

Experiment Number: 20320 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Tetrabromobisphenol A
CAS Number: 79-94-7

Date Report Requested: 01/23/2013
Time Report Requested: 15:06:23
First Dose M/F: 07/25/07 / 07/26/07
Lab: BAT

F1_Rev.1_RE

NTP Study Number:	C20320		
Lock Date:	03/24/2011		
Cage Range:	ALL		
Date Range:	ALL		
Reasons For Removal:	25021 TSAC	25020 NATD	25019 MSAC
	25018 DACC		
Removal Date Range:	ALL		
Treatment Groups:	Include ALL		
Study Gender:	Both		
TDMSE Version:	3.0.1.0_004		
PWG Approval Date:	NONE		

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WISTAR HAN RATS MALE 0 mg/kg	DAY ON TEST																								* TOTALS		
	0695	0727	0772	0502	0727	0465	0728	0244	0727	0772	0772	0772	0522	0742	0722	0722	0722	0722	0722	0722	0488	0496	0728	0728			
ANIMAL ID	00032	00033	00034	00035	00036	00037	00039	00040	00041	00042	00043	00044	00045	00047	00048	00049	00050	00051	00052	00053	00054	00055	00056	00058	00059		
Hematopoietic Cell Proliferation	3													1							1						
Necrosis																											
Lymphoid Follicle, Atrophy								3														2					
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Atrophy	2	4	4				2	4	3	3	4	3	1	2	4	3	1			1	4	3	4	4	1	4	
Hyperplasia																			2								
Inflammation, Chronic																											
INTEGUMENTARY SYSTEM																											
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47		
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Inflammation																					2						
Ulcer							3							3	3	4						3					
MUSCULOSKELETAL SYSTEM																											
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Skeletal Muscle																									1		
NERVOUS SYSTEM																											
Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Compression												3											4	4			
RESPIRATORY SYSTEM																											
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
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	0695	0727	0775	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777		
0 mg/kg	ANIMAL ID																									
	0002	0003	0004	0005	0006	0007	0009	0000	0001	0002	0003	0004	0005	0007	0008	0009	0000	0001	0002	0003	0004	0005	0006	0008	0009	
Inflammation, Granulomatous																								1	2 1.0	
Inflammation, Chronic Alveolus, Inflammation						1				1				1									1		8 1.0	
Bronchiole, Hyperplasia			1																				1		1 2.0	
																									3 1.0	
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Inflammation				2													2		1					1	8 1.4	
Ulcer																									1 2.0	
Goblet Cell, Hyperplasia																									1 2.0	
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Inflammation													1												2 1.0	
Peritracheal Tissue, Inflammation																									1 2.0	
SPECIAL SENSES SYSTEM																										
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Inflammation						3																			1 3.0	
Retina, Atrophy																									1 2.0	
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Inflammation			1																						1 1.0	
URINARY SYSTEM																										
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Cyst																									1	
Nephropathy	1	1			1	1	1	2	1		1	1	1	2	2	1	2	1	1	2		1	1	1	39 1.4	
Pelvis, Inflammation, Suppurative							3			1	1														4 1.8	
Renal Tubule, Accumulation, Hyaline Droplet																									1 3.0	

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WISTAR HAN RATS MALE	DAY ON TEST	065	077	077	052	074	077	022	077	077	077	057	077	077	077	077	077	077	077	044	044	077	077	* TOTALS
	0 mg/kg	ANIMAL ID	0032	0033	0034	0035	0036	0037	0039	0040	0041	0042	0043	0044	0045	0047	0048	0049	0050	0051	0052	0053	0054	

Urethra Inflammation, Chronic + 3 1 3.0

Urinary Bladder + 50

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	250 mg/kg	28	22	29	25	22	22	28	22	24	22	28	22	22	27	24	27	27	23	27	22	20	22		24		
	ANIMAL ID	0061	0062	0063	0064	0065	0066	0067	0068	0069	0070	0071	0072	0073	0074	0075	0076	0077	0078	0079	0080	0081	0082	0083	0084	0085	

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum Parasite Metazoan	+	+	+	+	+	1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis															1										1
Basophilic Focus	X				X					X	X		X	X		X	X	X	X	X	X		X	X	
Clear Cell Focus	X			X	X	X		X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	
Eosinophilic Focus																									
Fatty Change	1	3	2	2	1			2	1					1	2	1			1	1		1	2	1	1
Mixed Cell Focus	X					X						X						X							
Thrombosis																									
Artery, Vein, Necrosis																									
Bile Duct, Hyperplasia						1					1							1			1				
Oval Cell, Hyperplasia																									
Mesentery			+		+										+										

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WISTAR HAN RATS MALE 250 mg/kg	DAY ON TEST																									males (cont...)
	0 7 2 8	0 6 2 2	0 3 9 7	0 6 5 7	0 7 2 7	0 7 2 7	0 7 2 7	0 6 8 0	0 7 2 7	0 5 4 9	0 7 2 9	0 6 8 9	0 7 2 7	0 7 2 8	0 6 7 4	0 7 2 7	0 6 7 3	0 7 2 7	0 7 2 7	0 5 0 0	0 7 2 8	0 6 2 8	0 7 0 8			
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	0 0 0 8 4	0 0 0 8 5	
Adrenal Medulla Hyperplasia Necrosis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
	3																									
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Parathyroid Gland Hyperplasia	+	+	+	+	+	M	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+			
Pituitary Gland Cyst Pars Distalis, Hyperplasia Pars Intermedia, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
	1										1 2		1			3										
Thyroid Gland C-cell, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
	1 1		1 1		4 1		1 1		1 1		1 1		1 1		1 1		1 1		2 1		1 1		1 1			

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis Atrophy Granuloma Sperm	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Preputial Gland Inflammation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	1														1								
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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	07 28	06 22	03 92	06 57	07 22	07 27	07 27	06 80	07 24	05 29	07 29	06 82	07 22	07 22	06 27	07 27	06 73	07 28	07 27	05 00			07 28
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000661	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000662	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000663	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000664	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000665	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000666	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000667	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000668	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000669	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000670	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000671	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000672	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000673	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000674	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000675	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000676	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000677	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000678	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000679	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000680	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000681	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000682	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000683	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000684	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000685	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000686	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000687	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000688	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000689	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	000690	

Atrophy																						
Inflammation	1			2					1		2		1		1						2	2
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy																						
Inflammation				1				1														
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Edema	1				3	2	1		3	3		1	2	1	2		1	1	1	1	1	2
Germinal Epithelium, Atrophy					3																	

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy																						
Ectasia																						
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy																						
Hyperplasia, Lymphoid				2																		
Necrosis																						
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis											2											
Congestion																		2				
Hematopoietic Cell Proliferation			2		4	1						1	1		1			1	1	1		
Capsule, Fibrosis																						
Lymphoid Follicle, Atrophy																		2				

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250 mg/kg	00 06 01	00 06 02	00 06 03	00 06 04	00 06 05	00 06 06	00 06 07	00 06 08	00 06 09	00 07 00	00 07 01	00 07 02	00 07 03	00 07 04	00 07 05	00 07 06	00 07 07	00 07 08	00 07 09	00 08 10	00 08 11	00 08 12	00 08 13	00 08 14	00 08 15

Thymus Atrophy	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	3	3	2	4	4	4	3	4	2	4	3	4	2	2	4	4	1	4	3	1	1	4	3	2	4

INTEGUMENTARY SYSTEM

Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Skin Ulcer Epidermis, Hyperplasia				3	3								3					3	3						

MUSCULOSKELETAL SYSTEM

Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NERVOUS SYSTEM

Brain Compression	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		3	3	3				3	4		3			4											4
Peripheral Nerve Axon, Degeneration																									+
																									1
Spinal Cord Axon, Degeneration																									+
																									3

RESPIRATORY SYSTEM

Lung Hemorrhage Inflammation, Granulomatous	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
																									2

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Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

WISTAR HAN RATS MALE 250 mg/kg	DAY ON TEST																				ANIMAL ID	males (cont...)	
	0 7 2 8	0 6 2 2	0 3 9 7	0 6 5 7	0 7 2 7	0 7 2 7	0 6 8 0	0 7 2 7	0 5 4 9	0 7 2 9	0 6 8 9	0 7 2 7	0 7 2 7	0 6 7 4	0 7 2 7	0 6 7 3	0 7 2 7	0 5 2 7	0 7 0 8	0 6 2 4			
Inflammation, Chronic Alveolar Epithelium, Necrosis Arteriole, Thrombosis Bronchiole, Hyperplasia	1									1											1		
Nose Inflammation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Trachea Inflammation, Chronic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	1		
SPECIAL SENSES SYSTEM																							
Eye Inflammation, Acute Retina, Atrophy	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	2		
Harderian Gland Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	1		
URINARY SYSTEM																							
Kidney Cyst Hydronephrosis Inflammation, Suppurative, Multifocal Nephropathy Pelvis, Inflammation, Suppurative	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	2		
Urinary Bladder Transitional Epithelium, Hyperplasia	1		1	1					1			1		1	1	1	1	1	1	1	1		

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Experiment Number: 20320 - 03

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Species/Strain: RATS/Wistar Han

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Species/Strain: RATS/Wistar Han

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First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

WISTAR HAN RATS MALE	DAY ON TEST																						* TOTALS	
	0035	0070	0011	0059	0060	0072	0077	0077	0077	0066	0077	0044	0077	0077	0077	0077	0066	0077	0077	0077	0066	0077		
250 mg/kg	0008	0008	0008	0008	0009	0009	0009	0009	0009	0009	0009	0009	0009	0009	0009	0009	0009	0009	0009	0009	0009	0009	50	
	0008	0007	0008	0008	0009	0001	0002	0003	0004	0005	0006	0007	0008	0009	0000	0001	0001	0001	0001	0001	0001	0001	0001	1.0

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Intestine Large, Rectum Parasite Metazoan	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	1 1.0
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Angiectasis																									2 1.0	
Basophilic Focus		X	X		X		X	X				X		X	X		X		X	X	X	X			26	
Clear Cell Focus			X				X	X	X			X	X	X	X		X	X	X	X		X			33	
Eosinophilic Focus				X					X	X															3	
Fatty Change		2	1	1	2	2	1	2	1	1		1	1	1	1	3	1			1			1	1	35 1.4	
Mixed Cell Focus							X	X							X			X	X		X				10	
Thrombosis																X									1	
Artery, Vein, Necrosis	1																								1 1.0	
Bile Duct, Hyperplasia	1																								5 1.0	
Oval Cell, Hyperplasia															3										1 3.0	
Mesentery																									3	

