

Version: May2011  
Contract/Lab: All Laboratories  
Species: RATS  
Strain: Harlan Sprague-Dawley  
Length of Study: CHRONIC

**Toxicology Data Management System**  
Tumor Incidence for Selected Control Animal Groups  
Route: ALL ROUTES  
Vehicle: ALL VEHICLES

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**Study Summary**

Laboratory Name	Study Number	Study Start Date	Length of Study in Days	Number of Animals Total and (#/Cage)	Number Surviving and (Mean Life Span)	Maximum Mean Weekly Body Weight	Chemical
<b>Male</b>							
Battelle Columbus Laboratory	052030401	N/A	N/A	0(0)	0(0)	N/A	TEF evaluation (PCB 118)
Battelle Columbus Laboratory	058814806	01/29/03	727	50(3)	28(665)	606.4	3,3',4,4'-Tetrachloroazobenzene
<b>Female</b>							
Battelle Columbus Laboratory	052030401	03/26/04	733	52(5)	21(616)	383.5	TEF evaluation (PCB 118)
Battelle Columbus Laboratory	058814806	01/30/03	727	50(5)	25(652)	385.7	3,3',4,4'-Tetrachloroazobenzene

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		Male				Female			
<b>#All Organs:</b>									
<b>Benign Tumors</b>									
			40/50 (80%)			43/52 (83%)	40/50 (80%)		
<b>Overall Incidence</b>	Total	40/50 (80%)	Mean 80%	SD 0%	Total	83/102 (81.37%)	Mean 81.35%	SD 1.9%	
.....									
<b>#All Organs:</b>									
<b>Malignant Tumors</b>									
			9/50 (18%)			15/52 (29%)	13/50 (26%)		
<b>Overall Incidence</b>	Total	9/50 (18%)	Mean 18%	SD 0%	Total	28/102 (27.45%)	Mean 27.42%	SD 2.01%	
.....									
<b>#All Organs:</b>									
<b>Malignant and Benign Tumors</b>									
			44/50 (88%)			48/52 (92%)	44/50 (88%)		
<b>Overall Incidence</b>	Total	44/50 (88%)	Mean 88%	SD 0%	Total	92/102 (90.2%)	Mean 90.15%	SD 3.05%	
.....									
<b>#All Organs:</b>									
<b>Hemangiosarcoma</b>									
			1/50 (2%)			1/52 (2%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	1/102 (0.98%)	Mean 0.96%	SD 1.36%	
.....									
<b>#All Organs:</b>									
<b>Hemangiosarcoma or Hemangioma</b>									
			1/50 (2%)			1/52 (2%)	0/50 (0%)		
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	1/102 (0.98%)	Mean 0.96%	SD 1.36%	
.....									
<b>#All Organs:</b>									
<b>Histiocytic Sarcoma</b>									
			0/50 (0%)			1/52 (2%)	1/50 (2%)		
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	2/102 (1.96%)	Mean 1.96%	SD 0.05%	
.....									

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

#: Denominator is number of animals necropsied

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	Male				Female			
<b>#All Organs:</b>								
<b>Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated</b>								
			1/50 (2%)			0/52 (0%)	1/50 (2%)	
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	1/102 (0.98%)	Mean 1%	SD 1.41%
.....								
<b>#All Organs:</b>								
<b>Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type</b>								
			1/50 (2%)			2/52 (4%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	2/102 (1.96%)	Mean 1.92%	SD 2.72%
.....								
<b>*Adrenal Cortex:</b>								
<b>Adenoma</b>								
			1/50 (2%)			2/52 (4%)	1/50 (2%)	
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	3/102 (2.94%)	Mean 2.92%	SD 1.31%
.....								
<b>*Adrenal Cortex:</b>								
<b>Carcinoma</b>								
			0/50 (0%)			1/52 (2%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/102 (0.98%)	Mean 0.96%	SD 1.36%
.....								
<b>*Adrenal Medulla:</b>								
<b>Pheochromocytoma Benign</b>								
			5/50 (10%)			3/52 (6%)	3/50 (6%)	
<b>Overall Incidence</b>	Total	5/50 (10%)	Mean 10%	SD 0%	Total	6/102 (5.88%)	Mean 5.88%	SD 0.16%
.....								
<b>*Adrenal Medulla:</b>								
<b>Pheochromocytoma: Benign, Complex, Malignant, NOS</b>								
			5/50 (10%)			3/52 (6%)	3/50 (6%)	
<b>Overall Incidence</b>	Total	5/50 (10%)	Mean 10%	SD 0%	Total	6/102 (5.88%)	Mean 5.88%	SD 0.16%

