

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

WISTAR HAN RATS MALE 0 MG/KG	DAY ON TEST																				males (cont...)				
	0 7 3 0	0 7 3 0	0 7 3 0	0 7 3 0	0 6 7 6	0 7 3 0	0 7 3 2	0 5 3 3	0 7 2 2	0 7 2 2	0 7 2 2	0 7 2 2	0 7 2 1	0 7 2 1	0 7 2 1	0 6 2 0	0 7 2 9	0 7 2 9	0 6 6 9	0 7 3 1		0 7 3 1	0 5 1 5		
ANIMAL ID	0 0 0 0 3	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 1 0	0 0 0 1 1	0 0 0 1 2	0 0 0 1 3	0 0 0 1 5	0 0 0 1 6	0 0 0 1 7	0 0 0 1 9	0 0 0 2 0	0 0 0 2 1	0 0 0 2 2	0 0 0 2 4	0 0 0 2 5	0 0 0 2 6	0 0 0 2 7	0 0 0 2 8	0 0 0 3 0	0 0 0 3 1	0 0 0 3 2

Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia																								
Inflammation, Granulomatous			2																					
Inflammation, Chronic Active	1			2			1		1	1		1					1			1				
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Inflammation, Acute																								
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Degeneration			2		2		1					3		4		2		4			3			

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lymph Node																							
Mediastinal, Hemorrhage																							
Mediastinal, Hyperplasia, Plasma Cell																							
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Ectasia																1							2
Hemorrhage			2		1		3						2										
Pigmentation, Hemosiderin					1																		
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hemorrhage	1																						
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Fibrosis, Focal					2																		
Hematopoietic Cell Proliferation			1		2		1		1	1	1	1		1		1	1	1	2			2	

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X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

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	0 7 3 0	0 7 3 0	0 7 3 0	0 7 3 0	0 6 7 6	0 7 3 0	0 7 3 2	0 5 3 2	0 7 3 2	0 7 3 2	0 7 3 2	0 7 3 2	0 7 3 1	0 7 3 1	0 7 3 1	0 7 3 0	0 6 2 0	0 7 2 9	0 7 2 9	0 6 6 9	0 7 3 1	0 7 3 1	0 5 1 5			
Hemorrhage, Focal Pigmentation					1	1		1	1	1					4				1					2		
Thymus Atrophy Hemorrhage	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
					4		1	1							1		3				3	2		3		
															2											
INTEGUMENTARY SYSTEM																										
Mammary Gland Pigmentation, Hemosiderin Duct, Dilatation	M	+	M	+	+	+	+	+	+	M	+	M	M	M	+	+	+	M	M	+	M	+	+	+		
					1													1								
Skin Cyst Epithelial Inclusion Inflammation, Acute Inflammation, Chronic Inflammation, Chronic Active Ulcer	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
																							1			
	3																									
MUSCULOSKELETAL SYSTEM																										
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Skeletal Muscle																										
NERVOUS SYSTEM																										
Brain Compression	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
	2				3			3										1					1	3		

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	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731		0731	
ANIMAL ID	000333	000333	000333	000333	000333	000333	000333	000333	000333	000333	000333	000333	000333	000333	000333	000333	000333	000333	000333	000333	000333		
Inflammation, Chronic Mixed Cell Focus																					1	1 1.0	
Thrombosis		X																			X	2	1 1.0
Bile Duct, Hyperplasia			1																			16	1.1
Hepatocyte, Hypertrophy																						1	1.0
Hepatocyte, Necrosis																						4	1.3
Mesentery Hemorrhage																						12	2 3.0
Fat, Necrosis																						9	1.7
Oral Mucosa																						1	
Pancreas Atrophy																						46	3 1.0
Inflammation, Chronic																						1	1.0
Pigmentation, Hemosiderin																						1	1.0
Salivary Glands Duct, Parotid Gland, Inflammation, Acute																						46	1 1.0
Parotid Gland, Atrophy																						2	2.5
Parotid Gland, Hyperplasia, Focal																						1	1.0
Parotid Gland, Inflammation, Chronic																						1	1.0
Parotid Gland, Vacuolization Cytoplasmic																						4	1.5
Stomach, Forestomach Erosion																						49	1 1.0
Hyperkeratosis																						9	2.0
Inflammation, Acute																						1	1.0
Inflammation, Chronic																						3	2.0
Inflammation, Chronic Active																						3	2.0

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ANIMAL ID	003333	003333	003333	003333	003333	003333	003333	003333	003333	003333	003333	003333	003333	003333	003333	003333	003333	003333	003333	003333	003333	003333	
Ulcer Epithelium, Hyperplasia								4										3			2		
																						8	
Stomach, Glandular Mineralization	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
			1																			48	
																						7	
Tooth																						1	
CARDIOVASCULAR SYSTEM																							
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cardiomyopathy	1	2	1		2	2	2	3	1		1				1		2	2		2	1	2	
Epicardium, Inflammation, Granulomatous														4								1	
																						33	
																						1	
																						49	
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Angiectasis			1			1			1									1			1	1	
Degeneration, Cystic																						1	
Hyperplasia, Focal			2	1						1						1	1	1				1	
Hypertrophy, Focal				1	1				1	1						1						9	
Vacuolization Cytoplasmic			1		1																	1	
																						12	
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
																						49	
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia													1									49	
																						1	
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	
Cyst, Multiple																						47	
																						1	

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		7	7	7	7	7	7	5	7	7	7	0	5	0	7	5	7	7	7	6	7	7	6		7	
	ANIMAL ID	3	3	3	3	3	0	7	2	2	2	0	0	4	3	3	3	3	3	3	3	1	3		3	
		1	1	1	1	0	0	9	4	9	9	3	8	4	1	7	1	0	0	0	0	1	1	9	1	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		3	3	3	3	3	3	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	
		3	4	5	6	8	9	0	1	2	3	4	5	6	7	9	0	1	2	3	5	6	7	8	9	

Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Pars Distalis, Cyst					X				X		X														3	
Pars Distalis, Cyst, Multiple																									1	
Pars Distalis, Hyperplasia, Focal					1						1								1	1		2			15	1.3
Pars Intermedia, Hemorrhage																									1	2.0
Pars Intermedia, Hyperplasia, Focal	1																								2	1.5
Pars Nervosa, Inflammation, Chronic																									2	1.5

Thyroid Gland	+	+	+	+	+	+	A	A	+	+	+	A	+	+	+	A	+	+	+	+	+	+	+	+	45	
Cyst																				X					1	
C-cell, Hyperplasia	2	2	2	1	2	2			2	2	2		1		1		2	2	2	1	1	2	1	1	44	1.5
Follicle, Hypertrophy																			2						1	2.0
Follicular Cell, Hyperplasia	2	1	1						1		1														8	1.1

GENERAL BODY SYSTEM

Tissue NOS								+																	3	
Fibrosis																									1	2.0
Inflammation, Chronic Active															4										1	4.0

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Vacuolization Cytoplasmic																									1	2.0
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Inflammation, Granulomatous, Chronic																			1						1	1.0
Inflammation, Chronic																								1	3	1.0
Mineralization			1																						1	1.0
Duct, Ectasia																									2	2.0

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Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Hyperplasia																						1 1.0
Inflammation, Granulomatous																						1 2.0
Inflammation, Chronic Active			1				1			2	1		1			1				1		2 2
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Inflammation, Acute																						1 1.0
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Degeneration																						2 2
HEMATOPOIETIC SYSTEM																						
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Lymph Node																						2
Mediastinal, Hemorrhage																						3 1 3.0
Mediastinal, Hyperplasia, Plasma Cell																						3 1 3.0
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Ectasia																						2 1.5
Hemorrhage																						4 2.0
Pigmentation, Hemosiderin																						1 1.0
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Hemorrhage																						1 2 1.0
Spleen	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Fibrosis, Focal																						1 2.0
Hematopoietic Cell Proliferation																						1 1

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Hemorrhage, Focal Pigmentation							1					2						1		1	2	12 1.3			
Thymus Atrophy Hemorrhage	+	+	+	+	+	+	A	A	+	+	+	+	+	M	+	A	+	+	+	+	+	45			
		2										1						3		4	2	14 2.2			
																						1 2.0			
INTEGUMENTARY SYSTEM																									
Mammary Gland Pigmentation, Hemosiderin Duct, Dilatation	+	+	+	M	+	+	I	+	+	M	+	M	+	+	+	I	M	+	+	M	+	+	+	+	33
								3					1										1		3 1.0
																							1		4 1.5
Skin Cyst Epithelial Inclusion Inflammation, Acute Inflammation, Chronic Inflammation, Chronic Active Ulcer	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
												4													1 4.0
																			2						1 2.0
																									1 1.0
																									1 3.0
																			2						1 2.0
MUSCULOSKELETAL SYSTEM																									
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Skeletal Muscle																									1
NERVOUS SYSTEM																									
Brain Compression	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
							1							3					3			3			10 2.3

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ANIMAL ID	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	
	33	34	35	36	38	39	40	41	42	43	44	45	46	47	49	50	51	52	53	55	56	59

Peripheral Nerve

+ 2

Spinal Cord

+ 2

RESPIRATORY SYSTEM

Lung																					49			
Infiltration Cellular, Histiocyte	1		1			1		1		1						1	1	1		1		1	24	1.0
Inflammation, Granulomatous, Multifocal																							1	2.0
Inflammation, Acute							3											1					2	2.0
Inflammation, Chronic			1											1		1						1	4	1.0
Alveolar Epithelium, Hyperplasia		1																					2	2.0
Mediastinum, Inflammation, Granulomatous													4										1	4.0
Nose																					49			
Fungus																							2	2.0
Inflammation, Acute																							2	2.0
Squamous Epithelium, Cyst																							1	2.0
Trachea																					49			
Inflammation, Acute																							1	1.0

SPECIAL SENSES SYSTEM

Eye																					46			
Retina, Atrophy																							6	2.0
Harderian Gland																					49			
Hyperplasia, Focal	1																						1	1.0

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WISTAR HAN RATS MALE	7	7	7	7	7	7	7	5	7	7	7	0	5	0	7	5	7	7	7	6	7	7	6	7	7	
0 MG/KG	3	3	3	3	3	3	0	7	2	2	2	0	0	4	3	3	3	3	3	3	3	3	1	3	3	
ANIMAL ID	1	1	1	1	0	0	9	4	9	9	9	3	8	4	1	7	1	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	
	3	4	5	6	8	9	0	1	2	3	4	5	6	7	9	0	1	2	3	5	6	7	8	9		
																							* TOTALS			

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Cyst																									1
Hydronephrosis																									1 3.0
Inflammation, Chronic Active																									1 1.0
Nephropathy	1	2	1		1		1	1	2	1						1	1	1		3					37 1.2
Pelvis, Inflammation, Chronic Active		1	1	1				1		1					2	2				3	2				22 1.4
Pelvis, Mineralization		1	2				2	1							1				2				2		18 1.3
Renal Tubule, Hyperplasia											2														1 2.0
Ureter																									1
Cyst																									1 1.0
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

WISTAR HAN RATS MALE	DAY ON TEST																				males (cont...)	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	7	6	7	6	7	7	6	7	7	7	7	5	7	7	7	7	7	7	7	7		5
3 MG/KG	3	8	3	4	3	3	5	3	3	3	0	3	3	3	3	3	3	3	3	8	3	
	0	2	0	5	1	1	8	0	0	2	2	7	1	1	1	2	2	2	0	0	1	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	8	8	8	8	
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperkeratosis																						
Muscularis, Degeneration																						
Muscularis, Hemorrhage																						
Intestine Large, Cecum	+	+	+	A	+	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+
Inflammation, Chronic																						
Intestine Large, Colon	+	+	+	A	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+
Inflammation, Chronic																						
Intestine Large, Rectum	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	A	+	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	+	A	+	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	+	A	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+
Ulcer																						
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Basophilic Focus							X					X							X			
Basophilic Focus, Multiple	X		X								X		X	X		X	X	X				
Clear Cell Focus																						
Clear Cell Focus, Multiple	X		X		X	X		X	X	X		X	X	X	X	X	X	X	X	X	X	X
Congestion							1															
Eosinophilic Focus									X			X										
Eosinophilic Focus, Multiple																	X					

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+ .. Tissue examined microscopically

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WISTAR HAN RATS MALE 3 MG/KG	DAY ON TEST																						males (cont...)		
	0 7 3 0	0 6 8 2	0 7 3 0	0 6 4 5	0 7 3 1	0 7 3 1	0 6 5 8	0 7 3 0	0 7 3 0	0 7 3 2	0 7 3 2	0 5 0 7	0 7 3 1	0 7 3 1	0 7 3 2	0 7 3 2	0 7 3 0	0 7 3 3	0 7 3 3	0 5 8 5	0 7 3 1	0 4 6 5			
	ANIMAL ID	0 0 0 6 1	0 0 0 6 2	0 0 0 6 3	0 0 0 6 4	0 0 0 6 5	0 0 0 6 6	0 0 0 6 7	0 0 0 6 8	0 0 0 6 9	0 0 0 7 0	0 0 0 7 1	0 0 0 7 2	0 0 0 7 3	0 0 0 7 4	0 0 0 7 5	0 0 0 7 6	0 0 0 7 7	0 0 0 7 8	0 0 0 7 9	0 0 0 8 0	0 0 0 8 1		0 0 0 8 2	0 0 0 8 3
Fatty Change		4		2	1	1	1	2	1	2	1	1	1	1	2	2	1	1	1	2	1	2		1	
Hepatodiaphragmatic Nodule																									
Inflammation, Chronic										1															
Mixed Cell Focus										X										X					
Mixed Cell Focus, Multiple																									
Bile Duct, Hyperplasia		1				1			1		1		1			1		1	1						
Hepatocyte, Hypertrophy		3	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	3	3	2	2	2	2	2	2
Hepatocyte, Necrosis						3											1								
Mesentery																									
Hemorrhage				+																					+
Fat, Necrosis					2																				1
Pancreas																									
Atrophy		+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia																									
Inflammation, Acute																									
Duct, Cyst															4										
Salivary Glands																									
Duct, Parotid Gland, Cyst		+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Duct, Parotid Gland, Inflammation, Acute								1																	
Parotid Gland, Atrophy																									
Parotid Gland, Inflammation, Chronic																									1
Parotid Gland, Vacuolization Cytoplasmic																									
Submandibular Gland, Inflammation, Chronic							2																		
Stomach, Forestomach																									
Edema																									
Erosion							2																		

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Lab: SRI

WISTAR HAN RATS MALE 3 MG/KG	DAY ON TEST																				ANIMAL ID	males (cont...)			
	0730	0682	0730	0664	0773	0676	0776	0677	0777	0678	0779	0680	0780	0681	0781	0682	0782	0683	0783	0684			0784	0575	0776
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

Hyperkeratosis	2	1	1																						
Inflammation, Acute																									
Inflammation, Chronic																									
Inflammation, Chronic Active																									
Ulcer	3																								
Epithelium, Hyperplasia	3																								
Stomach, Glandular	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Fibrosis																									
Inflammation, Multifocal, Chronic																									
Mineralization																									
Tongue																									
Infiltration Cellular																									

CARDIOVASCULAR SYSTEM

Blood Vessel	+																								
Angiectasis																									
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cardiomyopathy	1	2			1	2	2		1	2	2	2	2	2	1	1	2	1	1	1		1	2	1	
Endocardium, Hyperplasia																									
Pericardium, Necrosis																									

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis	1	1																						
Hyperplasia, Focal	2																							
Hypertrophy, Focal	1	1																						

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+ .. Tissue examined microscopically

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WISTAR HAN RATS MALE 3 MG/KG	DAY ON TEST																				ANIMAL ID	males (cont...)			
	0730	0738	0733	0734	0737	0737	0736	0737	0737	0737	0737	0735	0737	0737	0737	0737	0737	0737	0737	0737			0737	0735	0737
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

Vacuolization Cytoplasmic

1 1 1

Adrenal Medulla
Infiltration Cellular, Eosinophil

+ + + A +

Islets, Pancreatic

+ + + A +

Parathyroid Gland
Cyst
Hyperplasia, Focal

+ + + + + + + + + + + + + + M + + + + + + + + + + + +
3

Pituitary Gland
Pars Distalis, Cyst
Pars Distalis, Hyperplasia, Focal

+
X
1 2

Thyroid Gland
Cyst
C-cell, Hyperplasia
Follicle, Hypertrophy
Follicular Cell, Hyperplasia

+ + + A + + + + + + + + A + + + + + + + + + + + + + + + + +
1 1 3 1 2 1 2 3 1 2 3 1 2 2 2 1 2 1 1 2 2
2 1 1 1 1 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1

GENERAL BODY SYSTEM

Tissue NOS
Fat, Necrosis

+
2 +

GENITAL SYSTEM

Epididymis
Bilateral, Granuloma Sperm

+ +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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Lab: SRI

| WISTAR HAN RATS MALE
3 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | |
|---------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|-------|------|
| | 0730 | 0738 | 0732 | 0734 | 0736 | 0737 | 0766 | 0767 | 0776 | 0777 | 0777 | 0777 | 0777 | 0755 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | | | 0757 | 0774 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00061 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00062 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00063 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00064 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00065 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00066 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00067 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00068 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00069 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00070 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00071 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00072 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00073 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00074 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00075 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00076 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00077 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00078 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00079 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00080 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00081 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00082 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00083 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00084 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00085 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00086 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00087 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00088 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00089 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00090 | |

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Preputial Gland
Inflammation, Chronic
Inflammation, Chronic Active
Duct, Ectasia | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | 1 | | | | | | 1 | | | | | | | | | | 1 | | | |
| Prostate
Inflammation, Chronic Active
Epithelium, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | 1 | | 1 | 1 | 1 | | 2 | | | | | | 3 | | | | | 1 | | 1 | 2 | | |
| Seminal Vesicle
Inflammation, Acute
Inflammation, Chronic Active | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Testes
Degeneration
Interstitial Cell, Hyperplasia, Multifocal | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | 2 | | 2 | | | | | | | | | | 2 | | | | | | 3 | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow
Hyperplasia | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymph Node
Ectasia
Mediastinal, Congestion
Mediastinal, Hemorrhage
Mediastinal, Pigmentation, Hemosiderin
Renal, Ectasia | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | | | | | | | | | | | | |