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Lab: BAT

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	0035	0070	0071	0075	0076	0077	0077	0077	0077	0077	0077	0077	0077	0077	0077	0077	0077	0077	0077	0077	0077	0077	0077	0077	
250 mg/kg	0086	0087	0088	0088	0089	0090	0091	0092	0093	0094	0095	0096	0097	0097	0098	0098	0099	0099	0099	0099	0099	0099	0099	0099	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Fat, Necrosis																									3	2.3	
Pancreas Atrophy	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	1	1.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Stomach, Forestomach Inflammation, Chronic Ulcer	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	5	2.2
																										1	3.0
Stomach, Glandular Inflammation, Chronic Mineralization Epithelium, Glands, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	2	1.0
																										3	2.0
																										1	2.0

CARDIOVASCULAR SYSTEM

Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Heart Cardiomyopathy Endocardium, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	23	1.2
																										1	3.0

ENDOCRINE SYSTEM

Adrenal Cortex Hemorrhage Hyperplasia Necrosis Vacuolization Cytoplasmic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	1	2.0
																										5	1.6
																										2	2.0
																										17	1.1

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	0035	0070	0014	0056	0065	0072	0077	0077	0077	0067	0074	0077	0077	0077	0077	0067	0077	0077	0077	0067		0077	0067	0076
ANIMAL ID	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
Adrenal Medulla Hyperplasia Necrosis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1 1.0 1 3.0
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Parathyroid Gland Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48 1 2.0
Pituitary Gland Cyst Pars Distalis, Hyperplasia Pars Intermedia, Hyperplasia	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49 3 1.0 8 1.5 2 2.5
Thyroid Gland C-cell, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 27 1.4

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis Atrophy Granuloma Sperm	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1 4.0 1 1.0
Preputial Gland Inflammation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 6 1.0
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

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250 mg/kg	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
ANIMAL ID	0008	0008	0008	0008	0009	0009	0009	0009	0009	0009	0009	0009	0009	0009	0009	0010	0010	0010	0010	0010	0010	0010	0010

Atrophy																					3	1	3.0								
Inflammation	4	2	2	3	2	2			2	2			1							1	1	19	1.8								
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50							
Atrophy																					3	1	3.0								
Inflammation	3			3																		5	2.0								
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50							
Edema			1				1	2			1	1			1	1	1				1	1	1	2	1			1	1	32	1.4
Germinal Epithelium, Atrophy											4							2	2					4	2.8						

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Atrophy	2																					1	2.0			
Ectasia													3							1	3.0					
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Atrophy	2																					1	2.0			
Hyperplasia, Lymphoid																					1	2.0				
Necrosis	1																					1	1.0			
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Angiectasis																					1	2.0				
Congestion																					1	2.0				
Hematopoietic Cell Proliferation	2											1	1			3				15	1.5					
Capsule, Fibrosis																		1			1	1			1	1.0
Lymphoid Follicle, Atrophy	3				3	2						4							5	2.8						

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250 mg/kg	0086	0087	0088	0088	0089	0090	0091	0092	0093	0094	0095	0096	0097	0098	0099	0100	0101	0102	0103	0104	0105	0106	0107	0108	0109	49	
	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	46	3.0

Thymus Atrophy	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	46	3.0
----------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	----	----	-----

INTEGUMENTARY SYSTEM

Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Skin Ulcer Epidermis, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	7	3.1
																											1	1.0

MUSCULOSKELETAL SYSTEM

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

NERVOUS SYSTEM

Brain Compression	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	12	3.3
Peripheral Nerve Axon, Degeneration																										2	1	1.0
Spinal Cord Axon, Degeneration																										2	1	3.0

RESPIRATORY SYSTEM

Lung Hemorrhage Inflammation, Granulomatous	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	1	2.0
																											2	2.0

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	0035	0070	0014	0056	0065	0072	0077	0077	0077	0066	0074	0077	0077	0077	0077	0066	0072	0072	0072	0072		0066	0076	0077
ANIMAL ID	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
Inflammation, Chronic Alveolar Epithelium, Necrosis	1										1					1						1		
Arteriole, Thrombosis																								
Bronchiole, Hyperplasia										1					1									
Nose Inflammation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Trachea Inflammation, Chronic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
SPECIAL SENSES SYSTEM																								
Eye Inflammation, Acute	1																							
Retina, Atrophy																								
Harderian Gland Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
URINARY SYSTEM																								
Kidney Cyst																							X	
Hydronephrosis															2									
Inflammation, Suppurative, Multifocal	3																							
Nephropathy			1	1		1			1		4	1	1	1	1	2	1		1	1	1		1	2
Pelvis, Inflammation, Suppurative																								
Urinary Bladder Transitional Epithelium, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	3																							

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		DAY ON TEST																				males (cont...)	
WISTAR HAN RATS MALE	500 mg/kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
		7	7	5	6	6	7	7	7	7	7	5	7	7	7	3	7	7	7	7	7		7
		2	2	7	7	2	2	2	2	2	2	6	2	2	2	9	2	2	2	2	2	2	2
		8	8	4	3	6	7	8	7	7	8	9	7	8	7	8	8	8	7	7	7	7	8
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	2	2	2	2	2	2	2	2	2	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

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum Ulcer	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon Inflammation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum Inflammation Parasite Metazoan Ulcer	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Basophilic Focus	X							X	X	X	X		X			X		X		X	X	X	
Clear Cell Focus	X	X	X		X	X	X		X	X	X		X	X	X	X	X	X	X	X	X	X	X
Congestion																							
Fatty Change	1				1		2							1			1	1	1	1	1	2	2
Hepatodiaphragmatic Nodule Inflammation, Suppurative			X																				
Mixed Cell Focus												X									X	X	
Bile Duct, Hyperplasia			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: 20320 - 03

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 01/23/2013

Test Type: CHRONIC

Tetrabromobisphenol A

Time Report Requested: 15:06:23

Route: GAVAGE

CAS Number: 79-94-7

First Dose M/F: 07/25/07 / 07/26/07

Species/Strain: RATS/Wistar Han

Lab: BAT

WISTAR HAN RATS MALE 500 mg/kg	DAY ON TEST																						ANIMAL ID	males (cont...)		
	0 7 2 8	0 7 2 8	0 5 7 4	0 6 7 3	0 6 2 6	0 7 2 7	0 7 2 8	0 7 2 7	0 7 2 8	0 7 2 7	0 7 2 8	0 7 2 9	0 5 2 6	0 7 2 8	0 7 2 7	0 7 2 8	0 3 9 3	0 7 2 8	0 7 2 8	0 7 2 7	0 7 2 7	0 7 2 7			0 7 2 8	0 7 2 8
Vacuolization Cytoplasmic						1			1	1				1			3				1	1			1	1
Adrenal Medulla Hyperplasia Necrosis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Parathyroid Gland Hyperplasia	+	+	+	+	+	2	+	+	+	+	+	+	+	2	+	+	+	+	+	+	+	+	+	+	+	+
Pituitary Gland Pars Distalis, Hyperplasia Pars Intermedia, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	2	+	+	+	+	+	+	+	1
Thyroid Gland C-cell, Hyperplasia Follicle, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	2	1	1	1				1									1								1	

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Preputial Gland Inflammation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
								1																	1	
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

* .. 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	males (cont...)				
	0 7 2 8	0 7 2 8	0 5 7 4	0 6 7 3	0 6 2 6	0 7 2 7	0 7 2 8	0 7 2 7	0 7 2 8	0 7 2 7	0 7 2 8	0 7 2 9	0 7 2 8	0 7 2 8	0 5 6 7	0 7 2 8	0 7 2 7	0 7 2 8	0 7 2 8	0 7 2 7	0 7 2 7	0 7 2 7	0 7 2 7	0 7 2 8			0 7 2 8	0 7 2 8	0 7 2 8	0 7 2 8
500 mg/kg	0 0 1 1 1 1	0 0 1 1 1 2	0 0 1 1 1 3	0 0 1 1 1 4	0 0 1 1 1 5	0 0 1 1 1 6	0 0 1 1 1 7	0 0 1 1 1 8	0 0 1 1 1 9	0 0 1 1 2 0	0 0 1 1 2 1	0 0 1 1 2 2	0 0 1 1 2 2	0 0 1 1 2 2	0 0 1 1 2 3	0 0 1 1 2 4	0 0 1 1 2 5	0 0 1 1 2 6	0 0 1 1 2 7	0 0 1 1 2 8	0 0 1 1 2 9	0 0 1 1 3 0	0 0 1 1 3 1	0 0 1 1 3 2	0 0 1 1 3 3	0 0 1 1 3 3	0 0 1 1 3 4	0 0 1 1 3 5	0 0 1 1 3 5	

Inflammation

1 1 2 1

Seminal Vesicle
Inflammation

+ +

Testes
Edema
Arteriole, Necrosis, Fibrinoid
Germinal Epithelium, Atrophy

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

HEMATOPOIETIC SYSTEM

Bone Marrow

+ +

Lymph Node
Renal, Ectasia

+ +
3

Lymph Node, Mandibular

+ +

Lymph Node, Mesenteric
Ectasia

+
3

Spleen
Hematopoietic Cell Proliferation

+
2 1 1 3 3 1

Thymus
Atrophy

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

INTEGUMENTARY SYSTEM

Mammary Gland

+ +

* .. 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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 1) Minimal 3) Moderate
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Experiment Number: 20320 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| | | 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 | 0 | 0 | | |
| 500 mg/kg | | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 3 | 7 | 7 | 2 | 2 | 2 | 2 | 2 | | |
| ANIMAL ID | | 8 | 8 | 4 | 3 | 6 | 7 | 8 | 7 | 8 | 9 | 7 | 8 | 7 | 8 | 3 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 8 | | |
| | | 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 | 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 | 5 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ulcer | | | | | | | | | | 3 | | | 3 | | | | | | | | | | 3 | |

MUSCULOSKELETAL SYSTEM

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

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Compression | | | | | | | | 2 | | | | | | | 2 | | 2 | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Peripheral Nerve | | | | | | | | | | | | | | | | | | | | | | | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Spinal Cord | | | | | | | | | | | | | | | | | | | | | | | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | |
| Bronchiole, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation | 2 | | | | | 2 | | | | | | | | | | 2 | | | | | | | | |
| Olfactory Epithelium, Degeneration | 2 | | | | | | | | | | | | | | 2 | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

