

**Experiment Number:** 10188 - 01  
**Test Type:** CHRONIC  
**Route:** DOSED FEED  
**Species/Strain:** RATS/HSD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
Di(2-ethylhexyl) Phthalate  
**CAS Number:** 117-81-7

**Date Report Requested:** 12/17/2019  
**Time Report Requested:** 10:43:08  
**First Dose M/F:** 02/17/11 / 02/18/11  
**Lab:** BAT

Final 2\_HSD Rats

**NTP Study Number:** C10188B  
**Lock Date:** 04/01/2015  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 3.0.2.3\_002  
**PWG Approval Date:** NONE



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HARLAN SPRAGUE DAWLEY RATS MALE 0 ppm Male	DAY ON TEST																								ANIMAL ID	males (cont...)
	0734	0734	0734	0734	0738	0738	0733	0733	0733	0737	0735	0735	0736	0734	0737	0735	0736	0736	0736	0736	0737	0732	0737	0737		
Eosinophilic Focus																									X	
Extramedullary Hematopoiesis																									1	
Fibrosis																									2	
Inflammation, Focal																									1	
Mixed Cell Focus																										
Polyarteritis Nodosa																										
Bile Duct, Cyst																										
Bile Duct, Hyperplasia																									1 1 1 1 1	
Mesentery																										
Polyarteritis Nodosa																									+	
Pancreas																									+	
Basophilic Focus																									X	
Inflammation, Chronic Active																										
Polyarteritis Nodosa																									2	
Acinus, Atrophy																									2	
Acinus, Hyperplasia																									3	
Duct, Inflammation, Chronic Active																									3	
Salivary Glands																										
Stomach, Forestomach																										
Inflammation, Chronic Active																										
Mineral																										
Epithelium, Hyperplasia																									1	
Stomach, Glandular																										
Cyst, Squamous																										
Mineral																									4	

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
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	0 7 3 4	0 7 3 4	0 7 3 4	0 7 3 4	0 7 3 8	0 7 3 8	0 4 3 3	0 7 3 3	0 7 3 3	0 6 9 7	0 7 3 5	0 7 3 5	0 6 4 6	0 7 2 6	0 5 5 6	0 6 3 3	0 7 6 6	0 6 2 5	0 6 9 1	0 7 3 4	0 2 7 1	0 7 3 6	0 7 3 5			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	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	

Bilateral, Hyperplasia, Diffuse

2 3

Pituitary Gland

Pigment, Cholesterol

Pars Distalis, Hyperplasia

Pars Distalis, Hypertrophy

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

Thyroid Gland

C-cell, Hyperplasia

Follicle, Cyst

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

GENERAL BODY SYSTEM

Peritoneum

GENITAL SYSTEM

Epididymis

Polyarteritis Nodosa

Bilateral, Hypospermia

Bilateral, Inflammation, Suppurative

Bilateral, Inflammation, Chronic

Bilateral, Polyarteritis Nodosa

Bilateral, Duct, Exfoliated Germ Cell

+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
								4				4						4				
												2										
												2		2								

Preputial Gland

Inflammation, Chronic Active

Metaplasia, Squamous

Mineral

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

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	0734	0734	0733	0733	0738	0738	0733	0733	0733	0737	0735	0735	0736	0734	0736	0736	0736	0735	0731	0734			0731	0736	0735	
0 ppm Male	0001	0002	0003	0004	0005	0006	0007	0008	0009	0010	0011	0012	0013	0014	0015	0016	0017	0018	0019	0020	0021	0022	0023	0024	0025	
Lymph Node, Mandibular Atrophy	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	
Lymph Node, Mandibular Dilation														2											2	
Lymph Node, Mandibular Infiltration Cellular, Plasma Cell														2					1	2						
Lymph Node, Mandibular Inflammation, Chronic				1																						
Lymph Node, Mandibular Necrosis				2																						
Lymph Node, Mesenteric Atrophy	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	
Lymph Node, Mesenteric Dilation												2												2		
Lymph Node, Mesenteric Hyperplasia, Lymphocyte																								4		
Lymph Node, Mesenteric Infiltration Cellular, Plasma Cell												2												3		
Lymph Node, Mesenteric Inflammation, Acute																										
Spleen Extramedullary Hematopoiesis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Spleen Pigment	2	2	2	2	2	2	2	2	1	3	1	2	2		2	2	2	2	2	3		2	1	1	2	
Spleen White Pulp, Atrophy	2	1	2	1	1	1	2	2	1		2	1	2	2	2		2	2	1		2	2		1		
Spleen White Pulp, Hyperplasia																										
Thymus Atrophy	+	+	+	+	+	+	M	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	
Thymus Ectopic Parathyroid Gland	2		3	2	1	3		1	2	2	1	1			3		2		3	4	3	1	2			
Thymus Hyperplasia, Lymphocyte																										3
Thymus Infiltration Cellular, Lipocyte																										2
Thymus Polyarteritis Nodosa																										2

**INTEGUMENTARY SYSTEM**

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	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	0000
	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

Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+
Cyst Epithelial Inclusion									X																
Hyperkeratosis																									
Inflammation, Chronic Active									4																

MUSCULOSKELETAL SYSTEM

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

NERVOUS SYSTEM

Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Neuron, Necrosis																									

Peripheral Nerve																									
Infiltration Cellular, Mononuclear Cell																									

RESPIRATORY SYSTEM

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Infiltration Cellular, Histiocyte	2	1		1	1	1		2			3	2			2		1		1		1	1		1	
Inflammation, Granulomatous				1															1					1	
Inflammation, Acute																									
Inflammation, Chronic Active																							1		
Mineral														4											
Alveolar Epithelium, Hyperplasia																									
Serosa, Fibrosis					1																				

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ANIMAL ID	00026	00077	00078	00079	00080	00081	00082	00083	00084	00085	00086	00087	00088	00089	00090	00091	00092	00093	00094	00095	00096	00097	00098	00099	00100	00101	00102	
Eosinophilic Focus																											1	
Extramedullary Hematopoiesis																												1 1.0
Fibrosis																												1 2.0
Inflammation, Focal																												2 1.0
Mixed Cell Focus			X																									1
Polyarteritis Nodosa																												1 1.0
Bile Duct, Cyst			X																									2
Bile Duct, Hyperplasia																												9 1.2
Mesentery																												2
Polyarteritis Nodosa																												2 2.5
Pancreas																												49
Basophilic Focus																												1
Inflammation, Chronic Active																												1 2.0
Polyarteritis Nodosa																												6 2.2
Acinus, Atrophy																												3 2.0
Acinus, Hyperplasia																												7 2.6
Duct, Inflammation, Chronic Active																												1 1.0
Salivary Glands																												50
Stomach, Forestomach																												50
Inflammation, Chronic Active																												1 2.0
Mineral																												1 1.0
Epithelium, Hyperplasia																												3 2.0
Stomach, Glandular																												50
Cyst, Squamous																												1
Mineral																												3 3.3

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	07 35	07 33	07 33	07 33	07 36	07 36	07 35	06 89	04 97	07 33	07 34	07 34	06 22	03 83	07 33	05 64	07 33	07 33	06 22	04 56	06 38	07 35	07 35	07 34		07 34
ANIMAL ID	00026	00027	00028	00029	00030	00031	00032	00033	00034	00035	00036	00037	00038	00039	00040	00041	00042	00043	00044	00045	00046	00047	00048	00049	00050	00051

Bilateral, Hyperplasia, Diffuse 2 2.5

Pituitary Gland + 50

Pigment, Cholesterol 1 1.0

Pars Distalis, Hyperplasia 4 1 2 3 2 1 1 2 1 28 1.5

Pars Distalis, Hypertrophy 1 1 1 1 1 1 1 8 1.0

Thyroid Gland + 50

C-cell, Hyperplasia 3 3 1 3 3 1 4 10 2.2

Follicle, Cyst X 1

GENERAL BODY SYSTEM

Peritoneum + 1

GENITAL SYSTEM

Epididymis + 50

Polyarteritis Nodosa 1 1 1.0

Bilateral, Hypospermia 3 4 3.8

Bilateral, Inflammation, Suppurative 1 2.0

Bilateral, Inflammation, Chronic 1 1.0

Bilateral, Polyarteritis Nodosa 2 1 2.0

Bilateral, Duct, Exfoliated Germ Cell 2 2.0

Preputial Gland + 49

Inflammation, Chronic Active 1 3.0

Metaplasia, Squamous 1 3.0

Mineral 2 1 2.0

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+ .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:  
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ANIMAL ID	00026	00027	00028	00029	00030	00031	00032	00033	00034	00035	00036	00037	00038	00039	00040	00041	00042	00043	00044	00045	00046	00047	00048	00049	00050

Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperplasia		1																								1 1.0
Inflammation, Suppurative																										1 4.0
Dorsal, Epithelium, Lateral, Hyperplasia																										1 1.0
Dorsal, Lateral, Inflammation, Acute																			2							1 2.0
Dorsal, Lateral, Inflammation, Chronic															1											1 1.0
Dorsal, Lateral, Inflammation, Chronic Active																										1 1.0
Epithelium, Ventral, Hyperplasia	1																				3					3 1.7
Ventral, Inflammation, Chronic											1															1 1.0

Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Inflammation, Suppurative																											1 3.0

Testis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Edema																					1						5 1.6
Granuloma Sperm																											1 3.0
Polyarteritis Nodosa																											1 2.0
Bilateral, Edema	1	1	1	1	1	1				1		1			1	1						1	1	1	2	22 1.2	
Bilateral, Polyarteritis Nodosa	2	1	1				2			3	2	2			1				3	2		2		2		24 2.1	
Bilateral, Germinal Epithelium, Degeneration				1			1			3	1					1			2	2	1	1			1	29 1.6	
Germinal Epithelium, Degeneration																											2 2.0
Interstitial Cell, Hyperplasia											3																1 3.0

**HEMATOPOIETIC SYSTEM**

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hypercellularity			2	1	2		2	2	1	1				2													18 2.1
Lymph Node																											1

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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				
7	7	7	7	7	7	6	4	7	7	7	6	3	7	5	7	7	7	6	4	6	7	7	7	7	49	
3	3	3	3	3	3	8	9	3	3	3	1	9	3	6	3	3	3	6	3	3	3	3	3	3		
5	3	3	3	6	6	5	9	7	3	4	4	2	8	3	4	6	6	6	2	5	8	5	4	4		
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		49
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0	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	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		
Lymph Node, Mandibular																								49		
Atrophy																									1 3.0	
Dilation																									3 2.0	
Infiltration Cellular, Plasma Cell																									3 1.7	
Inflammation, Chronic																									1 1.0	
Necrosis																									1 2.0	
Lymph Node, Mesenteric																								49		
Atrophy																									1 4.0	
Dilation																									2 2.0	
Hyperplasia, Lymphocyte																									1 4.0	
Infiltration Cellular, Plasma Cell																									2 2.5	
Inflammation, Acute																									1 2.0	
Spleen																								50		
Extramedullary Hematopoiesis																									45 1.9	
Pigment																									45 1.8	
White Pulp, Atrophy																									1 3.0	
White Pulp, Hyperplasia																									1 2.0	
Thymus																								48		
Atrophy																									41 2.2	
Ectopic Parathyroid Gland																									1 1.0	
Hyperplasia, Lymphocyte																									1 3.0	
Infiltration Cellular, Lipocyte																									1 2.0	
Polyarteritis Nodosa																									1 2.0	

