

TDMS No. 88148 - 06
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/SD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

3,3',4,4'-Tetrachloroazobenzene

CAS Number: 14047-09-7

Date Report Requested: 04/15/2009

Time Report Requested: 09:57:26

First Dose M/F: 01/29/03 / 01/30/03

Lab: BAT

F3_R8

C Number: C88148C
Lock Date: 09/22/2005
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 2.1.0

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DAY ON TEST	0																								
	6	7	7	7	6	4	2	4	7	7	5	7	7	7	7	3	7	7	5	7	7	7	7	5	7
SPRAGUE-DAWLEY RATS MALE 0 MG/KG ANIMAL ID	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
Inflammation, Chronic Active	1	1	1	1	1			1	1	1			1	1	1	1	1	1	1	1	1	1	1	1	1
Mixed Cell Focus									X	X					X						X				
Necrosis																									
Pigmentation	1																								
Bile Duct, Fibrosis										1			1								1		1		1
Bile Duct, Hyperplasia					1				2	1	1		1	1		1		1	1	2	2	1	2	2	
Oral Mucosa	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Gingival, Hyperplasia, Squamous																					1				
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Atrophy																			2						
Fibrosis																						3			
Inflammation																						3			
Acinus, Hyperplasia					4										4										2 3
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia																		3							
Inflammation																									
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Inflammation	2																								
Mineralization																									
Epithelium, Hyperplasia	3										1									1					
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Inflammation																						1			
Mineralization		2																							

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	6	7	7	7	6	4	2	4	7	7	5	7	7	7	7	3	7	7	5	7	7	7	7	5	7	
SPRAGUE-DAWLEY RATS MALE 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 MG/KG	0																									
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	

males
(cont...)

Tooth	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Peridontal Tissue, Inflammation		2	1	1																					2

CARDIOVASCULAR SYSTEM

Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation		2	2					2		1		3	1		2		1		1		4	1			1
Mineralization					2		1																		
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cardiomyopathy	1	2	1	1		3	1	2	1	2	1	2	2	1	2	1	2	1	1	1	1	2	1	1	1
Inflammation		2																							
Mineralization			1		3		1																		

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis																									
Degeneration							1				1										1				
Hypertrophy			2	1		4			1	2	2	2	2	1		2	1				1	1	2	1	
Vacuolization Cytoplasmic		2		2					1	2	1			1	1					1		1		1	
Zona Fasciculata, Hyperplasia			3	1			2									1		1	1			1			
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia	1	4										2											1		1
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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DAY ON TEST	0																									males (cont...)
	7	6	4	4	5	3	6	6	7	1	5	5	5	6	5	6	5	4	6	4	5	3	5	6	7	
	2	7	9	8	9	3	8	5	2	7	0	3	3	2	1	1	4	5	9	6	2	8	3	4	2	
	7	4	9	6	5	2	9	7	7	6	0	7	5	6	4	7	9	4	8	7	1	0	2	4	7	
SPRAGUE-DAWLEY RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	
	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	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Muscularis, Inflammation	1																								
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Parasite Metazoan						X	X									X						X			
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Angiectasis	1																								
Basophilic Focus																									
Cholangiofibrosis		3														1									
Clear Cell Focus										X					X				X			X			
Congestion																									
Eosinophilic Focus												X					X							X	
Fatty Change, Focal												1				1									
Fatty Change, Diffuse									2				2				1	1							

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DAY ON TEST	0 0																								* TOTALS	
	5	2	5	6	4	6	4	3	7	4	7	6	2	6	3	5	7	1	2	6	5	5	6	4		4
SPRAGUE-DAWLEY RATS MALE ANIMAL ID	0 0																								* TOTALS	
	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
30 MG/KG	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5		
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	
Clear Cell Focus			X					X	X						X			X							8	
Degeneration, Cystic													1												1	1.0
Eosinophilic Focus	X			X					X						X										4	
Fatty Change, Focal					1			1		2					1										7	1.1
Fatty Change, Diffuse			2				2			3	1		2				1	3	2						18	1.9
Hematopoietic Cell Proliferation	2	1	2	1	1		1	2	1	1			1	1	1	1	1					2	2	1	37	1.3
Hepatodiaphragmatic Nodule				X																					1	
Hyperplasia, Nodular																									1	
Inflammation, Granulomatous																				1					1	1.0
Inflammation, Chronic Active	2	1	1			2	1	1		2	1	1		1	1	1	1	1				1	3		30	1.4
Mixed Cell Focus								X					X						X						3	
Necrosis						2	1			1			2		2		2		1				4	3	18	1.9
Pigmentation				1		2				2					3										5	1.8
Toxic Hepatopathy					1							1		3									2		5	1.6
Bile Duct, Cyst							3																		1	3.0
Bile Duct, Dilatation					3	4																			3	3.7
Bile Duct, Fibrosis					2																				1	2.0
Bile Duct, Hyperplasia	2		1	4	4	2	1	1	2	3		2		1		4	1			1	2	1	2		36	1.7
Centrilobular, Degeneration			1			2				1			1	1					1	2	2			2	23	1.4
Hepatocyte, Hypertrophy											3	4		4			1	4	4			1	3		11	2.7
Hepatocyte, Multinucleated																									1	1.0
Oval Cell, Hyperplasia				2								2		2		2							1		8	1.6
Oral Mucosa	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Gingival, Hyperplasia, Cystic Keratinizing					2						2				1						4				18	1.9
Gingival, Hyperplasia, Squamous	1		3	1		4			2	1	1		4		1				3	2			1		24	1.8
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Atrophy					1			1	1						1		1								10	1.1
Inflammation	3				4					2						2									7	2.7
Acinus, Hyperplasia																						1			2	1.0

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DAY ON TEST	0 0																									males (cont...)	
	5 5 5 5 6 7 5 6 6 6 5 5 5 6 4 1 7 1 3 6 6 4 5 6 6 4 8 7 8 5 0 8 4 3 5 2 8 8 0 8 9 2 7 8 4 1 4 1 6 0 4 8 1 5 0 6 9 5 5 0 9 6 8 3 4 2 7 4 7 8 3 3 4 7 8																										
SPRAGUE-DAWLEY RATS MALE 100 MG/KG ANIMAL ID	0 0																									males (cont...)	
	0 1 5 5 5 5 5 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 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																										
Eosinophilic Focus		X			X			X	X									X						X			
Fatty Change, Focal																		2								2	
Fatty Change, Diffuse	1	2	1		1	1	2		2		2	2	1	1	1					1	2	3	2				
Fibrosis																	2									2	
Hematopoietic Cell Proliferation	1			1	1							1		1			1	1	1		1		1	1	1	2	
Hyperplasia, Nodular								X	X							X											
Inflammation, Chronic Active	1	1	1				1		1									1		1	2	1	1			2	
Mixed Cell Focus																											
Necrosis			2			3	2		1				3		2	2		1			2				1		
Pigmentation																		1		1						2	
Toxic Hepatopathy		1											1									1			1		
Bile Duct, Cyst								1										2							1		
Bile Duct, Fibrosis																											
Bile Duct, Hyperplasia		1		3	2			3		2	2	1	1	2	2						2			3	2	4	
Bile Duct, Metaplasia		1																									
Centrilobular, Degeneration		2			1		1		3					2							2	2	1		1		
Centrilobular, Fatty Change												3															
Hepatocyte, Hypertrophy		4			1	2		1	3	2				2	2	1		2			1	3					
Hepatocyte, Multinucleated		1																									
Oval Cell, Hyperplasia		2		1					2																		
Mesentery																											
Oral Mucosa																											
Gingival, Hyperplasia, Cystic Keratinizing		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Gingival, Hyperplasia, Squamous		2		2		1	3	3	1				2	3	2	3		2		3			2	1	1	3	
Pancreas																											
Atrophy		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Inflammation																											