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3 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | |
|---------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|
| | 0730 | 0682 | 0730 | 0664 | 0773 | 0676 | 0776 | 0677 | 0777 | 0678 | 0779 | 0680 | 0780 | 0681 | 0781 | 0682 | 0782 | 0683 | 0783 | 0684 | 0784 | 0685 | 0785 | 0686 | | | 0786 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00061 | |
| | 7 | 6 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 4 | 00062 | |
| | 3 | 8 | 3 | 4 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 3 | 6 | 00063 | |
| | 0 | 2 | 0 | 5 | 1 | 1 | 8 | 0 | 0 | 2 | 2 | 7 | 1 | 1 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 1 | 5 | 1 | 5 | 00064 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00065 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00066 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00067 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 00068 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 00069 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Ectasia | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | 2 | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| Ectasia | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| Spleen | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | |
| Hematopoietic Cell Proliferation | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | | | | | | |
| Pigmentation | 1 | | 1 | 1 | 2 | | | | | | | | | | | | | | | | | | | 1 | 1 | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| Atrophy | 1 | | 3 | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | 2 | | | | | | | | | | | | | 4 | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | I | M | M | + | + | + | + | M | M | + | | | | | |
| Galactoceles | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation, Hemosiderin | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | 1 | 1 | | | | |
| Duct, Dilatation | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperkeratosis | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ulcer | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | |
|----------------------|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|---|---|---|
| WISTAR HAN RATS MALE | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | | |
| 3 MG/KG | | 7 | 6 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | 5 | 7 | 4 | |
| ANIMAL ID | | 3 | 8 | 3 | 4 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 3 | 6 | | |
| | | 0 | 2 | 0 | 5 | 1 | 1 | 8 | 0 | 0 | 2 | 2 | 7 | 1 | 1 | 1 | 2 | 2 | 2 | 0 | 0 | 1 | 5 | 1 | 5 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

Epidermis, Hyperplasia

1

MUSCULOSKELETAL SYSTEM

Bone

+ +

Skeletal Muscle

NERVOUS SYSTEM

Brain

+ +

Compression

1 3 1 1 1 1

Peripheral Nerve

Spinal Cord

RESPIRATORY SYSTEM

Lung

+ +

Infiltration Cellular, Histiocyte
Inflammation, Acute

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Alveolar Epithelium, Hyperplasia
Vein, Mineralization

1 1

Nose

+ + + A +

Trachea

+ + + A +

SPECIAL SENSES SYSTEM

Eye

+ + + A +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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Lab: SRI

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------------|---|
| WISTAR HAN RATS MALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | males
(cont...) | |
| | | 7 | 6 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | | 4 |
| | | 3 | 8 | 3 | 4 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 3 | | 6 |
| | | 0 | 2 | 0 | 5 | 1 | 1 | 8 | 0 | 0 | 2 | 2 | 7 | 1 | 1 | 1 | 2 | 2 | 2 | 0 | 0 | 1 | 5 | | 6 |
| 3 MG/KG | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | | |

Retina, Atrophy

1 2 2 2

Harderian Gland

+ + + A + + + + + + + + + + + + + + + + + + +

URINARY SYSTEM

| | |
|--------------------------------------|---|
| Kidney | + + + A + + + + + + + + + + + + + + + + + + + |
| Hydronephrosis | 1 |
| Nephropathy | 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 1 1 1 1 |
| Pelvis, Inflammation, Chronic Active | 2 1 1 2 1 1 1 1 |
| Pelvis, Mineralization | 1 1 1 1 |
| Transitional Epithelium, Hyperplasia | 2 |
| Urinary Bladder | + + + A + + + + + + + + + + + + + + + + + + + |
| Inflammation, Chronic | 2 |
| Transitional Epithelium, Hyperplasia | 4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue
 X .. Lesion present A .. Autolysis precludes evaluation
 I .. Insufficient tissue BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
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Lab: SRI

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|---|--|
| WISTAR HAN RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| | 7 | 4 | 7 | 7 | 7 | 5 | 3 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | | 6 | 7 | |
| 3 MG/KG | 3 | 8 | 3 | 3 | 3 | 9 | 0 | 3 | 2 | 4 | 2 | 2 | 0 | 2 | 3 | 3 | 0 | 3 | 3 | 6 | 3 | 3 | 8 | 4 | 3 | |
| | 1 | 5 | 0 | 0 | 0 | 2 | 1 | 2 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 1 | 8 | 7 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|-----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Hyperkeratosis | | | | | | | 2 | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Muscularis, Degeneration | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | 1 | 2.0 |
| Muscularis, Hemorrhage | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | 1 | 2.0 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | A | A | + | 43 | | | |
| Inflammation, Chronic | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | 1 | 2.0 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | A | + | + | 45 | | | |
| Inflammation, Chronic | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | 1.0 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | A | A | + | 46 | | | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | A | + | + | 45 | | | |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | A | + | + | A | + | + | A | + | + | 43 | | | |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | M | + | + | A | + | + | A | + | + | 44 | | | |
| Ulcer | | | | | | | | | | | 2 | | | | | | | | | | | | | | | 1 | 2.0 | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | X | | 4 | | |
| Basophilic Focus, Multiple | X | | | | | | | | X | | X | | X | | | X | X | | X | X | | | | | | 17 | | |
| Clear Cell Focus | | | | | | | | | | | | | X | | | | | | | | | | | | | 1 | | |
| Clear Cell Focus, Multiple | X | | X | X | X | X | | X | X | | X | X | | X | X | | X | X | | X | X | | | X | | 36 | | |
| Congestion | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | | | 3 | 1.0 | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Eosinophilic Focus, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
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CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS MALE
3 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|----------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 7 | 4 | 7 | 7 | 7 | 5 | 3 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 6 | 7 | |
| ANIMAL ID | 3 | 8 | 3 | 3 | 3 | 9 | 0 | 3 | 2 | 4 | 2 | 2 | 0 | 2 | 3 | 3 | 0 | 3 | 3 | 6 | 3 | 3 | 8 | 4 | 3 | |
| | 1 | 5 | 0 | 0 | 0 | 2 | 1 | 2 | 9 | 9 | 9 | 9 | 2 | 9 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 1 | 8 | 7 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| Fatty Change | 1 | 4 | 1 | | 1 | 2 | 3 | 2 | 1 | | 1 | 1 | 1 | | 1 | | 1 | 1 | 1 | 1 | | 1 | | 37 | | |
| Hepatodiaphragmatic Nodule | | | | X | | | | | | | | | | | | | | | | | | | | 1 | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | 1 | | | | | | 2 | | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Mixed Cell Focus, Multiple | | | | | | | | | | | | | | X | | | | | | | | | | 1 | | |
| Bile Duct, Hyperplasia | | | | | 1 | | 1 | | | | | | | 1 | | | | 1 | | 1 | 1 | | | 16 | | |
| Hepatocyte, Hypertrophy | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | 2 | 2 | | 2 | 2 | 1 | | 1 | 2 | | 2 | 1 | | 44 | | |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Mesentery | | | + | | + | | | | | | | | | | | | | | | | + | + | | 6 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | 2 | | | 1 | | |
| Fat, Necrosis | | 2 | | 2 | | | | | | | | | | | | | | | | | | 1 | | 5 | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | A | + | + | 47 |
| Atrophy | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 | 5 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Inflammation, Acute | | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | |
| Duct, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Duct, Parotid Gland, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Duct, Parotid Gland, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Parotid Gland, Atrophy | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | 2 | |
| Parotid Gland, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Parotid Gland, Vacuolization Cytoplasmic | | 4 | | | | | 1 | | | | 1 | | | | | | | | | | | | | | 4 | |
| Submandibular Gland, Inflammation, Chronic | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Erosion | | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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| DAY ON TEST | WISTAR HAN RATS MALE | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-------------|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---|--|----------|
| | 0731 | 0738 | 0739 | 0773 | 0775 | 0779 | 0783 | 0787 | 0792 | 0799 | 0803 | 0807 | 0812 | 0817 | 0822 | 0827 | 0832 | 0837 | 0842 | 0847 | 0852 | 0857 | | | |
| 3 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-----|
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 1.8 |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Ulcer Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 6 | 2.0 |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | 46 | 1.0 |
| Inflammation, Multifocal, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Tongue | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|-----|
| Blood Vessel | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Heart | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cardiomyopathy | | | | | | | | | | | | | | | | | | | | | | | | | 50 | 1.4 |
| Endocardium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 32 | 1.0 |
| Pericardium, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|-----|
| Adrenal Cortex | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | 49 | 1.1 |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | | | | | | | 17 | 1.1 |
| Hypertrophy, Focal | | | | | | | | | | | | | | | | | | | | | | | | | 10 | 1.2 |
| | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.1 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue
X .. Lesion present A .. Autolysis precludes evaluation
I .. Insufficient tissue BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS MALE
3 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------------------------|-------------|
| | 0731 | 0735 | 0740 | 0743 | 0747 | 0752 | 0753 | 0773 | 0777 | 0779 | 0782 | 0784 | 0789 | 0792 | 0797 | 0799 | 0800 | 0803 | 0806 | 0807 | 0811 | 0813 | 0818 | 0820 | |
| ANIMAL ID | 0086 | 0087 | 0088 | 0089 | 0090 | 0091 | 0092 | 0093 | 0094 | 0095 | 0096 | 0097 | 0098 | 0099 | 0100 | 0101 | 0102 | 0103 | 0104 | 0105 | 0106 | 0107 | 0108 | 0109 | |
| Vacuolization Cytoplasmic | 1 | | | | | | 3 | | 1 | 1 | | | 1 | | | | | | | | | | | 1 | 9 1.2 |
| Adrenal Medulla
Infiltration Cellular, Eosinophil | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | 48
1 3.0 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Parathyroid Gland
Cyst
Hyperplasia, Focal | + | + | + | + | + | 1 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 1 | + | 49
2 1.0
1 3.0 | |
| Pituitary Gland
Pars Distalis, Cyst
Pars Distalis, Hyperplasia, Focal | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | 49
3
11 1.1 | |
| Thyroid Gland
Cyst
C-cell, Hyperplasia
Follicle, Hypertrophy
Follicular Cell, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | A | 45
1
41 1.7
26 1.3
5 1.6 | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tissue NOS
Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 3
1 2.0 |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epididymis
Bilateral, Granuloma Sperm | | | | | | | | | | | | | | | | | | | | | | | | | 50
1 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
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Lab: SRI

| WISTAR HAN RATS MALE
3 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----|-----|
| | 0731 | 0735 | 0739 | 0743 | 0747 | 0751 | 0755 | 0759 | 0763 | 0767 | 0771 | 0775 | 0779 | 0783 | 0787 | 0791 | 0795 | 0799 | 0803 | 0807 | | | |
| ANIMAL ID | 00086 | 00087 | 00088 | 00089 | 00090 | 00091 | 00092 | 00093 | 00094 | 00095 | 00096 | 00097 | 00098 | 00099 | 00100 | 00101 | 00102 | 00103 | 00104 | 00105 | 00106 | | |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 4 | 1.5 |
| Duct, Ectasia | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 20 | 1.3 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | M | + | + | + | + | + | 46 | |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Degeneration | | | | | | | | | | | | | | | | | | | | | | 11 | 2.8 |
| Interstitial Cell, Hyperplasia, Multifocal | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 48 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | 6 | |
| Ectasia | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Mediastinal, Congestion | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Mediastinal, Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Renal, Ectasia | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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Experiment Number: 20209 - 03

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Lab: SRI

| WISTAR HAN RATS MALE
3 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---|---|---|--|---|--|---|--|--|--|--|--|---|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|-----------|------------|------------|------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 | 4 | 7 | 7 | 7 | 5 | 3 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 2 | 7 | 7 | 5 | | 6 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | 8 | 3 | 3 | 3 | 9 | 0 | 3 | 2 | 4 | 2 | 2 | 0 | 2 | 3 | 3 | 0 | 3 | 3 | 6 | 3 | 3 | 8 | 4 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 5 | 0 | 0 | 0 | 2 | 1 | 2 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 3 | 0 | 0 | 0 | 1 | 1 | 8 | 7 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ectasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2 | | 1 | | 2 | | | | | | | | | | | | | | | | | | | | | | | 7 | 1.4 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 49 | | | |
| Ectasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.5 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Spleen | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 46 | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | A | | | | | | | | | | | | | 30 | 1.2 | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | 1.1 | |
| Thymus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 49 | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | 2.5 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 2.3 | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|---|--|---|--|--|--|---|--|---|--|--|--|--|---|---|--|--|---|---|--|--|---|---|--|----------|------------|------------|------------|
| Mammary Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 38 | | |
| Galactocele | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | | 1 | | | | | | | | | 1 | 1 | | | | | | | 9 | 1.0 | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 49 | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | 1 | 2.0 |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | 2 | | | | 3 | 2.0 | |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | 1 | | 3 | 2.3 | | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | 2 | 2.5 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
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Experiment Number: 20209 - 03

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| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|---|-----------------|
| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS |
| WISTAR HAN RATS MALE | | 7 | 4 | 7 | 7 | 7 | 5 | 3 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 2 | 7 | 7 | 5 | 6 | 7 | |
| 3 MG/KG | | 3 | 8 | 3 | 3 | 3 | 9 | 0 | 3 | 2 | 4 | 2 | 2 | 0 | 2 | 3 | 3 | 0 | 3 | 3 | 6 | 3 | 3 | 8 | 4 | 3 | |
| ANIMAL ID | | 1 | 5 | 0 | 0 | 0 | 2 | 1 | 2 | 9 | 9 | 9 | 9 | 2 | 9 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 1 | 8 | 7 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 4 2.0 | | |

Epidermis, Hyperplasia

2 2

3

4 2.0

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
|-----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Compression | | 2 | | 1 | | | 2 | | | | | | | | | | | | | | | | | 2 | | 9 1.6 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|
| Peripheral Nerve | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
|------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|
| Spinal Cord | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
|-------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Infiltration Cellular, Histiocyte | | 1 | | | 1 | 1 | | 1 | | | 1 | | | | | | 1 | | | | | | | 1 | | 24 1.0 |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | 1 | | | | | | | | | | | 3 1.0 |
| Vein, Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | A | + | 46 |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | A | + | 46 |
|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS MALE

3 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7 | 4 | 7 | 7 | 7 | 5 | 3 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 2 | 7 | 7 | 5 | 6 | |
| | 3 | 8 | 3 | 3 | 3 | 9 | 0 | 3 | 2 | 4 | 2 | 2 | 0 | 2 | 3 | 3 | 0 | 3 | 3 | 6 | 3 | 3 | 8 | 4 | 3 |
| | 1 | 5 | 0 | 0 | 0 | 2 | 1 | 2 | 9 | 9 | 9 | 9 | 2 | 9 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 1 | 8 | 7 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|-----|
| Retina, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 | 2 | 2 | 8 | 1.9 |
|-----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|-----|

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | A | + | + | 46 |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|---|--|--|---|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|---|-----|
| Hydronephrosis | | | 1 | | | 3 | | | | | | | | 1 | | | | | | | | | | | | 5 | 1.4 |
|----------------|--|--|---|--|--|---|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|---|-----|

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|--|---|---|---|---|---|---|--|--|--|--|--|--|---|---|--|---|---|--|---|---|--|---|---|----|-----|
| Nephropathy | 1 | | 1 | 3 | 1 | 1 | 1 | 1 | | | | | | | 1 | 1 | | 2 | 2 | | 1 | 2 | | 3 | 1 | 35 | 1.3 |
|-------------|---|--|---|---|---|---|---|---|--|--|--|--|--|--|---|---|--|---|---|--|---|---|--|---|---|----|-----|

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|--|---|--|---|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|----|-----|
| Pelvis, Inflammation, Chronic Active | 1 | | 1 | | 1 | | | | | | | | | | 2 | | | | | | | | | | | 14 | 1.2 |
|--------------------------------------|---|--|---|--|---|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|----|-----|

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|
| Pelvis, Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 1.0 |
|------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|
| Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
|--------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 48 |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
|-----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|
| Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
|--------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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Experiment Number: 20209 - 03

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Route: GAVAGE

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Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

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First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------------|--|
| | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | |
| WISTAR HAN RATS MALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 5 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | |
| 15 MG/KG | 9 | 3 | 3 | 3 | 3 | 9 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 3 | 5 | 8 | 3 | 3 | 3 | 3 | 3 | 2 | |
| | 5 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 9 | 0 | 3 | 0 | 1 | 1 | 1 | 1 | 1 | 9 | |
| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | males
(cont...) | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | |
| Inflammation, Focal, Chronic Active
Peyer's Patch, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Peyer's Patch, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | X | | | | | | | | | | | | | | | | | | | | | | | X | |
| Basophilic Focus, Multiple | | | | X | | | | | | | X | | | | | | | | | | | | | X | |
| Cholangiofibrosis | | | | | 2 | | | | | | | | | | | | | | | | | | | | |
| Clear Cell Focus, Multiple | | | X | X | X | | X | X | | X | X | X | X | | X | | X | | X | X | X | X | X | X | |
| Degeneration, Cystic | | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Eosinophilic Focus | | | | | | | | | | | X | | | | X | X | | X | | | | | X | | |
| Eosinophilic Focus, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fatty Change | 3 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 2 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20209 - 03

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Lab: SRI

| WISTAR HAN RATS MALE

15 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---|--------------------|
| | 05 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | | | |
| | 95 | 30 | 30 | 31 | 31 | 92 | 30 | 30 | 02 | 22 | 32 | 32 | 32 | 33 | 33 | 63 | 36 | 53 | 83 | 31 | 31 | 31 | 31 | | |
| ANIMAL ID | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Nodular
Mixed Cell Focus, Multiple
Pigmentation | | | | 2 | | 2 | | | | | | | | | | | | 2 | | | | | | | |
| Artery, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Bile Duct, Hyperplasia | | | | | | 1 | | | | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | | | 1 | 1 | | 1 |
| Hepatocyte, Hypertrophy | 2 | 4 | 3 | 4 | 3 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 4 | 3 |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Oval Cell, Hyperplasia | | | | 1 | | | | | | 1 | | | | | | | | | | | | | | | |
| Mesentery | + | + | + | + | + | | + | | | | | | + | + | | + | + | | | | | | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | 3 | | 2 | 1 | 2 | | 1 | | | | | | 2 | 2 | | 1 | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | 1 | | 1 | | | | | | | 1 | | | | | | | | | | | | | | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hyperplasia | | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Duct, Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Duct, Parotid Gland, Cyst | | | | | | | | 1 | | | | | | | | | | | | | | 2 | | | |
| Parotid Gland, Atrophy | | | | | | 1 | | | | | | | | | | | | | | | | | | | |
| Parotid Gland, Inflammation, Chronic | | | 1 | | | | | | | | | | | | | | | | | | | 2 | | | |
| Parotid Gland, Vacuolization Cytoplasmic | | | | | 1 | 3 | | | 1 | | | | | | | | | | | | | 2 | 2 | | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperkeratosis | | | | | | 2 | | | 1 | | | | | | | | | | | | | | 2 | | |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Inflammation, Chronic | | | | | | | | | 2 | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

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|--|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WISTAR HAN RATS MALE

15 MG/KG | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

males
(cont...)