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	0735	0733	0733	0736	0736	0735	0648	0649	0733	0733	0734	0734	0631	0639	0733	0734	0736	0736	0646	0645	0668	0673	0733	0734	
ANIMAL ID	00026	00027	00028	00029	00030	00031	00032	00033	00034	00035	00036	00037	00038	00039	00040	00041	00042	00043	00044	00045	00046	00047	00048	00049	
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Cyst Epithelial Inclusion									X	X												X		5	
Hyperkeratosis																			2					1 2.0	
Inflammation, Chronic Active																								1 4.0	
<b>MUSCULOSKELETAL SYSTEM</b>																									
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
<b>NERVOUS SYSTEM</b>																									
Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Neuron, Necrosis							2																	1 2.0	
Peripheral Nerve																								1	
Infiltration Cellular, Mononuclear Cell																								1 1.0	
<b>RESPIRATORY SYSTEM</b>																									
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Infiltration Cellular, Histiocyte	3		1	1		1		1	1		1	2			1	1	4			1	2	3	2	2	30 1.6
Inflammation, Granulomatous				1							1											1			6 1.0
Inflammation, Acute					1																				1 1.0
Inflammation, Chronic Active																		1							2 1.0
Mineral																									1 4.0
Alveolar Epithelium, Hyperplasia																							2		1 2.0
Serosa, Fibrosis																									1 1.0

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

DAY ON TEST	HARLAN SPRAGUE DAWLEY RATS MALE																								* TOTALS
	0735	0733	0733	0733	0733	0733	0738	0739	0737	0733	0734	0734	0732	0738	0733	0734	0736	0733	0736	0734	0738	0735	0735	0734	
ANIMAL ID	00026	00027	00028	00029	00030	00031	00032	00033	00034	00035	00036	00037	00038	00039	00040	00041	00042	00043	00044	00045	00046	00047	00048	00049	00050

Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation, Chronic Active						1																			1 1.0
Olfactory Epithelium, Accumulation, Hyaline Droplet	2		1	3	2	3				1	2	1	1	1			1	1			1	2	2	2	34 1.7
Respiratory Epithelium, Accumulation, Hyaline Droplet									2																1 2.0
Respiratory Epithelium, Hyperplasia																							1		1 1.0

Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation, Chronic								1																	1 1.0
Inflammation, Chronic Active					1													2							2 1.5

SPECIAL SENSES SYSTEM

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cornea, Inflammation, Chronic													1		1										2 1.0
Cornea, Inflammation, Chronic Active																									2 2.0
Retina, Degeneration									2																1 2.0

Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperplasia																									1 2.0
Metaplasia																									1 2.0

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Infarct		1																							3 1.0	
Inflammation, Suppurative																									1 4.0	
Mineral																									1 4.0	
Nephropathy, Chronic Progressive	3	3	3	2	2	3	4	2	3	3	3	3	1	3	2	2	1	4	4	2	4	3	3	2	2	49 2.7

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+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
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BLANK .. Not examined microscopically  
1-4 .. Lesion qualified as:  
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Experiment Number: 10188 - 01

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Lab: BAT

HARLAN SPRAGUE DAWLEY RATS MALE 300 ppm Male	DAY ON TEST																								ANIMAL ID	males (cont...)
	0734	0734	0736	0733	0735	0735	0727	0776	0777	0775	0763	0759	0753	0753	0769	0766	0766	0757	0777	0766	0773	0773	0733	0733		
	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	0000
	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76

Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Parathyroid Gland Hyperplasia, Focal	+	M	+	+	+	+	+	+	+	+	+	+	+	+	M	+	M	+	M	+	+	M	+	+	+
						1																			2
Pituitary Gland Pars Distalis, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	3	1	3		2	2		3	1				1		1						4			2	
Pars Distalis, Hypertrophy			1						1				1								1	1			
Pars Intermedia, Hyperplasia																									
Thyroid Gland C-cell, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
						1					1													2	
Follicular Cell, Hyperplasia																									

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis Hypospermia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Necrosis																									1
Polyarteritis Nodosa Bilateral, Hypospermia													1												4
Bilateral, Polyarteritis Nodosa																									
Bilateral, Duct, Exfoliated Germ Cell																									2
Preputial Gland Inflammation, Chronic Active	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
																									1

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Species/Strain: RATS/HSD

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Lab: BAT

HARLAN SPRAGUE DAWLEY RATS MALE 300 ppm Male	DAY ON TEST																								ANIMAL ID	males (cont...)	
	0734	0734	0736	0733	0735	0735	0727	0773	0773	0773	0765	0753	0773	0773	0773	0755	0773	0773	0766	0773	0773	0773	0773	0773			0773
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00051	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00052	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00053	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00054	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00055	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00056	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00057	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00058	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00059	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00060	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00061	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00062	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00063	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00064	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00065	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00066	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00067	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00068	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00069	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00070	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00071	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00072	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00073	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00074	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00075	

Infiltration Cellular, Plasma Cell

Lymph Node, Mesenteric

Atrophy

Fibrosis

Hyperplasia, Lymphocyte

Spleen

Extramedullary Hematopoiesis

Pigment

White Pulp, Atrophy

Thymus

Atrophy

Hyperplasia, Lymphocyte

Polyarteritis Nodosa

Epithelial Cell, Hyperplasia

INTEGUMENTARY SYSTEM

Mammary Gland

Skin

Hyperkeratosis

Inflammation, Chronic Active

Ulcer

Hair Follicle, Atrophy

Hair Follicle, Inflammation, Chronic

Sebaceous Gland, Hyperplasia

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Experiment Number: 10188 - 01

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Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

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Lab: BAT

HARLAN SPRAGUE DAWLEY RATS MALE 300 ppm Male	DAY ON TEST																				males (cont...)						
	0 7 3 4	0 7 3 4	0 7 3 6	0 7 3 3	0 7 3 5	0 7 3 5	0 2 8 7	0 7 3 6	0 7 3 5	0 7 3 5	0 6 5 3	0 5 7 9	0 7 3 6	0 7 3 6	0 5 3 6	0 7 5 6	0 7 3 4	0 7 3 4	0 6 5 3	0 7 3 4		0 7 3 3	0 7 3 3	0 7 3 3	0 7 3 3	0 7 3 0	0 7 3 9
ANIMAL ID	0 0 0 5 1	0 0 0 5 2	0 0 0 5 3	0 0 0 5 4	0 0 0 5 5	0 0 0 5 6	0 0 0 5 7	0 0 0 5 8	0 0 0 5 9	0 0 0 6 0	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	
Alveolus, Infiltration Cellular, Histiocyte	1	1		2	1		2																				
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Foreign Body																											
Inflammation, Granulomatous																											
Inflammation, Acute																	1										
Inflammation, Chronic Active			1			1											1										1
Glands, Dilation			1																								
Olfactory Epithelium, Accumulation, Hyaline Droplet	1				1	1		2	1	3	3		1	2	1	1			2	1							1
Olfactory Epithelium, Metaplasia, Respiratory			1														1										
Respiratory Epithelium, Metaplasia, Squamous																											
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation, Chronic Active																											
<b>SPECIAL SENSES SYSTEM</b>																											
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cornea, Inflammation, Chronic																											
Cornea, Inflammation, Chronic Active																											1
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<b>URINARY SYSTEM</b>																											
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Nephropathy, Chronic Progressive	3	2	3	3	3	1	1	3	2	3	4	3	4	2	3	4	2	2	2	2	3	3	3	3	2	1	
Pelvis, Dilation																											
Renal Tubule, Accumulation, Hyaline Droplet																											4

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	0735	0734	0734	0735	0765	0775	0766	0766	0726	0766	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	
ANIMAL ID	00076	00077	00078	00079	00080	00081	00082	00083	00084	00085	00086	00087	00088	00089	00090	00091	00092	00093	00094	00095	00096	00097	00098	00099	00100

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Foreign Body										X															1
Inflammation, Chronic Active										4															1 4.0
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Polyarteritis Nodosa			1																						1 1.0
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Parasite Metazoan					X																				1
Polyarteritis Nodosa																		2							1 2.0
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Parasite Metazoan	X										X				X		X	X				X			11
Polyarteritis Nodosa			1																						1 1.0
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis																									1 3.0
Basophilic Focus																									1
Clear Cell Focus	X	X	X	X		X	X				X	X		X	X			X		X	X		X	31	
Degeneration, Cystic																									1 1.0
Extramedullary Hematopoiesis																						2			1 2.0
Mixed Cell Focus																									1

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	0735	0734	0774	0773	0675	0776	0666	0666	0226	0672	0777	0777	0777	0777	0777	0777	0777	0777	0676	0777	0777	0676	0777	0777		
ANIMAL ID	00076	00077	00078	00079	00080	00081	00082	00083	00084	00085	00086	00087	00088	00089	00090	00091	00092	00093	00094	00095	00096	00097	00098	00099		
Necrosis																						2			2 1.5	
Polyarteritis Nodosa																							2			1 2.0
Bile Duct, Dilation																							3			2 2.5
Bile Duct, Hyperplasia	1				1								1				1	1					1		1	14 1.1
Bile Duct, Inflammation, Chronic Active						3																				1 3.0
Hepatocyte, Cytoplasmic Alteration																							2			1 2.0
Hepatocyte, Fatty Change, Diffuse																						2				1 2.0
Mesentery																										5
Polyarteritis Nodosa																										3 1.7
Fat, Necrosis																										1 1.0
Oral Mucosa																										1
Pancreas																										50
Cholangiofibrosis																										1 3.0
Edema																							2			1 2.0
Fatty Infiltration																							2			1 2.0
Inflammation, Chronic Active																										1 2.0
Polyarteritis Nodosa																										4 2.8
Acinus, Atrophy																										3 1.0
Acinus, Hyperplasia																										8 2.3
Bile Duct, Dilation																										1 2.0
Salivary Glands																										50
Stomach, Forestomach																										50
Inflammation, Chronic Active																										1 2.0
Ulcer																										1 1.0
Epithelium, Hyperplasia																										3 1.7

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+ .. Tissue examined microscopically

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Lab: BAT

HARLAN SPRAGUE DAWLEY RATS MALE 300 ppm Male	DAY ON TEST																								* TOTALS			
	0735	0734	0774	0775	0776	0777	0778	0779	0780	0781	0782	0783	0784	0785	0786	0787	0788	0789	0790	0791	0792	0793	0794	0795		0796	0797	0798
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	0000	0000	0000	0000

Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Parathyroid Gland Hyperplasia, Focal	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	M	+	+	+	+	+	+	+	+	43
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Pars Distalis, Hyperplasia		1		4			2	2			2			4		2		2	1		1		1		1		23	2.0
Pars Distalis, Hypertrophy						1		1											2	2	1						10	1.2
Pars Intermedia, Hyperplasia													3														1	3.0
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
C-cell, Hyperplasia		3	3	4		2							2														8	2.3
Follicular Cell, Hyperplasia																								1			1	1.0

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hypospermia																								3			1	3.0	
Necrosis																												1	1.0
Polyarteritis Nodosa																												1	1.0
Bilateral, Hypospermia																		4		3							3	3.7	
Bilateral, Polyarteritis Nodosa				2																								1	2.0
Bilateral, Duct, Exfoliated Germ Cell																		1		3							3	2.0	
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Inflammation, Chronic Active																												1	1.0

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked



Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

DAY ON TEST	HARLAN SPRAGUE DAWLEY RATS MALE																								* TOTALS
	0735	0734	0733	0732	0731	0730	0729	0728	0727	0726	0725	0724	0723	0722	0721	0720	0719	0718	0717	0716	0715	0714	0713	0712	
ANIMAL ID	00076	00077	00078	00079	00080	00081	00082	00083	00084	00085	00086	00087	00088	00089	00090	00091	00092	00093	00094	00095	00096	00097	00098	00099	

Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Edema										2																1 2.0
Polyarteritis Nodosa																										1 1.0
Dorsal, Lateral, Inflammation, Chronic Active Epithelium, Ventral, Hyperplasia						1	1												1				2			2 1.0
Ventral, Inflammation, Chronic Active														1												2 1.0

Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hyperplasia																										1 1.0
Polyarteritis Nodosa																										1 1.0

Testis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Edema					1												1					3				8 1.3
Polyarteritis Nodosa																			4							1 4.0
Bilateral, Edema						1						1			1								1			15 1.0
Bilateral, Polyarteritis Nodosa	1		3	1				3					2	2			2			3			1			20 1.8
Bilateral, Germinal Epithelium, Degeneration				3	1			1					1	1			1	4		3	4			1		18 1.7
Germinal Epithelium, Degeneration			1							1		2											4			7 1.6
Interstitial Cell, Hyperplasia									3																	1 3.0

**HEMATOPOIETIC SYSTEM**

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Congestion						2																				1 2.0
Hypercellularity	1					2	2	3	2	1						4	2	1	1	2	3	2		4		22 2.1
Lymph Node																										2
Lymph Node, Mandibular Atrophy	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
												4														1 4.0

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

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Species/Strain: RATS/HSD

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Lab: BAT

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	0735	0734	0733	0732	0731	0730	0729	0728	0727	0726	0725	0724	0723	0722	0721	0720	0719	0718	0717	0716	0715	0714	0713	0712		
ANIMAL ID	00076	00077	00078	00079	00080	00081	00082	00083	00084	00085	00086	00087	00088	00089	00090	00091	00092	00093	00094	00095	00096	00097	00098	00099	00100	

Infiltration Cellular, Plasma Cell																									3	1 3.0
Lymph Node, Mesenteric	+																								50	
Atrophy																									3	1 3.0
Fibrosis																									2	1 2.0
Hyperplasia, Lymphocyte																									2	1 2.0
Spleen	+																								50	
Extramedullary Hematopoiesis																									2 2 1 2 2 2 2 2 2 2 2 2 2 2 3 2 1 2 2 3 2 2 3 2	45 2.0
Pigment																									1 2 2 1 3 2 1 2 2 2 2 2 1 2 1 2 2 1 2 2 2 2 1	44 1.6
White Pulp, Atrophy																									2 2 3 3	7 2.3
Thymus	+																								47	
Atrophy																									2 3 3 2 3 3 2 2 1 3 2 2 1 2 1 2 1 4 4 4 2 4 2	43 2.4
Hyperplasia, Lymphocyte																									2	1 2.0
Polyarteritis Nodosa																									2	1 2.0
Epithelial Cell, Hyperplasia																									1	1 1.0

**INTEGUMENTARY SYSTEM**

Mammary Gland	+																								50	
Skin	+																								50	
Hyperkeratosis																										1 2.0
Inflammation, Chronic Active																									3	2 2.0
Ulcer																									3	1 3.0
Hair Follicle, Atrophy																										1 4.0
Hair Follicle, Inflammation, Chronic																									2	1 2.0
Sebaceous Gland, Hyperplasia																									3	1 3.0

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ANIMAL ID	00076	00077	00078	00079	00080	00081	00082	00083	00084	00085	00086	00087	00088	00089	00090	00091	00092	00093	00094	00095	00096	00097	00098	00099	00100
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MUSCULOSKELETAL SYSTEM

Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cartilage, Joint, Degeneration						1																			3 1.0
Skeletal Muscle																							+		1

NERVOUS SYSTEM

Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Necrosis													2												1 2.0
Glial Cell, Hypertrophy						1																			1 1.0
Nerve Trigeminal																									1
Peripheral Nerve																									1
Axon, Tibial, Degeneration																									1 1.0
Spinal Cord																									1
Axon, Degeneration																									1 2.0

RESPIRATORY SYSTEM

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Fibrosis																									1 3.0	
Infiltration Cellular, Histiocyte			1			2	2		1	1	1	1		2	1	2	2		2		3	2	1	4	2	31 1.7
Inflammation, Granulomatous					1		1																			6 1.0
Inflammation, Acute							3																			1 3.0
Inflammation, Chronic Active																	1									5 1.8
Alveolar Epithelium, Hyperplasia																										1 1.0

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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	0735	0734	0733	0732	0731	0730	0729	0728	0727	0726	0725	0724	0723	0722	0721	0720	0719	0718	0717	0716			0715	0714	0713	0712	0711	0710	0709	0708	0707	0706	0705	0704	0703	0702	0701	0700	0699	0698	0697	0696	0695	0694	0693	0692	0691	0690	0689	0688	0687	0686	0685	0684	0683	0682	0681	0680	0679	0678	0677	0676	0675	0674	0673	0672	0671	0670	0669	0668	0667	0666	0665	0664	0663	0662	0661	0660	0659	0658	0657	0656	0655	0654	0653	0652	0651	0650	0649	0648	0647	0646	0645	0644	0643	0642	0641	0640	0639	0638	0637	0636	0635	0634	0633	0632	0631	0630	0629	0628	0627	0626	0625	0624	0623	0622	0621	0620	0619	0618	0617	0616	0615	0614	0613	0612	0611	0610	0609	0608	0607	0606	0605	0604	0603	0602	0601	0600	0599	0598	0597	0596	0595	0594	0593	0592	0591	0590	0589	0588	0587	0586	0585	0584	0583	0582	0581	0580	0579	0578	0577	0576	0575	0574	0573	0572	0571	0570	0569	0568	0567	0566	0565	0564	0563	0562	0561	0560	0559	0558	0557	0556	0555	0554	0553	0552	0551	0550	0549	0548	0547	0546	0545	0544	0543	0542	0541	0540	0539	0538	0537	0536	0535	0534	0533	0532	0531	0530	0529	0528	0527	0526	0525	0524	0523	0522	0521	0520	0519	0518	0517	0516	0515	0514	0513	0512	0511	0510	0509	0508	0507	0506	0505	0504	0503	0502	0501	0500	0499	0498	0497	0496	0495	0494	0493	0492	0491	0490	0489	0488	0487	0486	0485	0484	0483	0482	0481	0480	0479	0478	0477	0476	0475	0474	0473	0472	0471	0470	0469	0468	0467	0466	0465	0464	0463	0462	0461	0460	0459	0458	0457	0456	0455	0454	0453	0452	0451	0450	0449	0448	0447	0446	0445	0444	0443	0442	0441	0440	0439	0438	0437	0436	0435	0434	0433	0432	0431	0430	0429	0428	0427	0426	0425	0424	0423	0422	0421	0420	0419	0418	0417	0416	0415	0414	0413	0412	0411	0410	0409	0408	0407	0406	0405	0404	0403	0402	0401	0400	0399	0398	0397	0396	0395	0394	0393	0392	0391	0390	0389	0388	0387	0386	0385	0384	0383	0382	0381	0380	0379	0378	0377	0376	0375	0374	0373	0372	0371	0370	0369	0368	0367	0366	0365	0364	0363	0362	0361	0360	0359	0358	0357	0356	0355	0354	0353	0352	0351	0350	0349	0348	0347	0346	0345	0344	0343	0342	0341	0340	0339	0338	0337	0336	0335	0334	0333	0332	0331	0330	0329	0328	0327	0326	0325	0324	0323	0322	0321	0320	0319	0318	0317	0316	0315	0314	0313	0312	0311	0310	0309	0308	0307	0306	0305	0304	0303	0302	0301	0300	0299	0298	0297	0296	0295	0294	0293	0292	0291	0290	0289	0288	0287	0286	0285	0284	0283	0282	0281	0280	0279	0278	0277	0276	0275	0274	0273	0272	0271	0270	0269	0268	0267	0266	0265	0264	0263	0262	0261	0260	0259	0258	0257	0256	0255	0254	0253	0252	0251	0250	0249	0248	0247	0246	0245	0244	0243	0242	0241	0240	0239	0238	0237	0236	0235	0234	0233	0232	0231	0230	0229	0228	0227	0226	0225	0224	0223	0222	0221	0220	0219	0218	0217	0216	0215	0214	0213	0212	0211	0210	0209	0208	0207	0206	0205	0204	0203	0202	0201	0200	0199	0198	0197	0196	0195	0194	0193	0192	0191	0190	0189	0188	0187	0186	0185	0184	0183	0182	0181	0180	0179	0178	0177	0176	0175	0174	0173	0172	0171	0170	0169	0168	0167	0166	0165	0164	0163	0162	0161	0160	0159	0158	0157	0156	0155	0154	0153	0152	0151	0150	0149	0148	0147	0146	0145	0144	0143	0142	0141	0140	0139	0138	0137	0136	0135	0134	0133	0132	0131	0130	0129	0128	0127	0126	0125	0124	0123	0122	0121	0120	0119	0118	0117	0116	0115	0114	0113	0112	0111	0110	0109	0108	0107	0106	0105	0104	0103	0102	0101	0100	0099	0098	0097	0096	0095	0094	0093	0092	0091	0090	0089	0088	0087	0086	0085	0084	0083	0082	0081	0080	0079	0078	0077	0076	0075	0074	0073	0072	0071	0070	0069	0068	0067	0066	0065	0064	0063	0062	0061	0060	0059	0058	0057	0056	0055	0054	0053	0052	0051	0050	0049	0048	0047	0046	0045	0044	0043	0042	0041	0040	0039	0038	0037	0036	0035	0034	0033	0032	0031	0030	0029	0028	0027	0026	0025	0024	0023	0022	0021	0020	0019	0018	0017	0016	0015	0014	0013	0012	0011	0010	0009	0008	0007	0006	0005	0004	0003