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	5 5 5 5 6 7 5 6 6 6 5 5 5 6 4 1 7 1 3 6 6 4 5 6 6																								
SPRAGUE-DAWLEY RATS MALE 100 MG/KG	4 8 7 8 5 0 8 4 3 5 2 8 8 0 8 9 2 7 8 4 1 4 1 6 0																								
	4 8 1 5 0 6 9 5 5 0 9 6 8 3 4 2 7 4 7 8 3 3 4 7 8																								
ANIMAL ID	0 0																								
	0 0																								
	1 1																								
	5 5 5 5 5 5 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6																								
	1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5																								
	males (cont...)																								

Acinus, Vacuolization Cytoplasmic	1 2 1																								
Salivary Glands	+ +																								
Atrophy	2 2																								
Fibrosis	2 2																								
Stomach, Forestomach	+ +																								
Cyst	1 1																								
Inflammation	3 4 4 1 1 4 3 2 3 4 3 3 3 2 3 2 2 1 1 2 1 3 1																								
Necrosis	3 4 4 1 1 4 3 2 3 4 3 3 3 2 3 2 2 1 1 2 1 3 1																								
Epithelium, Hyperplasia	3 4 4 1 1 4 3 2 3 4 3 3 3 2 3 2 2 1 1 2 1 3 1																								
Stomach, Glandular	+ +																								
Mineralization	+ +																								
Tooth	+ +																								
Peridontal Tissue, Inflammation	1 2 2 2 1 1 2 1 1 2 1 1 1																								

CARDIOVASCULAR SYSTEM

Blood Vessel	+ +																								
Inflammation	3 3 3 1 2 2 2 1 3 4 2 2 2 4 4 2 3																								
Mineralization	3 3 3 1 2 2 2 1 3 4 2 2 2 4 4 2 3																								
Heart	+ +																								
Cardiomyopathy	2 2 1 2 3 1 2 3 1 3 2 2 1 2 2 3 1 1 2 1 2 2 2 1																								
Inflammation	2 2 1 2 3 1 2 3 1 3 2 2 1 2 2 3 1 1 2 1 2 2 2 1																								
Mineralization	2 2 1 2 3 1 2 3 1 3 2 2 1 2 2 3 1 1 2 1 2 2 2 1																								

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	5 5 5 5 6 7 5 6 6 6 5 5 5 6 4 1 7 1 3 6 6 4 5 6 6																								
SPRAGUE-DAWLEY RATS MALE 100 MG/KG ANIMAL ID	4 8 7 8 5 0 8 4 3 5 2 8 8 0 8 9 2 7 8 4 1 4 1 6 0																								
	4 8 1 5 0 6 9 5 5 0 9 6 8 3 4 2 7 4 7 8 3 3 4 7 8																								
	0 0																								
	0 0																								
	1 1																								
	5 5 5 5 5 5 5 5 5 6 6 6 6 6 6 6 6 6 6 7 7 7 7 7 7																								
	1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5																								
	males (cont...)																								

Trachea +

SPECIAL SENSES SYSTEM

Eye +
 Anterior Chamber, Inflammation 3
 Cornea, Inflammation 3
 Retina, Atrophy
 Retina, Degeneration 3
 Harderian Gland +
 Atrophy 2

URINARY SYSTEM

Kidney +
 Mineralization 1 1 1 2 1 1 1 1
 Nephropathy 3 2 2 2 2 3 3 3 3 3 2 3 2 1 2 2 1 2 2 1 2 3 3 2
 Cortex, Cyst 4 1
 Pelvis, Dilatation 2
 Pelvis, Inflammation 2
 Pelvis, Transitional Epithelium, Hyperplasia 4
 Ureter +
 Transitional Epithelium, Hyperplasia 3 2 2 M
 Urethra +

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	5	5	5	5	6	7	5	6	6	6	5	5	5	6	4	1	7	1	3	6	6	4	5	6	6
	4	8	7	8	5	0	8	4	3	5	2	8	8	0	8	9	2	7	8	4	1	4	1	6	0
	4	8	1	5	0	6	9	5	5	0	9	6	8	3	4	2	7	4	7	8	3	3	4	7	8
SPRAGUE-DAWLEY RATS MALE ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

males
(cont...)

Transitional Epithelium, Hyperplasia	2										2														
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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Page 65

TDMS No. 88148 - 06
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/SD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 3,3',4,4'-Tetrachloroazobenzene
 CAS Number: 14047-09-7

Date Report Requested: 04/15/2009
 Time Report Requested: 09:57:26
 First Dose M/F: 01/29/03 / 01/30/03
 Lab: BAT

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	5	4	5	5	4	5	3	5	2	5	6	3	4	6	2	6	6	5	6	5	7	2	7	6
	0	0	9	3	6	3	6	9	0	2	2	4	6	7	5	7	2	1	0	6	5	1	8	2	3
	1	3	9	9	7	3	0	8	0	5	4	3	5	6	7	4	3	3	3	8	3	6	1	7	4
SPRAGUE-DAWLEY RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100 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	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
	7	7	7	7	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	0
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
																								* TOTALS	

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Cecum Necrosis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
																								1 3.0	
Intestine Large, Colon Inflammation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Parasite Metazoan									X		X												X		5
Thrombosis																									1 2.0
Intestine Large, Rectum Inflammation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
																								1 2.0	
Intestine Small, Duodenum Fibrosis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Necrosis																									1 4.0
																								1 4.0	
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Liver Basophilic Focus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Clear Cell Focus																									2
Degeneration, Cystic		X																							4
																								1 1.0	

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TDMS No. 88148 - 06
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/SD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 3,3',4,4'-Tetrachloroazobenzene
 CAS Number: 14047-09-7

Date Report Requested: 04/15/2009
 Time Report Requested: 09:57:26
 First Dose M/F: 01/29/03 / 01/30/03
 Lab: BAT