Inflammation, Chronic Active

Ulcer

Epithelium, Hyperplasia

2
2
3 3 2

Stomach, Glandular

Cyst

Inflammation, Acute

Mineralization

+
1 1

CARDIOVASCULAR SYSTEM

Heart

Cardiomyopathy

+
1 1 1 2 2 1 2 1 1 1 2 1 1 1 1 1 2 1 1 2 1 1

ENDOCRINE SYSTEM

Adrenal Cortex

Angiectasis

Hyperplasia, Focal

Hypertrophy, Focal

Vacuolization Cytoplasmic

+
3 1 1 1 1 1 2 1 2 1 1 1 1 1 1 2 1 1 1 1 1 1 2

Adrenal Medulla

Islets, Pancreatic

Parathyroid Gland

Hyperplasia, Focal

+
+
1

Pituitary Gland

Pars Distalis, Cyst

+
X

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

| Wistar Han Rats Male
15 mg/kg | Day on Test | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | |
|----------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|------|
| | 0595 | 0730 | 0731 | 0733 | 0735 | 0752 | 0777 | 0777 | 0622 | 0762 | 0777 | 0777 | 0777 | 0777 | 0777 | 0663 | 0735 | 0483 | 0747 | 0777 | 0777 | 0777 | 0777 | | 0777 |
| | ANIMAL ID | 0011 | 0011 | 0011 | 0011 | 0011 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | | 0000 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Degeneration | | 3 | 2 | | 2 | | | 4 | | 3 | | | 2 | 4 | | | | | 4 | | | | | |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Mineralization | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Interstitial Cell, Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node | | + | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Ectasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Ectasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ectasia | | | | 1 | 2 | 1 | | | 2 | | | 1 | | | | | | | | 1 | | | | |
| Hemorrhage | | | | | | | | | | | | 2 | | | | | | | | | | 2 | | |
| Hyperplasia, Plasma Cell | | | | | | | | | | | | | | | | | 2 | | | | | | | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ectasia | | 1 | | | | | | | | | | | | | | | | | | 2 | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accessory Spleen | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis, Focal | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | 1 | | 1 | | | 1 | | 1 | 1 | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------------------|
| WISTAR HAN RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0595 | 0730 | 0731 | 0731 | 0732 | 0735 | 0737 | 0737 | 0762 | 0776 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | |
| 15 MG/KG | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
| 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | 001111 | |

Pigmentation 1 1 1 1 2 1 1 1
 Lymphoid Follicle, Atrophy 2

Thymus +
 Atrophy 1 4 2 2 1
 Ectopic Parathyroid Gland 1 1
 Hemorrhage 1

INTEGUMENTARY SYSTEM

Mammary Gland + + + + + + + + + M M + + + + M M + M M + + + + +
 Cyst
 Hyperplasia 1
 Pigmentation, Hemosiderin 2
 Duct, Dilatation 2

Skin +
 Cyst Epithelial Inclusion 2
 Inflammation, Granulomatous 3

MUSCULOSKELETAL SYSTEM

Bone +
 Skeletal Muscle + + + + +
 Fibrosis
 Inflammation, Chronic Active 2

NERVOUS SYSTEM

Brain +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WISTAR HAN RATS MALE

15 MG/KG | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 5 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 9 | 3 | 3 | 3 | 3 | 9 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 3 | 5 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 |
| | | 5 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 9 | 0 | 3 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| | | males (cont...) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Compression
Meninges, Hyperplasia, Granulocytic

3 3 3 3 3

Peripheral Nerve

+ +

Spinal Cord

+ +

RESPIRATORY SYSTEM

Lung

+ +

Hemorrhage

Infiltration Cellular, Histiocyte

Mineralization

Alveolar Epithelium, Hyperplasia

1 1

Nose

+ +

Fungus

Inflammation, Acute

Inflammation, Chronic Active

2
2

Trachea

+ +

SPECIAL SENSES SYSTEM

Eye

+ +

Retina, Atrophy

Harderian Gland

Atrophy

+ +

Lacrimal Gland

+ +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20209 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Wistar Han

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 Pentabromodiphenyl oxide (technical) (DE 71)
CAS Number: 32534-81-9

Date Report Requested: 08/12/2014
Time Report Requested: 10:27:34
First Dose M/F: 08/26/08 / 08/26/08
Lab: SRI

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|-----------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WISTAR HAN RATS MALE | 15 MG/KG | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 5 | 4 | 7 | 7 | 7 | 7 | 7 |
| | | | 9 | 3 | 3 | 3 | 3 | 9 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 3 | 5 | 8 | 3 | 3 | 3 | 3 | 3 |
| | | | 5 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 9 | 0 | 3 | 0 | 1 | 1 | 1 | 1 | 1 |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | |

males (cont...)

Inflammation, Chronic
 Karyomegaly

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Bacterium | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | X | X | | | | | | | | | | | | | | |
| Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | |
| Hydronephrosis | | | | | | | | | 3 | 3 | | | | | | 3 | | | | | | | | |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | |
| Nephropathy | 1 | 1 | | 1 | 1 | | 1 | | 1 | | 1 | 2 | 1 | | 2 | | 1 | 1 | | 2 | 1 | | 1 | 1 |
| Pelvis, Inflammation, Chronic Active | 1 | | | | | 1 | | 2 | | | 2 | | | 2 | | | | | | 1 | | | | |
| Pelvis, Mineralization | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Renal Tubule, Dilatation | | | | | | | | | | | | | | | | | | 2 | | | | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | |
| Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20209 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Pentabromodiphenyl oxide (technical) (DE 71)
 CAS Number: 32534-81-9

Date Report Requested: 08/12/2014
 Time Report Requested: 10:27:34
 First Dose M/F: 08/26/08 / 08/26/08
 Lab: SRI

| WISTAR HAN RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|----------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | |
| 15 MG/KG | 00136 | 00136 | 00136 | 00136 | 00136 | 00136 | 00136 | 00136 | 00136 | 00136 | 00136 | 00136 | 00136 | 00136 | 00136 | 00136 | 00136 | 00136 | 00136 | 00136 | 00136 | 00136 | 00136 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|---------------------|
| Esophagus | + | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Intestine Large, Cecum | + | | | | | | | | | | | | | | | | | | | | | | | 49 | |
| Intestine Large, Colon | + | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Intestine Large, Rectum | + | | | | | | | | | | | | | | | | | | | | | | | 49 | |
| Intestine Small, Duodenum | + | | | | | | | | | | | | | | | | | | | | | | | 49 | |
| Intestine Small, Ileum
Inflammation, Focal, Chronic Active
Peyer's Patch, Hyperplasia | + | | | | | | | | | | | | | | | | | | | | | | | 49 | 2
1 2.0
1 2.0 |
| Intestine Small, Jejunum
Peyer's Patch, Hyperplasia | + | | | | | | | | | | | | | | | | | | | | | | | 50 | 1 1.0 |
| Liver | + | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Angiectasis | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Basophilic Focus | | | | X | | | | | | | | | | | | | | | | | | | | 3 | |
| Basophilic Focus, Multiple | X | X | | X | | | | | | | | | | | | | | | | X | | | X | 8 | |
| Cholangiofibrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Clear Cell Focus, Multiple | X | X | | X | X | X | X | | X | X | X | | X | X | | X | X | X | X | | | X | X | 35 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Eosinophilic Focus | | | | | | | | | | | | | X | X | | | | | X | | | | X | 10 | |
| Eosinophilic Focus, Multiple | | | | | | X | | | | X | | | | | | | | | | | | | | 2 | |
| Fatty Change | 1 | 2 | 1 | 2 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 4 | 1 | 2 | 1 | 1 | 1 | 2 | 4 | 48 1.8 | |
| Hematopoietic Cell Proliferation | | | | | | | | | 1 | | | | | | | | | | | | | | | 1 1.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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Date Report Requested: 08/12/2014

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First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS MALE
15 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|
| | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | |
| ANIMAL ID | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| | 29 | 29 | 29 | 29 | 29 | 32 | 35 | 36 | 89 | 29 | 23 | 33 | 33 | 33 | 39 | 33 | 22 | 22 | 22 | 37 | 67 |
| | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| | 33 | 33 | 33 | 33 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| | 66 | 67 | 68 | 69 | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 00 | 01 | 02 | 03 | 04 | 05 | 06 |
| Hemorrhage | | | | | | | | 1 | | | | | | | | | | | | | |
| Hyperplasia, Nodular | | | | | | | | | | | | | | | | | | | | 1 | |
| Mixed Cell Focus, Multiple | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | X | |
| Artery, Degeneration | | | | | | | | | | | | | | | | | | | | | |
| Bile Duct, Hyperplasia | | 1 | | | 1 | | | | | 2 | | | | | | | | 1 | | 1 | |
| Hepatocyte, Hypertrophy | 4 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 3 |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic | | | | + | | + | | | | | | | | | | | | | | + | |
| Fat, Necrosis | | | | 2 | | 2 | | | | | | | | | | | | | | 2 | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | + | | + | | + | | + | | + | | + | | + | | + | | + | |
| Basophilic Focus | | | | 1 | | | | | | | | | | | | | | | | 1 | 1 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | |
| Duct, Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | |
| Duct, Parotid Gland, Cyst | | | | | | | | | | | | | | | | | | | | | |
| Parotid Gland, Atrophy | | | | | | | | | | | | | | | | | | | | | |
| Parotid Gland, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | |
| Parotid Gland, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS MALE
15 MG/KG | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS |
|----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| | ANIMAL ID | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 4 | 2 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 4 | 6 | 7 | 7 | 3 | |
| Inflammation, Chronic Active | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 5 | 3 | 8 | 2 | 2 | 3 | 3 | 3 | 9 | 3 | 7 | 2 | 2 | 7 | 4 | 6 | 7 | 2 |
| Ulcer | 9 | 9 | 9 | 9 | 9 | 9 | 2 | 3 | 6 | 9 | 9 | 9 | 0 | 0 | 0 | 1 | 9 | 1 | 9 | 9 | 3 | 7 | 1 | 3 | 1 |
| Epithelium, Hyperplasia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Stomach, Glandular | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| Cyst | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| Inflammation, Acute | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 |
| Mineralization | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiomyopathy | 1 | 1 | 1 | 2 | 2 | | 2 | | | 1 | | 1 | 2 | 1 | 2 | | 2 | 2 | | 1 | | 1 | 2 | 1 | 34 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | | 2 | 1 | | 1 | | | | | | 1 | | | | 1 | 2 | | | | 1 | | | 15 |
| Hyperplasia, Focal | 1 | | 1 | 2 | 1 | | | | | | | | 1 | 1 | 1 | 1 | 1 | 1 | | | 1 | | | | 18 |
| Hypertrophy, Focal | | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | 7 |
| Vacuolization Cytoplasmic | | | | | 1 | 1 | | | | | | | | | 1 | 1 | | | | | | | | | 10 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia, Focal | | | | | | | 1 | | | | | | | | | | | | | | | | | | 2 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | X | | | | | X | | | X | | 4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue
X .. Lesion present A .. Autolysis precludes evaluation
I .. Insufficient tissue BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
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Experiment Number: 20209 - 03

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Route: GAVAGE

Species/Strain: RATS/Wistar Han

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Pentabromodiphenyl oxide (technical) (DE 71)

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Date Report Requested: 08/12/2014

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First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS MALE
15 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|-------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|--------|--------|
| | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | | 0729 | | | | |
| ANIMAL ID | 00136 | 00137 | 00138 | 00139 | 00140 | 00141 | 00142 | 00143 | 00144 | 00145 | 00146 | 00147 | 00148 | 00149 | 00150 | 00151 | 00152 | 00153 | 00154 | 00155 | 00156 | 00157 | 00158 | 00159 | 00160 | |
| Pars Distalis, Cyst, Multiple | | | | | | | | | | | | | | | | | | | | X | | | | | | 1 |
| Pars Distalis, Hyperplasia, Focal | | | | | | 1 | | | | | | 1 | 1 | | 1 | | | | | 1 | | | | 1 | | 13 1.1 |
| Pars Intermedia, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pars Intermedia, Hyperplasia, Focal | | | | | | | | | | | 1 | | | | | | | | | | | | | | | 1 1.0 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | 48 | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| C-cell, Hyperplasia | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 1 | 1 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | | 1 | 2 | 2 | 47 2.1 | |
| Follicle, Hypertrophy | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | 1 | | | 1 | 1 | 1 | | | | 1 | 3 | | 2 | 1 | 1 | 33 1.2 | |
| Follicular Cell, Hyperplasia | | | 1 | | | 1 | | | | | | | | | | | | | | | | 1 | | | 5 1.2 | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation, Chronic Active | | | | | | 1 | 1 | | | | | | | | | | | | 1 | | | 1 | | | | 6 1.5 |
| Duct, Ectasia | | | | | | 2 | | | | | | | 2 | | | | | | | | 3 | | | | | 5 2.2 |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation, Chronic Active | 1 | | 1 | | 1 | | | 1 | | 1 | 1 | 1 | 4 | | | 1 | 2 | | 2 | | | | 2 | 1 | 3 | 28 1.4 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | 3 | | | | | | | | | | | | 1 3.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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| | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | |
| ANIMAL ID | 00136 | 00137 | 00138 | 00139 | 00140 | 00141 | 00142 | 00143 | 00144 | 00145 | 00146 | 00147 | 00148 | 00149 | 00150 | 00151 | 00152 | 00153 | 00154 | 00155 | 00156 | 00157 | 00158 | 00159 | 00160 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Degeneration | | | | | | | | | | 1 | | | | 2 | | | | 3 | | | 3 | | | | | 12 2.8 |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Interstitial Cell, Hyperplasia, Focal | | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 1.0 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymph Node | + | | | | | | | | | + | + | | | + | | | | | | | | | | | | 5 |
| Mediastinal, Ectasia | 3 | | | | | | | | | | | | | 2 | | | | | | | | | | | | 2 2.5 |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 1.0 |
| Mediastinal, Pigmentation, Hemosiderin | | | | | | | | | | | | 1 | | | | | | | | | | | | | | 1 1.0 |
| Pancreatic, Ectasia | | | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 1.0 |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Ectasia | | | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | 8 1.3 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Hyperplasia, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Ectasia | | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | | | | | | | | 2 | | 2 1.5 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Accessory Spleen | | | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 1.0 |
| Fibrosis, Focal | | | | | | | | | | | | | | | | | | | | | | | 2 | | | 1 2.0 |
| Hematopoietic Cell Proliferation | 1 | 1 | | | 1 | 1 | 2 | | 4 | 1 | 1 | 1 | 1 | 1 | 2 | | 1 | | 1 | | | | | 1 | | 22 1.2 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-----|-----|
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | 17 | 1.1 | |
| Lymphoid Follicle, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | 1.9 |
| Ectopic Parathyroid Gland | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Mammary Gland | M | M | + | + | + | + | M | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 39 | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.3 |
| Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|-------|---|--|
| WISTAR HAN RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 4 | 2 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 4 | 6 | 7 | | 7 | | |
| | 2 | 2 | 2 | 2 | 2 | 3 | 5 | 3 | 8 | 2 | 2 | 3 | 3 | 3 | 3 | 9 | 3 | 2 | 2 | 3 | 7 | 1 | | 3 | 3 | |
| | 9 | 9 | 9 | 9 | 9 | 2 | 3 | 6 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 1 | 9 | 1 | 9 | 9 | 1 | 6 | | 7 | 1 | |
| 15 MG/KG | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | | |
| | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | | 5 | 6 | |
| 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | |
| Compression | | | | | | | | | | | | | | | | | | | | | | | 10 | 2.6 | | |
| Meninges, Hyperplasia, Granulocytic | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | |
| Peripheral Nerve | | | | | | | | | | | | | | | | | | | | | | | 3 | | | |
| Spinal Cord | | | | | | | | | | | | | | | | | | | | | | | 3 | | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | | | | | | | | | | | | | | | | | | | | | | 50 | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 | | |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | 32 | 1.0 | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 | | |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | |
| Nose | | | | | | | | | | | | | | | | | | | | | | | 50 | | | |
| Fungus | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | | |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | |
| Trachea | | | | | | | | | | | | | | | | | | | | | | | 50 | | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | | | | | | | | | | | | | | | | | | | | | | 50 | | | |
| Retina, Atrophy | | | | | | | | | | | | | | | | | | | | | | | 8 | 2.0 | | |
| Harderian Gland | | | | | | | | | | | | | | | | | | | | | | | 50 | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | |
| Lacrimal Gland | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |

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|----------------------------------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---|-----|-----|
| | 07
29 | 07
29 | 07
29 | 07
29 | 07
29 | 07
29 | 07
29 | 05
32 | 04
36 | 02
39 | 07
29 | 07
29 | 07
29 | 07
29 | 07
29 | 07
29 | 05
32 | 07
29 | 07
29 | 07
29 | 07
29 | 04
36 | 06
37 | 07
31 | | 07
31 | | | |
| ANIMAL ID | 00136 | 00037 | 00038 | 00039 | 00040 | 00041 | 00042 | 00043 | 00044 | 00045 | 00046 | 00047 | 00048 | 00049 | 00050 | 00051 | 00052 | 00053 | 00054 | 00055 | 00056 | 00057 | 00058 | 00059 | 00060 | 00061 | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Karyomegaly | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|-----|-----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | |
| Bacterium | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | |
| Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Hydronephrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3 | 8 | 2.9 |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 |
| Nephropathy | 1 | 3 | | 2 | 1 | 1 | | | | | 2 | 2 | | | | | 1 | | 1 | 1 | 1 | 2 | 2 | 1 | | 1 | 1 | 32 | 1.3 | | |
| Pelvis, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 8 | 1.5 |
| Pelvis, Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | 5 | 1.0 |
| Renal Tubule, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 2.0 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 | |
| Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------------|-------|-------|-------|-------|
| WISTAR HAN RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0480 | 0730 | 0730 | 0730 | 0730 | 0750 | 0760 | 0740 | 0760 | 0770 | 0770 | 0770 | 0770 | 0770 | 0770 | 0750 | 0740 | 0770 | 0770 | 0760 | | 0760 | 0760 | 0770 | 0760 |
| 50 MG/KG | ANIMAL ID | | | | | | | | | | | | | | | | | | | | males (cont...) | | | | |
| | 00161 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | | 00111 | 00111 | 00111 | 00111 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Esophagus Inflammation, Acute Ulcer | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Cecum | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Intestine Large, Rectum Inflammation, Acute | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Duodenum Inflammation, Acute | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Intestine Small, Ileum | A | + | + | + | + | A | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Intestine Small, Jejunum | A | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Liver Angiectasis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | |
| X | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | |
| X | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cholangiofibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clear Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | | |
| X | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clear Cell Focus, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | |
| X | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | | | |
| X | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| X | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | |
| X | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
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Route: GAVAGE

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First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS MALE
50 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|--------------------|--|
| | 0
4
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9 | 0
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9 | 0
7
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9 | 0
7
2
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7
2
9 | 0
5
8
5 | 0
4
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4 | 0
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9 | 0
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5
8 | 0
6
6
9 | 0
7
2
9 | 0
6
1
9 | 0
7
3
2 | 0
7
3
2 | | | |
| Eosinophilic Focus, Multiple | | | | X | X | X | | | | | | | | X | | | | | | | | | | X | | | |
| Fatty Change | 3 | 2 | 2 | 4 | 2 | 4 | 4 | 3 | 3 | | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 3 | 1 | 1 | 3 | 2 | 4 | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | X | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | 1 | | 1 | 1 | | | | | | | |
| Mixed Cell Focus | | | | | | | | | | X | | | | | | | | | | | | | | | | | |
| Mixed Cell Focus, Multiple | | | | | | | | | | | | | | | | | X | | | | X | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | 1 | | | 1 | | 1 | | |
| Artery, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | |
| Bile Duct, Cyst | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | |
| Bile Duct, Hyperplasia | | | | | | | | | | | 1 | 2 | | | | | 2 | 2 | 1 | 1 | 1 | | 1 | | | | |
| Hepatocyte, Hypertrophy | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | 1 | | | | | 2 | | | | | | | |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | 1 | | | 1 | | | | |
| Mesentery | + | | | + | + | | | | | | | | | | | | | | | + | | + | | | + | | |
| Hemorrhage | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | 2 | 2 | | | | | | | | | | | | | | | 1 | | 3 | | | 3 | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus, Multiple | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Duct, Parotid Gland, Inflammation, Acute | | | | | | | 2 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| Duct, Submandibular Gland, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parotid Gland, Atrophy | | | | | | | 2 | | | 1 | | 2 | | | 1 | | | | | 2 | 2 | 1 | 1 | 1 | | | |
| Parotid Gland, Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parotid Gland, Vacuolization Cytoplasmic | | | | 2 | | 2 | 2 | 2 | 1 | | | 1 | | | 1 | | | | | 1 | | 2 | | 2 | 1 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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| WISTAR HAN RATS MALE
50 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | |
|----------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|--------------------|------------------|-----------------------|------------------|
| | 0
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| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
0
1
6
1 | |

Sublingual Gland, Atrophy

Sublingual Gland, Vacuolization Cytoplasmic

Submandibular Gland, Inflammation, Acute

Submandibular Gland, Vacuolization
Cytoplasmic

1

1

2

Stomach, Forestomach

Edema

Hyperkeratosis

Inflammation, Acute

Inflammation, Chronic

Inflammation, Chronic Active

Ulcer

Epithelium, Hyperplasia

+ +

2

2 1 2

2

1 1

2 1 2

3 1

2

3

1

2

3

1 2

2

2 2 2

Stomach, Glandular

Inflammation, Acute

Inflammation, Chronic

Mineralization

+ +

1

2

1

CARDIOVASCULAR SYSTEM

Heart

Cardiomyopathy

Inflammation, Acute

Necrosis, Multifocal

Pigmentation, Hemosiderin

Thrombosis

Epicardium, Inflammation, Chronic

Pericardium, Inflammation, Granulomatous

+ +

1

1

1

1

2

1

2

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1

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2

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2

1

1

2

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | |
|-----------------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
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| | | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | |
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7 | 0
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8
0 |
| WISTAR HAN RATS MALE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 MG/KG | | | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accessory Adrenal Cortical Nodule | | | | | | 2 | | | | | | | | | | | | | | | | | | | | |
| Angiectasis | | 1 | | 1 | 1 | | | | | 1 | | 1 | | 1 | 1 | | | 1 | 1 | | | | | | | |
| Hyperplasia, Focal | | | 1 | | 1 | | | | | 1 | | 1 | 1 | | | | 2 | 2 | | | 1 | | | 2 | 1 | 1 |
| Hypertrophy, Focal | | | | | | 1 | | | | | | 1 | | | | | | | | | 1 | | | | | |
| Necrosis, Focal | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | 1 | 1 | | 1 | | | | 1 | | | | | | 1 | | 3 | 1 | | 1 | | | 1 | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst | | | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pars Distalis, Cyst | | | | | | | | | | | | | X | | | | | | | | | | | | X | |
| Pars Distalis, Hyperplasia, Focal | | | | | | | | | | | | | | | | | | 1 | | | | | 3 | | 2 | 1 |
| Pars Nervosa, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| C-cell, Hyperplasia | | 2 | 2 | 2 | 1 | 1 | 1 | 2 | | 1 | 3 | 3 | 2 | 3 | 1 | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 |
| Follicle, Hypertrophy | | | | 2 | | | | 1 | | 1 | | 1 | 2 | 1 | | 1 | | 1 | 2 | | | 1 | | | | 2 |
| Follicular Cell, Hyperplasia | | | | | | | 2 | | | | | | | 1 | | | | | 2 | 2 | | | | | | |

GENERAL BODY SYSTEM

| Tissue NOS | |
|--|---------------------------------------|
| * .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade | |
| + .. Tissue examined microscopically | M .. Missing tissue |
| X .. Lesion present | A .. Autolysis precludes evaluation |
| I .. Insufficient tissue | BLANK .. Not examined microscopically |
| | 1-4 .. Lesion qualified as: |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------------|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------------------|
| WISTAR HAN RATS MALE | DAY ON TEST | 0
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7 | 0
7 | 0
7 | 0
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6 | 0
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7 | 0
5 | 0
4 | 0
7 | 0
6 | 0
6 | 0
7 | 0
6 | 0
7 | 0
7 | 50 MG/KG | ANIMAL ID | 0
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0 | males
(cont...) |
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0 | 3
0 | 3
0 | 3
1 | 0
5 | 6
6 | 4
8 | 6
5 | 6
9 | 7
9 | 7
9 | 7
9 | 7
9 | 5
5 | 4
4 | 2
2 | 2
2 | 2
9 | 6
8 | 6
9 | 7
9 | 6
2 | 7
1 | | | 7
3 | 7
3 | 0
0 | 0
0 | 0
0 | 0
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0 | 0
0 | 0
0 | 0
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0 | 0
0 | 0
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0 | 0
0 | 0
0 | 0
0 | |

Fibrosis

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Epididymis
Inflammation, Chronic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Preputial Gland
Inflammation, Chronic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Chronic Active
Duct, Ectasia | | | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| | | | | 3 | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 4 | 3 | | 2 | | | | | | | | | 2 | | | | 1 | | | | | | | | |
| Prostate
Inflammation, Chronic Active
Vacuolization Cytoplasmic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | 2 | 1 | 2 | | 1 | 1 | 1 | | 1 | | | | 1 | | | 1 | | 1 | | 2 | | |
| Seminal Vesicle
Hyperplasia
Inflammation, Acute
Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | 2 | | | | | | | | | | | | | | | | | | | | | |
| | | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Testes
Cyst
Degeneration | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 2 | | 2 | 1 | | | | | | | | | | | | | 2 | | | | | | | 2 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node
Mediastinal, Ectasia | | | | | | | | | | + | | + | | | | | | | | | | | + | | + |
| | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS MALE
50 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | |
|----------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|--------------------|------------------|-----------------------|------------------|
| | 0
4
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0 | 0
7
3
0 | 0
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2 | 0
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3
2 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
0
1
6
1 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
0
1
6
1 | |

Mediastinal, Hemorrhage
Mediastinal, Pigmentation, Hemosiderin
Pancreatic, Inflammation, Chronic

2 2
2

Lymph Node, Mandibular
Ectasia
Hemorrhage

+
1 1

Lymph Node, Mesenteric
Ectasia
Hemorrhage

+
1 1

Spleen
Hematopoietic Cell Proliferation
Hemorrhage, Focal
Pigmentation
Lymphoid Follicle, Atrophy

+
1 2 3 1 1 1 2 1 1 1 3 1 2 1 2 2 1 1 1
2

Thymus
Atrophy
Ectopic Parathyroid Gland
Fibrosis
Hemorrhage

+
2 3 2 2 3 2 1 1 4 3 1 3 2 3 3
2

INTEGUMENTARY SYSTEM

Mammary Gland
Galactocele
Pigmentation, Hemosiderin
Duct, Dilatation

+ M M + + + + + + + + + M M + + + + + M + + +
2 1 1 1 1

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

| | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| <p>WISTAR HAN RATS MALE</p> <p>50 MG/KG</p> | | <p>DAY ON TEST</p> <p>0 0</p> <p>4 7 7 7 7 5 6 4 6 7 7 7 7 5 4 7 7 6 6 6 7 6 7 7</p> <p>8 3 3 3 3 0 6 5 0 2 2 2 2 8 2 2 2 9 5 6 2 1 3 3</p> <p>0 0 0 0 1 5 6 8 9 9 9 9 9 5 4 9 9 8 8 9 9 9 2 2</p> | | | | | | | | | | | | | | | | | | | | |
| | | <p>ANIMAL ID</p> <p>0 0</p> <p>0 0</p> <p>1 1</p> <p>6 6 6 6 6 6 6 7 7 7 7 7 7 7 7 8 8 8 8 8 8 8 8 9</p> <p>1 3 4 6 7 8 9 0 1 2 3 4 6 7 8 9 0 1 2 3 4 6 7 8 0</p> | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | <p>males</p> <p>(cont...)</p> |
| | | | | | | | | | | | | | | | | | | | | | | |
| <p>Skin Pigmentation</p> | | <p>+ +</p> | | | | | | | | | | | | | | | | | | | | |
| <p>MUSCULOSKELETAL SYSTEM</p> | | | | | | | | | | | | | | | | | | | | | | |
| <p>Bone</p> | | <p>+ +</p> | | | | | | | | | | | | | | | | | | | | |
| <p>NERVOUS SYSTEM</p> | | | | | | | | | | | | | | | | | | | | | | |
| <p>Brain Compression</p> | | <p>+ +</p> <p>3 1 3 3 3 3 3 3 3 1 1 3 3 2 2 3 3 3</p> | | | | | | | | | | | | | | | | | | | | |
| <p>RESPIRATORY SYSTEM</p> | | | | | | | | | | | | | | | | | | | | | | |
| <p>Lung</p> | | <p>+ +</p> <p>1 1</p> <p>1 1</p> <p>1 1</p> <p>1 1</p> | | | | | | | | | | | | | | | | | | | | |
| <p>Nose</p> | | <p>+ +</p> <p>2 2</p> | | | | | | | | | | | | | | | | | | | | |
| <p>Trachea</p> | | <p>+ +</p> | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------------|---|---|
| WISTAR HAN RATS MALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | males
(cont...) | | |
| | | 4 | 7 | 7 | 7 | 7 | 5 | 6 | 4 | 6 | 7 | 7 | 7 | 7 | 7 | 5 | 4 | 7 | 7 | 6 | 6 | 6 | 7 | 6 | | 7 | 7 |
| | | 8 | 3 | 3 | 3 | 3 | 0 | 6 | 5 | 0 | 2 | 2 | 2 | 2 | 2 | 8 | 2 | 2 | 2 | 9 | 5 | 6 | 2 | 1 | | 3 | 3 |
| | | 0 | 0 | 0 | 0 | 1 | 5 | 6 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 5 | 4 | 9 | 9 | 8 | 8 | 9 | 9 | 9 | | 2 | 2 |
| 50 MG/KG | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | |
| | 1 | 3 | 4 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 6 | 7 | 8 | 0 | | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Retina, Atrophy | | | | | | | | | | | | | 2 | | 2 | | | | | | | | | | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lacrimal Gland | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Karyomegaly | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Casts Protein | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hydronephrosis | 2 | | | | 3 | | | | | | | | 3 | | | | 1 | | 3 | 3 | | | | | |
| Hyperplasia, Oncocytic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nephropathy | 1 | 1 | 1 | | 1 | 1 | 3 | | | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | |
| Vacuolization Cytoplasmic | | | | | | | 4 | | | | | | | | | | | | | | | | | | |
| Pelvis, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pelvis, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Pelvis, Mineralization | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Calculus Gross Observation | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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Experiment Number: 20209 - 03

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 08/12/2014

Test Type: CHRONIC

Pentabromodiphenyl oxide (technical) (DE 71)

Time Report Requested: 10:27:34

Route: GAVAGE

CAS Number: 32534-81-9

First Dose M/F: 08/26/08 / 08/26/08

Species/Strain: RATS/Wistar Han

Lab: SRI

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|--|
| | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | |
| WISTAR HAN RATS MALE
50 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | 4 | 7 | 7 | 7 | 7 | 5 | 6 | 4 | 6 | 7 | 7 | 7 | 7 | 7 | 5 | 4 | 7 | 7 | 6 | 6 | 6 | 7 | 6 | | |
| | 8 | 3 | 3 | 3 | 3 | 0 | 6 | 5 | 0 | 2 | 2 | 2 | 2 | 2 | 8 | 2 | 2 | 2 | 9 | 5 | 6 | 2 | 1 | 3 | |
| | 0 | 0 | 0 | 0 | 1 | 5 | 6 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 5 | 4 | 9 | 9 | 8 | 8 | 9 | 9 | 2 | 3 | |
| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | | |
| | 1 | 3 | 4 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 6 | 7 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | |

Inflammation, Chronic
Transitional Epithelium, Hyperplasia

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

| WISTAR HAN RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|----------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|
| | 0351 | 0371 | 0367 | 0363 | 0370 | 0344 | 0377 | 0377 | 0377 | 0355 | 0377 | 0377 | 0377 | 0366 | 0377 | 0377 | 0355 | 0366 | 0333 | 0377 | | 0377 | 0355 |
| 50 MG/KG | 0091 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 |
| | 1191 | 1101 | 1101 | 1101 | 1101 | 1101 | 1101 | 1101 | 1101 | 1101 | 1101 | 1101 | 1101 | 1101 | 1101 | 1101 | 1101 | 1101 | 1101 | 1101 | 1101 | 1101 | 1101 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|-----|
| Esophagus
Inflammation, Acute
Ulcer | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 3.0 | |
| Intestine Large, Cecum | + | + | + | + | A | + | + | A | + | + | + | + | + | + | A | + | A | + | A | + | + | + | + | + | + | 43 | | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | 48 | | |
| Intestine Large, Rectum
Inflammation, Acute | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | 47 | 2 | 1.5 |
| Intestine Small, Duodenum
Inflammation, Acute | + | + | + | + | A | + | + | A | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | 46 | 1 | 2.0 |
| Intestine Small, Ileum | + | + | + | + | A | + | + | A | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | 42 | | |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | 46 | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Basophilic Focus | | | | X | | | | | | | | | | | X | | X | | | | | | X | | | 7 | | |
| Basophilic Focus, Multiple | | | | | | | | | | | | | | | | | | | X | | | | | | | 4 | | |
| Cholangiofibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Clear Cell Focus | | | X | | X | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Clear Cell Focus, Multiple | | | X | X | | | X | | X | | X | X | X | X | | X | X | X | | | | X | X | | | 27 | | |
| Congestion | | | | | | | | | 1 | | | | | | | | | | | | | | | | | 2 | 1.5 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Eosinophilic Focus | | | | | | | X | | | | | X | | | | | | X | | | | X | | | | 7 | | |

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+ .. Tissue examined microscopically