Alveolus, Infiltration Cellular, Histiocyte

5 1.4

Nose

Foreign Body

Inflammation, Granulomatous

Inflammation, Acute

Inflammation, Chronic Active

Glands, Dilation

Olfactory Epithelium, Accumulation, Hyaline Droplet

Olfactory Epithelium, Metaplasia, Respiratory

Respiratory Epithelium, Metaplasia, Squamous

Trachea

Inflammation, Chronic Active

SPECIAL SENSES SYSTEM

Eye

Cornea, Inflammation, Chronic

Cornea, Inflammation, Chronic Active

Harderian Gland

URINARY SYSTEM

Kidney

Nephropathy, Chronic Progressive

Pelvis, Dilation

Renal Tubule, Accumulation, Hyaline Droplet

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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	0011000	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0011100	
	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	0011100	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0011100	
	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	0011100	

Pigment	1	1	1	1							1				1						1					
Bile Duct, Cyst																										
Bile Duct, Dilation																										
Bile Duct, Hyperplasia									1		1	1						1			1	1				

Mesentery																										
Hemorrhage																										+
Polyarteritis Nodosa																										4
Arteriole, Mineral																										1

Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Polyarteritis Nodosa											2		2													2
Acinus, Atrophy							1	1																		
Acinus, Hyperplasia				1	2						1						3									

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

Stomach, Forestomach Epithelium, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--

Stomach, Glandular Mineral Glands, Amyloid	+	+	+	+	+	+	+	+	+	+	+	+	2	+	+	+	+	+	+	+	+	+	+	+	+	
																										2

CARDIOVASCULAR SYSTEM

Blood Vessel Aorta, Mineral	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
													2													

Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--

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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
<b>HARLAN SPRAGUE DAWLEY RATS MALE</b>	<b>1000 ppm Male</b>	7	7	7	7	7	7	3	6	6	6	7	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7
		3	3	3	3	3	3	3	5	8	6	3	3	6	3	3	3	3	3	3	3	3	3	3	3	3	3
		6	6	4	4	5	5	2	8	5	2	4	4	9	6	3	3	5	5	4	4	5	5	5	5	5	5
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	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
		0	0	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	5

males  
(cont...)

Follicular Cell, Hyperplasia

**GENERAL BODY SYSTEM**

Tissue NOS +

**GENITAL SYSTEM**

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Bilateral, Hypospermia										4																
Bilateral, Inflammation, Chronic Active																			2							
Bilateral, Duct, Exfoliated Germ Cell														2												
Penis																										
Prolapse																										
Ulcer																										
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation, Chronic Active																										
Duct, Hyperplasia, Squamous																										
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Dorsal, Lateral, Inflammation, Granulomatous											1															
Dorsal, Lateral, Inflammation, Chronic Active															1											
Epithelium, Ventral, Hyperplasia														3									3			
Ventral, Inflammation, Acute																										
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Testis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Edema			1	1	1				1						1											

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

DAY ON TEST	HARLAN SPRAGUE DAWLEY RATS MALE																								ANIMAL ID	males (cont...)
	0736	0736	0734	0774	0775	0775	0732	0668	0665	0662	0774	0774	0663	0663	0663	0663	0663	0663	0663	0663	0663	0663	0663	0663		
1000 ppm 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	

Granuloma Sperm																											
Polyarteritis Nodosa	3																										
Bilateral, Edema					1								1			1	1			1	2	1	1	2			1
Bilateral, Polyarteritis Nodosa						2			2	2			2			1					1	1					
Bilateral, Germinal Epithelium, Degeneration	2	2					1			2			4	1	1	1					1	1	1				
Germinal Epithelium, Degeneration																	1										

HEMATOPOIETIC SYSTEM

Bone Marrow	+ +																														
Congestion																															
Hypercellularity	4					1			2			1	4			2	1			3			1	1	1	1	4	1	1		
Lymph Node																															
Lumbar, Hyperplasia, Lymphocyte																															
Renal, Dilation																															
Renal, Inflammation, Chronic																															
Renal, Pigment																															
Lymph Node, Mandibular	+ +																														
Infiltration Cellular, Plasma Cell																															
Lymph Node, Mesenteric	+ +																														
Spleen	+ +																														
Extramedullary Hematopoiesis	1			2	2	2			2	2			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
Infiltration Cellular, Lipocyte																															
Necrosis																															
Pigment	2	3	2	2	1	2	2	2	2	3	1	1	1	1	1	1	1	1	2	1	1	2	1			2	1				
White Pulp, Atrophy									3			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:  
1) Minimal 3) Moderate  
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Experiment Number: 10188 - 01

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First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

HARLAN SPRAGUE DAWLEY RATS MALE 1000 ppm 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	0	0	0	0	
		7	7	7	7	7	7	3	6	6	6	7	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	ANIMAL ID	3	3	3	3	3	3	3	5	8	6	3	3	6	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	6	6	4	4	5	5	2	8	5	2	4	4	9	6	3	3	5	5	4	4	5	5	5	5	5	5	5	5	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	
	0	0	0	0	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	2	3	4	5	5	5	

males (cont...)

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

INTEGUMENTARY SYSTEM

Mammary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Fibrosis																												
Inflammation, Chronic Active																												

Skin		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cyst Epithelial Inclusion																												
Inflammation, Suppurative																												
Inflammation, Chronic Active																												
Ulcer																												

MUSCULOSKELETAL SYSTEM

Bone		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cartilage, Joint, Degeneration																												

NERVOUS SYSTEM

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

RESPIRATORY SYSTEM

Lung		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Fibrosis																												
Hyperplasia, Lymphocyte																												
Infiltration Cellular, Histiocyte		2		2		2	1	1	1	2	1	2		2	2	2	2	3	1		2	1	2	3	1			

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

Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

DAY ON TEST	HARLAN SPRAGUE DAWLEY RATS MALE																								ANIMAL ID	males (cont...)		
	0736	0736	0734	0734	0735	0735	0732	0738	0735	0732	0734	0734	0739	0736	0733	0733	0733	0735	0735	0734	0734	0735	0735	0735			0735	0735
1000 ppm 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	0	00110001	
Inflammation, Granulomatous										1			1							1					1			
Inflammation, Chronic Active																				1		1						
Polyarteritis Nodosa																												
Alveolar Epithelium, Hyperplasia																						3						
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Inflammation, Acute																												
Inflammation, Chronic																												
Inflammation, Chronic Active																												
Olfactory Epithelium, Accumulation, Hyaline Droplet	2	1	2	1	3		1		1	1	2	2	1	2	1	2			1	1	2	1	2		2			
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
<b>SPECIAL SENSES SYSTEM</b>																												
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Choroid, Hyperplasia																												
Cornea, Inflammation, Chronic	1																											
Cornea, Inflammation, Chronic Active						2				2																		
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Hyperplasia														1														
<b>URINARY SYSTEM</b>																												
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Infarct																									1			
Nephropathy, Chronic Progressive	3	3	3	3	2	4	1	2	3	4	1	3	4	3	1	1	3	3	1	1	3	2	3	3	2			

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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2) Mild 4) Marked

Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

<b>HARLAN SPRAGUE DAWLEY RATS MALE</b>  <b>1000 ppm Male</b>	DAY ON TEST	0736	0736	0734	0734	0735	0735	0732	0738	0735	0732	0734	0734	0739	0736	0733	0733	0735	0735	0734	0734	0735	0735	0735	0735	0735	0735	0735
	ANIMAL ID	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011

males  
(cont...)

Urinary Bladder

+ +

\* .. 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: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| DAY ON TEST   | HARLAN SPRAGUE DAWLEY RATS MALE |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |       |
|---------------|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|
|               | 0735                            | 0736  | 0736  | 0733  | 0733  | 0735  | 0738  | 0736  | 0736  | 0733  | 0733  | 0736  | 0736  | 0734  | 0734  | 0731  | 0733  | 0736  | 0732  | 0732  |          | 0734  | 0736  | 0738  | 0733  |
| ANIMAL ID     | 00126                           | 00127 | 00128 | 00129 | 00130 | 00131 | 00132 | 00133 | 00134 | 00135 | 00136 | 00137 | 00138 | 00139 | 00140 | 00141 | 00142 | 00143 | 00144 | 00145 | 00146    | 00147 | 00148 | 00149 | 00150 |
| 1000 ppm 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     |
|               | 0                               | 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                               | 2     | 2     | 2     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 4     | 4     | 4     | 4     | 4     | 4     | 4        | 4     | 4     | 5     | 6     |
|               | 6                               | 7     | 8     | 9     | 0     | 1     | 2     | 3     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 0     | 1     | 2     | 3     | 4     | 5        | 6     | 7     | 8     | 9     |

**ALIMENTARY SYSTEM**

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |       |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|-------|
| Esophagus                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | +     | 49    |
| Intestine Large, Cecum       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +     | 50    |
| Erosion                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       | 1 2.0 |
| Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       | 1 2.0 |
| Mineral                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       | 1 2.0 |
| Intestine Large, Colon       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |       |
| Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   | 1 4.0 |       |
| Parasite Metazoan            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   | X |   |   | 3     |       |
| Serosa, Hemorrhage           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   | 1 3.0 |       |
| Intestine Large, Rectum      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |       |
| Parasite Metazoan            |   |   |   | X |   |   |   |   |   | X | X |   | X |   | X |   |   |   |   |   |   |   |   |   | 8     |       |
| Polyarteritis Nodosa         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   | 1 1.0 |       |
| Intestine Small, Duodenum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |       |
| Intestine Small, Ileum       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |       |
| Intestine Small, Jejunum     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |       |
| Liver                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |       |
| Basophilic Focus             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   | X |   |   | 6     |       |
| Clear Cell Focus             | X | X | X | X | X | X |   |   | X | X | X | X | X | X | X |   |   |   | X | X |   |   | X | X | 33    |       |
| Eosinophilic Focus           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   | X |   |   |   | 4     |       |
| Mixed Cell Focus             |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1     |       |
| Necrosis                     |   |   |   |   |   | 1 |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   | 1 |   | 4 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:

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Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>1000 ppm Male | DAY ON TEST |      | ANIMAL ID |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |      |      |      |      |  |
|---|-------------|------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|--|
|   | 0735        | 0736 | 0733      | 0733 | 0733 | 0735 | 0738 | 0736 | 0736 | 0733 | 0733 | 0736 | 0736 | 0734 | 0734 | 0731 | 0733 | 0736 | 0736 | 0732 | 0732 | 0734 |          | 0736 | 0738 | 0733 | 0733 |  |
|   | 0           | 0    | 0         | 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    |  |
|   | 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    | 3    | 3    |  |
|   | 6           | 7    | 8         | 9    | 0    | 1    | 2    | 3    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 0    | 1    | 2    | 3    | 4    | 4    | 5    | 6        | 7    | 8    | 9    | 0    |  |

|                        |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |     |     |
|------------------------|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|-----|
| Pigment                |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 7 | 1.0 |     |
| Bile Duct, Cyst        |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   | 1   |     |
| Bile Duct, Dilation    |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   | 1   | 3.0 |
| Bile Duct, Hyperplasia |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   | 11  | 1.1 |

|                      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |     |
|----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|
| Mesentery            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |     |
| Hemorrhage           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 | 4.0 |
| Polyarteritis Nodosa |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 | 1.0 |
| Arteriole, Mineral   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 | 1.0 |