	DAY ON TEST																								* TOTALS
	0 7 0 1	0 5 0 3	0 4 9 9	0 5 3 7	0 5 6 3	0 4 6 0	0 5 9 8	0 3 6 0	0 5 9 0	0 2 2 5	0 5 4 4	0 6 6 3	0 3 4 5	0 4 7 6	0 2 5 7	0 6 7 4	0 6 2 3	0 5 1 3	0 6 0 8	0 5 5 3	0 7 1 6	0 2 8 9	0 7 9 0	0 6 0 0	
SPRAGUE-DAWLEY RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
100 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	
ANIMAL ID	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	
	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	0	
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	
Eosinophilic Focus	X				X				X	X						X		X						12	
Fatty Change, Focal													1											3 1.7	
Fatty Change, Diffuse			1	2	3	1	1	1	2			2	2	2		2	2		1	2	1	2	2	34 1.6	
Fibrosis				1																			2	4 1.8	
Hematopoietic Cell Proliferation	2	1	1	2		1	1	1	1	1	2	1			2		1	1		1		2	1	30 1.2	
Hyperplasia, Nodular																							3		
Inflammation, Chronic Active	4	1		1			1	1	1	1	1	1	2			1	2	3	1	2	2		1	28 1.4	
Mixed Cell Focus												X												1	
Necrosis	1			2	3					2			2	2		1		1	3		1	1		21 1.8	
Pigmentation													1					1	1					6 1.2	
Toxic Hepatopathy					2							1	1							1				8 1.1	
Bile Duct, Cyst	2																							4 1.5	
Bile Duct, Fibrosis				1			1															3		3 1.7	
Bile Duct, Hyperplasia	2			1			2	1			3	2	1			1	2		3	1	2	3	2	29 2.0	
Bile Duct, Metaplasia																								1 1.0	
Centrilobular, Degeneration			2				1		2	2		1	4	1		2	2	2		1	2	1	2	24 1.8	
Centrilobular, Fatty Change																								1 3.0	
Hepatocyte, Hypertrophy					3							2	4	3		4	2			4	3	4	3	22 2.5	
Hepatocyte, Multinucleated				2	1																			3 1.3	
Oval Cell, Hyperplasia					1																		3	5 1.8	
Mesentery																							1		
Oral Mucosa	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Gingival, Hyperplasia, Cystic Keratinizing																2	4						3	11 2.7	
Gingival, Hyperplasia, Squamous	2		2		3	1	1			1	2	1		1	2		2	1	2	1	1			31 1.8	
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Atrophy	4										2					2						3	2	10 2.1	
Inflammation			3																					3 3.3	

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TDMS No. 88148 - 06
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/SD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

3,3',4,4'-Tetrachloroazobenzene

CAS Number: 14047-09-7

Date Report Requested: 04/15/2009

Time Report Requested: 09:57:26

First Dose M/F: 01/29/03 / 01/30/03

Lab: BAT

DAY ON TEST	0 0																								* TOTALS	
	7	5	4	5	5	4	5	3	5	2	5	6	3	4	6	2	6	5	6	5	7	2	7	6		
	0	0	9	3	6	3	6	9	0	2	2	4	6	7	5	7	2	1	0	6	5	1	8	2	3	
	1	3	9	9	7	3	0	8	0	5	4	3	5	6	7	4	3	3	3	8	3	6	1	7	4	
SPRAGUE-DAWLEY RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
100 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	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	
	7	7	7	7	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	0	
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	

Acinus, Vacuolization Cytoplasmic																										13	1.4
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Atrophy																										3	2.0
Fibrosis																										1	2.0
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Cyst																										1	3.0
Inflammation																										3	1.0
Necrosis																										1	2.0
Epithelium, Hyperplasia	4		3	3	2	2	2	1	2	1	3	4														45	2.5
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Mineralization																										1	2.0
Tooth	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Peridontal Tissue, Inflammation																										16	1.4

CARDIOVASCULAR SYSTEM

Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Inflammation	3	1	3	2																						29	2.6
Mineralization																										3	1.7
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Cardiomyopathy	2		2	1																						40	1.7
Inflammation																										1	2.0
Mineralization																										1	2.0

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TDMS No. 88148 - 06

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3,3',4,4'-Tetrachloroazobenzene

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DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	7	5	4	5	5	4	5	3	5	2	5	6	3	4	6	2	6	6	5	6	5	7	2	7	6	
	0	0	9	3	6	3	6	9	0	2	2	4	6	7	5	7	2	1	0	6	5	1	8	2	3	
	1	3	9	9	7	3	0	8	0	5	4	3	5	6	7	4	3	3	3	8	3	6	1	7	4	
SPRAGUE-DAWLEY RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
100 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	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	
	7	7	7	7	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	0	
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	* TOTALS
Necrosis																					1	2 2.0				
Thrombosis																					2	4 1.8				

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Degeneration				3		3			2			2			1	1		1								9 1.8
Hypertrophy	1							3	2		2			1	1	2	2						1		17 1.4	
Necrosis		1		1									2	3		2			2						13 1.8	
Vacuolization Cytoplasmic				4								2	2	1	2		1	1	3	2	2	2			25 1.7	
Zona Fasciculata, Hyperplasia	2	3			4			3		1	3		1	3		2		3					1		21 2.2	
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hyperplasia	3					3		4															1		6 2.2	
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hyperplasia								2																	1 2.0	
Parathyroid Gland	M	+	M	M	+	+	+	+	+	+	+	+	M	M	+	+	+	+	+	+	+	+	+	44		
Hyperplasia																	2								2 2.0	
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hemorrhage							4																		1 4.0	
Necrosis																									2 2.0	
Pars Distalis, Hyperplasia	3				2												1						2		10 1.7	
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Fibrosis																									1 2.0	

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Lab: BAT

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	5	4	5	5	4	5	3	5	2	5	6	3	4	6	2	6	6	5	6	5	7	2	7	6	
	0	0	9	3	6	3	6	9	0	2	2	4	6	7	5	7	2	1	0	6	5	1	8	2	3	
	1	3	9	9	7	3	0	8	0	5	4	3	5	6	7	4	3	3	3	8	3	6	1	7	4	
SPRAGUE-DAWLEY RATS MALE 100 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
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
	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
	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	0
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	* TOTALS
Inflammation					3	2								3	3						3	2	2	2		14 2.6
C-cell, Hyperplasia																		3								1 3.0
Follicular Cell, Hyperplasia	2					3							4	4							4	3	4	3		12 3.6
Follicular Cell, Hypertrophy					4																					6 3.2

GENERAL BODY SYSTEM

Tissue NOS + + 3

GENITAL SYSTEM

Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Inflammation								3																3			4 3.5	
Metaplasia, Squamous																											1 4.0	
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Granuloma Sperm										3																		2 3.5
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hyperplasia, Squamous																								2				4 1.5
Inflammation	2																											1 1.0
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Inflammation																		3	1					1	2			16 1.8
Epithelium, Hyperplasia	1						3																					2 1.5
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	

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DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7	5	4	5	5	4	5	3	5	2	5	6	3	4	6	2	6	6	5	6	5	7	2	7	6	
	0	0	9	3	6	3	6	9	0	2	2	4	6	7	5	7	2	1	0	6	5	1	8	2	3	
	1	3	9	9	7	3	0	8	0	5	4	3	5	6	7	4	3	3	3	8	3	6	1	7	4	
.....																										
SPRAGUE-DAWLEY RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
100 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	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	
	7	7	7	7	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	0	
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	
.....																										
																										* TOTALS

Hyperplasia																											1				2	2.5	
Inflammation																														2		4	3.0
Metaplasia, Squamous																																3	2.7
.....																																	
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					50		
Inflammation																															3	1	3.0
Necrosis			4													1																3	2.7
Germinal Epithelium, Degeneration			4			3	2	1						4	2			3	3			2										21	2.7
Germinal Epithelium, Mineralization																															1	4	1.3
Interstitial Cell, Hyperplasia																																1	1.0