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Lab: SRI

| WISTAR HAN RATS MALE
50 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------|
| | 0
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| ANIMAL ID | 0
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2 | 0
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4 | 0
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0
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6 | 0
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8 | 0
0
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9 | 0
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3 | 0
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4 | 0
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0
5 | 0
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6 | 0
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7 | 0
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9 | 0
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0 | 0
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1 | 0
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3 | 0
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4 | 0
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6 | 0
0
2
0
8 | 0
0
2
0
9 | 0
0
2
0
0 | |
| Eosinophilic Focus, Multiple | | | X | X | X | | | | | | | | | | | | | | | | | | | | 8 | |
| Fatty Change | 3 | 3 | 2 | 3 | 2 | | 1 | 1 | 2 | 3 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 3 | 2 | 48 2.1 |
| Fibrosis | 2 | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation, Chronic | 2 | | | | | | | | | | | | | 1 | | | | | | | | | | | | 5 1.2 |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | X | | | | | 2 |
| Mixed Cell Focus, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Pigmentation | | | | | | 1 | 1 | | | | | | | | | 1 | | | | | | | | | | 6 1.0 |
| Artery, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Bile Duct, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Bile Duct, Hyperplasia | 1 | 1 | | 1 | | | 1 | | 1 | | | | | 1 | | | 2 | | | | | 1 | | | | 16 1.3 |
| Hepatocyte, Hypertrophy | 4 | 4 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 50 3.8 |
| Hepatocyte, Necrosis | 2 | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | | 5 1.4 |
| Oval Cell, Hyperplasia | | 1 | | | | | | | | | | | | | | | | | | | | | | | | 3 1.0 |
| Mesentery | + | + | | | | | + | | | | | | | | | | + | | | | | | | | | 10 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Fat, Necrosis | 2 | 3 | | | | | 2 | | | | | | | | | | 2 | | | | | | | | | 9 2.2 |
| Pancreas | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 49 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 1.0 |
| Basophilic Focus, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Hyperplasia | | | | | | | | | | 2 | | | | | | | | | | | | | | | | 1 2.0 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 50 |
| Duct, Parotid Gland, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | 1 | | 4 1.3 |
| Duct, Submandibular Gland, Inflammation, Acute | 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Parotid Gland, Atrophy | 1 | | | 1 | | | | | | | | | | | | | | | 1 | | | | | 2 | | 13 1.4 |
| Parotid Gland, Basophilic Focus | | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 1.0 |
| Parotid Gland, Vacuolization Cytoplasmic | 4 | | | | | | | | | | 2 | | | | 1 | 1 | | | 1 | | | | 3 | | | 17 1.7 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

| WISTAR HAN RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | | | | |
|----------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|---|---|---|---|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 | | | |
| | 3 | 7 | 6 | 6 | 7 | 4 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 6 | 3 | 7 | 7 | 5 | 6 | 0 | |
| | 5 | 3 | 7 | 3 | 0 | 4 | 2 | 1 | 2 | 9 | 3 | 3 | 3 | 3 | 8 | 3 | 0 | 3 | 9 | 6 | 1 | 3 | 3 | 5 | 1 | 0 | |
| | 1 | 1 | 6 | 9 | 9 | 8 | 9 | 9 | 9 | 9 | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 0 | 5 | 6 | 0 | 1 | 0 | 8 | 0 | 0 | |
| 50 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 0 | |
| | 1 | 2 | 4 | 5 | 6 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 0 | 1 | 2 | 3 | 4 | 6 | 8 | 9 | 0 | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |

Sublingual Gland, Atrophy 2 1 2.0
 Sublingual Gland, Vacuolization Cytoplasmic 1 1.0
 Submandibular Gland, Inflammation, Acute 1 1.0
 Submandibular Gland, Vacuolization Cytoplasmic 1 2.0

Stomach, Forestomach + 50
 Edema 3 2 2.5
 Hyperkeratosis 3 2 1.8
 Inflammation, Acute 1 2 1.3
 Inflammation, Chronic 2 1 1.8
 Inflammation, Chronic Active 2 3 2.0
 Ulcer 1 2 5 1.8
 Epithelium, Hyperplasia 1 3 3 1 1 3 1 3 4 1 17 2.1

Stomach, Glandular + + + + + + + + + + + + + + + + A + + + + + + 49
 Inflammation, Acute 1 2 1.0
 Inflammation, Chronic 1 2.0
 Mineralization 1 2 1.0

CARDIOVASCULAR SYSTEM

Heart + 50
 Cardiomyopathy 1 2 2 2 2 2 2 1 2 2 1 1 1 2 1 1 1 1 29 1.4
 Inflammation, Acute 2 1 2.0
 Necrosis, Multifocal 1 1 1.0
 Pigmentation, Hemosiderin 1 1.0
 Thrombosis 3 1 3.0
 Epicardium, Inflammation, Chronic 1 1.0
 Pericardium, Inflammation, Granulomatous 1 2.0

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|----------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|
| | 0351 | 0371 | 0366 | 0367 | 0374 | 0377 | 0377 | 0377 | 0375 | 0377 | 0377 | 0377 | 0367 | 0377 | 0377 | 0375 | 0366 | 0337 | 0377 | 0375 | 0366 | 0337 | 0375 | 0366 | | |
| 50 MG/KG | 0019 | 0011 | 0009 | 0001 | 0001 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0001 | 0001 | 0002 | 0003 |
| | 1 | 2 | 4 | 5 | 6 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 0 | 1 | 2 | 3 | 4 | 6 | 8 | 9 | 0 | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------|---------------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | 49 | |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Angiectasis | | 1 | | | 1 | | | | | 2 | 1 | | 1 | | | | | | | | | 1 | | | 1 | | 18 1.1 |
| Hyperplasia, Focal | | | | | | 1 | | | | | | 1 | | | | | | | | | | | 1 | | | | 16 1.2 |
| Hypertrophy, Focal | | 1 | | | | | 1 | | | | | | | | 1 | | | 1 | | | | | | | | | 8 1.0 |
| Necrosis, Focal | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 1.0 |
| Vacuolization Cytoplasmic | | | | | | | | 1 | | 1 | 1 | 1 | 1 | | | | 1 | | | | | 1 | 1 | | | | 17 1.1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | 49 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Pars Distalis, Cyst | | | | X | | | | | | | X | | | | | | | | | | | | | | | 4 | |
| Pars Distalis, Hyperplasia, Focal | | | | | | | 1 | 1 | 1 | | | | | | | | | | | | | 1 | | | | 8 1.4 | |
| Pars Nervosa, Inflammation, Chronic | | | | | | | 3 | | | | | | 2 | | | | | | | | | | | | | 2 2.5 | |
| Thyroid Gland | + | + | + | + | A | + | + | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | 46 | | |
| C-cell, Hyperplasia | 1 | 2 | 3 | 2 | | 1 | 3 | | | 2 | 2 | 1 | 3 | 2 | 2 | | 2 | 1 | 2 | | 3 | 2 | 2 | 2 | 1 | 2 | 44 1.9 |
| Follicle, Hypertrophy | | | | 1 | 1 | | | | | | | 1 | 3 | 1 | | | | 1 | | | | 1 | 1 | 1 | 4 | 2 | 23 1.4 |
| Follicular Cell, Hyperplasia | | | | | | | 1 | | | | | | | | 2 | | | | | | | | | | 1 | | 7 1.6 |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|----------|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | | | | | + | | 1 |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|----------|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue
 X .. Lesion present A .. Autolysis precludes evaluation
 I .. Insufficient tissue BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

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First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS MALE
50 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|----------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|
| | 0351 | 0371 | 0367 | 0363 | 0370 | 0344 | 0377 | 0377 | 0377 | 0355 | 0377 | 0377 | 0377 | 0366 | 0377 | 0377 | 0377 | 0355 | 0366 | 0333 | 0377 | 0377 | 0355 | 0366 | | |
| ANIMAL ID | 00191 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------------------------|-------------------------|
| Epididymis
Inflammation, Chronic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 3 1.0 |
| Preputial Gland
Inflammation, Chronic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 2 1.0 |
| Inflammation, Chronic Active
Duct, Ectasia | 2 | 2 | | | | | 3 | | | | | 3 | | | | | 2 | 2 | | | | 2 | 2 | 15 | 2 3.0
2 3.0
15 2.2 | |
| Prostate
Inflammation, Chronic Active
Vacuolization Cytoplasmic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 27 1.3
1 1.0 |
| Seminal Vesicle
Hyperplasia
Inflammation, Acute
Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 49 | 1 2.0
2 1.5
1 2.0 |
| Testes
Cyst
Degeneration | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 2.0
6 1.8 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lymph Node
Mediastinal, Ectasia | | | | | + | | | | + | | | | | | | | | | | | | | | | 6 | 2 1.5 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
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Lab: SRI

| WISTAR HAN RATS MALE
50 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|----------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 0351 | 0371 | 0367 | 0366 | 0374 | 0377 | 0377 | 0377 | 0375 | 0377 | 0377 | 0377 | 0376 | 0377 | 0377 | 0375 | 0363 | 0377 | 0377 | 0355 | 0366 | 0337 | 0375 | 0366 | |
| | 0001 | 0001 | 0006 | 0009 | 0008 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | |
| ANIMAL ID | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|-----|
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | |
| Mediastinal, Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Pancreatic, Inflammation, Chronic | | | | | 3 | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Ectasia | | | 2 | | | | | | | | | | 1 | | | 2 | | | | | | | 1 | | | 7 | 1.3 |
| Hemorrhage | | | | | | | | | | | 1 | | | | | | | | | | | | | | | 1 | 1.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Ectasia | | | 3 | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Hemorrhage | | | | | | | | | 2 | | | | | | | | | | | | | | | 1 | | 4 | 1.3 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Spleen | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Hematopoietic Cell Proliferation | | | 2 | | | | 1 | | 2 | | 2 | 1 | 1 | | | | | 1 | | | 3 | | 1 | | | 13 | 1.5 |
| Hemorrhage, Focal | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Pigmentation | 2 | 2 | | 1 | | 1 | | | | 1 | | | | | 1 | | | 1 | | 1 | | | 1 | 2 | 2 | 27 | 1.4 |
| Lymphoid Follicle, Atrophy | 2 | | | | | | | | | 2 | | | | | | | | | | | | | 2 | | | 5 | 1.8 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Atrophy | 2 | 3 | | 1 | 2 | | 3 | 3 | | 3 | | | | | 2 | | | | | 2 | | | | 4 | 4 | 26 | 2.5 |
| Ectopic Parathyroid Gland | | | | | | | | | | | | | | | 1 | | | | | | | | | | | 2 | 1.0 |
| Fibrosis | | | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 | 1.0 |
| Hemorrhage | | | | | | | | | | | | | | | 3 | | | | | | | | | | | 3 | 2.3 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Mammary Gland | + | + | + | + | + | + | M | + | + | + | M | + | + | + | + | + | + | M | + | + | + | M | + | + | + | 41 | | |
| Galactocele | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Pigmentation, Hemosiderin | | | | 1 | 1 | | | | | | 1 | | | 1 | | | | 1 | | 1 | 1 | | | 1 | | 13 | 1.0 | |
| Duct, Dilatation | | | | | | | | | | | | 1 | | | | | | | | | | | | | | 1 | 1.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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| WISTAR HAN RATS MALE
50 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|--|
| | 0
3
5
1 | 0
7
3
1 | 0
6
7
6 | 0
6
3
9 | 0
7
0
9 | 0
4
4
8 | 0
7
2
9 | 0
7
1
9 | 0
7
2
9 | 0
5
9
9 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
6
8
2 | 0
7
3
0 | 0
7
3
1 | 0
7
3
0 | 0
5
9
5 | 0
6
6
6 | 0
3
1
0 | 0
7
3
1 | 0
7
3
0 | 0
5
5
8 | | 0
6
1
0 | |
| ANIMAL ID | 0
0
1
9
1 | 0
0
1
9
2 | 0
0
1
9
4 | 0
0
1
9
5 | 0
0
1
9
6 | 0
0
1
9
8 | 0
0
2
9
9 | 0
0
2
0
0 | 0
0
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| Skin Pigmentation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
1 2.0 | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain Compression | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
26 2.4 | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Infiltration Cellular, Histiocyte | | 1 | 1 | | 1 | | | | 1 | | | 1 | | 1 | 1 | 1 | | 1 | | 1 | 1 | 1 | | | 30 1.0 | | |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | | |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | 1 | | 1 | | | | 2 | | | | | | | 5 1.4 | | |
| Artery, Mineralization | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 1.0 | | |
| Bronchus, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 2 | | | 2 2.0 | | |
| Serosa, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | | |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Fungus | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | |
| Inflammation, Acute | 1 | | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 | | |
| Inflammation, Chronic Active | | | | | | | | | | | | 2 | | | | | | | | | | | | | 1 2.0 | | |
| Ulcer, Multifocal | | | | | | | | | | | 2 | | | | | | | | | | | | | | 1 2.0 | | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | 49 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS MALE
50 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|----------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|
| | 0351 | 0371 | 0367 | 0366 | 0374 | 0377 | 0377 | 0377 | 0377 | 0377 | 0377 | 0377 | 0377 | 0377 | 0377 | 0377 | 0377 | 0377 | 0377 | 0377 | | 0377 | | | | |
| ANIMAL ID | 00191 | 00192 | 00194 | 00195 | 00196 | 00198 | 00199 | 00200 | 00201 | 00202 | 00203 | 00204 | 00205 | 00206 | 00207 | 00209 | 00210 | 00211 | 00212 | 00213 | 00214 | 00215 | 00216 | 00218 | 00219 | 00220 |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-------|
| Eye | + | | | | | | | | | | | | | | | | | | | | | | | | 45 | |
| Retina, Atrophy | A | | | | | | | | | | | | | | | | | | | | | | | | | 3 2.0 |
| Harderian Gland | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Lacrimal Gland | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Karyomegaly | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 2 2.5 |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|--------|
| Kidney | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Casts Protein | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Hydronephrosis | 3 | | | | | | | | | | | | | | | | | | | | | | | | 3 | 10 2.7 |
| Hyperplasia, Oncocytic | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Nephropathy | 1 2 | | | | | | | | | | | | | | | | | | | | | | | | 4 | 37 1.4 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 4.0 |
| Pelvis, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 2.0 |
| Pelvis, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2 1.0 |
| Pelvis, Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3 1.0 |
| Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Urinary Bladder | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Calculus Gross Observation | X | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

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First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS MALE
50 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|-----|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| | 3 | 7 | 6 | 6 | 7 | 4 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 6 | 3 | 7 | 7 | 5 | 6 | | | |
| | 5 | 3 | 7 | 3 | 0 | 4 | 2 | 1 | 2 | 9 | 3 | 3 | 3 | 3 | 8 | 3 | 0 | 3 | 9 | 6 | 1 | 3 | 3 | 5 | 1 | | | |
| | 1 | 1 | 6 | 9 | 9 | 8 | 9 | 9 | 9 | 9 | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 0 | 5 | 6 | 0 | 1 | 0 | 8 | 0 | | | |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | | | |
| | 1 | 2 | 4 | 5 | 6 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 0 | 1 | 2 | 3 | 4 | 6 | 8 | 9 | 0 | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1.0 |
| Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 |

*** END OF MALE DATA ***

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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| | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|
| WISTAR HAN RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | females
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| 0 MG/KG | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | females
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ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperkeratosis | 2 | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Cecum | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus, Multiple | X | X | X | X | X | | | | | X | | X | X | X | X | X | X | X | X | X | X | X | X |
| Clear Cell Focus | | | | X | | | | | | | | | | | | | | | | | | | X |
| Clear Cell Focus, Multiple | | | X | | | | | | X | X | X | X | X | X | | X | X | X | | X | X | X | X |
| Congestion | | | | | | 3 | | | | 1 | | | | | | | | | | | | | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | |
| Fatty Change | 3 | 3 | | | | | | | | | 1 | | 1 | | 1 | | | | | | | 1 | |
| Hematopoietic Cell Proliferation | | | | | 1 | | | | | | 1 | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | X | | | | | | X | | | | | | | X | |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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Lab: SRI

| WISTAR HAN RATS FEMALE

0 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) | | |
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| Inflammation, Chronic Pigmentation | 2 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Bile Duct, Cyst | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bile Duct, Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Bile Duct, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bile Duct, Hyperplasia | 2 | | | | | 1 | | | | 1 | | | | | | | | 1 | 2 | | 1 | | | | | | |
| Hepatocyte, Necrosis | 1 | | | | | 1 | | | | 1 | | | | | | | | | | | | | | | | | |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Serosa, Inflammation, Acute | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Mesentery Congestion | | + | | | | | | + | + | | | + | | | | | | | | | | | | | | | |
| Inflammation, Chronic Fat, Necrosis | | | 3 | | | | | | | 3 | 3 | | | 3 | | | | | | | | | | | | | 1 |
| Pancreas Atrophy | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Chronic | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Duct, Parotid Gland, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Duct, Submandibular Gland, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parotid Gland, Atrophy | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Parotid Gland, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parotid Gland, Vacuolization Cytoplasmic | 1 | 4 | | | | | | 2 | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach Edema | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
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First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | |
|-------------------------------|----------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| | | 4 | 6 | 7 | 7 | 5 | 2 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | | 7 |
| WISTAR HAN RATS FEMALE | 0 MG/KG | 4 | 9 | 3 | 3 | 9 | 9 | 8 | 3 | 3 | 2 | 3 | 3 | 3 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 5 | 4 | 6 | 6 | 2 | 2 | 5 | 6 | 6 | 7 | 6 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 9 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 | 1 | 2 | 3 | 5 | 6 | 7 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hyperkeratosis | 3 | 3 | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation, Chronic Active | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Ulcer | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | 3 | 3 | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Stomach, Glandular Mineralization | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | 1 | 1 | | | | | | | | | | 1 | | | | | 1 | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Tooth Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cardiomyopathy | | | | | | | | | | | 1 | | | | | 1 | | | | | | | 1 | 1 | | |
| Inflammation, Chronic | | | | | | | | | | 2 | | | | | | | | | | | | | | | | 1 |
| Epicardium, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Angiectasis | 1 | 2 | 1 | 1 | | | 3 | | 1 | 2 | 1 | 3 | 1 | 1 | 1 | 1 | 3 | 2 | 1 | 1 | 2 | 2 | 1 | 4 | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Focal | 1 | | | | | | | | 1 | | | 1 | | | | | | | 2 | 1 | | | 1 | | | |
| Hypertrophy, Focal | | | | | 2 | | | 1 | 1 | | | 1 | | | | | | | 1 | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS FEMALE
0 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 4 | 6 | 7 | 7 | 5 | 2 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | |
| | 4 | 9 | 3 | 3 | 9 | 9 | 8 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | |
| | 5 | 4 | 6 | 6 | 2 | 2 | 5 | 6 | 6 | 7 | 6 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 0 | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 9 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 0 | 0 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------------|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Inflammation, Chronic Duct, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 3 2 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 3 4 |
| Follicle, Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | 3 2 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Hyperplasia, Atypical | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | 4 3 1 1 4 2 |
| Serosa, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Vagina | M | M | M | M | M | + | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 2 3 |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Axillary, Ectasia | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Axillary, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Axillary, Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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CAS Number: 32534-81-9