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Pancreas             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Polyarteritis Nodosa |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 7  | 2.0 |
| Acinus, Atrophy      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4  | 1.0 |
| Acinus, Hyperplasia  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9  | 1.8 |

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |  |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |  |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Stomach, Forestomach    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Epithelium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 1.0 |

|                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Mineral            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 2.0 |
| Glands, Amyloid    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 2.0 |

CARDIOVASCULAR SYSTEM

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Blood Vessel   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Aorta, Mineral |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 2.0 |

|       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |  |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>1000 ppm Male | DAY ON TEST |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          | * TOTALS |          |          |          |          |          |          |
|---|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|   | 07<br>35    | 07<br>36 | 07<br>36 | 07<br>33 | 07<br>33 | 07<br>35 | 06<br>98 | 06<br>56 | 07<br>36 | 07<br>33 | 07<br>33 | 07<br>33 | 07<br>36 | 07<br>33 | 07<br>33 | 07<br>34 | 07<br>34 | 07<br>01 | 07<br>33 | 07<br>36 |          | 07<br>26 | 07<br>24 | 06<br>23 | 07<br>08 | 03<br>33 | 07<br>33 |
| ANIMAL ID   | 001126      | 001127   | 001128   | 001129   | 001130   | 001131   | 001132   | 001133   | 001134   | 001135   | 001136   | 001137   | 001138   | 001139   | 001140   | 001141   | 001142   | 001143   | 001144   | 001145   | 001146   | 001147   | 001148   | 001149   | 001150   | 001151   | 001152   |

|                |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |    |     |
|----------------|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|----|-----|
| Angiectasis    |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 | 1 | 4.0 |    |     |
| Cardiomyopathy | 2 | 1 | 1 | 2 | 1 | 1 | 1 |  | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1   | 47 | 1.4 |

ENDOCRINE SYSTEM

|                              |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |   |     |
|------------------------------|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|---|-----|
| Adrenal Cortex               | + |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |   |     |
| Degeneration, Cystic         |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1  | 1 | 1.0 |
| Hyperplasia                  |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2  | 2 | 2.1 |
| Hypertrophy, Focal           |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3  | 1 | 1.8 |
| Necrosis                     |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4  | 1 | 4.0 |
| Pigment                      |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2  | 1 | 2.0 |
| Adrenal Medulla              | + |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |   |     |
| Hyperplasia, Focal           |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1  | 3 | 1.8 |
| Islets, Pancreatic           | + |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |   |     |
| Hyperplasia                  |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 1 | 1.0 |
| Parathyroid Gland            | M | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 45 |   |     |
| Hyperplasia, Focal           |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2  | 1 | 2.0 |
| Hyperplasia, Diffuse         |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2  | 2 | 1.5 |
| Pituitary Gland              | + |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |   |     |
| Pars Distalis, Hyperplasia   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2  | 3 | 2.2 |
| Pars Distalis, Hypertrophy   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2  | 1 | 1.2 |
| Pars Intermedia, Hyperplasia |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3  | 4 | 1.5 |
| Thyroid Gland                | + |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |   |     |
| Inflammation, Chronic        |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 1 | 1.0 |
| C-cell, Hyperplasia          | 1 |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2  | 2 | 1.8 |

\* .. 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: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>1000 ppm Male | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |      |     |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|-----|
|   | 0735        | 0736 | 0737 | 0738 | 0739 | 0740 | 0741 | 0742 | 0743 | 0744 | 0745 | 0746 | 0747 | 0748 | 0749 | 0750 | 0751 | 0752 | 0753 | 0754 |          | 0755 |     |
| ANIMAL ID   | 0011        | 0012 | 0013 | 0014 | 0015 | 0016 | 0017 | 0018 | 0019 | 0020 | 0021 | 0022 | 0023 | 0024 | 0025 | 0026 | 0027 | 0028 | 0029 | 0030 | 0031     | 1    | 1.0 |

Follicular Cell, Hyperplasia

1

1 1.0

GENERAL BODY SYSTEM

Tissue NOS

1

GENITAL SYSTEM

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Epididymis                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Bilateral, Hypospermia                        |   |   | 4 |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   | 3 | 4  | 3.3 |
| Bilateral, Inflammation, Chronic Active       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 2.0 |
| Bilateral, Duct, Exfoliated Germ Cell         |   |   | 2 |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   | 4  | 2.0 |
| Penis   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |     |
| Prolapse                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |     |
| Ulcer   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 2.0 |
| Preputial Gland                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Inflammation, Chronic Active                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 4.0 |
| Duct, Hyperplasia, Squamous                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 2.0 |
| Prostate                                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Dorsal, Lateral, Inflammation, Granulomatous  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 1.0 |
| Dorsal, Lateral, Inflammation, Chronic Active |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  | 1.0 |
| Epithelium, Ventral, Hyperplasia              |   |   |   |   | 2 |   |   |   | 2 |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   | 5  | 2.2 |
| Ventral, Inflammation, Acute                  |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 1.0 |
| Seminal Vesicle                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Testis  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Edema   |   |   |   | 1 |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   | 7  | 1.0 |

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

+ .. Tissue examined microscopically

X .. Lesion present

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**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

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First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| DAY ON TEST   | HARLAN SPRAGUE DAWLEY RATS MALE |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID | * TOTALS |
|---------------|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------|
|               | 0735                            | 0736 | 0737 | 0738 | 0739 | 0740 | 0741 | 0742 | 0743 | 0744 | 0745 | 0746 | 0747 | 0748 | 0749 | 0750 | 0751 | 0752 | 0753 | 0754 | 0755 | 0756 | 0757 | 0758 |           |          |
| 1000 ppm 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         | 0        |

|  |   |   |   |  |   |   |   |  |  |  |   |   |   |   |  |   |   |   |  |  |   |  |   |   |   |       |
|--|---|---|---|--|---|---|---|--|--|--|---|---|---|---|--|---|---|---|--|--|---|--|---|---|---|-------|
| Granuloma Sperm                              |   |   |   |  |   |   |   |  |  |  |   |   |   |   |  |   |   |   |  |  |   |  |   |   | 2 | 1 2.0 |
| Polyarteritis Nodosa                         |   |   |   |  |   |   |   |  |  |  |   |   |   |   |  |   |   |   |  |  |   |  |   |   |   | 1 3.0 |
| Bilateral, Edema                             | 1 | 1 | 2 |  | 1 | 1 |   |  |  |  |   | 1 |   |   |  | 1 | 1 | 1 |  |  | 1 |  | 2 | 1 |   |       |
| Bilateral, Polyarteritis Nodosa              |   | 1 | 3 |  |   |   | 2 |  |  |  |   | 2 | 2 | 2 |  |   | 1 |   |  |  |   |  |   |   |   |       |
| Bilateral, Germinal Epithelium, Degeneration |   | 1 | 3 |  | 1 |   |   |  |  |  | 1 | 2 | 1 |   |  | 1 |   |   |  |  |   |  |   |   | 1 |       |
| Germinal Epithelium, Degeneration            |   |   |   |  |   |   |   |  |  |  |   |   |   |   |  |   |   |   |  |  |   |  |   |   |   | 3 2.0 |

**HEMATOPOIETIC SYSTEM**

|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| Bone Marrow                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |          |
| Congestion                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 1 2.0  |
| Hypercellularity                   | 1 |   |   | 1 |   |   | 2 | 3 | 1 | 2 | 2 | 2 |   |   | 3 | 1 |   | 1 | 3 | 3 | 1 | 1 |   |   |   |          |
| Lymph Node                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2        |
| Lumbar, Hyperplasia, Lymphocyte    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0    |
| Renal, Dilation                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0    |
| Renal, Inflammation, Chronic       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0    |
| Renal, Pigment                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0    |
| Lymph Node, Mandibular             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |          |
| Infiltration Cellular, Plasma Cell |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 1 3.0 |
| Lymph Node, Mesenteric             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |          |
| Spleen                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50       |
| Extramedullary Hematopoiesis       | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 |   |   | 3 | 2 |   | 2 | 2 |   |          |
| Infiltration Cellular, Lipocyte    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0    |
| Necrosis                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 1 2.0  |
| Pigment                            | 1 | 2 | 2 | 2 | 1 | 2 | 3 | 2 |   | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 |   | 1 | 2 | 3 | 1 | 1 |          |
| White Pulp, Atrophy                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 4 2.3  |

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

Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>1000 ppm Male   | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |       |       |                              |        |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|------------------------------|--------|
|   | 0735        | 0736  | 0736  | 0733  | 0733  | 0735  | 0738  | 0736  | 0736  | 0733  | 0733  | 0736  | 0736  | 0734  | 0734  | 0731  | 0733  | 0736  | 0736  | 0732  |          | 0734  | 0736  | 0737  | 0733  | 0738  | 0733                         |        |
| ANIMAL ID   | 00116       | 00117 | 00118 | 00119 | 00120 | 00121 | 00122 | 00123 | 00124 | 00125 | 00126 | 00127 | 00128 | 00129 | 00130 | 00131 | 00132 | 00133 | 00134 | 00135 | 00136    | 00137 | 00138 | 00139 | 00140 | 00141 | 00142                        |        |
| Thymus Atrophy  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | +     | 49                           | 49 2.5 |
| <b>INTEGUMENTARY SYSTEM</b>   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |                              |        |
| Mammary Gland Fibrosis Inflammation, Chronic Active   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | M        | +     | +     | +     | +     | 49    | 1 2.0<br>1 4.0               |        |
| Skin Cyst Epithelial Inclusion Inflammation, Suppurative Inflammation, Chronic Active Ulcer | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | 50    | 1<br>1 4.0<br>1 3.0<br>1 3.0 |        |
| <b>MUSCULOSKELETAL SYSTEM</b>   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |                              |        |
| Bone Cartilage, Joint, Degeneration   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | 50    | 2 1.5                        |        |
| <b>NERVOUS SYSTEM</b>   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |                              |        |
| Brain   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | 50    |                              |        |
| <b>RESPIRATORY SYSTEM</b>   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |                              |        |
| Lung Fibrosis Hyperplasia, Lymphocyte Infiltration Cellular, Histiocyte                     | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | 50    | 1 1.0<br>1 1.0<br>39 1.7     |        |

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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Experiment Number: 10188 - 01