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					50		
Atrophy																															3	2	2.5
Hyperplasia																															1	19	2.2
Necrosis																															1	1	1.0
.....																																	
Lymph Node	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				M	41		
Deep Cervical, Atrophy																																1	4.0
Deep Cervical, Ectasia																																1	2.0
Mediastinal, Atrophy																																1	4.0
Mediastinal, Ectasia																																1	2.0
Mediastinal, Hemorrhage																																1	1.0
Mediastinal, Hyperplasia, Lymphoid																																3	2.0
.....																																	
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					50		
Atrophy																															1	7	2.3
Hyperplasia, Lymphoid																															4	2	2.0

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 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

TDMS No. 88148 - 06
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/SD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
3,3',4,4'-Tetrachloroazobenzene
CAS Number: 14047-09-7

Date Report Requested: 04/15/2009
Time Report Requested: 09:57:26
First Dose M/F: 01/29/03 / 01/30/03
Lab: BAT

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	5	4	5	5	4	5	3	5	2	5	6	3	4	6	2	6	6	5	6	5	7	2	7	6	
	0	0	9	3	6	3	6	9	0	2	2	4	6	7	5	7	2	1	0	6	5	1	8	2	3	
	1	3	9	9	7	3	0	8	0	5	4	3	5	6	7	4	3	3	3	8	3	6	1	7	4	
SPRAGUE-DAWLEY RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
100 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	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	
	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	0	
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	
																									* TOTALS	

Pigmentation																									1	2	1.5	
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Atrophy	2																										5	2.6
Inflammation, Granulomatous	2																										1	2.0
Pigmentation	1		1			1		1	1				2	1	1		1			2				1	1		20	1.2
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hematopoietic Cell Proliferation	1	1	1	1	1	1	1	1	1		2	1	1	1	2	1	1										41	1.4
Pigmentation	1	1	1	2	2		1	1		1		1	3	2	1	2			1	1		1					35	1.3
Lymphoid Follicle, Atrophy					3								2								3						12	2.5
Thymus	+	+	+	+	+	+	+	+	+	+	+		M	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Atrophy	2	4	4	4	4	4	3	3	3	2	1	3		4	3	4	3	4	2	3	4	4	4	4	3		47	3.4
Inflammation																											1	2.0

INTEGUMENTARY SYSTEM

Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Inflammation																									2		1	2.0
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Cyst Epithelial Inclusion					X																X						4	
Inflammation					3					3																	2	3.0
Ulcer																											1	4.0

MUSCULOSKELETAL SYSTEM

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+ .. Tissue examined microscopically
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M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
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2) Mild 4) Marked
Page 72

TDMS No. 88148 - 06
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/SD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 3,3',4,4'-Tetrachloroazobenzene
 CAS Number: 14047-09-7

Date Report Requested: 04/15/2009
 Time Report Requested: 09:57:26
 First Dose M/F: 01/29/03 / 01/30/03
 Lab: BAT

DAY ON TEST	0																								
	2	5	7	7	6	7	7	7	4	7	7	7	7	6	5	6	5	7	6	7	7	3	7	6	7
3	4	2	2	7	2	2	2	0	2	2	2	2	1	8	6	4	2	9	2	2	7	2	3	2	
2	0	8	8	4	8	8	8	6	8	7	7	7	4	7	0	8	7	6	7	8	2	8	6	8	

ANIMAL ID	0																									females (cont...)
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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		
0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2		
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	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon Parasite Metazoan	+	+	+	+	+	X	+	+	+	+	+	+	+	+	X	+	+	+	+	+	+	X	X	+
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Basophilic Focus															X									
Clear Cell Focus			X			X	X			X	X	X			X								X	
Eosinophilic Focus																								X
Fatty Change, Focal				1																				
Fibrosis																								2
Hematopoietic Cell Proliferation		1	1	1	1			1		2		1	1		1	1	1	1	1	1		1	1	
Hepatodiaphragmatic Nodule																								X
Hyperplasia, Nodular																								X
Inflammation, Chronic Active			1			1	1	1			1		1	1			1	1		1	1	2	1	

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DAY ON TEST	0																								
	2	5	7	7	6	7	7	7	4	7	7	7	7	6	5	6	5	7	6	7	7	3	7	6	7
ANIMAL ID	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
Mixed Cell Focus																									X
Necrosis					4																				
Pigmentation																									
Thrombosis					4																				
Bile Duct, Cyst															1										
Bile Duct, Fibrosis																									
Bile Duct, Hyperplasia										1	1			2						1					
Centrilobular, Degeneration						2																			
Hepatocyte, Hypertrophy		1		3																					
Mesentery																									
Fat, Necrosis						+																			
Oral Mucosa	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation																									
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy																									
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation																									
Mineralization																						1			
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation																									
Tooth	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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TDMS No. 88148 - 06
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 Time Report Requested: 09:57:26
 First Dose M/F: 01/29/03 / 01/30/03
 Lab: BAT

DAY ON TEST	0																								
	2	5	7	7	6	7	7	7	4	7	7	7	7	6	5	6	5	7	6	7	7	3	7	6	7
3	4	2	2	7	2	2	2	0	2	2	2	2	1	8	6	4	2	9	2	2	7	2	3	2	
2	0	8	8	4	8	8	8	6	8	7	7	7	4	7	0	8	7	6	7	8	2	8	6	8	

SPRAGUE-DAWLEY RATS FEMALE 0 MG/KG	ANIMAL ID	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
0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2		
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		

females (cont...)

Peridental Tissue, Inflammation	1										2									
---------------------------------	---	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--

CARDIOVASCULAR SYSTEM

Blood Vessel Inflammation	+																								
Mineralization	1										1														
Heart Cardiomyopathy	+																								
Endocardium, Hyperplasia	2																								

ENDOCRINE SYSTEM

Adrenal Cortex Degeneration	+																								
Hypertrophy	1 1 1 2 1 2 2 3 1 1 3 1 1 1 1 2 3 1 1 1																								
Necrosis	2																								
Vacuolization Cytoplasmic	1																								
Zona Fasciculata, Hyperplasia	1 2 1 1 2 4 1 1 3 2 1 3																								
Adrenal Medulla Hyperplasia	+																								
Islets, Pancreatic	+																								
Parathyroid Gland	+ + M + + + + + + + M + + + + + + + + + + + + +																								

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 First Dose M/F: 01/29/03 / 01/30/03
 Lab: BAT

DAY ON TEST	0																								
	2	5	7	7	6	7	7	7	4	7	7	7	7	6	5	6	5	7	6	7	7	3	7	6	7
3	4	2	2	7	2	2	2	0	2	2	2	2	1	8	6	4	2	9	2	2	7	2	3	2	
2	0	8	8	4	8	8	8	6	8	7	7	7	4	7	0	8	7	6	7	8	2	8	6	8	

ANIMAL ID	0																									females (cont...)
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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		
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	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5		

URINARY SYSTEM

Kidney	+																								
Casts	1																								
Mineralization	1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1																								
Nephropathy	1 1 1 2 1 1 1 1 1 1 1 1 1 2 2 1 1 2 2																								
Pelvis, Inflammation	2																								
Pelvis, Transitional Epithelium, Hyperplasia	2																								
Renal Tubule, Hyperplasia, Atypical	1																								
Urethra	+																								
Urinary Bladder	+																								
Transitional Epithelium, Hyperplasia	2																								

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TDMS No. 88148 - 06
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 Route: GAVAGE
 Species/Strain: RATS/SD

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DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	5	5	5	7	7	7	1	3	7	7	7	5	5	7	7	7	5	7	7	7	7	7	2
	2	2	6	8	2	2	2	2	5	6	2	2	2	5	8	2	2	2	8	2	2	2	2	2	7
	8	8	0	7	7	7	7	8	3	6	8	8	7	3	9	7	7	7	7	7	7	8	7	8	1
SPRAGUE-DAWLEY RATS FEMALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	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
10 MG/KG	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7
	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

females (cont...)