SPECIAL SENSES 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: 20320 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|----------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 07 | 07 | 06 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 06 | 07 | 07 | 06 | 07 | 07 | 05 | 07 | 06 | 07 | 07 | 06 | |
| 500 mg/kg | 27 | 27 | 24 | 28 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 24 | 22 | 22 | 21 | 22 | 22 | 21 | 22 | 21 | 22 | 23 | 28 | 25 | 50 |
| ANIMAL ID | 00136 | 00017 | 00038 | 00049 | 00040 | 00002 | 00003 | 00004 | 00005 | 00006 | 00007 | 00008 | 00009 | 00010 | 00011 | 00012 | 00013 | 00014 | 00015 | 00016 | 00017 | 00018 | 00019 | 00020 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|-------------------------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Large, Cecum
Ulcer | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 2.0 |
| Intestine Large, Colon
Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 2.0 |
| Intestine Large, Rectum
Inflammation
Parasite Metazoan
Ulcer | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 2.0
1 1.0
1 2.0 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Basophilic Focus | X | X | | X | X | | | X | X | | X | X | | | | X | X | X | X | X | | X | X | X | 24 | |
| Clear Cell Focus | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 43 | |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Fatty Change | 1 | 1 | 1 | | 1 | | 1 | 1 | 1 | 1 | 2 | | 1 | 1 | | 1 | 1 | 1 | | 1 | | 3 | 1 | 1 | 30 1.2 | |
| Hepatodiaphragmatic Nodule
Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Mixed Cell Focus | X | X | | | | X | X | | X | X | | | | | X | X | | | | | | | X | | 12 | |
| Bile Duct, Hyperplasia | | | | | | | | | 1 | | 1 | 2 | 1 | | | | | | | | | 1 | | 2 | 7 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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BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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Experiment Number: 20320 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|----------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0727 | 0728 | 0729 | 0730 | 0731 | 0801 | 0802 | 0803 | 0804 | 0805 | 0806 | 0807 | 0808 | 0809 | 0810 | 0811 | 0812 | 0813 | 0814 | 0815 | 0816 | 0817 | 0818 | 0819 | |
| 500 mg/kg | 00136 | 00137 | 00138 | 00139 | 00140 | 00141 | 00142 | 00143 | 00144 | 00145 | 00146 | 00147 | 00148 | 00149 | 00150 | 00151 | 00152 | 00153 | 00154 | 00155 | 00156 | 00157 | 00158 | 00159 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Pancreas Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 1.0 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Stomach, Forestomach Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 2.0 |
| Stomach, Forestomach Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Stomach, Forestomach Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.0 |
| Stomach, Glandular Inflammation, Chronic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 2.0 |
| Stomach, Glandular Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | 1.5 |
| Stomach, Glandular Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.0 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 23 | 1.4 |
| Heart Cardiomyopathy | | | 2 | | | 1 | | | | 2 | 1 | | | 2 | 2 | | | | | | 1 | 1 | | 1 | | 1 | 2.0 |
| Heart Endocardium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | 49 | | |
| Adrenal Cortex Cytoplasmic Alteration | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Adrenal Cortex Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.2 |
| Adrenal Cortex Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Adrenal Cortex Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 3.0 |

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Experiment Number: 20320 - 03

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Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

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First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS MALE
500 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----|-----|-----|-----|
| | 0727 | 0728 | 0729 | 0730 | 0731 | 0801 | 0802 | 0803 | 0804 | 0805 | 0806 | 0807 | 0808 | 0809 | 0810 | 0811 | 0812 | 0813 | 0814 | 0815 | 0816 | 0817 | 0818 | | | | | | |
| 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 | | | | | |
| Inflammation | | | 3 | | 1 | | | | | | | | | 1 | | | 1 | | | | | | 2 | 1 | 3 | 12 | 1.5 | | |
| Seminal Vesicle Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 2 | 2.5 | |
| Testes Edema | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 37 | 1.4 | |
| Arteriole, Necrosis, Fibrinoid | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Germinal Epithelium, Atrophy | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | 1 | 3.0 | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Lymph Node Renal, Ectasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 3.0 |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Lymph Node, Mesenteric Ectasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 3.0 | |
| Spleen Hematopoietic Cell Proliferation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 9 | 1.8 | |
| Thymus Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | 44 | 2.9 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20320 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|----------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|
| | 07 | 07 | 06 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 06 | 07 | 07 | 06 | 07 | 07 | 05 | 07 | 06 | 07 | 07 | 06 | |
| 500 mg/kg | 27 | 29 | 24 | 28 | 22 | 28 | 22 | 22 | 22 | 22 | 22 | 24 | 22 | 22 | 11 | 22 | 22 | 21 | 22 | 21 | 22 | 22 | 22 | 25 | |
| 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 | |
| | 11 | 11 | 11 | 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 | 55 | 55 | 56 | |
| | 67 | 67 | 68 | 69 | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Skin Ulcer | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 3 | 3.0 |
|------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|

MUSCULOSKELETAL SYSTEM

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

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Brain Compression | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 9 | 2.2 |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|-----|
| Peripheral Nerve Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 2.0 |
|-------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|-----|

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|-----|
| Spinal Cord Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 2.0 |
|--------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|-----|

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Lung Inflammation, Chronic Bronchiole, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 6 | 1.3 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Nose Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 7 | 1.6 |
| Olfactory Epithelium, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|--|
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|--|

SPECIAL SENSES 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: 20320 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|----------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 07 | 07 | 06 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 06 | 07 | 07 | 06 | 07 | 07 | 05 | 07 | 06 | 07 | 07 | 06 | |
| 500 mg/kg | 27 | 27 | 24 | 28 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 24 | 22 | 22 | 21 | 22 | 22 | 28 | 21 | 27 | 26 | 27 | 27 | 26 | |
| ANIMAL ID | 00136 | 00011 | 00013 | 00033 | 00044 | 00044 | 00044 | 00044 | 00044 | 00044 | 00044 | 00044 | 00044 | 00055 | 00055 | 00055 | 00055 | 00055 | 00055 | 00055 | 00055 | 00055 | 00055 | 00056 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Cataract | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Retina, Atrophy | | | 2 | | | | | | | | | 2 | | | | | | | | | | | | | 3 | 2.3 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Cyst | | X | | | | | | | X | | | | | | | X | | | | | | | | | 4 | |
| Hydronephrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Metaplasia, Lipocyte | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Nephropathy | 1 | | | 1 | 1 | | 1 | 3 | | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | | 1 | 1 | 35 | 1.2 |
| Pelvis, Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Renal Tubule, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Renal Tubule, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | 4 | 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
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
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Experiment Number: 20320 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

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First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------------|---|--|
| 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...) | | |
| | ANIMAL ID | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 3 | 7 | 6 | 7 | 7 | 7 | 7 | | 7 | |
| 1000 mg/kg | | 2 | 7 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 8 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | | |
| | | 7 | 2 | 9 | 8 | 7 | 9 | 7 | 8 | 9 | 7 | 9 | 8 | 8 | 5 | 8 | 7 | 7 | 9 | 8 | 7 | 8 | 9 | 8 | 8 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 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 | | |
| | | 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 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 4 | 5 | 7 | 8 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum
Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum
Diverticulum
Metaplasia, Osseous | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | 4 | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | X | | | | | | | | | | | X | | | X | X | X | | | | X | | | X |
| Clear Cell Focus | X | | X | | X | X | X | X | X | X | X | X | X | X | X | X | | X | | X | X | X | X | X |
| Eosinophilic Focus | | | X | | | | | | | | | | | | | | | | | | | | | |
| Fatty Change | 1 | | | 2 | 1 | 2 | 1 | | 1 | 1 | 1 | | | | 1 | | | 1 | 2 | 1 | 1 | | | 2 |
| Mixed Cell Focus | | | X | | | | X | | | X | X | | | | | | | | | | X | X | | |
| Bile Duct, Hyperplasia | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | | |

Mesentery

* .. 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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Experiment Number: 20320 - 03

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Tetrabromobisphenol A

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First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | | | |
|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
7
2
7 | 0
6
7
2 | 0
7
2
9 | 0
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2
8 | 0
7
2
7 | 0
7
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8 | 0
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9 | 0
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7 | 0
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8 | | | 0
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9 | 0
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2
8 | 0
7
2
9 | | |
| 1000 mg/kg | 0
0
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1 | 0
0
0
6
2 | 0
0
1
6
4 | 0
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1
6
5 | 0
0
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6
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1
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7 | 0
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8 | 0
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5 | 0
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6 | 0
0
1
8
7 | 0
0
1
8
8 |

Fat, Necrosis

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acinus, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Glands, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Aorta, Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | 1 | | 1 | 2 | 1 | | 1 | 1 | | 1 | 1 | | 1 | 3 | 1 | | 1 | | 1 | | 1 | | 2 | | 2 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. 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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Lab: BAT

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|----------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY ON TEST | | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 3 | 7 | 6 | 7 | 7 | 7 |
| WISTAR HAN RATS MALE | | 2 | 7 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 8 | 8 | 0 | 0 | 2 | 2 | 2 |
| | | 7 | 2 | 9 | 8 | 7 | 9 | 7 | 7 | 8 | 9 | 7 | 9 | 8 | 5 | 8 | 7 | 7 | 9 | 8 | 9 | 8 | 9 | 8 |
| 1000 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 |
| | 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 |
| | | 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 | |
| | | 1 | 2 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 4 | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |

males (cont...)

Adrenal Medulla
Hyperplasia
Vacuolization Cytoplasmic

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | 1 | |

Islets, Pancreatic

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Parathyroid Gland
Hyperplasia

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | 2 | |

Pituitary Gland
Cyst
Pars Distalis, Hyperplasia
Pars Intermedia, Hyperplasia

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M | + | + | + | + | + | + | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + |
| | | | | | | 1 | | | | | | 2 | | | | 4 | | | | 1 | | | |

Thyroid Gland
C-cell, Hyperplasia
Follicle, Hyperplasia

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | 1 | | 1 | | 2 | 1 | | | 1 | | 1 | 1 | | | | | | 1 | | 1 | | 1 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Preputial Gland
Inflammation

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | 1 | |

Prostate
Fibrosis

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | 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:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20320 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS MALE
1000 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|------------------------------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|--------------------|
| | 077 | 076 | 077 | 077 | 077 | 077 | 077 | 075 | 077 | 077 | 077 | 077 | 077 | 077 | 076 | 077 | 077 | 073 | 077 | 076 | 077 | 077 | | |
| | 27 | 72 | 79 | 28 | 27 | 29 | 27 | 17 | 28 | 29 | 27 | 28 | 28 | 58 | 88 | 78 | 78 | 28 | 98 | 08 | 78 | 28 | 28 | |
| | 001 | 001 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | |
| | 661 | 661 | 666 | 666 | 666 | 666 | 666 | 667 | 667 | 667 | 667 | 667 | 667 | 667 | 667 | 667 | 667 | 668 | 668 | 668 | 668 | 668 | 668 | |

Inflammation 1 2 1 1 1 2 1

Seminal Vesicle Inflammation + 1

Testes Edema 3 1 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Germinal Epithelium, Atrophy
Germinal Epithelium, Mineralization