Test Type: CHRONIC

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

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Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>1000 ppm Male | DAY ON TEST |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | * TOTALS |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
|   | 0735        | 0736   | 0737   | 0738   | 0739   | 0740   | 0741   | 0742   | 0743   | 0744   | 0745   | 0746   | 0747   | 0748   | 0749   | 0750   | 0751   | 0752   | 0753   | 0754   |          |
| ANIMAL ID   | 001126      | 001127 | 001128 | 001129 | 001130 | 001131 | 001132 | 001133 | 001134 | 001135 | 001136 | 001137 | 001138 | 001139 | 001140 | 001141 | 001142 | 001143 | 001144 | 001145 |          |
| Inflammation, Granulomatous                         |             |        |        |        |        |        | 1      |        |        | 1      |        |        |        | 1      |        |        |        |        |        |        | 7 1.0    |
| Inflammation, Chronic Active                        |             |        |        |        |        |        |        |        |        |        |        | 2      |        |        |        |        |        | 1      |        | 1      | 5 1.2    |
| Polyarteritis Nodosa                                |             |        |        |        |        |        |        |        |        |        |        |        |        |        | 1      |        |        |        |        |        | 1 1.0    |
| Alveolar Epithelium, Hyperplasia                    |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1 3.0    |
| Nose  | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50       |
| Inflammation, Acute                                 |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1 1.0    |
| Inflammation, Chronic                               |             |        |        |        | 1      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1 1.0    |
| Inflammation, Chronic Active                        |             |        |        |        |        |        |        |        |        |        | 1      |        |        |        |        | 1      |        |        |        |        | 2 1.0    |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 3           | 1      | 2      | 1      | 2      | 1      | 1      |        | 1      | 1      | 1      | 2      | 1      | 2      | 2      | 1      |        | 2      | 1      | 2      | 40 1.5   |
| Trachea   | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50       |
| <b>SPECIAL SENSES SYSTEM</b>                        |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |
| Eye   | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50       |
| Choroid, Hyperplasia                                |             |        |        |        |        |        |        |        |        |        | 3      |        |        |        |        |        |        |        |        |        | 1 3.0    |
| Cornea, Inflammation, Chronic                       |             |        |        |        |        |        |        |        |        |        |        |        |        | 1      |        |        |        |        |        |        | 2 1.0    |
| Cornea, Inflammation, Chronic Active                |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 2 2.0    |
| Harderian Gland                                     | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50       |
| Hyperplasia   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1 1.0    |
| <b>URINARY SYSTEM</b>                               |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |
| Kidney  | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50       |
| Infarct   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1 1.0    |
| Nephropathy, Chronic Progressive                    | 3           | 3      | 3      | 2      | 3      | 2      | 3      | 4      | 1      | 1      | 1      | 1      | 3      | 4      | 3      | 2      | 1      | 3      | 3      | 3      | 50 2.4   |

\* .. 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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Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

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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 |                 |
|   | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 3 | 7               |
| ANIMAL ID   | 3 | 3 | 3 | 3 | 3 | 3 | 9 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 2 | 2 | 3 | 0               |
|   | 5 | 6 | 6 | 3 | 3 | 5 | 8 | 6 | 6 | 3 | 3 | 3 | 6 | 4 | 4 | 1 | 3 | 6 | 6 | 2 | 4 | 6 | 8 | 3               |
| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>1000 ppm 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               |
| 1000 ppm Male                                       | 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 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4               |
|   | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9               |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>* TOTALS</b> |

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

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A .. Autolysis precludes evaluation

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|   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>3000 ppm Male | DAY ON TEST | 07     | 07     | 07     | 06     | 07     | 07     | 07     | 07     | 06     | 07     | 07     | 07     | 07     | 06     | 07     | 06     | 07     | 07     | 07     | 07     | 06     | 07     | 07     | 07     | 07     | 07     | 07     | 07     |
|   | ANIMAL ID   | 001151 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 | 000115 |

males  
(cont...)

ALIMENTARY SYSTEM

|                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parasite Metazoan               |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   | X |   |   |   | X |   |   |   |   |   |   |   |   |   |
| Polyarteritis Nodosa            |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Small, Duodenum       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Basophilic Focus                |   |   |   |   |   | X | X | X |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cholangiofibrosis               |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Clear Cell Focus                |   | X |   | X | X | X | X |   | X | X | X | X |   | X | X | X | X |   | X |   | X | X | X | X |   |   |   |   |   |
| Degeneration, Cystic            |   |   | 1 |   |   | 1 |   |   |   |   |   |   |   |   | 1 |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |
| Eosinophilic Focus              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hepatodiaphragmatic Nodule      |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Infiltration Cellular, Lymphoid |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mixed Cell Focus                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |
| Necrosis                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 1 |   |   | 1 |   | 1 |
| Pigment                         |   |   | 2 |   | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 |   | 1 |   |   | 2 | 1 | 2 | 2 |
| Bile Duct, Dilation             |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

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Lab: BAT

| DAY ON TEST                        | HARLAN SPRAGUE DAWLEY RATS MALE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | ANIMAL ID | males (cont...) |
|------------------------------------|---------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------|-----------------|
|                                    | 07                              | 07 | 07 | 06 | 07 | 07 | 07 | 07 | 06 | 07 | 07 | 07 | 07 | 06 | 07 | 06 | 07 | 07 | 07 | 07 | 06 | 07 | 07 | 07 |           |                 |
| 3000 ppm Male                      | 07                              | 03 | 03 | 04 | 03 | 03 | 03 | 03 | 08 | 03 | 03 | 03 | 03 | 07 | 03 | 08 | 03 | 03 | 03 | 03 | 00 | 03 | 03 | 03 | 04        |                 |
|                                    | 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        |                 |
|                                    | 11                              | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |           |                 |
|                                    | 55                              | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |           |                 |
|                                    | 12                              | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 |           |                 |
| Bile Duct, Hyperplasia             |                                 |    |    |    |    |    | 4  |    |    |    |    | 1  | 1  | 1  |    |    |    |    |    |    | 1  |    |    |    |           |                 |
| Hepatocyte, Cytoplasmic Alteration |                                 | 1  |    | 2  | 1  | 1  |    |    |    | 1  | 1  | 1  | 1  |    | 1  | 2  | 1  | 3  | 1  | 2  | 1  |    | 1  | 1  |           |                 |
| Hepatocyte, Hypertrophy            |                                 |    |    |    |    |    |    |    |    |    |    |    |    |    | 1  |    |    | 1  |    |    |    |    |    |    |           |                 |
| Mesentery                          |                                 | +  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                 |
| Hemorrhage                         |                                 | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                 |
| Polyarteritis Nodosa               |                                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                 |
| Oral Mucosa                        |                                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                 |
| Pancreas                           |                                 | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  |           |                 |
| Infiltration Cellular, Lymphoid    |                                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 2  |    |    |    |    |    |    |    |    |           |                 |
| Polyarteritis Nodosa               |                                 |    |    | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                 |
| Acinus, Atrophy                    |                                 |    |    |    |    |    | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                 |
| Acinus, Hyperplasia                |                                 | 2  | 3  |    | 1  |    | 4  |    |    | 2  |    | 4  | 4  |    |    | 4  |    | 4  | 1  |    |    | 2  | 4  |    |           |                 |
| Salivary Glands                    |                                 | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  |           |                 |
| Stomach, Forestomach               |                                 | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  |           |                 |
| Inflammation, Chronic              |                                 | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                 |
| Mineral                            |                                 |    |    |    |    |    |    |    |    |    |    |    |    | 1  |    |    |    |    |    |    |    |    |    |    |           |                 |
| Epithelium, Dysplasia              |                                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                 |
| Epithelium, Hyperplasia            |                                 | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                 |
| Stomach, Glandular                 |                                 | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  |           |                 |
| Inflammation, Acute                |                                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 1  |    |    |    |           |                 |
| Mineral                            |                                 |    |    |    | 1  |    |    |    |    |    |    |    |    | 3  |    | 3  |    |    |    |    |    |    |    |    |           |                 |
| Thrombus                           |                                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 1  |    |    |           |                 |

CARDIOVASCULAR 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: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| DAY ON TEST | HARLAN SPRAGUE DAWLEY RATS MALE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | ANIMAL ID | males (cont...) |
|-------------|---------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------|-----------------|
|             | 07                              | 07 | 07 | 06 | 07 | 07 | 07 | 07 | 06 | 07 | 07 | 07 | 07 | 06 | 07 | 06 | 07 | 07 | 07 | 07 | 06 | 07 | 07 | 07 |           |                 |
| 07          | 03                              | 03 | 03 | 04 | 03 | 03 | 03 | 03 | 08 | 03 | 03 | 03 | 03 | 07 | 03 | 08 | 03 | 03 | 03 | 03 | 00 | 03 | 03 | 03 | 03        |                 |
| 07          | 03                              | 03 | 05 | 04 | 03 | 03 | 06 | 06 | 00 | 04 | 05 | 05 | 06 | 07 | 05 | 01 | 04 | 04 | 04 | 04 | 05 | 04 | 05 | 05 | 04        |                 |
| 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 | 00        |                 |
| 01          | 01                              | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01        |                 |
| 05          | 05                              | 05 | 05 | 05 | 05 | 05 | 05 | 05 | 05 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 07 | 07 | 07 | 07 | 07        |                 |
| 01          | 02                              | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 00 | 01 | 02 | 03 | 04 | 05 | 04        |                 |

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Aorta, Mineral               |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |
| Pulmonary Artery, Mineral    |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |
| Pulmonary Vein, Mineral      |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |
| Heart                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy               |   |   | 3 | 1 | 2 |   | 1 | 1 | 1 | 1 |   |   | 3 |   | 2 | 1 | 1 | 1 | 1 |   |   | 2 | 1 | 2 |   |
| Inflammation, Acute          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |
| Mineral                      |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |
| Thrombus                     |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Artery, Mineral              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Artery, Polyarteritis Nodosa |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Myocardium, Necrosis         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Valve, Fibrosis              |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Valve, Thrombus              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |
| Vein, Mineral                |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

ENDOCRINE SYSTEM

|                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia                   |   |   |   |   |   |   | 1 | 2 |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |
| Hypertrophy, Focal            |   |   |   | 2 |   |   | 2 |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Bilateral, Hypertrophy, Focal |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |
| Adrenal Medulla               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia, Focal            |   |   |   |   | 3 |   |   |   |   |   |   | 1 |   |   |   |   |   |   | 2 |   |   |   |   |   |   |
| Islets, Pancreatic            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hyperplasia                   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   | 2 | 3 |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically  
1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
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Experiment Number: 10188 - 01

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Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>3000 ppm Male | DAY ON TEST |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | ANIMAL ID | males<br>(cont...) |    |    |        |    |
|---|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------|--------------------|----|----|--------|----|
|   | 07          | 07 | 07 | 06 | 07 | 07 | 07 | 07 | 06 | 07 | 07 | 07 | 07 | 06 | 07 | 06 | 07 | 07 | 07 | 06 |           |                    | 07 | 07 | 07     | 07 |
|   | 0           | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0         | 0                  | 0  | 0  | 001151 |    |

Pigment

1

Parathyroid Gland

Bilateral, Hyperplasia, Diffuse

+ +

4

Pituitary Gland

Pars Distalis, Hyperplasia

Pars Distalis, Hypertrophy

Pars Distalis, Necrosis

Pars Intermedia, Hyperplasia

+ +

1

4

2

1

4

2

2

1

1

1

4

1

2

1

1

4

1

2

2

1

1

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1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