Necrosis, Fibrinoid Pigmentation	2	2	1	1	2		2	1	2	3	2	1	1	2	2	1	1	1	1	1	2		2	1	2
Lymphoid Follicle, Atrophy					2				2					3											
Thymus Atrophy	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	3	4	3	4	4	4	4	4	1	3	4	4	3	3	3	4	3	4	4	4	3	4	4	4	3

INTEGUMENTARY SYSTEM

Mammary Gland Dilatation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia			2		1													1		1	2	1			
Pigmentation																									
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

MUSCULOSKELETAL SYSTEM

Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Skeletal Muscle Inflammation																									

NERVOUS SYSTEM

Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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TDMS No. 88148 - 06

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Route: GAVAGE

Species/Strain: RATS/SD

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3,3',4,4'-Tetrachloroazobenzene

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First Dose M/F: 01/29/03 / 01/30/03

Lab: BAT

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
7	7	5	5	5	7	7	7	1	3	7	7	7	5	5	7	7	7	5	7	7	7	7	2
2	2	6	8	2	2	2	2	5	6	2	2	2	5	8	2	2	2	8	2	2	2	2	7
8	8	0	7	7	7	7	8	3	6	8	8	7	3	9	7	7	7	7	7	8	7	8	1

SPRAGUE-DAWLEY RATS FEMALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7		
10 MG/KG	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

females (cont...)

Peripheral Nerve

RESPIRATORY SYSTEM

Lung

Inflammation, Chronic Active Necrosis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	1	1	1	
Pigmentation	1									1				1						1	1	1	
Alveolar Epithelium, Hyperplasia																							
Alveolar Epithelium, Metaplasia, Bronchiolar			1		1	3	2			2	1	1	1	1					1		2		
Alveolar Epithelium, Metaplasia, Squamous													4				1						
Alveolus, Infiltration Cellular, Histiocyte		1			1	3	2	1			1		1	2	2		1			3		1	1

Nose

Inflammation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
						1	1	1													1		1

Trachea

	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

SPECIAL SENSES SYSTEM

Eye

	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Harderian Gland

	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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

+ .. Tissue examined microscopically

x .. Lesion present

l .. 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

TDMS No. 88148 - 06
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/SD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 3,3',4,4'-Tetrachloroazobenzene
 CAS Number: 14047-09-7

Date Report Requested: 04/15/2009
 Time Report Requested: 09:57:26
 First Dose M/F: 01/29/03 / 01/30/03
 Lab: BAT

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	5	5	5	7	7	7	1	3	7	7	7	5	5	7	7	7	5	7	7	7	7	2	
	2	2	6	8	2	2	2	2	5	6	2	2	2	5	8	2	2	2	8	2	2	2	2	7	
	8	8	0	7	7	7	7	8	3	6	8	8	7	3	9	7	7	7	7	7	8	7	8	1	
SPRAGUE-DAWLEY RATS FEMALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	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	
10 MG/KG	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	
	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
Zymbal's Gland	+																								

females
(cont...)

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Accumulation, Hyaline Droplet								1												1					
Infarct																									
Inflammation, Diffuse																									
Mineralization	1			1		1	1	1		1	1	1	1		1	1	1	1		1		1	1	1	
Nephropathy	1	1		1	1	4	2	1			1	1	2			1		1	1	2	1	2	3	1	1
Cortex, Cyst						2																			
Pelvis, Inflammation															1										
Pelvis, Transitional Epithelium, Hyperplasia																									
Urethra	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Inflammation																									
Transitional Epithelium, Hyperplasia																									
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Inflammation																									
Metaplasia, Squamous																									

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 Page 99
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TDMS No. 88148 - 06

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Species/Strain: RATS/SD

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Lab: BAT

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	7	7	5	7	5	7	7	6	5	3	7	7	3	7	7	7	4	7	7	7	7	7	4	7	
	0	2	2	8	2	1	2	2	2	4	0	2	2	3	2	2	0	6	2	2	2	2	2	6	2	
	6	8	7	9	8	0	7	7	1	4	9	7	8	5	7	8	5	0	7	7	7	2	8	0	7	
SPRAGUE-DAWLEY RATS FEMALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	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	3	
10 MG/KG	7	7	7	7	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	0	
ANIMAL ID	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	
																									* TOTALS	

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48		
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Parasite Metazoan																		X								2		
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Angiectasis																										1	4	1.0
Basophilic Focus						X			X							X											10	
Cholangiofibrosis																											1	1.0
Clear Cell Focus					X		X	X				X	X		X				X	X		X	X				22	
Degeneration, Cystic											1																2	1.0
Eosinophilic Focus			X		X	X		X	X	X		X	X	X		X		X	X								27	
Fatty Change, Focal																											2	1.0
Fatty Change, Diffuse										1																	3	1.0
Hematopoietic Cell Proliferation	1	1	1	1	1	2	1	1		1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42	1.1

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Page 100
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TDMS No. 88148 - 06
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 Species/Strain: RATS/SD

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3,3',4,4'-Tetrachloroazobenzene

CAS Number: 14047-09-7

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 Lab: BAT

DAY ON TEST	0 0																								* TOTALS
	6	7	7	5	7	5	7	7	6	5	3	7	7	3	7	7	7	4	7	7	7	7	7	4	
SPRAGUE-DAWLEY RATS FEMALE 10 MG/KG	0 0																								* TOTALS
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
ANIMAL ID	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	0
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
Hyperplasia, Nodular			X															X							3
Inflammation, Chronic Active	2	1	2				1	1					1	1	1	1		1	1	1		1	1	1	29 1.1
Mixed Cell Focus							X	X					X						X					X	16
Necrosis	2		1						2	2															6 1.5
Pigmentation				1	1	1						1							1				1	1	17 1.2
Toxic Hepatopathy			1																1						4 1.0
Bile Duct, Cyst		1			3														2						4 1.8
Bile Duct, Fibrosis																					2				1 1.0
Bile Duct, Hyperplasia		2	2		2		1		1	1			1	2					1		1			1	26 1.2
Centrilobular, Degeneration			1																						2 1.0
Hepatocyte, Hypertrophy			2		3		2		2		1	2	2	1		3	2		2	2	1		1		33 1.8
Hepatocyte, Multinucleated									1																2 1.0
Oval Cell, Hyperplasia			1		1		1		1										1					1	7 1.0
Serosa, Fibrosis																									1 1.0
Mesentery																									2
Fat, Necrosis								3																	1 3.0
Oral Mucosa																									50
Gingival, Hyperplasia, Cystic Keratinizing																			2				1		4 2.0
Gingival, Hyperplasia, Squamous																					2			2	8 1.8
Pancreas																									49
Atrophy																							2	1	11 1.2
Inflammation																									1 1.0
Acinus, Vacuolization Cytoplasmic																									27 1.7
Salivary Glands																									49
Atrophy																									1 2.0
Fibrosis																									1 2.0

