)			0/50 (0%)	0/50 (0%)					
Overall Incidence	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	0/100 (0%)	Mean 0%	SD 0%				
#Stomach, Forestomach: Squamous Cell Papilloma		1/49 (2%)	0/50 (0%)			0/50 (0%)	0/50 (0%)					
Overall Incidence	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	` '	` '	SD 0%				
#Stomach, Glandular: Fibrosarcoma		1/49 (2%)	0/50 (0%)			0/50 (0%)	0/50 (/0//)					
Overall Incidence	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	, ,	` ,	SD 0%				
#Stomach, Glandular: Leiomyosarcoma												
		0/49 (0%)	0/50 (0%)			0/50 (0%)	1/50 (2%)					
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	1/100 (1%)	Mean 1%	SD 1.41%				
#Stomach, Glandular: Sarcoma												
		0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)					
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%				

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

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL Page: 28

			Male		0/50 (0%) 1/50 (2%) Total 1/100 (1%) Mean 1% SD 2 0/50 (0%) 1/50 (2%) Total 1/100 (1%) Mean 1% SD 2			
*Testes: Adenoma		2/49 (4%)	0/50 (0%)					
Overall Incidence	Total	2/99 (2.02%)	Mean 2.04%	SD 2.89%				
*Testes: Hemangiosarcoma		0/49 (0%)	0/50 (0%)					
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%				
*Thymus: Sarcoma								
Overall Incidence	Total	0/45 (0%) 0/94 (0%)	0/49 (0%) Mean 0%	SD 0%		1/100 (1%)	Mean 1%	SD 1.41%
*Thymus: Thymoma Benign		0/45 (0%)	1/49 (2%)					
Overall Incidence	Total	1/94 (1.06%)	Mean 1.02%	SD 1.44%		1/100 (1%)	Mean 1%	SD 1.41%
*Thymus: Thymoma: Benign, Mali								
Overall Incidence	Total	0/45 (0%) 1/94 (1.06%)	1/49 (2%) Mean 1.02%	SD 1.44%	Total	` ,	` '	SD 1.41%
*Thyroid Gland: Carcinoma								
Overall Incidence	Total	0/45 (0%) 0/95 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/45 (0%) 0/95 (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: CORN OIL **Page:** 29

			Male			Female			
*Thyroid Gland: C-Cell: Adenoma									
		11/45 (24%)	5/50 (10%)			7/45 (16%)	7/50 (14%)		
Overall Incidence	Total	16/95 (16.84%)	Mean 17.22%	SD 10.21%	Total	14/95 (14.74%)	Mean 14.78%	SD 1.1%	
*Thyroid Gland: C-Cell: Carcinoma									
		0/45 (0%)	0/50 (0%)			0/45 (0%)	0/50 (0%)		
Overall Incidence	Total	0/95 (0%)	Mean 0%	SD 0%	Total	0/95 (0%)	Mean 0%	SD 0%	
*Thyroid Gland: C-Cell: Carcinoma or Adenoma									
		11/45 (24%)	5/50 (10%)			7/45 (16%)	7/50 (14%)		
Overall Incidence	Total	16/95 (16.84%)	Mean 17.22%	SD 10.21%	Total	14/95 (14.74%)	Mean 14.78%	SD 1.1%	
*Thyroid Gland: Follicular Cell Adenoma									
		1/45 (2%)	3/50 (6%)			1/45 (2%)	3/50 (6%)		
Overall Incidence	Total	4/95 (4.21%)	Mean 4.11%	SD 2.67%	Total	4/95 (4.21%)	Mean 4.11%	SD 2.67%	
*Thyroid Gland: Follicular Cell Carcinoma									
		0/45 (0%)	0/50 (0%)			0/45 (0%)	0/50 (0%)		
Overall Incidence	Total	0/95 (0%)	Mean 0%	SD 0%	Total	0/95 (0%)	Mean 0%	SD 0%	
*Thyroid Gland: Follicular Cell Carcinoma or Adenoma			2/22 (221)			(201)	(00)		
	-	1/45 (2%)	3/50 (6%)	00.0070/	-	1/45 (2%)	3/50 (6%)	00.0070/	
Overall Incidence	Total	4/95 (4.21%)	Mean 4.11%	SD 2.67%	Total	4/95 (4.21%)	Mean 4.11%	SD 2.67%	

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

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories Tumor Incidence for Se

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL **Page:** 30

		Male					Female		
*Urinary Bladder: Carcinoma or Papilloma		0/40 (09/)	4/50 (00/)			0/50 (0%)	4/50 (000)		
Overall Incidence	Total	0/49 (0%) 1/99 (1.01%)	1/50 (2%) Mean 1%	SD 1.41%	Total	0/50 (0%) 1/100 (1%)	1/50 (2%) Mean 1%	SD 1.41%	
*Urinary Bladder: Papilloma		0/40 (00()							
Overall Incidence	Total	0/49 (0%) 1/99 (1.01%)	1/50 (2%) Mean 1%	SD 1.41%	Total	0/50 (0%) 1/100 (1%)	1/50 (2%) Mean 1%	SD 1.41%	
#Uterus: Adenoma		•••••							
Overall Incidence					Total	1/50 (2%) 1/100 (1%)	0/50 (0%) Mean 1%	SD 1.41%	
#Uterus: Carcinoma						1/50 (2%)	3/50 (6%)		
Overall Incidence					Total	4/100 (4%)	Mean 4%	SD 2.83%	
#Uterus: Granular Cell Tumor Beni	ign								
Overall Incidence					Total	1/50 (2%) 1/100 (1%)	0/50 (0%) Mean 1%	SD 1.41%	
#Uterus: Hemangiosarcoma									
Overall Incidence					Total	0/50 (0%) 0/100 (0%)	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

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

Route: GAVAGE

Page: 31

Report Date: 11/11/2014

Vehicle: CORN OIL

Length of Study: CHRONIC

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

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

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS
Strain: Wistar Han

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: GAVAGE Vehicle: CORN OIL **Page:** 32

		Male				Female			
#Uterus: Squamous Cell Papilloma						(0)	0.50		
Overall Incidence					Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%	
#Vagina: Fibrosarcoma									
Overall Incidence					Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%	
#Vagina: Leiomyoma									
Overall Incidence					Total	0/50 (0%) 1/100 (1%)	1/50 (2%) Mean 1%	SD 1.41%	
#Vagina: Polyp									
Overall Incidence					Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%	
#Zymbal's Gland: Carcinoma									
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%	
#Zymbal's Gland: Carcinoma or Adenoma									
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0%	SD 0%	

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

^{#:} Denominator is number of animals necropsied