Thyroid Gland

Inflammation, Acute

C-cell, Hyperplasia

+ +

1

3

2

1

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis

Bilateral, Hypospermia

Bilateral, Duct, Exfoliated Germ Cell

+ +

4

2

1

Preputial Gland

Duct, Hyperplasia, Squamous

+ +

1

Prostate

Inflammation, Chronic Active

Dorsal, Lateral, Inflammation, Chronic Active

+ +

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

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|---|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------|--------------------|----|----|----|
|   | 07          | 07 | 07 | 06 | 07 | 07 | 07 | 07 | 06 | 07 | 07 | 07 | 07 | 06 | 07 | 06 | 07 | 07 | 07 | 06 |           |                    | 07 | 07 | 07 |
|   | 0           | 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  | 6  | 7  | 7  | 7  | 7  | 6  | 7  | 7  | 7  | 7  | 6  | 7  | 6  | 7  | 7  | 7  | 6  | 7         | 7                  | 7  | 7  | 7  |
|   | 0           | 3  | 3  | 4  | 3  | 3  | 3  | 3  | 8  | 3  | 3  | 3  | 3  | 7  | 3  | 8  | 3  | 3  | 3  | 0  | 3         | 3                  | 3  | 3  | 3  |
|   | 7           | 3  | 5  | 4  | 3  | 3  | 6  | 6  | 0  | 4  | 5  | 5  | 6  | 7  | 5  | 1  | 4  | 4  | 4  | 4  | 5         | 4                  | 5  | 5  | 4  |
|   | 0           | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0         | 0                  | 0  | 0  | 0  |
|   | 0           | 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  | 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  |

Epithelium, Ventral, Hyperplasia

3

Seminal Vesicle

Infiltration Cellular, Lymphoid

Inflammation, Chronic Active

Mineral

+ +

2

1

2

Testis

Edema

Bilateral, Edema

Bilateral, Polyarteritis Nodosa

Bilateral, Germinal Epithelium, Degeneration

Germinal Epithelium, Degeneration

Interstitial Cell, Hyperplasia

+ +

1 1 1

1 1 3 1

3 2

4 1 1 1 3 1 1

3

HEMATOPOIETIC SYSTEM

Bone Marrow

Congestion

Hypercellularity

Myelofibrosis

+ +

2 2 2 1 1 1 2 4 1 2 2 2

1

Lymph Node

Mediastinal, Hemorrhage

+ 2 +

Lymph Node, Mandibular

Hyperplasia, Lymphocyte

Inflammation, Chronic Active

+ +

Lymph Node, Mesenteric

+ +

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+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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|---|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------|--------------------|
|   | 07          | 07 | 07 | 06 | 07 | 07 | 07 | 07 | 06 | 07 | 07 | 07 | 07 | 06 | 07 | 06 | 07 | 07 | 07 | 07 | 06 | 07 | 07 | 07 |           |                    |
|   | 0           | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 001151    |                    |
|   | 7           | 7  | 7  | 4  | 3  | 3  | 3  | 3  | 8  | 3  | 3  | 3  | 3  | 7  | 3  | 8  | 3  | 3  | 3  | 3  | 0  | 3  | 3  | 3  | 001151    |                    |

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Spleen                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Accessory Spleen             |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Extramedullary Hematopoiesis | 2 |   | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 3 | 2 | 2 | 2 | 2 |   | 2 | 2 | 2 | 2 |   |
| Fibrosis                     |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hemorrhage                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pigment                      |   |   | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 |   | 2 | 1 | 1 | 1 |   | 2 | 1 | 2 | 2 |
| White Pulp, Atrophy          |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thymus                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Atrophy                      | 4 | 2 | 2 | 3 | 3 | 3 | 1 | 2 | 2 | 3 | 2 |   | 2 | 4 | 3 | 4 | 2 | 2 | 3 | 3 | 4 | 2 | 2 | 3 | 4 |

INTEGUMENTARY SYSTEM

|               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skin          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

MUSCULOSKELETAL SYSTEM

|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cartilage, Joint, Degeneration |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |

NERVOUS SYSTEM

|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hemorrhage          | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Acute |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |
| Necrosis            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |

RESPIRATORY SYSTEM

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Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| DAY ON TEST | HARLAN SPRAGUE DAWLEY RATS MALE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | ANIMAL ID | males (cont...) |    |
|-------------|---------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------|-----------------|----|
|             | 07                              | 07 | 07 | 06 | 07 | 07 | 07 | 07 | 07 | 06 | 07 | 07 | 07 | 07 | 06 | 07 | 06 | 07 | 07 | 07 | 07 | 06 | 07 | 07 |           |                 | 07 |
| 07          | 03                              | 03 | 03 | 04 | 03 | 03 | 03 | 03 | 08 | 03 | 03 | 03 | 03 | 07 | 03 | 08 | 03 | 03 | 03 | 03 | 00 | 03 | 03 | 03 | 03        | 0001151         |    |

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia, Lymphocyte Infiltration Cellular, Histiocyte     |   |   |   | 1 | 1 | 1 | 2 | 1 | 1 |   | 3 | 1 | 3 |   | 1 |   | 2 | 2 |   | 3 | 2 | 1 | 1 | 1 | 1 |
| Inflammation, Granulomatous                                   |   |   |   |   |   |   |   | 1 | 1 |   |   |   | 1 |   | 1 |   |   |   |   | 1 |   |   |   |   |   |
| Inflammation, Chronic Active Alveolar Epithelium, Hyperplasia | 1 |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nose  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Suppurative                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Chronic Active Glands, Dilatation     |   |   |   |   |   | 1 |   |   |   | 1 | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 3 | 2 | 3 | 1 | 3 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 |   | 1 | 1 | 1 | 1 | 1 | 2 |   | 1 | 2 | 2 | 1 |
| Respiratory Epithelium, Metaplasia, Squamous        |   | 1 |   |   |   |   |   |   | 2 |   | 1 | 1 |   |   |   |   |   |   |   | 2 |   |   |   |   |   |
| Respiratory Epithelium, Necrosis                    |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |

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

SPECIAL SENSES SYSTEM

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cornea, Inflammation, Chronic        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cornea, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |
| Cornea, Necrosis                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |
| Retina, Degeneration                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. 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: 10188 - 01  
 Test Type: CHRONIC  
 Route: DOSED FEED  
 Species/Strain: RATS/HSD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Di(2-ethylhexyl) Phthalate  
 CAS Number: 117-81-7

Date Report Requested: 12/17/2019  
 Time Report Requested: 10:43:08  
 First Dose M/F: 02/17/11 / 02/18/11  
 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 |   |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                    | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 |
| HARLAN SPRAGUE DAWLEY RATS<br>MALE | 0 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 8 | 3 | 3 | 3 | 3 | 7 | 3 | 8 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 |   |
|                                    | 7 | 3 | 5 | 4 | 3 | 3 | 6 | 6 | 0 | 4 | 5 | 5 | 6 | 7 | 5 | 1 | 4 | 4 | 4 | 4 | 5 | 4 | 5 | 4 |   |
| 3000 ppm 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 | 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 |   |
|                                    | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 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 |

males  
(cont...)

Retina, Dysplasia

Harderian Gland

Atrophy

Inflammation, Chronic Active

Duct, Metaplasia, Squamous

+ +

**URINARY SYSTEM**

Kidney

Infarct

Inflammation, Chronic

Inflammation, Chronic Active

Nephropathy, Chronic Progressive

Renal Tubule, Necrosis

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

Urinary Bladder

+ +

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

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First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>3000 ppm Male | DAY ON TEST |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | * TOTALS |        |        |        |        |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--------|--------|--------|--------|
|   | 0734        | 0735   | 0691   | 0664   | 0589   | 0776   | 0773   | 0773   | 0773   | 0773   | 0773   | 0662   | 0773   | 0773   | 0773   | 0773   | 0332   | 0334   | 0736   | 0554   |          | 0773   | 0773   | 0773   | 0773   |
| ANIMAL ID   | 001176      | 001177 | 001178 | 001179 | 001180 | 001181 | 001182 | 001183 | 001184 | 001185 | 001186 | 001187 | 001188 | 001189 | 001190 | 001191 | 001192 | 001193 | 001194 | 001195 | 001196   | 001197 | 001198 | 001199 | 001200 |

ALIMENTARY SYSTEM

|                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Esophagus                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Large, Cecum          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Large, Colon          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Large, Rectum         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Parasite Metazoan               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6      |
| Polyarteritis Nodosa            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |
| Intestine Small, Duodenum       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Small, Ileum          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Small, Jejunum        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Liver                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Basophilic Focus                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4      |
| Cholangiofibrosis               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0  |
| Clear Cell Focus                | X | X |   |   |   | X | X | X | X | X |   |   |   |   | X | X | X |   | X |   | X | X | X | X |   | 35     |
| Degeneration, Cystic            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 1.0  |
| Eosinophilic Focus              |   |   |   |   |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2      |
| Hepatodiaphragmatic Nodule      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1      |
| Infiltration Cellular, Lymphoid |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |
| Mixed Cell Focus                |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2      |
| Necrosis                        |   |   |   |   | 1 |   |   |   |   |   |   |   | 1 |   |   |   |   |   | 3 |   |   |   |   |   |   | 7 1.3  |
| Pigment                         | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 |   |   | 3 | 2 | 2 |   | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 45 1.8 |
| Bile Duct, Dilation             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   | 2 3.0  |

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X .. Lesion present  
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Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>3000 ppm Male | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS                       |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------------------|
|   | 0734        | 0735 | 0761 | 0764 | 0758 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0766 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 |                                |
| ANIMAL ID   | 0011        | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 |                                |
| Bile Duct, Hyperplasia                              | 1           |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    | 8 1.4                          |
| Hepatocyte, Cytoplasmic Alteration                  | 1           | 1    |      |      | 1    | 1    | 1    | 2    | 1    | 1    | 2    | 1    | 3    |      | 2    | 1    | 1    |      | 3    | 1    | 1    | 1    | 1    | 1    | 38 1.3                         |
| Hepatocyte, Hypertrophy                             |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2 1.0                          |
| Mesentery Hemorrhage                                |             |      | +    |      |      |      |      |      |      |      |      |      |      |      |      |      | +    |      |      |      |      |      |      |      | 3 1 4.0                        |
| Polyarteritis Nodosa                                |             |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1 1.0                          |
| Oral Mucosa   |             |      |      |      |      |      | +    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1                              |
| Pancreas Infiltration Cellular, Lymphoid            |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 50 1 2.0                       |
| Pancreas Polyarteritis Nodosa                       |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2 2.5                          |
| Pancreas Acinus, Atrophy                            |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2 1.5                          |
| Pancreas Acinus, Hyperplasia                        |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 4 1 4 4 4 4 4 4 4 4 3 3 24 3.3 |
| Salivary Glands                                     |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 50                             |
| Stomach, Forestomach Inflammation, Chronic          |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 50 1 1.0                       |
| Stomach, Forestomach Mineral Epithelium, Dysplasia  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1 1.0                          |
| Stomach, Forestomach Epithelium, Hyperplasia        |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1 1.0                          |
| Stomach, Glandular Inflammation, Acute              |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 50 1 1.0                       |
| Stomach, Glandular Mineral                          |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 3 2.3                          |
| Stomach, Glandular Thrombus                         |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1 1.0                          |