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 Page 101

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	7	7	5	7	5	7	7	6	5	3	7	7	3	7	7	7	4	7	7	7	7	7	4	7
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	3
10 MG/KG	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	0
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
																								* TOTALS	

Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Inflammation				1				3																	3 2.0
Mineralization								2								1									2 1.5
Epithelium, Hyperplasia			3	1	2	1	1	3					1	1				2		2	3	1	1	1	32 1.7
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Mineralization																	1								1 1.0
Tooth	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Peridontal Tissue, Inflammation				2									1										1	1	10 1.2

CARDIOVASCULAR SYSTEM

Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation				2									2	1	1					3		3			10 1.9
Mineralization																1									1 1.0
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cardiomyopathy			1							1					1	1	1		1		1	1	1	1	16 1.1

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Atrophy																								3	1 3.0	
Degeneration				2												1							2	2	1	12 1.7
Hypertrophy				1		1			1	1				1			2	1	1	1	1	1	1	2	31 1.4	

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TDMS No. 88148 - 06
 Test Type: CHRONIC
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 Species/Strain: RATS/SD

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3,3',4,4'-Tetrachloroazobenzene

CAS Number: 14047-09-7

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First Dose M/F: 01/29/03 / 01/30/03

Lab: BAT

DAY ON TEST	0 0																							
	6 7 7 5 7 5 7 7 6 5 3 7 7 3 7 7 7 4 7 7 7 7 7 4 7																							
ANIMAL ID	0 0																							
	2 3																							
10 MG/KG	7 7 7 8 0																							
	6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0																							
																								* TOTALS

Thrombosis																									1	1.0					
Vacuolization Cytoplasmic	3						1	2						1												1	2	16	1.5		
Zona Fasciculata, Hyperplasia							1	3						1		4		2								1	1	1	1	20	1.9
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50					
Hyperplasia														1									4		2			5	2.2		
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50					
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	46					
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50					
Pars Distalis, Hyperplasia								2						1	1		1									2	2	13	1.8		
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49					
C-cell, Hyperplasia				4													2									1		5	2.2		
Follicle, Cyst															2													1	2.0		
Follicular Cell, Hyperplasia														2														1	2.0		
Follicular Cell, Hypertrophy	2																											1	2.0		

GENERAL BODY SYSTEM

Peritoneum																										+		1
------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	---	--	---

GENITAL SYSTEM

Clitoral Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
----------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	----

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DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	7	7	5	7	5	7	7	6	5	3	7	7	3	7	7	7	4	7	7	7	7	7	4	7	0
	0	2	2	8	2	1	2	2	2	4	0	2	2	3	2	2	0	6	2	2	2	2	2	6	2	0
	6	8	7	9	8	0	7	7	1	4	9	7	8	5	7	8	5	0	7	7	7	2	8	0	7	0
SPRAGUE-DAWLEY RATS FEMALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	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	3	0
ANIMAL ID	7	7	7	7	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	0	0
10 MG/KG	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	* TOTALS

Cyst																									1	2.0
Hyperplasia, Squamous	2																								1	2.0
Ovary	+ +																								50	
Cyst																									1	1
Inflammation																									1	4
																									8	2.0
Uterus	+ +																								50	
Angiectasis																										
Inflammation	4																								1	1
Endometrium, Hyperplasia, Cystic																										2
Endometrium, Metaplasia, Squamous																									4	3
																									1	4
																									3	2
																									2	1
																									2	3
																									1	2
																									3	1
																									3	4
																									2	3
																									28	2.6
Vagina																										
Epithelium, Hyperplasia																										1
																									2	
																										2
																										1.5

HEMATOPOIETIC SYSTEM

Bone Marrow	+ +																								50	
Hyperplasia	1 2 4 1 1 4 2 3 4 3 4 2 4 4 3 4 1 3 2																								41	2.6
Lymph Node, Mandibular	+ +																								49	
Lymph Node, Mesenteric	+ +																								49	
Pigmentation	1 1 2 2 1 2 1 3 1 1 2 1 1 2 2 1 2 2 1																								32	1.3
Spleen	+ +																								50	
Hematopoietic Cell Proliferation	3 2 3 1 2 2 2 2 4 3 2 2 2 2 2 2 4 2 3																								47	2.2

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DAY ON TEST	0 0																								
	6 7 7 5 7 5 7 7 6 5 3 7 7 3 7 7 7 4 7 7 7 7 7 4 7																								
ANIMAL ID	0 2 2 8 2 1 2 2 2 4 0 2 2 3 2 2 0 6 2 2 2 2 2 6 2																								
	6 8 7 9 8 0 7 7 1 4 9 7 8 5 7 8 5 0 7 7 7 2 8 0 7																								
SPRAGUE-DAWLEY RATS	0 0																								
FEMALE	0 0																								
10 MG/KG	2 3																								
	7 7 7 7 8 8 8 8 8 8 8 8 8 8 9 9 9 9 9 9 9 9 9 9 0																								
	6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0																								
	* TOTALS																								

Necrosis, Fibrinoid Pigmentation	1	1	1	2	2	2	1	2		1	1	1	2		1	1		1	1	2	2	1	1	2		1 2.0	
Lymphoid Follicle, Atrophy									2																		44 1.5
																											4 2.3

Thymus Atrophy	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50
	4	3	3	4	4	3	4	4	4	4	4	4	4	3	4	4	4	3	4	4	4		4	3	4		49 3.6

INTEGUMENTARY SYSTEM

Mammary Gland Dilatation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50
Hyperplasia			1	3										4								1		1			11 1.6
Pigmentation																									4		1 4.0

Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-----------

MUSCULOSKELETAL SYSTEM

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

Skeletal Muscle Inflammation																									+		1
																								4			1 4.0

NERVOUS SYSTEM

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

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

TDMS No. 88148 - 06
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/SD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

3,3',4,4'-Tetrachloroazobenzene

CAS Number: 14047-09-7

Date Report Requested: 04/15/2009
 Time Report Requested: 09:57:26
 First Dose M/F: 01/29/03 / 01/30/03
 Lab: BAT

DAY ON TEST	0 0																								* TOTALS
	6	7	7	5	7	5	7	7	6	5	3	7	7	3	7	7	7	4	7	7	7	7	7	4	
	0	2	2	8	2	1	2	2	2	4	0	2	2	3	2	2	0	6	2	2	2	2	2	6	2
	6	8	7	9	8	0	7	7	1	4	9	7	8	5	7	8	5	0	7	7	7	2	8	0	7
SPRAGUE-DAWLEY RATS FEMALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 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	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
	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	0
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0