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Lab: SRI

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
| WISTAR HAN RATS FEMALE | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| 0 MG/KG | | 4 | 6 | 7 | 7 | 5 | 2 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 3 | 3 | 3 | 3 | 3 | | |
| ANIMAL ID | | 4 | 9 | 3 | 3 | 9 | 9 | 8 | 3 | 3 | 2 | 3 | 3 | 3 | 8 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | | |
| | | 5 | 4 | 6 | 6 | 2 | 2 | 5 | 6 | 6 | 7 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 9 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 0 | | |
| Inguinal, Pigmentation | | | | | | 1 | | | | | | | | | | | | | | | | | | 2 | | |
| Mediastinal, Hemorrhage | | | | | | | | | | | 2 | | | | | | | | | | | | | | | |
| Mediastinal, Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Pancreatic, Hemorrhage | | | | | | | | | | | 2 | | | | | | | | | | | | | | | |
| Pancreatic, Pigmentation, Hemosiderin | | | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Ectasia | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 3 | | |
| Necrosis | | | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Lymph Node, Mesenteric | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Ectasia | | | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Accessory Spleen | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | 1 | 4 | | | | | 4 | | 1 | | 1 | 2 | | 1 | | | | 2 | 1 | 1 | 1 | |
| Pigmentation | | 2 | 2 | 1 | | | | | 2 | 1 | 1 | | 1 | | | | | 1 | | 1 | 1 | 1 | 1 | 1 | | |
| Capsule, Fibrosis, Focal | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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Experiment Number: 20209 - 03

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

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Lab: SRI

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | |
|-----------------------------------|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|
| WISTAR HAN RATS FEMALE | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| 0 MG/KG | | 4 | 6 | 7 | 7 | 5 | 2 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | |
| ANIMAL ID | | 4 | 9 | 3 | 3 | 9 | 9 | 8 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 5 | 4 | 6 | 6 | 2 | 2 | 5 | 6 | 6 | 7 | 6 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 9 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 | 1 | 2 | 3 | 5 | 6 | 7 | |
| Mammary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Degeneration, Fatty | | | | | | | | | | | | | | | | | | | | | | | |
| Galactocele | | | | | | 3 | | | | | | | | | 2 | | | | | | | | |
| Hyperplasia | | 1 | | | | 1 | 1 | 2 | 1 | | | 1 | | 2 | 2 | 1 | | 1 | 2 | | 2 | | 1 |
| Duct, Cyst | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Duct, Dilatation | | | 1 | | | 1 | | | | | 2 | | | | 2 | | | | 2 | | | 2 | 1 |
| Skin | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperkeratosis | | | 2 | | | | | | | | | | | | | | | | | | | | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Compression | | 3 | 3 | | | 3 | | 3 | | | | | | | | | | | | 3 | | | 3 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Infiltration Cellular, Histiocyte | | 1 | 1 | 1 | 1 | | | 1 | 1 | 1 | | | 1 | 1 | | 1 | | 1 | 1 | 1 | 1 | | 1 |
| Inflammation, Chronic | | | | 1 | | | | | | | | | | | | | | | | | | | |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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(cont...) |
|------------------------|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
| WISTAR HAN RATS FEMALE | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 0 MG/KG | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | |

Serosa, Inflammation, Acute

Nose

Trachea

SPECIAL SENSES SYSTEM

Ear

Eye

Mineralization
Retina, Atrophy

Harderian Gland

URINARY SYSTEM

Kidney

Calculus Gross Observation
Casts Protein
Cyst
Cyst, Multiple
Hydronephrosis
Inflammation, Chronic
Nephropathy
Pelvis, Inflammation, Acute
Pelvis, Inflammation, Chronic Active
Pelvis, Mineralization
Transitional Epithelium, Hyperplasia

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------------------------------|
| WISTAR HAN RATS FEMALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | females
(cont...) |
| | | 4 | 6 | 7 | 7 | 5 | 2 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 4 | 9 | 3 | 3 | 9 | 9 | 8 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 0 MG/KG | 5 | 4 | 6 | 6 | 2 | 2 | 5 | 6 | 6 | 7 | 6 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 9 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 | 1 | 2 | 3 | 5 | 6 | 7 | 8 | | |

Ureter
Transitional Epithelium, Hyperplasia

Urinary Bladder
Inflammation, Chronic Active
Transitional Epithelium, Hyperplasia

+ +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
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Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS FEMALE
0 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---|-----|-----|-----|-----|-----|
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9 | | | | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | | |
| Bile Duct, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | |
| Bile Duct, Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | |
| Bile Duct, Fibrosis | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | | |
| Bile Duct, Hyperplasia | 1 | | | 1 | | | | | | | | | 1 | 2 | | 1 | 2 | 2 | | | 1 | | 1 | 2 | | | 16 | 1.4 | | | |
| Hepatocyte, Necrosis | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | 4 | 1.3 | | | |
| Oval Cell, Hyperplasia | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | |
| Serosa, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | 10 | | | | |
| Congestion | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | | |
| Inflammation, Chronic | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | |
| Fat, Necrosis | | | | | | | | | | | | | 2 | 1 | | | | | | | | | | | | | 1 | 8 | 2.1 | | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.0 | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.3 | | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | |
| Duct, Parotid Gland, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | |
| Duct, Submandibular Gland, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | | |
| Parotid Gland, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4 | 1.5 | |
| Parotid Gland, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | |
| Parotid Gland, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 | 6 | 2.0 |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------------------------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|---|---|
| WISTAR HAN RATS FEMALE | | 5 | 7 | 7 | 7 | 7 | 7 | 5 | 5 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 0 MG/KG | 0 | 3 | 3 | 3 | 3 | 3 | 2 | 9 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | ANIMAL ID | 8 | 5 | 5 | 5 | 5 | 2 | 5 | 2 | 2 | 8 | 6 | 2 | 7 | 2 | 2 | 2 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | | |
| | | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|------------|------------|
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Hyperkeratosis | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | 4 | 2.3 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Epithelium, Hyperplasia | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | 5 | 2.0 |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | 49 | |
| | | 1 | | | | | | | 1 | | | | | | | | | | | | | | | 1 | 1 | | 9 | 1.0 |
| Tooth | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | + | | | | | | | 1 | |
| | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | 1 | 1.0 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------|
| Blood Vessel | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Inflammation, Acute | | | | | | | | | | | | | | | + | | | | | | | | | | | | 3 | 1 3.0 |
| Heart | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cardiomyopathy | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation, Chronic | | | | | | 1 | | | | | | 1 | | | | | | 1 | 1 | 2 | | | | | 1 | | 12 | 1.1 |
| Epicardium, Inflammation, Chronic Active | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | 1 | 2.0 |
| | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | 1 | 2.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|------------|
| Adrenal Cortex | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Angiectasis | | 2 | 4 | 2 | 2 | 2 | 1 | 1 | 1 | 4 | 2 | 2 | 3 | | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 45 | 1.8 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | 1 | 2.0 |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | 8 | 1.1 |
| Hypertrophy, Focal | | | | | | 2 | | 1 | | | | | 1 | 1 | | | | | 2 | | | 1 | | | 2 | | 13 | 1.3 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
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|-------------------------------------|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|---|-------|-------|-----------------|---|---|---|---|--------|--|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 5 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | | | | | |
| | | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 9 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | | | | | |
| | | 8 | 5 | 5 | 5 | 5 | 2 | 5 | 2 | 2 | 8 | 6 | 2 | 7 | 2 | 2 | 2 | 6 | 6 | 6 | 6 | 6 | 6 | | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | | | |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | | | | | |
| | | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
| Wistar Han Rats Female | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 MG/KG | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | 1 | 3 | 1 | 5 1.4 | | | | | | | | |
| Adrenal Medulla | | + | | | | | | | | | | | | | | | | | | | | 50 | | | | | | |
| Islets, Pancreatic | | + | | | | | | | | | | | | | | | | | | | | 50 | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 | | | | | | | |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 | | | | | | | |
| Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 | | | | | | | |
| Parathyroid Gland | | + | | | | | | | | | | | | | | | | | | | | 49 | | | | | | |
| Pituitary Gland | | + | | | | | | | | | | | | | | | | | | | | 50 | | | | | | |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | X | 3 | | | | | | | |
| Pars Distalis, Hyperplasia, Focal | | 1 | | | | 2 | | | | 1 | | | | 2 | | 1 | | 2 | | 1 | | 14 1.3 | | | | | | |
| Pars Nervosa, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | | | | | |
| Thyroid Gland | | + | | | | | | | | | | | | | | | | | | | | 45 | | | | | | |
| C-cell, Hyperplasia | | 1 | 2 | 2 | 1 | 2 | | 1 | 2 | 1 | 3 | 2 | 2 | | 2 | 2 | 1 | 1 | 3 | | 2 | 1 | 1 | 1 | 2 | 2 | 45 1.8 | |
| Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | |
| Follicle, Cyst, Multiple | | X | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Follicle, Hypertrophy | | 1 | | | | | | | | 1 | | | | 1 | | 2 | | 8 1.1 | | | | | | | | | | |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | | | | | | |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-------|--|-------|-------|---|--|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Abscess | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 | | |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | 1 2.0 | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | 2 | 1 2.0 | | | | | |

GENITAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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0 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
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| Clitoral Gland
Inflammation, Chronic
Duct, Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 49 | 1 1.0
2 2.5 | |
| Ovary
Atrophy
Cyst
Follicle, Cyst
Follicle, Cyst, Multiple | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 2.0
5 2.6
4 3.3
2 2.5 | |
| Uterus
Angiectasis
Hemorrhage
Hyperplasia, Atypical
Inflammation, Chronic
Endometrium, Hyperplasia, Cystic
Serosa, Inflammation, Acute | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 2.0
1 4.0
3 1.3
1 3.0
15 2.1
1 1.0 | | |
| Vagina | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 1 | | | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow
Myeloid Cell, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 6 2.0 | | |
| Lymph Node
Pigmentation, Hemosiderin
Axillary, Ectasia
Axillary, Hyperplasia, Lymphoid
Axillary, Pigmentation | | | | | | | | | | + | | | | | | | | | | | | | + | 10 | 1 2.0
1 2.0
1 1.0
1 1.0 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|----------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 5 | 7 | 7 | 7 | 0 | 7 | 7 | 7 | 3 | 7 | 7 | 6 | 7 | 7 | 7 | | |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | | |
| | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
| Inguinal, Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Pigmentation, Hemosiderin | | | | | | | | 1 | | | | | | | | | 2 | | | | | | | | |
| Pancreatic, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Ectasia | | | | 1 | 1 | | 1 | | | | | | | | | | 1 | | | | | | 4 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | 2 | | | | | | 2 | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Ectasia | | 2 | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Inflammation, Acute | | | | | | | | 1 | | | | | | | | | | | | | | | 1 | | |
| Pigmentation, Hemosiderin | | | | | | | 2 | | | | | | | | | | | | | | | | 1 | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Accessory Spleen | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | | |
| Hematopoietic Cell Proliferation | | | | 1 | 1 | 2 | 2 | | 4 | | 1 | 1 | | 2 | 2 | 1 | | 2 | | 1 | 2 | 1 | 27 | | |
| Pigmentation | | | | 1 | 1 | 1 | | 1 | 2 | | 2 | 1 | 1 | | 1 | | 1 | 1 | 2 | | 1 | 1 | 31 | | |
| Capsule, Fibrosis, Focal | | | | | | | | | | | | | | | | | | | | 2 | | | 1 | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Atrophy | | | | | | | 3 | | | | | | 2 | | | | | | | 3 | 1 | | 10 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 2 | 4 | | |

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS FEMALE
0 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--------------------------------------|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
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9 |
| Serosa, Inflammation, Acute | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Nose | + | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Trachea | + + + + + + + M + + + + A + + + + + A + + + + + + | | | | | | | | | | | | | | | | | | | | | | | | 47 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ear | + | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Eye | + | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Mineralization
Retina, Atrophy | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0
9 1.7 |
| Harderian Gland | + | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Calculus Gross Observation | X | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Casts Protein | 1 | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hydronephrosis | 3 | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Inflammation, Chronic | 2 | | | | | | | | | | | | | | | | | | | | | | | | 2 3.0 |
| Nephropathy | 1 | | | | | | | | | | | | | | | | | | | | | | | | 13 1.0 |
| Pelvis, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Pelvis, Inflammation, Chronic Active | 1 1 1 1 | | | | | | | | | | | | | | | | | | | | | | | | 16 1.2 |
| Pelvis, Mineralization | 1 1 1 2 1 1 1 1 | | | | | | | | | | | | | | | | | | | | | | | | 31 1.2 |
| Transitional Epithelium, Hyperplasia | 1 1 | | | | | | | | | | | | | | | | | | | | | | | | 3 1.3 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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M .. Missing tissue

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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|----------------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------------------------------|------|------|------|
| WISTAR HAN RATS FEMALE | DAY ON TEST | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | females
(cont...) | | | |
| | 3 MG/KG | ANIMAL ID | 0081 | 0082 | 0083 | 0084 | 0085 | 0086 | 0087 | 0088 | 0089 | 0090 | 0091 | 0092 | 0093 | 0094 | 0095 | 0096 | 0097 | 0098 | 0099 | 0100 | 0101 | 0102 | | 0103 | 0104 | 0105 |
| | | | 0081 | 0082 | 0083 | 0084 | 0085 | 0086 | 0087 | 0088 | 0089 | 0090 | 0091 | 0092 | 0093 | 0094 | 0095 | 0096 | 0097 | 0098 | 0099 | 0100 | 0101 | 0102 | | 0103 | 0104 | 0105 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum
Degeneration, Fatty, Focal | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum
Epithelium, Vacuolization Cytoplasmic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 2 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Basophilic Focus | | | X | | | | | | | | | | | | | | | | | X | | X | | | |
| Basophilic Focus, Multiple | X | | | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | |
| Clear Cell Focus | | | X | | | | | X | | | | | | | | | | | | | | | | | |
| Clear Cell Focus, Multiple | | | | | X | X | | | X | X | X | X | X | | | | | | | | | | | X | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eosinophilic Focus, Multiple | | X | | | | | | X | | | | | | | | | | | | | | | | | |
| Fatty Change | | 3 | | | | | | 4 | | | | 1 | | | | | | | | 1 | 3 | | 2 | 4 | 1 |
| Hematopoietic Cell Proliferation | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | X | | | | | | | | | | | | | X | | | | | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | X | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS FEMALE

3 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 5 | 7 | |
| ANIMAL ID | 3 | 0 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 9 | 3 | 8 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | |
| | 5 | 8 | 5 | 5 | 5 | 2 | 2 | 9 | 2 | 2 | 5 | 5 | 5 | 5 | 5 | 2 | 4 | 2 | 7 | 2 | 2 | 5 | 2 | 2 | 2 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | |
| Bile Duct, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bile Duct, Hyperplasia | 1 | | | | | 2 | 1 | | 1 | | | | | | 1 | 1 | | | 1 | | 2 | 1 | | 2 | | |
| Hepatocyte, Hypertrophy | 2 | 4 | 2 | 2 | 1 | 2 | 2 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 4 | 3 | 2 | 2 | 2 | 2 | |
| Hepatocyte, Necrosis | | | | 1 | | | | | | | | | | | | | | | | | | | | | | |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Granulomatous, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Granulomatous, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Duct, Degeneration, Hyaline | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Duct, Parotid Gland, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parotid Gland, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parotid Gland, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parotid Gland, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sublingual Gland, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submandibular Gland, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submandibular Gland, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
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Lab: SRI

| WISTAR HAN RATS FEMALE
3 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | |
|-----------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|------------------|-----------------------|------------------|
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Pars Distalis, Cyst, Multiple
 Pars Distalis, Hyperplasia, Focal
 Pars Intermedia, Hyperplasia, Focal
 Pars Intermedia, Hypertrophy

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Thyroid Gland
 C-cell, Hyperplasia
 Follicle, Hypertrophy
 Follicular Cell, Hyperplasia

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 1

GENERAL BODY SYSTEM

Tissue NOS
 Inflammation, Suppurative, Chronic Active

+

GENITAL SYSTEM

Clitoral Gland
 Inflammation, Chronic
 Duct, Cyst
 Duct, Cyst, Multiple

+
 1
 3

Ovary
 Atrophy
 Cyst
 Hyperplasia, Tubulostromal
 Follicle, Cyst
 Follicle, Cyst, Multiple

+
 3
 2
 1
 3

Uterus
 Adenomyosis

+
 1

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|-----------------------|------------------|
| WISTAR HAN RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | | |
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| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | |
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| Cyst | | | | | | | | | | | | | | | | | | | | | X | | | | |
| Hyperplasia, Atypical | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia, Cystic | 1 | 1 | | | | | | | | | | | | | | | 3 | 2 | | 3 | | | | | |
| Vagina | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | + | M | M | M | M |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|---|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|--|--|
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | | | | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | + | | | | | | | | | | | | | | | | | | | | | + | | |
| Mediastinal, Ectasia | | | | | | | | | | | | | | | | | | | | | 3 | | | |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | 3 | | | |
| Mediastinal, Inflammation, Granulomatous, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Pigmentation, Hemosiderin | 2 | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Popliteal, Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | + | | | | | | | | | | | | | | | | | | | | | | | |
| Ectasia | | | | | | | | | | | | | | | | | | | | | 3 | | | |
| Pigmentation, Hemosiderin | 2 | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | + | | | | | | | | | | | | | | | | | | | | | | | |
| Ectasia | | | | | | | | | | | | | | | | | | | | | 3 | | | |
| Hemorrhage | | | | | 2 | | 3 | | | | | | | | | | | | | | | | | |
| Pigmentation, Hemosiderin | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | | | | | | | | | | | | | | | | | | | | | | | |
| Accessory Spleen | | | | | | | | | | | | | | | | | | | | | X | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS FEMALE
3 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
|-----------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---|-----------|----------------------|---|--|
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7 | 0
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2 | 0
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2 | 0
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5 | 0
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3
2 | 0
7
3
2 | | | | | |
| Hematopoietic Cell Proliferation | | | 1 | 4 | | | 2 | | 2 | 1 | | | 1 | 1 | | 2 | | 2 | 1 | | | 2 | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | 1 | 2 | | | 1 | 1 | 1 | 2 | 1 | | 2 | 1 | | 1 | | 2 | | | | | 2 | 1 | | 2 | 1 | 1 | | |
| Lymphoid Follicle, Atrophy | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | | | |
| Atrophy | | | 1 | | | | | 4 | | | | | | | | | | | | | 4 | | | | 3 | | | |
| Hemorrhage | 2 | | | | 2 | | | | | | 2 | | | | | | | | | | | | | | | | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Hyperplasia | | 2 | | 2 | 1 | | | | | 1 | 1 | 1 | 1 | | 1 | | | | | 1 | 1 | | | 2 | 3 | 2 | | |
| Duct, Dilatation | | 1 | 2 | | | 2 | 2 | 2 | | | | | | 2 | | | | | | 1 | | | 1 | | | 2 | 1 | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Inflammation, Chronic | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | |
| Epidermis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Compression | | 3 | | | | | | | 3 | | | | | | | | | | | | | 2 | | 3 | 2 | | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