HEMATOPOIETIC SYSTEM

Bone Marrow +

Lymph Node

Lymph Node, Mandibular +

Lymph Node, Mesenteric Ectasia + + 3 3 3

Spleen Hematopoietic Cell Proliferation 1 2 1
Lymphoid Follicle, Atrophy 1 3

Thymus Atrophy 4 3 4 3 4 4 4 4 3 2 4 2 4 2 4 1 4 4 3 2 4 3 2

INTEGUMENTARY SYSTEM

Mammary 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:
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Lab: BAT

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|-------------------------------|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--------------------|
| WISTAR HAN RATS MALE | | 07 | 06 | 07 | 07 | 07 | 07 | 07 | 05 | 07 | 07 | 07 | 07 | 07 | 07 | 06 | 07 | 07 | 03 | 07 | 06 | 07 | 07 | 07 | | |
| 1000 mg/kg | | 27 | 72 | 29 | 28 | 27 | 29 | 71 | 22 | 28 | 27 | 29 | 28 | 28 | 05 | 08 | 27 | 27 | 88 | 20 | 08 | 27 | 28 | 29 | | |
| ANIMAL ID | | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | | |
| Skin Ulcer | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| | | | | 3 | | | | | | | | | | | | | | | | | | | | | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Osteosclerosis | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain Compression Gliosis | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| | | | 2 | | | | | | | | | | | | | | | | | 4 | | | | | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung Foreign Body | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Inflammation, Granulomatous | | | 1 | | | | | | | | | 2 | | | | | | | 4 | | | | | | | |
| Inflammation, Chronic | | | | | 1 | | | | 1 | 1 | | | | | 1 | | | | | | | | | | | |
| Metaplasia, Osseous | | | | | 1 | | | | 1 | | | | | | | | | | | | | | | | | |
| Bronchiole, Hyperplasia | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | | | |
| Vein, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose Inflammation | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Goblet Cell, Hyperplasia | | | | 2 | 1 | | | | | | | | | | 2 | | 1 | | 1 | | | | | | | |
| Trachea | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |

* .. 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: 20320 - 03

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Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

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Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS MALE
1000 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|
| | 0728 | 0727 | 0729 | 0722 | 0727 | 0701 | 0708 | 0704 | 0708 | 0707 | 0707 | 0707 | 0708 | 0703 | 0701 | 0707 | 0709 | 0709 | 0704 | 0708 | | 0707 | 0702 | 0708 | 0707 | 0706 | 0707 |
| ANIMAL ID | 00189 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Large, Cecum
Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Small, Duodenum
Diverticulum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Metaplasia, Osseous | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | 1 | 3.0 |
| | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | 1 | 2.0 |
| Intestine Small, Ileum
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Angiectasis | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Basophilic Focus | | | X | | | | X | | X | X | | | | | | | | | | | X | | | X | | | | 13 | |
| Clear Cell Focus | X | X | X | X | X | X | X | | X | X | X | X | X | | | | X | X | X | X | X | X | X | X | X | X | X | 41 | |
| Eosinophilic Focus | | | | | X | | | | | X | | | | | | | | | | | | | | | | | | 3 | |
| Fatty Change | 2 | 1 | | 1 | | | 1 | | | 1 | 1 | 1 | | | | | 1 | 1 | | 1 | 1 | 1 | | | 1 | | 27 | 1.2 | |
| Mixed Cell Focus | X | X | X | X | | | | | X | | X | X | | | | X | | | X | | X | | | | | | | 16 | |
| Bile Duct, Hyperplasia | | | 1 | | | | | | | | | | | | | | | | 1 | | 1 | 2 | | | | | 7 | 1.1 | |
| Mesentery | | | | | | | | | | | | | | | | | | | | + | | | | | | + | | 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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Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

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Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS MALE
1000 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0728 | 0727 | 0729 | 0722 | 0727 | 0727 | 0725 | 0727 | 0725 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | | |
| | ANIMAL ID | 00189 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | |

Fat, Necrosis

2

3

2 2.5

Pancreas
Atrophy
Acinus, Hyperplasia

+ +

50

2 1.5

2

1 1.0

Salivary Glands

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

49

Stomach, Forestomach
Inflammation, Chronic

+ +

50

1 1.0

Stomach, Glandular
Inflammation, Chronic
Mineralization
Ulcer
Epithelium, Glands, Hyperplasia

+ +

50

1 3.0

2

1 2.0

1 1.0

1 3.0

CARDIOVASCULAR SYSTEM

Blood Vessel
Aorta, Mineralization

+ +

50

1 3.0

Heart
Cardiomyopathy
Mineralization

+ +

50

30 1.2

1 3.0

ENDOCRINE SYSTEM

Adrenal Cortex
Hyperplasia
Vacuolization Cytoplasmic

+ +

50

9 1.1

1

16 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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Tetrabromobisphenol A

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First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| Wistar Han Rats Male
1000 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|-------------------------|
| | 0728 | 0727 | 0729 | 0722 | 0727 | 0701 | 0702 | 0703 | 0708 | 0707 | 0707 | 0707 | 0707 | 0708 | 0703 | 0704 | 0707 | 0707 | 0709 | 0709 | | 0704 | 0708 | 0708 | 0707 | 0707 | 0706 | 0707 |
| ANIMAL ID | 00189 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00022 | 00022 | 00022 | 00022 | 00022 | 00022 | 00022 | 00022 | 00022 | 00022 | 00022 | 00022 | 00022 | 00022 | 00022 | 00022 | 00022 | 00022 | 00022 | 00022 | |
| Adrenal Medulla Hyperplasia
Vacuolization Cytoplasmic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0
1 1.0 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Parathyroid Gland Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Pituitary Gland Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 1.0
7 2.0
2 1.5 |
| Thyroid Gland C-cell, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| | 1 | 1 | 2 | 1 | | | | 1 | 3 | | 2 | | | | | | | | | | | | | | | 1 | 1 | 19 1.3
2 1.0 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Preputial Gland Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 1.0 |
| Prostate Fibrosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |

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1000 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-----------|
| | 078 | 077 | 079 | 077 | 077 | 075 | 077 | 075 | 077 | 077 | 077 | 077 | 077 | 075 | 074 | 077 | 077 | 077 | 075 | 077 | | | 077 | 076 |
| ANIMAL ID | 00189 | 00119 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | |
| Inflammation | | | | | 1 | | | | 1 | | | | 1 | | | | 2 | 1 | | 2 | | | 1 | 14 1.3 |
| Seminal Vesicle Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 1 1.0 |
| Testes Edema | + | + | + | + | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 36 1.2 |
| Germinal Epithelium, Atrophy | | | | | | | | | | | | | 3 | | | | | | | | | | 4 | 2 3.5 |
| Germinal Epithelium, Mineralization | | | | | | | | | | | | 1 | | | | | | | | | | | 2 | 2 1.5 |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mandibular | + | + | + | + | M | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | 48 |
| Lymph Node, Mesenteric Ectasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 4 3.0 |
| Spleen Hematopoietic Cell Proliferation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 10 1.3 |
| Lymphoid Follicle, Atrophy | | | | | 2 | | | | 1 | | | 1 | 1 | | 1 | | | | | | | | 2 | 2 2.0 |
| Thymus Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 45 3.2 |
| | | 3 | 4 | 4 | 4 | 4 | | | 3 | 3 | 1 | 2 | 3 | 3 | 4 | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 20320 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS MALE
1000 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-----|-----|
| | 078 | 077 | 079 | 072 | 077 | 075 | 077 | 075 | 077 | 077 | 077 | 077 | 077 | 075 | 074 | 077 | 072 | 072 | 072 | 072 | 075 | 077 | 076 | 077 | | | |
| ANIMAL ID | 00189 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | 00011 | | | |
| Skin Ulcer | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 6 | 3.0 |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Osteosclerosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 2.0 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain Compression Gliosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 5 | 3.0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung Foreign Body | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 4.0 |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3 | 1.3 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 6 | 1.0 |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3 | 1.0 |
| Bronchiole, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4 | 1.0 |
| Vein, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 |
| Nose Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 8 | 1.6 |
| Goblet Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 1.0 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|-----------------------------------|--|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------|------------|------------|
| DAY ON TEST | | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 5 | 4 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | |
| WISTAR HAN RATS MALE | | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 2 | 2 | 2 | 2 | 9 | 9 | 4 | 8 | 8 | |
| 1000 mg/kg | | 8 | 7 | 9 | 7 | 7 | 1 | 8 | 4 | 8 | 7 | 7 | 8 | 1 | 7 | 7 | 9 | 9 | 9 | 9 | 4 | 8 | 8 | 7 | 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 | 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 | |
| | | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 9 | 2 | 3 | 5 | 6 | 7 | 9 | 0 | 1 | 2 | 3 | 4 | 6 | 7 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |
| Perforation | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | + | | | | | | | | | | | | | | | | | | | | | 50 | | | |
| Harderian Gland
Hyperplasia | | + | | | | | | | | | | | | | | | | | | | | | 50 | 2 | 1.0 | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | | + | | | | | | | | | | | | | | | | | | | | | 50 | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | 3 | | |
| Hydronephrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Nephropathy | | 1 | 1 | | 1 | 2 | | 1 | 1 | | | 1 | | | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | | 1 | | |
| Pelvis, Inflammation, Suppurative | | 1 | | | | | | | | | | | | | | | | | | | | | | | 5 | 1.6 |
| Urinary Bladder | | + | | | | | | | | | | | | | | | | | | | | | 50 | | | |

*** 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

1-4 .. Lesion qualified as:

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Experiment Number: 20320 - 03

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Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

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First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

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

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Inflammation | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Perforation | 4 | | | | | | 2 | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Parasite Metazoan | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Parasite Metazoan | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | 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 | | | | | | | | X | | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Fatty Change | | | | | | | | | 1 | | | | | | | | | | 2 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mixed Cell Focus | | | | X | | | | | | | | | | | | | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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

+ .. Tissue examined microscopically

X .. Lesion present

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Lab: BAT

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

Bile Duct, Cyst
Bile Duct, Hyperplasia

X

1

1 1

Mesentery
Fat, Necrosis

+
2

Pancreas
Acinus, Atrophy
Duct, Cyst

+
1 1 1
3

Salivary Glands
Duct, Hyperplasia
Duct, Metaplasia, Squamous

+ +

Stomach, Forestomach
Inflammation, Chronic
Ulcer

+
2

Stomach, Glandular
Inflammation, Chronic
Mineralization

+
2

CARDIOVASCULAR SYSTEM

Blood Vessel
Mineralization

+ +

Heart
Cardiomyopathy
Congestion
Endocardium, Hyperplasia

+
1 1 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

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Lab: BAT

| WISTAR HAN RATS FEMALE | 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 mg/kg | 3 | 6 | 7 | 7 | 7 | 7 | 3 | 6 | 4 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 5 | 7 | 7 | |
| | 6 | 5 | 2 | 2 | 3 | 2 | 6 | 6 | 6 | 6 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | |
| | 4 | 6 | 9 | 6 | 0 | 8 | 4 | 8 | 4 | 4 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 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 | |
| | 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 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 3 | 4 | 5 | 6 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | |

Myocardium, Mineralization

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | 2 | | | | | | | | | | | 2 | | 2 | | 1 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | 1 | | | | | | | | 2 | | | | 1 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | 1 | | | |
| Capsule, Fibrosis | | | | | | | | | | | | | | | | | | | | | | 1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 1 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 2 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | 2 | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | 1 | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | 1 | | 2 | | | 4 | | | | | | 3 | | | | | | | 3 | 2 | | 3 |
| Pars Intermedia, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| C-cell, Hyperplasia | | | | 1 | 1 | 1 | 3 | | | | 1 | 2 | 1 | 1 | 1 | 2 | | 2 | 2 | | 1 | 1 |
| Follicle, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | |
| Follicular Cell, Hyperplasia | | | | | | | | | | 2 | | | | | | | | | | | | |

GENERAL BODY 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: 20320 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS FEMALE | 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 mg/kg | 3 | 6 | 7 | 7 | 7 | 7 | 3 | 6 | 4 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 5 | 7 | 7 | 7 | | |
| | 6 | 5 | 2 | 2 | 3 | 2 | 6 | 6 | 6 | 6 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 2 | | |
| | 4 | 6 | 9 | 6 | 0 | 8 | 4 | 8 | 4 | 4 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 9 | 9 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 3 | 4 | 5 | 6 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | | | |

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | 1 | | | | | | | | | | | | | | | 1 | | | |
| Ovary Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ovary Inflammation, Acute | | | | X | | | | | | | | | | | | | | | | | | |
| Ovary Stromal Hyperplasia, Mixed Cell | | | | | | | | | | | | | | | | | | | | | | |
| Ovary Bilateral, Cyst | | | | | | | | | | | | | | | | | | | | X | | |
| Ovary Bursa, Dilatation | | | | | | | X | | | | | | | | | | | X | | | X | |
| Ovary Rete Ovarii, Cyst | | | | | | | | | | | | | | | | | | | | | | |
| Uterus Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Uterus Dilatation | | | | | | 1 | | | | | | X | | | | | | | | | | |
| Uterus Inflammation, Suppurative | | | | | 1 | 2 | | | | | | | | | | | | | | | | |
| Uterus Endometrium, Hyperplasia, Cystic | | | | 1 | | | | | | | | | | 3 | | | | | | 2 | | 1 |
| Vagina Necrosis | | | | | | | | | | | | | | | | | | | | | + | 3 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. 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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1-4 .. Lesion qualified as:
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Experiment Number: 20320 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

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Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS FEMALE
0 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | | | |
|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
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| Lymph Node, Mesenteric | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoid Follicle, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Galactocoele | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Compression | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hippocampus, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Meninges, Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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
0 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | | | | |
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| Lung
Inflammation, Granulomatous
Inflammation, Chronic
Alveolar Epithelium, Hyperplasia
Bronchiole, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Nose
Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Trachea
Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye
Degeneration
Malformation | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Harderian Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney
Cyst
Hydronephrosis
Inflammation, Chronic
Nephropathy
Pelvis, Inflammation, Suppurative
Renal Tubule, Autolysis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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

+ .. Tissue examined microscopically

X .. Lesion present

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Lab: BAT

| WISTAR HAN RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 0729 | 0725 | 0728 | 0722 | 0723 | 0728 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | |
| 0 mg/kg | 0049 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0000 | 0001 | 0002 | 0004 | 0005 | 0007 | 0008 | 0009 | 0011 | 0012 | 0013 | 0014 | 0015 | 0016 | 50 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|-------|
| Esophagus Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 2.0 |
| Esophagus Perforation | | | | | | | | | | | | | | | | | | | | | | | | 3 3.0 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Large, Rectum Parasite Metazoan | + | + | + | + | + | 1 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 3 1.0 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Intestine Small, Ileum Parasite Metazoan | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 1.0 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Liver Angiectasis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 2.0 |
| Liver Basophilic Focus | X | | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 47 | |
| Liver Clear Cell Focus | X | | X | | X | X | X | | | | X | X | X | | | | X | | | X | X | | 24 | |
| Liver Congestion | | | | | | | | | | | 1 | | | | | | | | | | | | 1 1.0 | |
| Liver Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Liver Fatty Change | | | 1 | | | 1 | 1 | | 2 | | | | | | 1 | | | 1 | | | | 2 | 11 1.3 | |
| Liver Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Liver Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | X | | | | | | 1 | |
| Liver Mixed Cell Focus | X | | X | | X | X | X | | | | X | | | | | | | | X | X | X | | X | 13 |

* .. 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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 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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| WISTAR HAN RATS FEMALE

0 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 | | | |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 5 | 7 | 7 | | 6 | 5 | 7 | |
| ANIMAL ID | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 3 | 3 | 1 | 2 | 3 | 2 | 3 | 5 | 0 | 2 | 4 | 2 | 3 | 2 | 6 | 5 | 7 |
| | 9 | 5 | 8 | 9 | 0 | 8 | 0 | 8 | 0 | 0 | 3 | 9 | 0 | 9 | 0 | 4 | 9 | 6 | 8 | 0 | 9 | 2 | 8 | 8 | 2 |
| Bile Duct, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Bile Duct, Hyperplasia | | 1 | | | | | | | 1 | 2 | 1 | 1 | | | 1 | | | | 1 | 1 | | | | | 2 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Acinus, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Duct, Cyst | | | | | | | | | 1 | | | | | | | | | | | | | | | | 2 |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Duct, Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | 6 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
| Blood Vessel | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Heart | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Cardiomyopathy | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Endocardium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 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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 1) Minimal 3) Moderate
 2) Mild 4) Marked

| WISTAR HAN RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|------------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|----|
| | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 06 | 06 | 07 | 05 | 07 | | 07 | 07 | 06 | 05 |
| 0 mg/kg | 29 | 25 | 28 | 22 | 23 | 20 | 28 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| 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 | 00 |
| | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| | 44 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 48 |
| | 93 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 90 | 91 | 92 | 94 | 95 | 97 | 98 | 99 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 90 |

Myocardium, Mineralization

3

1 3.0

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Angiectasis | | 2 | | | 3 | | | 1 | 2 | | | 3 | | | 1 | | | 2 | | | | | | 3 | | 12 | 2.0 | |
| Degeneration, Cystic | | | | | | | | | 2 | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Hyperplasia | | | | 3 | | | 1 | | | | | 1 | | | | | | 2 | | | | | | | | 7 | 1.6 | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 | |
| Capsule, Fibrosis | | | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 49 | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 1 | | | 2 | 1.0 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 48 | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Pars Distalis, Hyperplasia | | 2 | 2 | | | 2 | | | | | 1 | | | | 2 | | | 2 | 3 | | | 3 | 2 | | | 16 | 2.3 | |
| Pars Intermedia, Hyperplasia | | | | | | | | | | | 1 | | | | | | | | 2 | | | | | | | 2 | 1.5 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| C-cell, Hyperplasia | | 1 | | 1 | 1 | 1 | 3 | 2 | 2 | | 1 | 1 | 1 | 2 | | | 2 | | 2 | | 1 | | | 1 | | 32 | 1.4 | |
| Follicle, Hyperplasia | | | | | | | | | | | | | | | | | | | 3 | | | 2 | | | | 2 | 2.5 | |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |

GENERAL BODY 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: 20320 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| Wistar Han Rats Female
0 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|-----------------------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|
| | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 06 | 06 | 07 | 05 | 07 | 07 | | 06 | 05 |
| 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 |
| | 24 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | 93 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 |

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Clitoral Gland Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| | | | | | | | | | | | | | | | | | | | | | | | | 4 1.0 |
| Ovary Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Ovary Inflammation, Acute | | | | 2 | | | | | | | | | | | | | | | | | | | | 1 |
| Ovary Stromal Hyperplasia, Mixed Cell | | | | | | | | | | 3 | | | | | | | | | | | | | | 1 2.0 |
| Ovary Bilateral, Cyst | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Ovary Bursa, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Ovary Rete Ovarii, Cyst | | | | | | | | X | | | | | | | | | | | | | | X | | 4 |
| | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Uterus Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Uterus Dilatation | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Uterus Inflammation, Suppurative | | | | 2 | | | | | | | 2 | 3 | | | | | | | | | | 2 | | 1 1.0 |
| Uterus Endometrium, Hyperplasia, Cystic | | | | | | | | | | 2 | | | | | 2 | 3 | | | | | | | | 7 2.0 |
| | | | | | | | | | | | | | | | | | | | | | | | | 8 2.1 |
| Vagina Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |

HEMATOPOIETIC SYSTEM

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

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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Species/Strain: RATS/Wistar Han

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Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|----------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|-----|
| | 0729 | 0725 | 0728 | 0729 | 0730 | 0727 | 0728 | 0729 | 0730 | 0727 | 0728 | 0729 | 0730 | 0727 | 0728 | 0729 | 0730 | 0727 | 0728 | 0729 | 0730 | 0727 | 0728 | 0729 | | 0730 | |
| 0 mg/kg | 0049 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0010 | 0011 | 0012 | 0014 | 0015 | 0017 | 0018 | 0019 | 0021 | 0022 | 0023 | 0024 | 0025 | 0026 | 0027 | 0028 | 0030 | | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Spleen | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hematopoietic Cell Proliferation | | | 1 | | 2 | 1 | | | | 1 | 4 | | 2 | 2 | | | | 1 | | 1 | | | 4 | 1 | 26 | 1.5 | |
| Lymphoid Follicle, Atrophy | | 3 | | | | | | | | | | | | | | 2 | | | | | 2 | | | | 3 | 2.3 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Atrophy | 2 | 4 | 2 | 1 | 4 | 2 | 2 | 1 | 2 | 2 | 1 | | 3 | 3 | 3 | 4 | 2 | | | 1 | 2 | 1 | 4 | 2 | 43 | 2.0 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Galactocoele | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Compression | | | | | | | | | | | 3 | | | | | | 4 | | 3 | | | 3 | 3 | | 11 | 2.8 | |
| Hippocampus, Necrosis | | | | | | | | | | | | | | | | 3 | | | | | | | | | 1 | 3.0 | |
| Meninges, Inflammation, Acute | | | | 3 | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| 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