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		Male			Female		
<b>*Brain:</b>							
<b>Astrocytoma Benign</b>							
		1/50	(2%)		0/52	(0%)	0/50 (0%)
<b>Overall Incidence</b>	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/102 (0%)
							Mean 0%
							SD 0%
.....							
<b>*Brain:</b>							
<b>Oligodendroglioma, Glioma, or Astrocytoma</b>							
		1/50	(2%)		0/52	(0%)	0/50 (0%)
<b>Overall Incidence</b>	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/102 (0%)
							Mean 0%
							SD 0%
.....							
<b>#Eye:</b>							
<b>Schwannoma Malignant</b>							
		1/50	(2%)		0/52	(0%)	0/50 (0%)
<b>Overall Incidence</b>	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/102 (0%)
							Mean 0%
							SD 0%
.....							
<b>#Intestine Small: Duodenum:</b>							
<b>Carcinoma</b>							
		0/50	(0%)		0/52	(0%)	1/50 (2%)
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/102 (0.98%)
							Mean 1%
							SD 1.41%
.....							
<b>#Intestine Small: Site Unspecified:</b>							
<b>Carcinoma</b>							
		0/50	(0%)		0/52	(0%)	1/50 (2%)
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/102 (0.98%)
							Mean 1%
							SD 1.41%
.....							
<b>#Intestine Small: Site Unspecified:</b>							
<b>Carcinoma or Adenoma</b>							
		0/50	(0%)		0/52	(0%)	1/50 (2%)
<b>Overall Incidence</b>	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/102 (0.98%)
							Mean 1%
							SD 1.41%

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		Male			Female		
<b>*Islets, Pancreatic:</b>							
<b>Adenoma</b>							
		2/50 (4%)	Mean 4%	SD 0%	0/52 (0%)	0/50 (0%)	Mean 0%
<b>Overall Incidence</b>	Total	2/50 (4%)			0/102 (0%)		SD 0%
.....							
<b>*Islets, Pancreatic:</b>							
<b>Carcinoma or Adenoma</b>							
		2/50 (4%)	Mean 4%	SD 0%	0/52 (0%)	0/50 (0%)	Mean 0%
<b>Overall Incidence</b>	Total	2/50 (4%)			0/102 (0%)		SD 0%
.....							
<b>*Kidney: Renal Tubule:</b>							
<b>Lipoma</b>							
		0/50 (0%)	Mean 0%	SD 0%	0/52 (0%)	1/50 (2%)	Mean 1%
<b>Overall Incidence</b>	Total	0/50 (0%)			1/102 (0.98%)		SD 1.41%
.....							
<b>*Liver:</b>							
<b>Cholangiocarcinoma</b>							
		0/50 (0%)	Mean 0%	SD 0%	0/52 (0%)	1/50 (2%)	Mean 1%
<b>Overall Incidence</b>	Total	0/50 (0%)			1/102 (0.98%)		SD 1.41%
.....							
<b>*Liver:</b>							
<b>Cholangioma</b>							
		0/50 (0%)	Mean 0%	SD 0%	1/52 (2%)	0/50 (0%)	Mean 0.96%
<b>Overall Incidence</b>	Total	0/50 (0%)			1/102 (0.98%)		SD 1.36%
.....							
<b>*Liver:</b>							
<b>Hepatocellular Adenoma</b>							
		0/50 (0%)	Mean 0%	SD 0%	0/52 (0%)	2/50 (4%)	Mean 2%
<b>Overall Incidence</b>	Total	0/50 (0%)			2/102 (1.96%)		SD 2.83%