Peripheral Nerve

+

1

RESPIRATORY SYSTEM

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50				
Inflammation, Chronic Active																									5	1.4			
Necrosis																									1	2.0			
Pigmentation		1										1										1	1	1		11	1.0		
Alveolar Epithelium, Hyperplasia															1											1	1.0		
Alveolar Epithelium, Metaplasia, Bronchiolar		2		2			1	1				1	2	1	1			1							1		21	1.4	
Alveolar Epithelium, Metaplasia, Squamous		1												4														4	2.5
Alveolus, Infiltration Cellular, Histiocyte		2	1					2					1	2		2			1		1		2	1				23	1.5
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50			
Inflammation				1								2																7	1.1
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50			

SPECIAL SENSES SYSTEM

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

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TDMS No. 88148 - 06
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/SD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 3,3',4,4'-Tetrachloroazobenzene
 CAS Number: 14047-09-7

Date Report Requested: 04/15/2009
 Time Report Requested: 09:57:26
 First Dose M/F: 01/29/03 / 01/30/03
 Lab: BAT

DAY ON TEST	0 0																								* TOTALS
	6	7	7	5	7	5	7	7	6	5	3	7	7	3	7	7	7	4	7	7	7	7	7	4	
SPRAGUE-DAWLEY RATS FEMALE 10 MG/KG	0 0																								* TOTALS
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
ANIMAL ID	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	0
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
Zymbal's Gland																									1

URINARY SYSTEM

Kidney	+ +																								50	
Accumulation, Hyaline Droplet																									2	1.0
Infarct																									4	1.0
Inflammation, Diffuse																									4	1.0
Mineralization	1	1	1	1		1		1							1		1	1	1		1	1	1	1		
Nephropathy		2	2	1	1		1	1	1	1	2	2	2	1	2	1		1	1	1	2	1	3			
Cortex, Cyst																									1	2.0
Pelvis, Inflammation																									2	1.5
Pelvis, Transitional Epithelium, Hyperplasia																									2	2.0
Urethra	+ +																								50	
Inflammation																									2	2.0
Transitional Epithelium, Hyperplasia																									1	1.0
Urinary Bladder	+ +																								50	
Inflammation																									2	2.0
Metaplasia, Squamous																									3	3.0

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 + .. Tissue examined microscopically
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 I .. Insufficient tissue
 M .. Missing tissue
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 Page 107

TDMS No. 88148 - 06
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/SD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 3,3',4,4'-Tetrachloroazobenzene
 CAS Number: 14047-09-7

Date Report Requested: 04/15/2009
 Time Report Requested: 09:57:26
 First Dose M/F: 01/29/03 / 01/30/03
 Lab: BAT

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

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis											1		1														
Basophilic Focus																											
Clear Cell Focus				X									X		X					X						X	
Degeneration, Cystic														1						1						2	
Eosinophilic Focus	X			X		X				X	X	X	X			X		X	X	X	X	X	X	X	X	X	X
Fatty Change, Focal				1																							
Fatty Change, Diffuse																	1		1								
Fibrosis																										2	
Hematopoietic Cell Proliferation	2	1	1	1	1	1			1		1	1	1	1	1	1	1	1	1						1	1	1
Hepatodiaphragmatic Nodule																									X		

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

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88148 - 06
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/SD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 3,3',4,4'-Tetrachloroazobenzene
 CAS Number: 14047-09-7

Date Report Requested: 04/15/2009
 Time Report Requested: 09:57:26
 First Dose M/F: 01/29/03 / 01/30/03
 Lab: BAT

DAY ON TEST	0 0																									females (cont...)
	7 7 7 5 6 5 5 6 2 7 7 7 7 2 7 6 7 7 6 6 7 7 5 7 2 2 2 6 6 4 8 1 2 2 2 2 2 7 2 3 2 2 1 4 2 1 2 2 7 8 8 0 8 0 7 2 9 8 7 8 8 8 3 7 4 7 7 5 9 7 6 5 7																									
SPRAGUE-DAWLEY RATS FEMALE																									females (cont...)	
ANIMAL ID	0 3 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 2 2 2 2 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																									
30 MG/KG																										females (cont...)
Hyperplasia, Nodular	X																									
Inflammation, Chronic Active	1	1				1				1	1	1	1	1	1	1	1	1	2	1	1			1		
Mixed Cell Focus		X	X							X	X		X	X		X			X					X		
Necrosis					2			2											2							
Pigmentation			1	1		3	1					1	1	1		1		1			2	1	2	2		
Thrombosis																										
Toxic Hepatopathy	1		1							1								1			1	1				
Bile Duct, Cyst											1		2	2												
Bile Duct, Fibrosis											1															
Bile Duct, Hyperplasia	2	1			1			2	1	1	1	1	2			1		1	2	1		1	2	1		
Centrilobular, Degeneration					3			2											3			2				
Hepatocyte, Hypertrophy	2	2	1	2	4	2		1			2	2	3	2	1	3	2	3	2		3	2		2		
Hepatocyte, Multinucleated																								1		
Oval Cell, Hyperplasia	1	1			1		1	1				2	1	1		1		1		1		2	1	1		
Mesentery																										
Thrombosis																										
Oral Mucosa																										
Gingival, Hyperplasia, Cystic Keratinizing																										
Gingival, Hyperplasia, Squamous																										
Pancreas																										
Atrophy																										
Inflammation	3																									
Acinus, Hyperplasia																										
Acinus, Vacuolization Cytoplasmic	2	1			3	3	1	1	2	2	1	1	2			2	4	2	2	2	1	3		2		
Duct, Atypia Cellular																										
Salivary Glands																										

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 M .. Missing tissue
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 1) Minimal 3) Moderate
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 Page 109

TDMS No. 88148 - 06
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/SD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 3,3',4,4'-Tetrachloroazobenzene
 CAS Number: 14047-09-7

Date Report Requested: 04/15/2009
 Time Report Requested: 09:57:26
 First Dose M/F: 01/29/03 / 01/30/03
 Lab: BAT

DAY ON TEST	0																								
	7	7	7	5	6	5	5	6	2	7	7	7	7	7	2	7	6	7	7	6	6	7	7	5	7
SPRAGUE-DAWLEY RATS FEMALE 30 MG/KG	0																								
	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
ANIMAL ID	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

females
(cont...)

Stomach, Forestomach Inflammation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Mineralization								1																	
Necrosis									2											1					
Epithelium, Hyperplasia	3	3	1	1	3	4	1	2		3	3	4	3	3		2	2	1	1	4	1	3	2	1	3
Stomach, Glandular Mineralization	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Tooth Peridontal Tissue, Inflammation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
									1	1	2					1		1	1	1		1			

CARDIOVASCULAR SYSTEM

Blood Vessel Inflammation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Mineralization	4	1			2															3				1
Heart Cardiomyopathy	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation					1	1							1	1								1		1
Mineralization																								
Necrosis																								
Thrombosis																								

ENDOCRINE SYSTEM

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TDMS No. 88148 - 06
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/SD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 3,3',4,4'-Tetrachloroazobenzene
 CAS Number: 14047-09-7

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 Time Report Requested: 09:57:26
 First Dose M/F: 01/29/03 / 01/30/03
 Lab: BAT