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

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0 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|-----------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|--------|
| | 0729 | 0725 | 0728 | 0722 | 0733 | 0728 | 0732 | 0728 | 0730 | 0727 | 0731 | 0729 | 0730 | 0727 | 0731 | 0729 | 0730 | 0727 | 0731 | 0729 | | 0730 |
| ANIMAL ID | 0049 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0010 | 0011 | 0012 | 0013 | 0014 | 0015 | 0016 | 0017 | 0018 | 0019 | 0020 | 0021 | 0022 | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Inflammation, Chronic | | 1 | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | 2 | | | | | | 1 2.0 |
| Bronchiole, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation | | 2 | | | | | | 2 | | | | 1 | | | | | 1 | | | 3 | 1 | 11 1.8 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation | | | | | | | 1 | | | | | | | | | | | | | | | 2 1.0 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Degeneration | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Malformation | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cyst | | | | | | | | | X | | | | | | | | | | X | | | 2 |
| Hydronephrosis | | | | | | | | | | | | | | | | 3 | | | | | | 1 3.0 |
| Inflammation, Chronic | | | | | | | | | | | | | | | 3 | | | | | | | 1 3.0 |
| Nephropathy | | | | | 2 | 1 | | | | | 1 | 1 | | | | 2 | 1 | | | | | 9 1.3 |
| Pelvis, Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | 2 | | | 2 2.0 |
| Renal Tubule, Autolysis | | 3 | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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

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 | 0 | 0 | 0 | |
| DAY ON TEST | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 5 | 7 | 7 | 7 | 6 | 5 | 7 | | |
| WISTAR HAN RATS FEMALE | | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 3 | 3 | 1 | 2 | 3 | 2 | 3 | 5 | 0 | 2 | 4 | 2 | 3 | 2 | 6 | 4 | 2 | |
| 0 mg/kg | | 9 | 5 | 8 | 9 | 0 | 8 | 0 | 8 | 0 | 0 | 3 | 9 | 0 | 9 | 0 | 4 | 9 | 6 | 8 | 0 | 9 | 2 | 6 | 8 | 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 | |
| | | 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 | |
| | | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | | |
| | | 9 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 4 | 5 | 7 | 8 | 9 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |

Inflammation

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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| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------------------------------|---|
| 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 | | |
| | 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 | | |
| 250 mg/kg | | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 3 | 3 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 6 | 6 | 7 | females
(cont...) | |
| | | 2 | 2 | 2 | 2 | 5 | 2 | 2 | 8 | 5 | 2 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 4 | 9 | 5 | 2 | | |
| | | 8 | 9 | 8 | 9 | 2 | 9 | 8 | 3 | 5 | 4 | 0 | 0 | 9 | 9 | 0 | 9 | 8 | 8 | 9 | 8 | 3 | 6 | 9 | | |
| | | 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 | 3 | 3 | 3 | 3 | 3 | | |
| | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 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 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum
Inflammation, Suppurative | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon
Inflammation, Suppurative
Parasite Metazoan | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum
Parasite Metazoan | + | + | + | + | + | + | + | + | + | 1 | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Basophilic Focus | X | 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 | X | | X | | | | | | X | | X | X | | | X | X | X | | | | | X |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | X |
| Eosinophilic Focus | | | | | | | X | | | | | | | | | | | | | | | | | X |
| Fatty Change | | | | | | | 1 | | | | | | | | | 1 | 1 | | | | | | | 2 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | |
| Mixed Cell Focus | X | X | X | X | X | | | | | | | X | X | X | X | | | | X | X | | X | | X |

* .. 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: 20320 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|
| | 0728 | 0729 | 0728 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | |
| 250 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 | |
| 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 | |

Necrosis
Pigmentation
Bile Duct, Hyperplasia

1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 1 1 2 1 1

Mesentery
Fat, Necrosis

+
1 + +

Pancreas
Acinus, Atrophy

+
1 1 1

Salivary Glands

+ +

Stomach, Forestomach
Inflammation, Suppurative
Inflammation, Chronic

+
2

Stomach, Glandular
Inflammation, Suppurative
Inflammation, Chronic
Mineralization
Ulcer

+
1 1 1

CARDIOVASCULAR SYSTEM

Blood Vessel

+ +

Heart
Cardiomyopathy
Endocardium, Hyperplasia

+
1 1 1 1 2 1 1
1

ENDOCRINE 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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Lab: BAT

| WISTAR HAN RATS FEMALE
250 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | |
|-------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|------------------|
| | 0
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6 |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Angiectasis | | | | | | | | | | | 2 | 3 | | | | | 2 | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | 3 | | | | | | 2 | | | | | | | 1 | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | | | | | | | | | 2 | | | | 3 | | | | | 3 | 2 | 1 | | 2 | |
| Pars Intermedia, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| C-cell, Hyperplasia | 1 | 1 | 2 | 1 | 1 | 1 | | | | | | | 1 | 2 | 2 | 2 | 1 | | 3 | 2 | 2 | | |
| Follicle, Hyperplasia | | | 2 | | | | | | | | | | | | | | | | | | 1 | 2 | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Clitoral Gland

+ +

* .. 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

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First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS FEMALE
250 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | | | |
|-------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|
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| ANIMAL ID | 0
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5 | |
| Inflammation | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cyst | | | X | | | | | | | | | | | | X | | | | | | | | | | | |
| Bursa, Dilatation | | | | | | X | | | | X | | | | | | | | | | | | | | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Dilatation | | | 3 | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cervix, Hyperplasia, Stromal | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia, Cystic | | | | 2 | 1 | 2 | | | | | | | | 2 | 1 | | | | | | 1 | | 2 | | | |
| Vagina | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Congestion | | | | | | | | | | | | | | | | | | | | | | | | | + | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hematopoietic Cell Proliferation | 1 | 1 | 1 | | | | 2 | | 1 | | 2 | 1 | 1 | 1 | | | | | | 1 | | 2 | 1 | | 2 | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoid Follicle, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. 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 | | | | | | | | | | | | | | | | | | | | females
(cont...) | | |
|--|--|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------------------|----|----|
| WISTAR HAN RATS FEMALE | | 07 | 07 | 07 | 07 | 07 | 06 | 07 | 07 | 03 | 03 | 06 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 05 | 06 | | 06 | 07 |
| 250 mg/kg | | 28 | 29 | 28 | 29 | 29 | 22 | 22 | 28 | 23 | 25 | 24 | 00 | 00 | 02 | 02 | 03 | 02 | 02 | 08 | 08 | | 03 | 09 |
| ANIMAL ID | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| | | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 00 | 00 | 00 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | |
| Lung | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Inflammation, Granulomatous Alveolar Epithelium, Hyperplasia Bronchiole, Hyperplasia | | 1 | | | | | | | | | | | | | 1 | | | | | | | | | |
| Nose | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Inflammation | | | | | | | | | | 1 | | | 2 | | | | | | 1 | 1 | 2 | | | |
| Trachea | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Cornea, Inflammation | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Retina, Atrophy | | | | | | | | | | | | | | | 2 | | | | | | | | | |
| Harderian Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | X | |
| Hydronephrosis | | | | | | | | | | | | | | | | | | | | | 4 | | | |
| Infarct | | 2 | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative Nephropathy | | 1 | 1 | | 1 | | | | | 1 | | | | | | | | 1 | | 1 | 1 | 3 | 1 | |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Pelvis, Inflammation, Suppurative | | | | 2 | | | | | | | | | | | 1 | | 1 | | | | | | | |
| Renal Tubule, Autolysis | | | | | | | | | | | | | | | | | | | | | | | | |

* .. 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: 20320 - 03

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Route: GAVAGE

Species/Strain: RATS/Wistar Han

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Lab: BAT

| WISTAR HAN RATS FEMALE
250 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|-------------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|--------|
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | 0730 |
| ANIMAL ID | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | |
| Necrosis | | | 1 | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Pigmentation | | 2 | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Bile Duct, Hyperplasia | | | 1 | 2 | | 1 | 1 | | 2 | | | | 2 | 1 | | 1 | | | | 1 | 2 | 29 1.2 |
| Mesentery | | + | + | | | | | | | | | | | | | | | + | | + | + | 8 |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | 2 | 2 | | 3 1.7 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Acinus, Atrophy | | | | | | | | | | | | | | | | | | | | | 1 | 4 1.0 |
| Salivary Glands | + | M | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation, Suppurative | | | | | 3 | | | | | | | | | | | | | | | | | 1 3.0 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation, Suppurative | | | | | 3 | | | | | | | | | | | | | | | | | 1 3.0 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Ulcer | | | | | 3 | | | | | | | | | | | | | | | | | 1 3.0 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiomyopathy | | | | 1 | 1 | 1 | | | | | | | | | | | | | | | | 10 1.1 |
| Endocardium, Hyperplasia | | 2 | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| ENDOCRINE 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
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| WISTAR HAN RATS FEMALE
250 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|-------------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|--------|
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | 0730 |
| ANIMAL ID | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | 2 | | | 1 | | | | | | | 2 | | | | | | 1 | | | | | 7 1.9 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | 4 | | | | 1 4.0 |
| Hyperplasia | | | | 1 | | | | | | 3 | | 2 | | | | | | | 1 | | | 7 1.9 |
| Necrosis | | | | | | | | 1 | | | | | | | | | | | | | | 1 1.0 |
| Vacuolization Cytoplasmic | | | 1 | 1 | 1 | | | | | | | | | | | | | | | | | 3 1.0 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | 1 | | | 2 1.0 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | | | | | | | | | | | | 2 | | | | 1 2.0 |
| Parathyroid Gland | + | M | M | M | M | + | + | M | + | + | M | + | M | + | + | M | + | + | + | + | + | 39 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cyst | | | | | | | | | | | | | | | | | | | 1 | | | 1 1.0 |
| Pars Distalis, Hyperplasia | | | 3 | | 2 | | | 1 | | 2 | | | | 1 | | | | 1 | | | 3 | 13 2.0 |
| Pars Intermedia, Hyperplasia | | | | | 1 | | | | | 2 | | | | 2 | | | | | | | | 3 1.7 |
| Thyroid Gland | + | M | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| C-cell, Hyperplasia | | | 1 | 1 | 1 | 1 | | | 2 | 3 | 1 | 1 | 2 | 2 | 1 | 1 | | 1 | 2 | 2 | | 37 1.5 |
| Follicle, Hyperplasia | | | | | | | | | | | 1 | | 1 | | | | 3 | | | | | 4 1.8 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Clitoral Gland + 50