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		Male			Female		
<b>*Liver:</b>							
<b>Hepatocellular Carcinoma or Hepatocellular Adenoma</b>							
		0/50	(0%)		0/52	(0%)	2/50 (4%)
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	2/102 (1.96%)	Mean 2% SD 2.83%
.....							
<b>*Liver:</b>							
<b>Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma</b>							
		0/50	(0%)		0/52	(0%)	2/50 (4%)
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	2/102 (1.96%)	Mean 2% SD 2.83%
.....							
<b>*Lung:</b>							
<b>Alveolar/Bronchiolar Adenoma</b>							
		1/50	(2%)		0/51	(0%)	0/50 (0%)
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/101 (0%)	Mean 0% SD 0%
.....							
<b>*Lung:</b>							
<b>Alveolar/Bronchiolar Carcinoma</b>							
		1/50	(2%)		0/51	(0%)	0/50 (0%)
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/101 (0%)	Mean 0% SD 0%
.....							
<b>*Lung:</b>							
<b>Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma</b>							
		2/50	(4%)		0/51	(0%)	0/50 (0%)
<b>Overall Incidence</b>	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/101 (0%)	Mean 0% SD 0%
.....							
<b>#Mammary Gland:</b>							
<b>Adenoma</b>							
		0/50	(0%)		0/52	(0%)	1/50 (2%)
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/102 (0.98%)	Mean 1% SD 1.41%

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		Male			Female		
<b>#Mammary Gland: Carcinoma</b>							
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	2/52 (4%) 6/102 (5.88%)	4/50 (8%) Mean 5.92% SD 2.94%
<b>#Mammary Gland: Carcinoma or Adenoma</b>							
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	2/52 (4%) 7/102 (6.86%)	5/50 (10%) Mean 6.92% SD 4.35%
<b>#Mammary Gland: Fibroadenoma</b>							
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	25/52 (48%) 56/102 (54.9%)	31/50 (62%) Mean 55.04% SD 9.85%
<b>#Mammary Gland: Fibroma, Fibroadenoma or Adenoma</b>							
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	25/52 (48%) 56/102 (54.9%)	31/50 (62%) Mean 55.04% SD 9.85%
<b>#Mammary Gland: Fibroma, Fibroadenoma, Carcinoma, or Adenoma</b>							
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	27/52 (52%) 59/102 (57.84%)	32/50 (64%) Mean 57.96% SD 8.54%
<b>#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma</b>							
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/52 (0%) 0/102 (0%)	0/50 (0%) Mean 0% SD 0%

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Male					Female				
<b>#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma</b>									
			1/50 (2%)			0/52 (0%)		0/50 (0%)	
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/102 (0%)	Mean 0%	SD 0%	
.....									
<b>#Oral Mucosa: Squamous Cell Carcinoma</b>									
			1/50 (2%)			0/52 (0%)		0/50 (0%)	
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/102 (0%)	Mean 0%	SD 0%	
.....									
<b>*Ovary: Granulosa Cell Tumor Malignant</b>									
						0/52 (0%)		1/50 (2%)	
<b>Overall Incidence</b>					Total	1/102 (0.98%)	Mean 1%	SD 1.41%	
.....									
<b>*Ovary: Granulosa Cell Tumor: Benign, Malignant, NOS</b>									
						0/52 (0%)		1/50 (2%)	
<b>Overall Incidence</b>					Total	1/102 (0.98%)	Mean 1%	SD 1.41%	
.....									
<b>*Ovary: Luteoma</b>									
						1/52 (2%)		0/50 (0%)	
<b>Overall Incidence</b>					Total	1/102 (0.98%)	Mean 0.96%	SD 1.36%	
.....									
<b>*Pancreas: Adenoma</b>									
			9/50 (18%)			0/52 (0%)		0/50 (0%)	
<b>Overall Incidence</b>	Total	9/50 (18%)	Mean 18%	SD 0%	Total	0/102 (0%)	Mean 0%	SD 0%	