DAY ON TEST	0 0																								
	7 7 7 5 6 5 5 6 2 7 7 7 7 2 7 6 7 7 6 6 7 7 5 7																								
ANIMAL ID	2 2 2 6 6 4 8 1 2 2 2 2 2 2 7 2 3 2 2 1 4 2 1 2 2																								
	7 8 8 0 8 0 7 2 9 8 7 8 8 8 3 7 4 7 7 5 9 7 6 5 7																								
SPRAGUE-DAWLEY RATS FEMALE 30 MG/KG	0 0																								
	0 0																								
	3 3																								
	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																								
	females (cont...)																								
Adrenal Cortex	+ +																								
Atrophy																									
Degeneration	3 1 1 4 1 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1																								
Hypertrophy	4 1 2 2 2 2 2 2 2 1 1 2 3 1 2 1 1																								
Necrosis	1																								
Thrombosis	1																								
Vacuolization Cytoplasmic	1 2 1																								
Zona Fasciculata, Hyperplasia	1 4 1 1 2 2 2 2 3 2 1 3 1 4																								
Adrenal Medulla	+ +																								
Hyperplasia	1 1																								
Islets, Pancreatic	+ +																								
Parathyroid Gland	+ M + + + + +																								
Pituitary Gland	+ +																								
Necrosis	2 1																								
Pars Distalis, Hyperplasia	1 4 2 3 1																								
Pars Intermedia, Hyperplasia	1																								
Thyroid Gland	+ +																								
Inflammation	3																								
C-cell, Hyperplasia	1																								
Follicular Cell, Hyperplasia	1 4																								
Follicular Cell, Hypertrophy	1 2																								

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 Page 111

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 Route: GAVAGE
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 CAS Number: 14047-09-7

Date Report Requested: 04/15/2009
 Time Report Requested: 09:57:26
 First Dose M/F: 01/29/03 / 01/30/03
 Lab: BAT

DAY ON TEST	Animals																								
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	7	7	5	6	5	5	6	2	7	7	7	7	7	2	7	6	7	7	6	6	7	7	5	7	
2	2	2	6	6	4	8	1	2	2	2	2	2	2	7	2	3	2	2	1	4	2	1	2	2	
7	8	8	0	8	0	7	2	9	8	7	8	8	8	3	7	4	7	7	5	9	7	6	5	7	
<hr/>																									
SPRAGUE-DAWLEY RATS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FEMALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30 MG/KG	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	

females (cont...)

GENERAL BODY SYSTEM

Peritoneum

GENITAL SYSTEM

Clitoral Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cyst						2	2								2									
Hyperplasia, Squamous						2																		
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cyst			2		2	1			2			2					4	2	2					1
Inflammation																								
Oviduct																								
Cyst																								
Inflammation																								
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis					2																			
Hemorrhage																								
Inflammation																								
Endometrium, Hyperplasia, Cystic	2												2	1										3
Endometrium, Metaplasia, Squamous		4		2				1			3						3	3				3		2

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
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TDMS No. 88148 - 06
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/SD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

3,3',4,4'-Tetrachloroazobenzene

CAS Number: 14047-09-7

Date Report Requested: 04/15/2009
 Time Report Requested: 09:57:26
 First Dose M/F: 01/29/03 / 01/30/03
 Lab: BAT

DAY ON TEST	0 0																								* TOTALS	
	5	6	6	7	7	7	6	3	6	5	7	4	5	6	5	6	7	5	7	7	5	4	6	7		7
SPRAGUE-DAWLEY RATS FEMALE 30 MG/KG	0 0																								* TOTALS	
	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		3
ANIMAL ID	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	0	
Hyperplasia, Nodular				X	X		X	X		X	X		X	X		X	X		X	X		X	X		11	
Inflammation, Chronic Active	1	1	1	1	1	2	1	2		1	2		2	1	1		2	1	1		1	1	1	1	32 1.2	
Mixed Cell Focus					X	X				X					X							X			14	
Necrosis			1			1	1		2			1									1				10 1.4	
Pigmentation	1	2	2	2		3	2		1	1		4	2		3	1	2		1	1		2		1	32 1.6	
Thrombosis																						4			1 4.0	
Toxic Hepatopathy				2		2					2	2			2		1		1	3					14 1.5	
Bile Duct, Cyst											1												1		5 1.4	
Bile Duct, Fibrosis					1		1																	1	4 1.0	
Bile Duct, Hyperplasia	1		1	2		3	3				2				1	2	2	2		3			2	2	29 1.6	
Centrilobular, Degeneration			1			1	1			2	1		2		1	2		2	1	3		3	1	1	18 1.8	
Hepatocyte, Hypertrophy		1	2	3	3	1				3	1	3	4		2	3		2	3		4	2	3	1	3	38 2.3
Hepatocyte, Multinucleated																									1 1.0	
Oval Cell, Hyperplasia			1			2	2		1	1				1	1			1	3					1	24 1.3	
Mesentery																									1	
Thrombosis																									2	1 2.0
Oral Mucosa	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Gingival, Hyperplasia, Cystic Keratinizing						1	3																2		9 2.1	
Gingival, Hyperplasia, Squamous	1	1		1	1							1		1	1				1	1	1		2	1	2	24 1.4
Pancreas	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Atrophy		1							2													3		1	12 1.6	
Inflammation		1																				3			4 2.3	
Acinus, Hyperplasia																								2	1 2.0	
Acinus, Vacuolization Cytoplasmic		2	2	3	2					1	2	1		1	2	4	1					1	3	2	33 1.9	
Duct, Atypia Cellular																									1 2.0	
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	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

TDMS No. 88148 - 06
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/SD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 3,3',4,4'-Tetrachloroazobenzene
 CAS Number: 14047-09-7

Date Report Requested: 04/15/2009
 Time Report Requested: 09:57:26
 First Dose M/F: 01/29/03 / 01/30/03
 Lab: BAT

DAY ON TEST	0 0																								* TOTALS
	5	6	6	7	7	7	6	3	6	5	7	4	5	6	5	6	7	5	7	7	5	4	6	7	
ANIMAL ID	0 0																								* TOTALS
	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
SPRAGUE-DAWLEY RATS FEMALE																									
30 MG/KG																									
Adrenal Cortex	+ +																								50
Atrophy																									1 2.0
Degeneration	2 1																								17 1.5
Hypertrophy	1 2 1 1 1 2 1 1 1 3 2																								30 1.6
Necrosis	2 2 2																								7 1.9
Thrombosis																									1 1.0
Vacuolization Cytoplasmic	3 2 1 2 1 2 1 2																								13 1.5
Zona Fasciculata, Hyperplasia	1 2 1 2 1 2 1 1 2 2 3																								25 1.9
Adrenal Medulla	+ +																								50
Hyperplasia	2																								3 1.3
Islets, Pancreatic	+ +																								50
Parathyroid Gland	+ + + + + + + M + + + + M + + + + + + + + + M + +																								46
Pituitary Gland	+ +																								50
Necrosis																									2 1.5
Pars Distalis, Hyperplasia	3 1 1 1																								12 1.7
Pars Intermedia, Hyperplasia																									1 1.0
Thyroid Gland	+ +																								50
Inflammation	3																								2 3.0
C-cell, Hyperplasia	1 3																								3 1.7
Follicular Cell, Hyperplasia	4																								3 3.0
Follicular Cell, Hypertrophy																									2 1.5

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