* .. 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: 20320 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS FEMALE
250 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|-------------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|--------|--------|
| | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | | 0730 | |
| ANIMAL ID | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | 2 1.0 | |
| Ovary | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Cyst | X | | | | | | | | | | X | | | | | | | | | | | 4 | |
| Bursa, Dilatation | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Dilatation | | | | | | | | | | | 3 | | | | | | | 2 | 2 | | | 4 2.5 | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | 1 | 1 | 3 1.7 | |
| Cervix, Hyperplasia, Stromal | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 | |
| Endometrium, Hyperplasia, Cystic | | | 2 | 1 | | | | | | | | | 1 | | | | | | 1 | 2 | | 13 1.5 | |
| Vagina | | | | | | | | | | | | | | | | | | | | | | 1 | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Mediastinal, Congestion | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Lymph Node, Mandibular | + | M | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hyperplasia, Plasma Cell | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hematopoietic Cell Proliferation | 1 | | | 2 | 2 | 1 | | 4 | | 1 | 3 | | 1 | 3 | | 1 | 1 | 2 | 2 | | 1 | 1 | 30 1.5 |
| Inflammation, Suppurative | | | | | 3 | | | | | | | | | | | | | | | | | 1 3.0 | |
| Lymphoid Follicle, Atrophy | | | | | | | | | | | 2 | | | | | | 4 | | | | | 2 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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Experiment Number: 20320 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS FEMALE
250 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | |
|-------------------------------------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 07
30 | 05
27 | 06
58 | 07
30 | 07
29 | 07
30 | 07
30 | 06
40 | 07
14 | 07
09 | 07
03 | 07
31 | 06
33 | 07
33 | 07
22 | 04
92 | 07
28 | 07
30 | 05
83 | 07
28 | | 07
30 | 06
64 | 07
29 | 07
33 | 06
62 | 07
29 | 06
79 | 07
30 |
| 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 | 003031 | 003032 | 003033 | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | 2 | 1 | | | | | | | | | | | | | 2 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Bronchiole, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation | | | | 1 | | | | | | | | | | | 2 | | | | | | | | | | | | | | 8 |
| Trachea | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | M | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Cornea, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Retina, Atrophy | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | 2 |
| Harderian Gland | + | M | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hydronephrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation, Suppurative | | | | | | | 3 | | | | | | | | | | | | | | | | | | | | 2 | 2 | |
| Nephropathy | | | | 1 | | | | | 1 | | | | | 1 | | | | | 1 | | | | | | 1 | | 1 | 15 | |
| Thrombosis | | | | | | | | | | | | | X | | | | | | | | | | | | | | | 2 | |
| Pelvis, Inflammation, Suppurative | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | 4 | |
| Renal Tubule, Autolysis | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | 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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Tetrabromobisphenol A

CAS Number: 79-94-7

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First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|
| | 07 | 07 | 07 | 04 | 03 | 02 | 06 | 07 | 07 | 05 | 05 | 07 | 07 | 07 | 05 | 07 | 06 | 07 | 06 | 05 | | 06 | 06 | 07 | 05 |
| 500 mg/kg | 29 | 29 | 28 | 96 | 77 | 43 | 97 | 22 | 29 | 33 | 31 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| 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 | 00380 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum Inflammation | + | + | + | + | + | + | + | + | + | 2 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Rectum Parasite Metazoan | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 1 | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum Parasite Metazoan | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Basophilic Focus | | X | X | X | | X | | X | X | | X | X | X | X | | X | X | X | X | X | | X | X | X | | 40 |
| Clear Cell Focus | | X | X | | | | | X | X | X | | X | X | X | | X | | X | | | | | | | | 19 |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | X | | | | | | | 3 |
| Fatty Change | | | | | | | | | | 1 | | | | | | | | 2 | | | 1 | | | | 2 | 7 1.6 |
| Hepatodiaphragmatic Nodule | | | | | | | X | | | | | | | | | | | | | | | | | | | 1 |
| Mixed Cell Focus | | X | X | | | | | | | | | | X | X | | X | | X | | | | | | X | | 12 |
| Necrosis | | | | | | | | | | | | | | | 1 | | | | | 1 | | 3 | | | | 4 1.8 |
| Bile Duct, Cyst | | | | | | | | | | | | | | | | | | | | X | | | | X | | 3 |
| Bile Duct, Hyperplasia | 1 | | 1 | | | | 1 | 2 | 1 | | | | 1 | | 1 | | | | | | 1 | | | 1 | | 21 1.1 |
| Centrilobular, Necrosis | | | | | | 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

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CAS Number: 79-94-7

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|------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|
| | 07 | 07 | 07 | 04 | 03 | 02 | 06 | 07 | 07 | 05 | 05 | 07 | 07 | 07 | 05 | 07 | 06 | 07 | 06 | 05 | | 06 | 06 | 07 | 05 |
| 500 mg/kg | 29 | 29 | 28 | 29 | 27 | 24 | 29 | 22 | 22 | 23 | 23 | 23 | 23 | 22 | 26 | 22 | 23 | 22 | 23 | 22 | 24 | 20 | 22 | 27 | 22 |
| 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 | 00380 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|-----|
| Mesentery
Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 2 | 2.0 |
| Pancreas
Acinus, Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 1.0 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | 49 | | | |
| Stomach, Forestomach
Inflammation, Chronic
Ulcer | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 2 | 2.0 | |
| Stomach, Glandular
Inflammation, Acute
Mineralization
Ulcer | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 2.0 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Heart
Cardiomyopathy
Endocardium, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 3 | 1.3 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Adrenal Cortex
Angiectasis
Degeneration, Cystic
Fibrosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 6 | 1.8 |
| | 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |

* .. 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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1-4 .. Lesion qualified as:
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500 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--------------------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--------|--------|--------|
| | 0729 | 0729 | 0728 | 0746 | 0737 | 0722 | 0706 | 0707 | 0705 | 0705 | 0707 | 0707 | 0707 | 0705 | 0707 | 0706 | 0706 | 0705 | 0706 | 0706 | | 0707 | 0705 | 0707 |
| ANIMAL ID | 003566 | 003335 | 003555 | 003066 | 003001 | 003002 | 003003 | 003003 | 003003 | 003003 | 003003 | 003003 | 003003 | 003003 | 003003 | 003003 | 003003 | 003003 | 003003 | 003003 | 003003 | 003003 | 003003 | |
| Hyperplasia | | | 2 | | | 2 | | | | | | | | | 2 | | | | | | | | | 7 1.7 |
| Vacuolization Cytoplasmic | | | | | | 2 | | | | | | 1 | | | | | | | 2 | | | | | 5 1.4 |
| Adrenal Medulla
Thrombosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 3.0 |
| Islets, Pancreatic
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 2.0 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 48 | |
| Pituitary Gland
Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 2.0 |
| Pars Distalis, Hyperplasia | | | | | | | | | 2 | 2 | 2 | 1 | | | 2 | | | | 1 | | | | 14 1.6 | |
| Pars Intermedia, Hyperplasia | | | | | | | | | | | | 1 | | | | | | | | | | | 2 1.5 | |
| Thyroid Gland
C-cell, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 39 1.4 |
| Follicle, Hyperplasia | 2 | 2 | 1 | | | | | | | 1 | 1 | 1 | 2 | 2 | | 1 | 2 | 1 | 1 | 1 | | 1 | 2 | 3 2.0 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|-------|
| Clitoral Gland
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 1.0 |
| Inflammation | | | | | | | | | | | | 1 | | | | | | | | | | | 4 1.0 | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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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|-------------------------------------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|
| | 07
29 | 07
28 | 07
26 | 07
25 | 07
24 | 07
23 | 07
22 | 07
21 | 07
20 | 07
19 | 07
18 | 07
17 | 07
16 | 07
15 | 07
14 | 07
13 | 07
12 | 07
11 | 07
10 | 07
09 | | 07
08 | |
| ANIMAL ID | 00356 | 00357 | 00358 | 00359 | 00360 | 00361 | 00362 | 00363 | 00364 | 00365 | 00366 | 00367 | 00368 | 00369 | 00370 | 00371 | 00372 | 00373 | 00374 | 00375 | 00376 | 00377 | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Bursa, Dilatation | | X | | | | | | | | | X | | | | | | | | | | | X | 5 |
| Rete Ovarii, Cyst | | | | | | | | | | | | | | | | | | | | | | X | 6 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Dilatation | | | | | | | | | | | | | 2 | | | | | | | | | | 3 2.7 |
| Hyperplasia, Glandular, Focal | | | | | | | | | | | | 2 | | | | | | | | | | | 1 2.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Cervix, Hyperplasia, Stromal | | | | | | | | | | | | | 3 | | | | | | | | | 3 | 4 2.8 |
| Endometrium, Hyperplasia, Cystic | 3 | | | | | | | | | | | | | 2 | | | | | | | | 3 | 11 2.0 |
| Vagina | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mediastinal, Ectasia | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | 49 |
| Lymph Node, Mediastinal | | | | | | | | | | | | | | | | | | | | | | + | 1 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | 26 1.9 |
| Lymphoid Follicle, Atrophy | | | | | | | | | | | | | | | | | | | | | | | 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

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20320 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS FEMALE
500 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|-------------------------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|-----|----|--|
| | 07 | 07 | 07 | 04 | 03 | 02 | 06 | 07 | 07 | 05 | 05 | 07 | 07 | 07 | 05 | 07 | 06 | 07 | 06 | 05 | | 06 | 06 | 07 | 05 | 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 | 00 | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | 49 | | |
| Atrophy | 1 | | | 2 | 1 | 2 | 4 | 2 | 1 | 1 | 1 | 1 | | 2 | 1 | 2 | 2 | 2 | 2 | 1 | | | 3 | | 40 | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | 2 | | 1.8 | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Galactocele | X | | | | | | | | | | | | | | | | | | | X | | | | | 2 | | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Inflammation | | | | | | | | | | 2 | | | | | | | | | | | | | | | 1 | | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | 2.0 | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | 2.0 | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Compression | | | | | | | | | | | | | | | | | | 3 | | | 3 | | | | 9 | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Inflammation, Chronic | | | | | 1 | | 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

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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Experiment Number: 20320 - 03

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Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|-----------------------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|--------|--|
| | 07 | 07 | 07 | 04 | 03 | 02 | 06 | 07 | 07 | 05 | 05 | 07 | 07 | 07 | 05 | 07 | 06 | 07 | 06 | 05 | 06 | 06 | 07 | 05 | | 07 | |
| 500 mg/kg | 29 | 22 | 22 | 29 | 27 | 24 | 29 | 22 | 22 | 23 | 23 | 23 | 23 | 29 | 26 | 22 | 23 | 22 | 23 | 22 | 24 | 20 | 22 | 27 | 22 | | |
| 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 | 00 | | |
| | 35 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | | |
| | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | | |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Nose Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| | | 1 | 1 | | | | | | | | | 1 | 1 | | | | | | | | | | | | | 7 1.3 | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | 49 | |
| Cataract | | | | | | | | | | | | | | | | | | | | | | | 3 | | | 2 3.0 | |
| Retina, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | 2 | | 3 2.3 | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | 49 | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Nephropathy | | | | | | | | | | | | | | | | | | | | | | | | | | 13 1.3 | |
| Pelvis, Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | 3 1.7 | |
| Renal Tubule, Autolysis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