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		Male			Female		
<b>*Pancreas:</b>							
<b>  Carcinoma</b>							
			0/50 (0%)		0/52 (0%)	1/50 (2%)	
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/102 (0.98%)	Mean 1% SD 1.41%
.....							
<b>*Pancreas:</b>							
<b>  Carcinoma or Adenoma</b>							
			9/50 (18%)		0/52 (0%)	1/50 (2%)	
<b>Overall Incidence</b>	Total	9/50 (18%)	Mean 18%	SD 0%	Total	1/102 (0.98%)	Mean 1% SD 1.41%
.....							
<b>*Parathyroid Gland:</b>							
<b>  Adenoma</b>							
			1/43 (2%)		0/47 (0%)	0/46 (0%)	
<b>Overall Incidence</b>	Total	1/43 (2.33%)	Mean 2.33%	SD 0%	Total	0/93 (0%)	Mean 0% SD 0%
.....							
<b>#Peripheral Nerve:</b>							
<b>  Schwannoma Malignant</b>							
			0/50 (0%)		0/52 (0%)	1/50 (2%)	
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/102 (0.98%)	Mean 1% SD 1.41%
.....							
<b>#Peripheral Nerve:</b>							
<b>  Schwannoma: Benign, Malignant, NOS</b>							
			0/50 (0%)		0/52 (0%)	1/50 (2%)	
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/102 (0.98%)	Mean 1% SD 1.41%
.....							
<b>*Pituitary Gland: Pars Distalis or Unspecified Site:</b>							
<b>  Adenoma</b>							
			13/50 (26%)		17/52 (33%)	13/50 (26%)	
<b>Overall Incidence</b>	Total	13/50 (26%)	Mean 26%	SD 0%	Total	30/102 (29.41%)	Mean 29.35% SD 4.73%

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Male					Female				
<b>*Pituitary Gland: Pars Distalis or Unspecified Site: Carcinoma</b>									
			0/50 (0%)			2/52 (4%)		0/50 (0%)	
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	2/102 (1.96%)	Mean 1.92%	SD 2.72%	
.....									
<b>*Pituitary Gland: Pars Distalis or Unspecified Site: Carcinoma or Adenoma</b>									
			13/50 (26%)			19/52 (37%)		13/50 (26%)	
<b>Overall Incidence</b>	Total	13/50 (26%)	Mean 26%	SD 0%	Total	32/102 (31.37%)	Mean 31.27%	SD 7.45%	
.....									
<b>*Pituitary Gland: Pars Intermedia: Adenoma</b>									
			0/50 (0%)			0/52 (0%)		1/50 (2%)	
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/102 (0.98%)	Mean 1%	SD 1.41%	
.....									
<b>*Pituitary Gland: Pars Intermedia: Carcinoma or Adenoma</b>									
			0/50 (0%)			0/52 (0%)		1/50 (2%)	
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/102 (0.98%)	Mean 1%	SD 1.41%	
.....									
<b>*Prostate: Adenoma</b>									
			5/50 (10%)						
<b>Overall Incidence</b>	Total	5/50 (10%)	Mean 10%	SD 0%					
.....									
<b>*Prostate: Carcinoma or Adenoma</b>									
			5/50 (10%)						
<b>Overall Incidence</b>	Total	5/50 (10%)	Mean 10%	SD 0%					

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		Male			Female		
<b>*Salivary Glands:</b>							
<b>Schwannoma Malignant</b>							
			1/50 (2%)		0/51 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/101 (0%)	Mean 0% SD 0%
.....							
<b>#Skeletal Muscle:</b>							
<b>Rhabdomyosarcoma</b>							
			0/50 (0%)		0/52 (0%)	1/50 (2%)	
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/102 (0.98%)	Mean 1% SD 1.41%
.....							
<b>#Skeletal Muscle:</b>							
<b>Rhabdomyosarcoma or Rhabdomyoma</b>							
			0/50 (0%)		0/52 (0%)	1/50 (2%)	
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/102 (0.98%)	Mean 1% SD 1.41%
.....							
<b>#Skin:</b>							
<b>Basal Cell Adenoma</b>							
			1/50 (2%)		0/52 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/102 (0%)	Mean 0% SD 0%
.....							
<b>#Skin:</b>							
<b>Basal Cell Adenoma or Basosquamous Tumor Benign</b>							
			1/50 (2%)		0/52 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/102 (0%)	Mean 0% SD 0%
.....							
<b>#Skin:</b>							
<b>Basal Cell Adenoma, Basosquamous Tumor Benign, or Trichoepithelioma</b>							
			1/50 (2%)		0/52 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/102 (0%)	Mean 0% SD 0%

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

#: Denominator is number of animals necropsied

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 Length of Study: CHRONIC

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 Tumor Incidence for Selected Control Animal Groups  
 Route: ALL ROUTES  
 Vehicle: ALL VEHICLES