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| WISTAR HAN RATS FEMALE
3 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|-------|--------|--------|
| | 0735 | 0651 | 0658 | 0735 | 0735 | 0735 | 0758 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | | 0773 | | |
| ANIMAL ID | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | | | |
| Bile Duct, Cyst | | | | | | | | | | | | | | | | | | | | | | 2 1.5 | | |
| Bile Duct, Hyperplasia | | | | | 1 | 2 | | | 1 | 1 | 1 | | | 1 | | | | 1 | 1 | 1 | | 1 | 20 1.2 | |
| Hepatocyte, Hypertrophy | 2 | 2 | 3 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | | 2 | 2 | 1 | 2 | 1 | 2 | 48 1.9 |
| Hepatocyte, Necrosis | 1 | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Oval Cell, Hyperplasia | | | | | | | | | | | 1 | | | | | | | | 1 | | | 1 | | 3 1.0 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| Inflammation, Granulomatous, Chronic Active | | | | | | | | | | | | | | | | | | | 4 | | | | | 1 4.0 |
| Fat, Necrosis | | | | | | | | | | | 2 | 2 | | | 1 | | | | | | | | | 6 1.5 |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | 3 1.0 |
| Inflammation, Granulomatous, Chronic | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Duct, Degeneration, Hyaline | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Duct, Parotid Gland, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Parotid Gland, Atrophy | | | | | 2 | | | | | | | | | | | | | | 2 | | | | | 4 2.0 |
| Parotid Gland, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Parotid Gland, Vacuolization Cytoplasmic | | | | | 2 | 2 | | | | | | | | | | | | | 2 | 3 | | | | 9 1.9 |
| Sublingual Gland, Vacuolization Cytoplasmic | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Submandibular Gland, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Submandibular Gland, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | 6 1.7 |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | 3 1.3 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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|-----------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|---|---|---|
| | 0735 | 0651 | 0658 | 0735 | 0735 | 0735 | 0758 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | | 0735 | | | |
| ANIMAL ID | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | | | | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|
| Ulcer Epithelium, Hyperplasia | 3 | 2 | | | | | | | | | | | | | | | | | | | | | | | 4 | 2.0 |
| | 3 | 2 | | | | | | | | | | | | | | | | | | | | | | | 6 | 2.3 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Stomach, Glandular Inflammation, Acute | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | 49 | 1 | 1.0 |
| Mineralization | 1 | | | 1 | 1 | | | 2 | | | 1 | 1 | | | | | 1 | | 1 | | | | | 1 | 11 | 1.1 | |
| Ulcer | | | 2 | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Heart Cardiomyopathy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 8 | 1.1 |
| Epicardium, Inflammation, Chronic | | | | | | | | | | | 1 | 1 | | | | | 1 | | | | | 1 | | | 1 | 2.0 | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Adrenal Cortex Accessory Adrenal Cortical Nodule, Multifocal | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | 49 | 1 | 2.0 |
| Angiectasis | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | | 2 | | | 2 | 1 | | | 2 | 3 | 1 | 1 | 3 | 1 | 44 | 1.5 |
| Hyperplasia, Focal | | | | 1 | | | | | | | | 1 | | | | | | | | | | 1 | | | 6 | 1.0 | |
| Hypertrophy, Focal | 1 | | | 1 | | | | | 1 | 1 | | | | | | 1 | | | | | | | | | 9 | 1.0 | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | 4 | | | 1 | 4.0 | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 5 | 1.0 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|--|
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|--|

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|--|
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | 49 | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|--|

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|--|
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | M | + | + | M | + | + | + | M | + | + | + | + | + | + | + | 47 | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|--|

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|--|
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | 49 | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|--|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----|
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| ANIMAL ID | 0
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2 | 0
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2 | |
| Hematopoietic Cell Proliferation | 1 | | | | 1 | | | 2 | | | 1 | 1 | | 1 | 1 | 1 | | 4 | | 1 | 1 | 1 | | 2 | 24 | 1.5 |
| Hemorrhage | | | | | 2 | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Pigmentation | | 2 | 2 | 1 | | 1 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | 1 | 1 | 1 | | | 31 | 1.3 | |
| Lymphoid Follicle, Atrophy | | | 1 | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Atrophy | | | 2 | | | | | | | | | | | | | | | 2 | 3 | | | | | 7 | 2.7 | |
| Hemorrhage | 2 | | | | | | | | | 3 | | 1 | | | | | | | | | | | | 6 | 2.0 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | 49 | | |
| Hyperplasia | | 3 | 2 | 1 | 1 | | | 1 | | 2 | | | 1 | 1 | | | 2 | 1 | | 1 | 1 | | 1 | 28 | 1.4 | |
| Duct, Dilatation | | | | 2 | 2 | | | | 1 | | | 3 | | 1 | 2 | 2 | | | | 2 | | | | 19 | 1.7 | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Epidermis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Compression | | 3 | 3 | | | | | | | | | | | 1 | | | 3 | | | | | | | 9 | 2.6 | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |

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X .. Lesion present
I .. Insufficient tissue

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| WISTAR HAN RATS FEMALE
3 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|--------------------------------------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| | 07
35 | 06
51 | 06
58 | 07
35 | 07
35 | 07
36 | 05
85 | 07
36 | 07
36 | 07
36 | 07
36 | 07
36 | 07
36 | 03
58 | 07
36 | 07
36 | 07
36 | 06
62 | 06
64 | 07
36 | | 07
36 | 07
36 | 07
36 | 07
36 | 07
36 | |
| ANIMAL ID | 003006 | 003007 | 003008 | 003009 | 003010 | 003011 | 003012 | 003013 | 003014 | 003015 | 003016 | 003017 | 003018 | 003019 | 003020 | 003021 | 003022 | 003023 | 003024 | 003025 | 003026 | 003027 | 003028 | 003029 | 003030 | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Infiltration Cellular, Histiocyte | | | | 1 | | | | | 1 | | | | 1 | 1 | | 1 | 1 | | | | 2 | 1 | 1 | | | 23 | |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation, Chronic | | | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Developmental Malformation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Retina, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Cyst | | | | | | | | | | | X | | | | | | | | | | | | | | | 1 | |
| Hydronephrosis | | | | | | | | | | | | | | 2 | | | | | | | | | | | | 1 | |
| Nephropathy | | | | 1 | | | | | | | | | | | | | | | | 2 | 1 | | | 1 | | 8 | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | 1 | | | | | 1 | |
| Pelvis, Inflammation, Chronic Active | 2 | | 1 | | | | | | | | | | 1 | | 1 | | | | | 1 | | | | | | 10 | |
| Pelvis, Mineralization | 1 | 1 | 1 | 1 | 1 | | | 2 | 1 | | 1 | | 2 | | 1 | 1 | 2 | | 1 | | 1 | 1 | | 2 | 1 | 29 | |
| Transitional Epithelium, Hyperplasia | | | | 2 | | | | | | | | | | 2 | | | | | | | | | | 1 | | 4 | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| | | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------------|
| WISTAR HAN RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) |
| | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | 0735 | |
| 15 MG/KG | ANIMAL ID | | | | | | | | | | | | | | | | | | | | females
(cont...) |
| 003331 | 003332 | 003333 | 003334 | 003335 | 003336 | 003337 | 003338 | 003339 | 003340 | 003341 | 003342 | 003343 | 003344 | 003345 | 003346 | 003347 | 003348 | 003349 | 003350 | 003351 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | 1 | | | | | | | | | | | | | | | | 1 | | | | | |
| Basophilic Focus | | | | | | | | X | | | | | | | | | X | | | | | | |
| Basophilic Focus, Multiple | X | X | | X | X | X | | X | X | X | | X | X | X | X | | X | X | X | X | | | |
| Clear Cell Focus | | | | | | | | | | | | | | | | | | | | | | | X |
| Clear Cell Focus, Multiple | | X | | X | | | | | | | | X | X | X | | X | X | X | X | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | |
| Eosinophilic Focus | | | | | | | | X | | | | X | | X | X | | | | | | | | X |
| Eosinophilic Focus, Multiple | | | | | | | | X | X | | X | X | X | | | | | X | X | | X | | |
| Fatty Change | | | | 1 | 4 | 1 | 1 | | 1 | | | 4 | 1 | | 1 | | 1 | 1 | | 1 | 1 | 2 | |
| Fibrosis | | | | 1 | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Nodular | | | | | | | | 3 | | | | 2 | | | | | | | | | | | |
| Pigmentation | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Bile Duct, Cyst | | | 1 | | | | | | | | | | 2 | | | | | | | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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Lab: SRI

| WISTAR HAN RATS FEMALE
15 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| | 7 | 7 | 5 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | | 7 |
| | 3 | 3 | 0 | 3 | 3 | 5 | 5 | 3 | 3 | 3 | 3 | 5 | 3 | 8 | 3 | 3 | 1 | 3 | 3 | 3 | 7 | |
| | 5 | 5 | 8 | 5 | 5 | 3 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 4 | 6 | 6 | 6 | 6 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | |
| Bile Duct, Cyst, Multiple | | | | | | 1 | | | | | | | | | | | | | | | | |
| Bile Duct, Hyperplasia | 1 | | | | 1 | | 1 | | | 1 | | | | 1 | | | 1 | 1 | 1 | 1 | 1 | |
| Hepatocyte, Degeneration | | | | | | | | | | 4 | | | | | | | | | | | | |
| Hepatocyte, Hypertrophy | 3 | 3 | 2 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | |
| Hepatocyte, Mitosis | | | | 2 | | | | | | | | | | | | | | | | | | |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | 1 | | | | | | | |
| Mesentery | | | | | + | | | | | + | | | | + | | | + | | | | + | |
| Fat, Necrosis | | | | | | | | | | | | | | 1 | | | 1 | | | | 2 | |
| Oral Mucosa | | | | | | | | | | + | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | | | | 2 | | | | | | | | | | 1 | | | | | | | | |
| Inflammation, Chronic | | | | | | | | | | | | 3 | | | | | | | | | | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | 1 | | | |
| Duct, Parotid Gland, Inflammation, Acute | | | | | | | | 4 | | | | | | | | | | | | | | |
| Parotid Gland, Atrophy | | 1 | | | | 1 | | | | | | | 2 | | | | | | | | | |
| Parotid Gland, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | |
| Parotid Gland, Vacuolization Cytoplasmic | | | | | | 1 | 1 | | | | | | 2 | | | | | | | | | |
| Sublingual Gland, Ectopic Tissue | | | | | | | | | | | | | | | | | | | | | 2 | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Edema | | | | | | 2 | | | | | | | | | | | | | | | | |
| Hyperkeratosis | | | | | | 2 | | | | | | | | | 3 | | | | | | | |
| Inflammation, Acute | | | | | | 3 | | | | | | | | | | | | | | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | 3 | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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Lab: SRI

| WISTAR HAN RATS FEMALE
15 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | | | |
|------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------------------|---|---|---|---|--|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | | | |
| | 7 | 7 | 5 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 0 | | | | |
| | 3 | 3 | 0 | 3 | 3 | 5 | 5 | 3 | 3 | 3 | 3 | 5 | 3 | 8 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 7 | 6 | 7 | 0 | | |
| | 5 | 5 | 8 | 5 | 5 | 3 | 6 | 6 | 0 | 6 | 5 | 5 | 5 | 6 | 6 | 6 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 0 | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 0 | |

Parathyroid Gland + + + + + + + M + + + + + + + + + + + + + + + + + +

Pituitary Gland +
Pigmentation, Hemosiderin
Pars Distalis, Cyst, Multiple X
Pars Distalis, Hyperplasia, Focal 1 1 1 1 2 2 1 1
Pars Nervosa, Cyst, Multiple 2
Pars Nervosa, Inflammation, Chronic

Thyroid Gland + + + + + + + + + + + + + + + + A + + + + + + + +
C-cell, Hyperplasia 1 3 1 1 2 2 2 2 2 2 1 1 1 2 2 1 1 3 2 2 1 1 3 2
Follicle, Cyst X X
Follicle, Hypertrophy 1 2 1 1 1 1 2
Follicular Cell, Hyperplasia
Follicular Cell, Hypertrophy 1

GENERAL BODY SYSTEM

Tissue NOS + +
Fibrosis 1

GENITAL SYSTEM

Clitoral Gland +
Inflammation, Chronic
Inflammation, Chronic Active
Duct, Cyst 2
Ovary +
Atrophy 2

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

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| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|
| WISTAR HAN RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
| | 0676 | 0736 | 0569 | 0701 | 0736 | 0736 | 0610 | 0736 | 0736 | 0472 | 0736 | 0736 | 0676 | 0736 | 0736 | 0676 | 0736 | 0736 | 0676 | 0736 | | 0373 | 0736 | 0736 |
| 15 MG/KG | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | |
| | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 | 00356 |
| | 67890 | 73690 | 6901 | 6901 | 6901 | 6901 | 6901 | 6901 | 6901 | 6901 | 6901 | 6901 | 6901 | 6901 | 6901 | 6901 | 6901 | 6901 | 6901 | 6901 | 6901 | 6901 | 6901 | 6901 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | + | + | + | 47 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 49 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | + | + | + | 47 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | + | + | + | 48 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | + | + | + | 47 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | 4 1.0 | |
| Basophilic Focus | | | | | | | X | | | X | X | | | | | | | | X | X | | | | 7 | |
| Basophilic Focus, Multiple | | X | | X | X | X | | X | X | | X | X | | | | X | X | X | X | | | X | X | X | 33 |
| Clear Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Clear Cell Focus, Multiple | X | X | | | X | X | X | X | | | X | X | X | | | X | X | X | | X | | X | X | 25 | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 | |
| Eosinophilic Focus | | | | | | | X | | X | | | | | | X | X | | | X | | | | | 10 | |
| Eosinophilic Focus, Multiple | | | | | | X | | X | | | | | | | | | | | | | | X | | 11 | |
| Fatty Change | 4 | 1 | 2 | | | 1 | 1 | 1 | | 4 | | 1 | 3 | 1 | | | 1 | 1 | 3 | 1 | | 1 | | 28 1.6 | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Hyperplasia, Nodular | | | | | | | | | | | | | | | | | | | | | | | | 2 2.5 | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Bile Duct, Cyst | | | | | | | | | | | | | | | | | | | | | | | 1 | 4 1.5 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-----|
| | 0676 | 0736 | 0759 | 0771 | 0773 | 0776 | 0777 | 0778 | 0779 | 0780 | 0781 | 0782 | 0783 | 0784 | 0785 | 0786 | 0787 | 0788 | 0789 | 0790 | 0791 | 0792 | 0793 | 0794 | | |
| ANIMAL ID | 00356 | 00357 | 00358 | 00359 | 00360 | 00361 | 00362 | 00363 | 00364 | 00365 | 00366 | 00367 | 00368 | 00369 | 00370 | 00371 | 00372 | 00373 | 00374 | 00375 | 00376 | 00377 | 00378 | 00379 | | |
| Bile Duct, Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Bile Duct, Hyperplasia | | | | | | | | | 1 | 2 | | 1 | | | 1 | | | 1 | | | | | | | 16 | 1.1 |
| Hepatocyte, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Hepatocyte, Hypertrophy | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 49 | 3.0 |
| Hepatocyte, Mitosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 | 1.0 |
| Oval Cell, Hyperplasia | | | | | | | | | 1 | | | | | | 1 | | | | | | | | | | 3 | 1.0 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | 9 | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 1.4 |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | 49 | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.3 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | 49 | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Duct, Parotid Gland, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 2.5 |
| Parotid Gland, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1.5 |
| Parotid Gland, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Parotid Gland, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | 7 | 1.6 |
| Sublingual Gland, Ectopic Tissue | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.5 |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | 7 | 2.3 |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.3 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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2) Mild 4) Marked

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS FEMALE
15 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|------------------------------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------|
| | 066 | 073 | 075 | 076 | 077 | 077 | 077 | 076 | 077 | 077 | 074 | 077 | 076 | 077 | 076 | 077 | 076 | 077 | 076 | 073 | 077 | 077 | 077 | | |
| ANIMAL ID | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | | |
| Mineralization | | | | | | | 1 | | | | | | | | | | | | | | | | | 3 1.0 | |
| Ulcer | 1 | | | | | | | | | | | | | | | | | | | | | | | 3 2.0 | |
| Epithelium, Hyperplasia | 3 | | | | | | | | | 3 | | | 3 | | | | | | | | 3 | | | 6 3.0 | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Erosion | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Inflammation, Acute | | | 2 | | | | | | | 1 | | | | | | | | | | | | | | 2 1.5 | |
| Mineralization | | 1 | | | 1 | 1 | | | | 1 | | 1 | 1 | | | | | | | 1 | 1 | | | 14 1.0 | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Ulcer | | | | | | | | | | 2 | | | | | | | | | | | | | | 1 2.0 | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Blood Vessel | | | | + | | | | | | | + | | | | + | | | | | | | | | 3 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiomyopathy | | | | | | | | | | | | | | | | | | | | | | | | 10 1.2 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|--------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | 1 | 1 | | 1 | | | 1 | 1 | 1 | 1 | 1 | 2 | 1 | | 1 | 1 | 4 | 2 | 1 | 3 | 1 | 1 | 1 | 44 1.5 |
| Hematopoietic Cell Proliferation | | | 1 | | | | | | | | | | | | | | | | | | | | | 3 1.0 |
| Hyperplasia, Focal | | 1 | | | | | | | | | 1 | 1 | | | 1 | 1 | | 3 | | | | 1 | 12 1.3 | |
| Hypertrophy, Focal | | | | | | | | 1 | | | 1 | | | 1 | | | | | | | 1 | | 1 | 12 1.3 |
| Vacuolization Cytoplasmic | | | | | | | | | | 1 | | 1 | | 1 | | | | | | | | | | 7 1.0 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 1.0 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 49 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

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Pentabromodiphenyl oxide (technical) (DE 71)