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

Experiment Number: 20320 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------------------------------|
| WISTAR HAN RATS FEMALE | DAY ON TEST | 0729 | 0729 | 0531 | 0729 | 0729 | 0729 | 0729 | 0571 | 0777 | 0676 | 0677 | 0777 | 0575 | 0676 | 0777 | 0777 | 0777 | 0676 | 0171 | 0777 | 0777 | 0777 | females
(cont...) |
| | ANIMAL ID | 003822 | 003823 | 003825 | 003826 | 003827 | 003828 | 003829 | 003830 | 003831 | 003832 | 003833 | 003834 | 003835 | 003836 | 003837 | 003838 | 003839 | 003840 | 003841 | 003842 | 003843 | 003844 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | |
| Perforation | | | | | | | | | | | 4 | | | | | | | | | | 4 | | |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parasite Metazoan | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoid Tissue, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Basophilic Focus | X | X | 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 | | X | | X | | X | X | | | | X | | X | | X | | | | | | |
| Eosinophilic Focus | | | | | | | | | | | | | | X | | | | | | | | | |
| Fatty Change | | | | | 1 | | | | | | | | | | | 1 | | | 1 | 1 | | | |
| Mixed Cell Focus | X | | | X | | X | | | X | | | | X | | X | X | X | | | | | | X |
| Necrosis | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Bile Duct, Cyst | | | | | | X | | | | | | | | | | | | | | | | | |
| Bile Duct, Hyperplasia | 1 | | | 1 | | 2 | 2 | | 2 | | | | 1 | | | | | | 1 | | 1 | 1 | 1 |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | 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:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 20320 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS FEMALE
1000 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | |
|--------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|------------------|-----------------------|------------------|
| | 0
7
2
9 | 0
7
2
9 | 0
5
3
1 | 0
7
2
9 | 0
7
2
9 | 0
7
2
9 | 0
7
2
9 | 0
5
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1 | 0
7
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0 | 0
7
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0 | 0
6
0
3 | 0
6
8
4 | 0
7
3
0 | 0
7
2
9 | 0
5
4
5 | 0
6
1
4 | 0
7
2
8 | 0
7
2
9 | 0
6
2
5 | 0
1
9
1 | | | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 |
| | 0 | 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
8
2 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Adrenal Medulla
Hemorrhage
Hyperplasia
Inflammation, Suppurative | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 3 | | |
| Islets, Pancreatic
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Pituitary Gland
Pars Distalis, Hyperplasia
Pars Intermedia, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 1 3 2 3 1 2 1 1 1 1 2 1 3 1 1 1 | | |
| Thyroid Gland
C-cell, Hyperplasia
Follicle, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 1 1 1 1 1 2 1 1 1 1 1 1 1 1 2 1 3 1 1 1 1 | 3 | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|--|
| Clitoral Gland
Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 2 | |
| Ovary
Cyst
Bursa, Dilatation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X
X X
X X | |

* .. 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...) |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---|-----------|----------------------|
| | 0
7
2
9 | 0
7
2
9 | 0
5
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1 | 0
7
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9 | 0
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7
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9 | 0
7
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9 | 0
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0 | 0
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0 | 0
6
0
3 | 0
6
8
4 | 0
7
3
0 | 0
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9 | 0
5
4
5 | 0
6
1
4 | 0
7
2
8 | 0
7
2
9 | 0
6
1
5 | 0
1
9
1 | 0
7
3
0 | 0
7
3
0 | 0
7
3
0 | | | |
| Mammary Gland
Galactoceles
Inflammation, Suppurative | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Skin
Epidermis, Hyperplasia
Vein, Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 3 | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone
Fracture | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 4 | | |
| Skeletal Muscle
Inflammation, Acute | | | | | | | | | | | | | | | | | | | | | | | | 3 | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain
Compression | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 4 | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung
Inflammation, Granulomatous
Inflammation, Chronic
Bronchiole, Hyperplasia
Serosa, Inflammation, Suppurative | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 2 | | |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 3 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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1000 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|
| | 07288 | 06734 | 07728 | 06788 | 06686 | 06677 | 06447 | 06447 | 06777 | 06777 | 06667 | 06677 | 06677 | 06667 | 06677 | 06677 | 06677 | 06677 | 06677 | 06677 | | 06677 |
| ANIMAL ID | 00411 | 00411 | 00411 | 00411 | 00411 | 00411 | 00411 | 00411 | 00411 | 00411 | 00411 | 00411 | 00411 | 00411 | 00411 | 00411 | 00411 | 00411 | 00411 | 00411 | 00411 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 49 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 50 |
| | 1 | 2 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 4 | 5 | 6 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 2 1.5 |

| | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|----------------|
| Mesentery
Fat, Necrosis | + | | | | | | | | | | | | | | | | | | | | 4 | 2 1.5 |
| Pancreas | + | | | | | | | | | | | | | | | | | | | | 50 | |
| Salivary Glands | + | | | | | | | | | | | | | | | | | | | | 49 | |
| Stomach, Forestomach
Inflammation, Chronic
Epithelium, Hyperplasia | + | | | | | | | | | | | | | | | | | | | | 50 | 2 2.0
1 2.0 |
| Stomach, Glandular
Mineralization | + | | | | | | | | | | | | | | | | | | | | 50 | 2 1.0 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|----------------|
| Blood Vessel | + | | | | | | | | | | | | | | | | | | | | 50 | |
| Heart
Cardiomyopathy
Pericardium, Inflammation, Acute | + | | | | | | | | | | | | | | | | | | | | 50 | 7 1.0
1 4.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|--|
| Adrenal Cortex
Angiectasis
Hyperplasia
Inflammation, Suppurative
Mineralization
Vacuolization Cytoplasmic | + | | | | | | | | | | | | | | | | | | | | 50 | 9 1.8
11 1.3
1 3.0
1 2.0
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

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20320 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Tetrabromobisphenol A

CAS Number: 79-94-7

Date Report Requested: 01/23/2013

Time Report Requested: 15:06:23

First Dose M/F: 07/25/07 / 07/26/07

Lab: BAT

| WISTAR HAN RATS FEMALE
1000 mg/kg | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--------------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|---|---|
| | 0728 | 0684 | 0730 | 0728 | 0688 | 0666 | 0666 | 0770 | 0443 | 0443 | 0777 | 0777 | 0777 | 0666 | 0777 | 0666 | 0777 | 0777 | 0777 | 0444 | | 0776 | 0666 | | |
| ANIMAL ID | 0041 | 0044 | 0041 | 0041 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | | | |
| | 1 | 2 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 4 | 5 | 6 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|
| Adrenal Medulla Hemorrhage | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | 2 | 1 | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | 1.5 |
| Islets, Pancreatic Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Pituitary Gland Pars Distalis, Hyperplasia | 3 | 1 | 1 | | 1 | | 1 | 1 | | | | | 1 | | | 2 | | 1 | | | | | | 1 | 50 |
| Pars Intermedia, Hyperplasia | | | | | | | | | | 1 | | | | | | | | | | | | | | | 19 |
| Thyroid Gland C-cell, Hyperplasia | 1 | 1 | 1 | | | | | 2 | 2 | | | 2 | | 1 | 2 | 2 | 1 | | 2 | 1 | 2 | 1 | 1 | 3 | 50 |
| Follicle, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 36 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 1.4 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 3.0 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Clitoral Gland Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Ovary Cyst | X | | | | M | + | + | + | + | + | + | + | X | | | | | X | | X | | | X | | 49 |
| Bursa, Dilatation | | | | X | | | | | | | X | | | X | X | | | | | | | | | | 6 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 8 |

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

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|---------------------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|-----|
| | 0728 | 0684 | 0730 | 0728 | 0668 | 0666 | 0666 | 0770 | 0443 | 0443 | 0777 | 0777 | 0777 | 0777 | 0666 | 0777 | 0777 | 0777 | 0777 | 0777 | 0444 | 0777 | 0666 | 0666 | | |
| ANIMAL ID | 004111 | 004411 | 004411 | 004411 | 004411 | 004411 | 004411 | 004411 | 004411 | 004411 | 004411 | 004411 | 004411 | 004411 | 004411 | 004411 | 004411 | 004411 | 004411 | 004411 | 004411 | 004411 | 004411 | 004411 | | |
| Rete Ovarii, Cyst | X | | | | | | | | | | | | | X | | | | | | | X | X | | | 6 | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Adenomyosis | | 2 | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 4.0 |
| Inflammation, Suppurative | | | | | 4 | | | | | | 1 | | | | | | | | | | | | | | 3 | 2.3 |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Cervix, Hyperplasia, Stromal | | | | | 3 | | | | | 3 | | | | | | | | | | | | | | | 2 | 3.0 |
| Endometrium, Hyperplasia, Adenomatous | | | | | 2 | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Endometrium, Hyperplasia, Cystic | 3 | 3 | 2 | | | | | 2 | 1 | | 2 | | | 1 | | | | | 1 | | | | 2 | 3 | 18 | 1.9 |
| Vagina | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hematopoietic Cell Proliferation | | 3 | | 1 | 3 | 3 | 3 | | 3 | | | 1 | 3 | 1 | | 1 | | 1 | | | | | | 3 | 26 | 1.8 |
| Lymphoid Follicle, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Atrophy | 2 | 2 | 1 | 1 | 3 | 3 | 4 | | 4 | 1 | 2 | 1 | | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 45 | 1.8 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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 X .. Lesion present
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|--------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------|--|
| | 0
7
2
8 | 0
6
8
4 | 0
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9 | 0
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8 | 0
7
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8 | 0
7
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0 | 0
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9 | 0
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8 | 0
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5 | 0
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| ANIMAL ID | 0
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3 | 0
0
4
9 | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | 9 1.7 | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Cataract | | 3 | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | |
| Retina, Atrophy | | | | | 2 | 2 | | | | | | | | 2 | 2 | | | | | | | | | | 4 2.0 | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Accumulation, Hyaline Droplet | | | | | | 3 | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Hydronephrosis | | | | | | | | | | | | | 3 | | | | | | | | | | | | 2 3.0 | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Nephropathy | 1 | | | | | | 1 | | | | | | | | 1 | | | | | | | | | | 9 1.2 | |
| Pelvis, Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |

*** END OF REPORT ***

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