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	Male				Female					
<b>#Skin:</b>										
<b>Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma</b>										
<b>Overall Incidence</b>	Total	1/50 (2%)	1/50 (2%)	Mean 2%	SD 0%	Total	0/52 (0%)	0/50 (0%)	Mean 0%	SD 0%
							0/102 (0%)			
<b>#Skin:</b>										
<b>Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma</b>										
<b>Overall Incidence</b>	Total	3/50 (6%)	3/50 (6%)	Mean 6%	SD 0%	Total	1/52 (2%)	0/50 (0%)	Mean 0.96%	SD 1.36%
							1/102 (0.98%)			
<b>#Skin:</b>										
<b>Fibroma</b>										
<b>Overall Incidence</b>	Total	5/50 (10%)	5/50 (10%)	Mean 10%	SD 0%	Total	2/52 (4%)	0/50 (0%)	Mean 1.92%	SD 2.72%
							2/102 (1.96%)			
<b>#Skin:</b>										
<b>Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma</b>										
<b>Overall Incidence</b>	Total	5/50 (10%)	5/50 (10%)	Mean 10%	SD 0%	Total	2/52 (4%)	0/50 (0%)	Mean 1.92%	SD 2.72%
							2/102 (1.96%)			
<b>#Skin:</b>										
<b>Hemangiosarcoma</b>										
<b>Overall Incidence</b>	Total	1/50 (2%)	1/50 (2%)	Mean 2%	SD 0%	Total	1/52 (2%)	0/50 (0%)	Mean 0.96%	SD 1.36%
							1/102 (0.98%)			
<b>#Skin:</b>										
<b>Keratoacanthoma</b>										
<b>Overall Incidence</b>	Total	2/50 (4%)	2/50 (4%)	Mean 4%	SD 0%	Total	1/52 (2%)	0/50 (0%)	Mean 0.96%	SD 1.36%
							1/102 (0.98%)			

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

#: Denominator is number of animals necropsied

Version: May2011  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Harlan Sprague-Dawley  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: ALL ROUTES  
 Vehicle: ALL VEHICLES

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	Male				Female			
<b>#Skin:</b>								
<b>Neural Crest Tumor</b>								
			1/50 (2%)			0/52 (0%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/102 (0%)	Mean 0%	SD 0%
.....								
<b>#Skin:</b>								
<b>Neurofibrosarcoma or Schwannoma (malignant or NOS)</b>								
			0/50 (0%)			1/52 (2%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/102 (0.98%)	Mean 0.96%	SD 1.36%
.....								
<b>#Skin:</b>								
<b>Neurofibrosarcoma, Neurofibroma, or Schwannoma (benign, malignant or NOS)</b>								
			0/50 (0%)			1/52 (2%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/102 (0.98%)	Mean 0.96%	SD 1.36%
.....								
<b>#Skin:</b>								
<b>Schwannoma Malignant</b>								
			0/50 (0%)			1/52 (2%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/102 (0.98%)	Mean 0.96%	SD 1.36%
.....								
<b>#Skin:</b>								
<b>Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma</b>								
			2/50 (4%)			1/52 (2%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	2/50 (4%)	Mean 4%	SD 0%	Total	1/102 (0.98%)	Mean 0.96%	SD 1.36%
.....								
<b>#Skin:</b>								
<b>Squamous Cell Papilloma, Papilloma, or Keratoacanthoma</b>								
			2/50 (4%)			1/52 (2%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	2/50 (4%)	Mean 4%	SD 0%	Total	1/102 (0.98%)	Mean 0.96%	SD 1.36%

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

#: Denominator is number of animals necropsied

Version: May2011  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Harlan Sprague-Dawley  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
**Route: ALL ROUTES**  
**Vehicle: ALL VEHICLES**