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Lab: SRI

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|------------------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
| | 0676 | 0736 | 0056 | 0777 | 0777 | 0776 | 0777 | 0774 | 0776 | 0777 | 0776 | 0777 | 0776 | 0777 | 0776 | 0777 | 0776 | 0777 | 0776 | 0777 | 0776 | 0777 | 0776 | 0777 | |
| ANIMAL ID | 003566 | 003355 | 003355 | 003366 | 003366 | 003366 | 003366 | 003366 | 003366 | 003366 | 003366 | 003366 | 003366 | 003366 | 003366 | 003366 | 003366 | 003366 | 003366 | 003366 | 003366 | 003366 | 003366 | 003366 | |

Parathyroid Gland + 49

Pituitary Gland + 50
 Pigmentation, Hemosiderin 1 2 2.0
 Pars Distalis, Cyst, Multiple X 3
 Pars Distalis, Hyperplasia, Focal 2 1 2 2 1 1 2 1.4
 Pars Nervosa, Cyst, Multiple 1 2.0
 Pars Nervosa, Inflammation, Chronic 2 1 2.0

Thyroid Gland + + + + + + + + + + + + + A + + + + A + + + + + 47
 C-cell, Hyperplasia 2 3 3 2 2 1 1 1 2 2 2 2 1 2 1 2 1 3 3 2 2 3 46 1.8
 Follicle, Cyst 2
 Follicle, Hypertrophy 1 1 3 1 2 3 1 1 2 1 1 22 1.4
 Follicular Cell, Hyperplasia 2 2 1.8
 Follicular Cell, Hypertrophy 1 1.0

GENERAL BODY SYSTEM

Tissue NOS + + 4
 Fibrosis 1 1.0

GENITAL SYSTEM

Clitoral Gland + 50
 Inflammation, Chronic 1 1.0
 Inflammation, Chronic Active 1 1.0
 Duct, Cyst 2 2 3 2.0
 Ovary + 50
 Atrophy 1 2.0

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue
 X .. Lesion present A .. Autolysis precludes evaluation
 I .. Insufficient tissue BLANK .. Not examined microscopically
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|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------|--------|
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9 | 0
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1 | 0
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6 | 0
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0 | 0
7
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6 | 0
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6 | 0
4
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5 | 0
7
3
5 | 0
6
7
5 | 0
7
3
6 | 0
6
7
5 | 0
7
1
4 | 0
6
3
2 | 0
7
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2 | 0
6
3
5 | 0
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2 | 0
3
6
8 | 0
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2 | 0
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2 | 0
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2 | | | | |
| ANIMAL ID | 0
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9 | 0
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8
0 | | |
| Cyst | 1 | | | | | 3 | | | | | | | | | | | | | | | | | | | 2 | 8 2.0 | |
| Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Hyperplasia, Tubulostromal Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3 2.3 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3 2.0 | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Decidual Reaction | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Hemorrhage | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Hyperplasia, Atypical | | | | | | | | | | | | | | | | | | | | | | | | 1 | | 2 1.0 | |
| Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Cervix, Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Endometrium, Hyperplasia, Cystic | | 2 | | 2 | | | | | | | | | | 3 | | 2 | | | | | | | | | 4 | 4 | 17 2.5 |
| Myometrium, Degeneration, Mucoid | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Serosa, Cyst | | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 1.0 | |
| Vagina | M | M | M | M | M | M | M | M | M | M | M | M | M | M | + | M | M | M | M | M | M | M | M | M | M | M | 2 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Myeloid Cell, Hyperplasia | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | 7 2.3 |
| Lymph Node | | + | | | + | | | | | | | | | | | | | | | | | | | | + | 6 | |
| Inguinal, Pigmentation | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | 2 1.0 |
| Mediastinal, Ectasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Mediastinal, Hyperplasia, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Mediastinal, Pigmentation | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Mediastinal, Pigmentation, Hemosiderin | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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|------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 06776 | 07366 | 00577 | 07777 | 00767 | 07777 | 00767 | 07777 | 00767 | 07777 | 00767 | 07777 | 00767 | 07777 | 00767 | 07777 | 00767 | 07777 | 00767 | 07777 | |
| ANIMAL ID | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | |

Ectasia 4 1.0

Lymph Node, Mesenteric 50

Ectasia 2 1.5

Hemorrhage 3 2.0

Pigmentation, Hemosiderin 1 1.0

Spleen 50

Hematopoietic Cell Proliferation 19 1.8

Hemorrhage 1 3.0

Pigmentation 32 1.3

Lymphoid Follicle, Atrophy 3 2.3

Thymus 48

Atrophy 18 2.1

Hemorrhage 5 1.6

INTEGUMENTARY SYSTEM

Mammary Gland 50

Fibrosis 2 2.0

Galactocele 3 2.3

Hyperplasia 24 1.5

Inflammation, Granulomatous 1 1.0

Duct, Cyst 1 1.0

Duct, Dilatation 13 1.5

Skin 50

Hyperkeratosis 2 1.0

Inflammation, Acute 2 1.0

Inflammation, Chronic 1 2.0

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------|-------|-------|-------|
| WISTAR HAN RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
| | 06776 | 07336 | 05669 | 07701 | 07736 | 07736 | 06130 | 07736 | 07736 | 04735 | 07735 | 06766 | 07735 | 07764 | 07764 | 07764 | 07764 | 06764 | 07368 | 07368 | | 07368 | 07368 | |
| 15 MG/KG | ANIMAL ID | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
| | 00356 | 00357 | 00358 | 00359 | 00360 | 00361 | 00362 | 00363 | 00364 | 00365 | 00366 | 00367 | 00368 | 00369 | 00370 | 00371 | 00372 | 00373 | 00374 | 00375 | | 00376 | 00377 | 00378 |

| | | |
|------------------------|---|--------------|
| Ulcer | 1 | 2 1.5 |
| Epidermis, Hyperplasia | 1 | 1 1.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------|
| Bone | + | | | | | | | | | | | | | | | | | | | | 50 |
|------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------|

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|--|--|--|--|--|--|--|--|--|--|---|---|---|--|--|---|---|---|--|--------------|--|---------------|
| Brain | + | | | | | | | | | | | | | | | | | | | | 50 | | |
| Compression | 3 | | | | | | | | | | | 3 | 2 | | | | 3 | 1 | 1 | | | | 11 2.4 |
| Hemorrhage, Multifocal | | | | | | | | | | | | | | 2 | | | | | | | 1 2.0 | | |
| Peripheral Nerve | | | | | | | | | | | | | | | | | | | | | 1 | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|--|--|--|--|--|--|--|--|--|--|---|---|---|--|--------------|--|---|---------------|
| Lung | + | | | | | | | | | | | | | | | | | | | | 50 |
| Infiltration Cellular, Histiocyte | 1 | 1 | 1 | | | | | | | | | | | 1 | 1 | 1 | | | | 1 | 22 1.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Nose | + | | | | | | | | | | | | | | | | | | | | 50 |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Trachea | + | | | | | | | | | | | | | | | | | | | | 50 |
| Inflammation, Chronic | | | | | | | | | | | | | | 1 | | | | 1 1.0 | | | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|---|-----------|
| Eye | + | | | | | | | | | | | | | | | | | | | | A | + | + | + | + | A | + | + | + | + | 47 |
|-----|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|---|-----------|

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I .. Insufficient tissue
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|--------------------------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|--------|----|
| | 06 | 07 | 05 | 07 | 07 | 07 | 06 | 07 | 07 | 04 | 07 | 07 | 06 | 07 | 07 | 06 | 07 | 07 | 06 | 07 | | 03 | 07 | 07 |
| ANIMAL ID | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| 35678901234567890 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 5678901234567890 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| 678901234567890 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Retina, Atrophy | | | | | | | 2 | 2 | | 2 | | | | 2 | | | | 2 | | | | | | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hydronephrosis | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Nephropathy | 1 | | | 1 | | | | | 1 | | 1 | | 1 | 1 | | 1 | | | | | | 1 | 17 1.0 | |
| Pigmentation | | | | | | | | | | | 1 | | | | | | | 1 | | | | 1 | 3 1.0 | |
| Pelvis, Inflammation, Chronic Active | | | | | | | | | | | | | 1 | | | | 1 | | | | | | 6 1.0 | |
| Pelvis, Mineralization | 1 | 1 | 1 | | 1 | 1 | | | 1 | 1 | | | 1 | | 1 | | | 1 | 1 | 1 | 1 | | 23 1.0 | |
| Renal Tubule, Dilatation | | | | 2 | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS FEMALE
50 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---|-----------|----------------------|
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4
5 | 0
7
2
9 | 0
0
3
0 | 0
6
3
0 | 0
5
3
7 | 0
7
3
5 | | | |
| Bile Duct, Hyperplasia | 1 | | | | 2 | 1 | | 1 | | | 1 | | | | | | | | | 2 | 1 | | | | | |
| Bile Duct, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatocyte, Hypertrophy | 4 | | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| Hepatocyte, Necrosis | | | | 1 | | | | 1 | | 2 | | | | | | | | | | | | | | | | |
| Oval Cell, Hyperplasia | 1 | | | | | 1 | | | | | | | | | | | | | | | | | 1 | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | + | + | + | A | + | + | M | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | | |
| Duct, Parotid Gland, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parotid Gland, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parotid Gland, Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parotid Gland, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parotid Gland, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sublingual Gland, Ectopic Tissue | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submandibular Gland, Ectopic Tissue | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Submandibular Gland, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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Route: GAVAGE

Species/Strain: RATS/Wistar Han

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First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|-----------------------|--|--|
| WISTAR HAN RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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7 | | 0
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5 | | |
| 50 MG/KG | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | |
| 0
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Epithelium, Hyperplasia

2

3

Stomach, Glandular

+ + + + + A + + + + + + + + + + + A + + + + +

Inflammation, Chronic

Mineralization

Ulcer

1 1 1

1 1

CARDIOVASCULAR SYSTEM

Blood Vessel

+ + + + + + + + + + + + + + + M + + + + + + + +

Heart

Cardiomyopathy

1

1

ENDOCRINE SYSTEM

Adrenal Cortex

+ + + A + + + + + + + + + + + M + + + + + + + +

Angiectasis

Hematopoietic Cell Proliferation

Hyperplasia, Focal

Hypertrophy, Focal

Vacuolization Cytoplasmic

1 1 2 1 1 1 1 2 2 1 1

1 1 1 2 1

1 1 1 1

1 2 1

2 1 1 1

2 2

1 1 1

1 1

Adrenal Medulla

+ + + A + + + + + + + + + + + M + + + + + + + +

Islets, Pancreatic

+ + + M + + + + + + + + + + + + + + M + + + + + +

Parathyroid Gland

+ + + + + + M + + + M M + + + + + + + + + + + +

Pituitary Gland

Pars Distalis, Cyst

+ + + + + + M + + + + + + + + + + + A + + + + + +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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Lab: SRI

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50 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | | |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|------------------|------------------|------------------|--|
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9 | 0
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3 | | | 0
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3
7 | 0
7
3
5 | |
| Pars Distalis, Hyperplasia, Focal | | | | | 1 | | 2 | | | | | | | 1 | | | | | 2 | | | | | | | |
| Pars Distalis, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Intermedia, Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Nervosa, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | A | + | + | M | + | + | + | + | + | + | + | + | + | A | + | + | A | + | + | + | + | | |
| Mineralization | | | | | | | 1 | | | | | | | | | | | | | | | | | | | |
| C-cell, Hyperplasia | 2 | | 1 | | 2 | 1 | | 2 | 1 | 2 | 2 | 2 | | 2 | 2 | 2 | | 1 | 1 | | 2 | | 2 | 1 | 2 | |
| Follicle, Hypertrophy | | | 3 | 2 | | 2 | | | | | 3 | 2 | 2 | 2 | 1 | 1 | 2 | | 2 | 2 | | 1 | | 1 | 2 | |
| Follicular Cell, Hyperplasia | | | | | 1 | | | 1 | | 2 | | 1 | | | | | | | | | | | | | | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tissue NOS | | | | | + | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Duct, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | M | + | + | + | + | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | 4 | | 3 | | | 4 | | | | | 2 | | | | | | | | | | | | | | | |
| Hyperplasia, Tubulostromal | | | | | | | | | | | | | | | | | | | | | | | | 3 | | |
| Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | 2 | 1 | | | | |
| Follicle, Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Granulosa Cell, Hyperplasia, Multifocal | | | | | | | | | | | | | | | | | | | | | 2 | | | | | |
| Uterus | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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|-------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|-----------------------|
| WISTAR HAN RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | |
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(cont...) | |
| 50 MG/KG | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | |
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Ectasia
Hemorrhage

1

Spleen
Angiectasis
Hematopoietic Cell Proliferation
Pigmentation
Lymphoid Follicle, Atrophy

+ + + A + + A + + + + + + + + M + + M + + + + +
2
1 3 1 3 2 1 1 2 2 1 2 3 1
2 1 1 2 1 2 1 2 1

Thymus
Atrophy
Cyst
Hemorrhage

+ + + + + + + + + + + + + + M + + A + + + + +
3 1 1 3

INTEGUMENTARY SYSTEM

Mammary Gland
Galactocele
Hyperplasia
Inflammation, Chronic Active
Duct, Dilatation
Duct, Inflammation, Acute

+
2
2 2 2 1 2 1 2 2 2
1 1 1 1 2 1
1

Skin
Inflammation, Chronic Active
Ulcer
Epidermis, Hyperplasia

+
2
2
2

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
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(cont...) |
|------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------------|-----------|----------------------|
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0
3
8
2 | | |

Bone +

NERVOUS SYSTEM

Brain +
Compression 2 1 3 3 2 3 4

RESPIRATORY SYSTEM

Lung +
Infiltration Cellular, Histiocyte 1 2
Inflammation, Acute 1
Inflammation, Chronic
Mineralization
Nose + + + + + + + + + + + + + + + + + + A + + + + +
Inflammation, Acute 3
Trachea + + + + + + + + + + + + + + + + + + A + A + + +

SPECIAL SENSES SYSTEM

Eye + + + M + + A + + + + + + + + A + + A + + + + +
Retina, Atrophy 1 2 2 2 2
Harderian Gland +

URINARY SYSTEM

Kidney + + + + + + + + + + + + + + + + M + + A + + + + +
Casts Protein 1

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
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First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

| WISTAR HAN RATS FEMALE
50 MG/KG | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
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| Epithelium, Hyperplasia | 2 | | | | 1 | | | | | | | | | | | | | | | | 4 | 2.0 | | | | |
| Stomach, Glandular
Inflammation, Chronic
Mineralization
Ulcer | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | 46 | 1 | 2.0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 7 | 1.0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | | | | | | | | | | | | | | | | | | | | | + | 3 | | | | |
| Heart
Cardiomyopathy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | 4 | 1.0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex
Angiectasis
Hematopoietic Cell Proliferation
Hyperplasia, Focal
Hypertrophy, Focal
Vacuolization Cytoplasmic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | 34 | 1.3 | |
| | 1 | 1 | 1 | 1 | 2 | | 1 | 1 | 1 | 2 | | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | | | 4 | | 1 | 1.0 | |
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| | | | | | 1 | | | | | | 1 | | 1 | | | | 1 | | | | | 3 | | 9 | 1.2 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | | |
| Pituitary Gland
Pars Distalis, Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | | 1 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20209 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Pentabromodiphenyl oxide (technical) (DE 71)

CAS Number: 32534-81-9

Date Report Requested: 08/12/2014

Time Report Requested: 10:27:34

First Dose M/F: 08/26/08 / 08/26/08

Lab: SRI

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| Pars Distalis, Hyperplasia, Focal | | | | | | 1 | | | | | | | 1 | | | | | | | | | | | 9 | |
| Pars Distalis, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | |
| Pars Intermedia, Hyperplasia, Focal | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Pars Nervosa, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Thyroid Gland | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | A | + | 42 | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| C-cell, Hyperplasia | | 2 | 2 | 2 | 1 | 2 | 1 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 1 | 3 | 1 | 2 | | 3 | | 3 | 38 | |
| Follicle, Hypertrophy | | 1 | 1 | 2 | 1 | 1 | | 2 | 4 | 3 | 3 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 3 | | 3 | 35 | |
| Follicular Cell, Hyperplasia | | | | | | 2 | | | | | | | 1 | | | | | | | | | | | 6 | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | 47 |
| Inflammation, Chronic Active | | | | | | 3 | | | | | | | | | | | | | 3 | | | | | 2 | |
| Duct, Cyst | | | | | | | | | | | | | | | | | | 1 | | | | | 3 | 3 | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | 46 | |
| Atrophy | | | | | | | | | | | | | | | | | | | 3 | | | | 3 | 2 | |
| Cyst | | | | | | 2 | 2 | | | | | | 2 | 1 | | | | | | | | | | 8 | |
| Hyperplasia, Tubulostromal | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Follicle, Cyst | | 2 | | 2 | | | | | | | | | | | | 1 | | | | | | | | 5 | |
| Follicle, Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Granulosa Cell, Hyperplasia, Multifocal | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | 47 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Compression | 1 | | 3 | | | | | 1 | 3 | | | 1 | 3 | | | | | | | | | | | 13 2.3 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Infiltration Cellular, Histiocyte | 1 | 2 | 1 | 1 | | | 1 | 1 | 1 | 1 | | | 1 | 1 | 1 | | 1 | 1 | 1 | | | 2 | 1 | 30 1.1 |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Inflammation, Chronic | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Mineralization | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 1.0 |
| Nose | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Retina, Atrophy | | | | | | 1 | | | | | | 2 | | 2 | | | 2 | | | | | 2 | | 10 1.8 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Casts Protein | | | | | | | | | | | | | | | | | 1 | | | | | | | 2 1.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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| Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hydronephrosis | | | 3 | | | 3 | | 1 | | | | | | | | | | | | | | | | 6 2.5 |
| Nephropathy | 1 | | | | | 1 | | | | | | | | | 1 | | 1 | | | | | 2 | | 15 1.1 |
| Pigmentation | | | | | | | | | | | | | 1 | | | | 1 | | 1 | | | | 1 | 4 1.0 |
| Pelvis, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | 1 | | | | | | 3 1.0 |
| Pelvis, Mineralization | | | | 1 | 1 | | | | | 1 | | 1 | 1 | 1 | | 1 | | 1 | | | | | | 19 1.1 |
| Transitional Epithelium, Hyperplasia | | | | | | | | | | 2 | | | | 2 | | | | | | | | | | 2 2.0 |
| Ureter | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | 45 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | M | | | 1 1.0 |

*** END OF REPORT ***

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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