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		Male			Female		
<b>*Testes:</b>							
<b>Adenoma</b>							
			2/50 (4%)				
<b>Overall Incidence</b>	Total	2/50 (4%)	Mean 4%	SD 0%			
.....							
<b>*Thyroid Gland: C-Cell:</b>							
<b>Adenoma</b>							
			13/50 (26%)		9/51 (18%)	10/50 (20%)	
<b>Overall Incidence</b>	Total	13/50 (26%)	Mean 26%	SD 0%	Total 19/101 (18.81%)	Mean 18.82%	SD 1.66%
.....							
<b>*Thyroid Gland: C-Cell:</b>							
<b>Carcinoma</b>							
			1/50 (2%)		2/51 (4%)	1/50 (2%)	
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean 2%	SD 0%	Total 3/101 (2.97%)	Mean 2.96%	SD 1.36%
.....							
<b>*Thyroid Gland: C-Cell:</b>							
<b>Carcinoma or Adenoma</b>							
			13/50 (26%)		11/51 (22%)	11/50 (22%)	
<b>Overall Incidence</b>	Total	13/50 (26%)	Mean 26%	SD 0%	Total 22/101 (21.78%)	Mean 21.78%	SD 0.31%
.....							
<b>*Thyroid Gland: Follicular Cell:</b>							
<b>Adenoma</b>							
			0/50 (0%)		1/51 (2%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total 1/101 (0.99%)	Mean 0.98%	SD 1.39%
.....							
<b>*Thyroid Gland: Follicular Cell:</b>							
<b>Carcinoma or Adenoma</b>							
			0/50 (0%)		1/51 (2%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total 1/101 (0.99%)	Mean 0.98%	SD 1.39%

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

#: Denominator is number of animals necropsied

Version: May2011  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Harlan Sprague-Dawley  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
 Route: ALL ROUTES  
 Vehicle: ALL VEHICLES

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	Male				Female			
<b>#Tooth:</b>								
<b>Odontoma</b>								
			0/50 (0%)			1/52 (2%)	0/50 (0%)	
<b>Overall Incidence</b>	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/102 (0.98%)	Mean 0.96%	SD 1.36%
.....								
<b>#Uterus:</b>								
<b>Carcinoma</b>								
					2/52 (4%)	1/50 (2%)		
<b>Overall Incidence</b>	Total				3/102 (2.94%)	Mean 2.92%		SD 1.31%
.....								
<b>#Uterus:</b>								
<b>Polyp Stromal</b>								
					3/52 (6%)	8/50 (16%)		
<b>Overall Incidence</b>	Total				11/102 (10.78%)	Mean 10.88%		SD 7.23%
.....								
<b>#Uterus:</b>								
<b>Sarcoma Stromal or Polyp Stromal</b>								
					3/52 (6%)	8/50 (16%)		
<b>Overall Incidence</b>	Total				11/102 (10.78%)	Mean 10.88%		SD 7.23%
.....								
<b>#Uterus:</b>								
<b>Schwannoma Malignant</b>								
					1/52 (2%)	0/50 (0%)		
<b>Overall Incidence</b>	Total				1/102 (0.98%)	Mean 0.96%		SD 1.36%
.....								
<b>#Uterus:</b>								
<b>Squamous Cell Carcinoma</b>								
					0/52 (0%)	1/50 (2%)		
<b>Overall Incidence</b>	Total				1/102 (0.98%)	Mean 1%		SD 1.41%

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

#: Denominator is number of animals necropsied

Version: May2011  
 Contract/Lab: All Laboratories  
 Species: RATS  
 Strain: Harlan Sprague-Dawley  
 Length of Study: CHRONIC

**Toxicology Data Management System**  
 Tumor Incidence for Selected Control Animal Groups  
**Route: ALL ROUTES**  
**Vehicle: ALL VEHICLES**

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				Male		Female						
<b>#Vagina:</b>												
<b>Polyp</b>												
				1/52 (2%)		0/50 (0%)						
<b>Overall Incidence</b>				Total	1/102 (0.98%)	Mean	0.96%	SD	1.36%			
.....												
<b>#Vagina:</b>												
<b>Squamous Cell Carcinoma</b>												
				1/52 (2%)		0/50 (0%)						
<b>Overall Incidence</b>				Total	1/102 (0.98%)	Mean	0.96%	SD	1.36%			
.....												
<b>#Zymbal's Gland:</b>												
<b>Carcinoma</b>												
		1/50 (2%)		0/52 (0%)		0/50 (0%)						
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean	2%	SD	0%	Total	0/102 (0%)	Mean	0%	SD	0%
.....												
<b>#Zymbal's Gland:</b>												
<b>Carcinoma or Adenoma</b>												
		1/50 (2%)		0/52 (0%)		0/50 (0%)						
<b>Overall Incidence</b>	Total	1/50 (2%)	Mean	2%	SD	0%	Total	0/102 (0%)	Mean	0%	SD	0%

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

#: Denominator is number of animals necropsied