CARDIOVASCULAR 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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1-4 .. Lesion qualified as:  
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2) Mild 4) Marked

| DAY ON TEST | HARLAN SPRAGUE DAWLEY RATS MALE |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |   |   |    |
|-------------|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---|----|
|             | 0                               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |          | 0 | 0 |    |
| 7           | 7                               | 6 | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 3 | 3 | 7 | 5 | 7        | 7 | 7 | 50 |
| 3           | 3                               | 9 | 1 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 4 | 3 | 0 | 3 | 3        | 3 | 3 |    |
| 4           | 5                               | 1 | 4 | 9 | 6 | 6 | 3 | 3 | 3 | 6 | 6 | 8 | 5 | 8 | 3 | 5 | 5 | 3 | 9 | 6 | 4        | 6 | 4 | 50 |
| 0           | 0                               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0 | 0 |    |
| 0           | 0                               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0 | 0 | 50 |
| 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 | 8 | 8 | 9 | 9 | 9 | 9 | 9        | 9 | 9 | 50 |
| 6           | 7                               | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7        | 8 | 9 |    |

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Blood Vessel              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |     |
| Aorta, Mineral            |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2 | 2.5 |
| Pulmonary Artery, Mineral |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 | 4.0 |
| Pulmonary Vein, Mineral   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 | 4.0 |

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |     |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Heart                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |    |     |
| Cardiomyopathy               | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 |   |   | 2 |   |   | 1 | 1 | 1  | 37 | 1.3 |
| Inflammation, Acute          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  | 3.0 |
| Mineral                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  | 3.0 |
| Thrombus                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  | 1.0 |
| Artery, Mineral              |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  | 1.0 |
| Artery, Polyarteritis Nodosa |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  | 1.0 |
| Myocardium, Necrosis         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |    | 1  | 1.0 |
| Valve, Fibrosis              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  | 1.0 |
| Valve, Thrombus              |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |    | 2  | 2.5 |
| Vein, Mineral                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  | 1.0 |

**ENDOCRINE SYSTEM**

|                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Adrenal Cortex                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |     |
| Hyperplasia                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |    | 4 | 2.0 |
| Hypertrophy, Focal            |   |   |   |   |   |   |   |   |   |   |   | 2 |   | 2 |   |   |   |   |   |   |   | 1 |   |    | 6 | 1.8 |
| Bilateral, Hypertrophy, Focal |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |    | 3 | 1.7 |
| Adrenal Medulla               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |     |
| Hyperplasia, Focal            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |    | 4 | 2.0 |
| Islets, Pancreatic            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |     |
| Atrophy                       |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |    | 1 | 3.0 |
| Hyperplasia                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 | 2 |   |   |   |   | 4 |   |    | 6 | 2.5 |

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

+ .. Tissue examined microscopically

X .. Lesion present

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Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

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

|                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |    |     |     |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|----|-----|-----|
| Pigment                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 1.0 |    |     |     |
| Parathyroid Gland               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   | 50 |     |     |
| Bilateral, Hyperplasia, Diffuse |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 4.0 |    |     |     |
| Pituitary Gland                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   | 50 |     |     |
| Pars Distalis, Hyperplasia      |   | 3 |   |   | 2 | 4 |   |   |   |   |   |   |   |   | 2 | 3 |   |   | 2 |   | 3 | 1   | 2  | 24  | 2.1 |
| Pars Distalis, Hypertrophy      | 1 |   |   |   | 1 | 1 | 1 |   |   | 1 |   |   |   | 1 |   |   |   | 1 |   |   |   |     | 1  | 14  | 1.1 |
| Pars Distalis, Necrosis         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 1.0 |    |     |     |
| Pars Intermedia, Hyperplasia    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 2.0 |    |     |     |
| Thyroid Gland                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   | 50 |     |     |
| Inflammation, Acute             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 1.0 |    |     |     |
| C-cell, Hyperplasia             | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   | 2   | 6  | 2.0 |     |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |     |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|-----|--|
| Epididymis                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   | 50  |  |
| Bilateral, Hypospermia                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 | 3   | 3.7 |  |
| Bilateral, Duct, Exfoliated Germ Cell         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 | 3   | 2.0 |  |
| Preputial Gland                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   | 50  |  |
| Duct, Hyperplasia, Squamous                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 1.0 |     |  |
| Prostate                                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   | 50  |  |
| Inflammation, Chronic Active                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 | 1   | 4.0 |  |
| Dorsal, Lateral, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2   | 2.0 |  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically  
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| DAY ON TEST   | HARLAN SPRAGUE DAWLEY RATS MALE |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID | * TOTALS |      |      |      |      |
|---------------|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------|------|------|------|------|
|               | 0734                            | 0735 | 0739 | 0731 | 0738 | 0733 | 0733 | 0733 | 0733 | 0733 | 0736 | 0732 | 0733 | 0732 | 0733 | 0735 | 0733 | 0732 | 0734 | 0733 |           |          | 0737 | 0735 | 0737 | 0737 |
| 3000 ppm 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    | 0    |
|               | 0                               | 0    | 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    | 9    | 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    |      |

Epithelium, Ventral, Hyperplasia

1 3.0

Seminal Vesicle

50

Infiltration Cellular, Lymphoid

1 2.0

Inflammation, Chronic Active

4

2 2.5

Mineral

1 2.0

Testis

50

Edema

10 1.2

Bilateral, Edema

14 1.2

Bilateral, Polyarteritis Nodosa

4 2.0

Bilateral, Germinal Epithelium, Degeneration

19 1.7

Germinal Epithelium, Degeneration

3 1.0

Interstitial Cell, Hyperplasia

4 2.0

HEMATOPOIETIC SYSTEM

Bone Marrow

50

Congestion

1 2.0

Hypercellularity

25 1.8

Myelofibrosis

1 1.0

Lymph Node

4

Mediastinal, Hemorrhage

1 2.0

Lymph Node, Mandibular

50

Hyperplasia, Lymphocyte

1 2.0

Inflammation, Chronic Active

4

1 4.0

Lymph Node, Mesenteric

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:

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|-------------|---------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--------|--------|--------|--------|--------|
|             | 0734                            | 0735   | 0739   | 0731   | 0738   | 0733   | 0733   | 0733   | 0733   | 0733   | 0732   | 0733   | 0732   | 0733   | 0733   | 0735   | 0738   | 0733   | 0734   | 0737   |          | 0735   | 0737   | 0737   | 0733   | 0733   |
| ANIMAL ID   | 001176                          | 001177 | 001178 | 001179 | 001180 | 001181 | 001182 | 001183 | 001184 | 001185 | 001186 | 001187 | 001188 | 001189 | 001190 | 001191 | 001192 | 001193 | 001194 | 001195 | 001196   | 001197 | 001198 | 001199 | 001200 | 001201 |

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Spleen                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Accessory Spleen             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1      |
| Extramedullary Hematopoiesis | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 |   | 2 | 2 | 2 |   |   | 2 | 1 | 2 | 1 | 2 | 2 |   |   | 45 1.9 |
| Fibrosis                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |
| Hemorrhage                   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   | 4 |   |   |   |   |   |   |   | 2 4.0  |
| Pigment                      | 2 | 1 | 1 | 1 |   | 1 | 2 | 2 | 2 | 2 | 2 |   |   | 1 | 1 | 1 | 2 | 2 | 1 |   | 1 | 2 | 2 | 2 |   |   | 42 1.6 |
| White Pulp, Atrophy          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 | 2 |   |   |   |   |   |   |   |   | 3 2.3  |
| Thymus                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Atrophy                      | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 3 | 1 | 2 | 2 | 4 | 2 | 3 |   | 3 | 2 | 3 | 2 |   | 48 2.6 |

INTEGUMENTARY SYSTEM

|               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skin          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

MUSCULOSKELETAL SYSTEM

|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Bone                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |
| Cartilage, Joint, Degeneration |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2 1.0 |

NERVOUS SYSTEM

|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Brain               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |
| Hemorrhage          |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |    | 3 3.0 |
| Inflammation, Acute |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 2.0 |
| Necrosis            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |    | 1 4.0 |

RESPIRATORY SYSTEM

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+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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|-------------|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|------|
|             | 0734                            | 0735 | 0739 | 0731 | 0738 | 0733 | 0733 | 0733 | 0733 | 0733 | 0736 | 0736 | 0738 | 0735 | 0738 | 0733 | 0735 | 0735 | 0733 | 0734 |          | 0733 | 0736 | 0734 | 0737 | 0737 |
| ANIMAL ID   | 0017                            | 0017 | 0018 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011     | 0011 | 0011 | 0011 | 0011 | 0011 |

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Lung  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Hyperplasia, Lymphocyte Infiltration Cellular, Histiocyte |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |
| Infiltration Cellular, Lymphoid                           | 1 | 1 | 1 |   | 2 | 2 | 2 | 2 | 1 |   | 1 | 1 |   | 1 | 1 | 1 |   | 2 |   | 2 | 2 | 1 | 1 | 2 |   | 38 1.5 |
| Inflammation, Granulomatous                               | 1 | 1 |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   | 1 |   |   |   |   | 1 |   |   |   | 10 1.0 |
| Inflammation, Acute                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0  |
| Inflammation, Chronic Active                              |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   | 1 | 5 1.4  |
| Alveolar Epithelium, Hyperplasia                          |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0  |

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Nose  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Inflammation, Suppurative                           |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0  |
| Inflammation, Acute                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |
| Inflammation, Chronic Active                        |   |   |   |   |   |   |   |   |   |   | 2 |   | 1 |   | 1 |   |   |   |   |   |   |   |   |   |   | 6 1.2  |
| Glands, Dilation                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0  |
| Olfactory Epithelium, Accumulation, Hyaline Droplet |   | 3 | 1 |   | 1 | 1 |   | 1 | 1 | 1 | 1 | 1 |   |   | 2 | 2 | 2 |   | 1 | 1 | 1 | 1 |   | 1 |   | 40 1.5 |
| Olfactory Epithelium, Metaplasia, Respiratory       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 1.3  |
| Respiratory Epithelium, Hyperplasia                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0  |
| Respiratory Epithelium, Metaplasia, Squamous        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |
| Respiratory Epithelium, Necrosis                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |

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

**SPECIAL SENSES SYSTEM**

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Eye                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |
| Cornea, Inflammation, Chronic        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 1.0 |
| Cornea, Inflammation, Chronic Active |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2 2.5 |
| Cornea, Necrosis                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 2.0 |
| Retina, Degeneration                 |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 1.0 |

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

Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>3000 ppm Male | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | * TOTALS              |                       |                       |                        |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|
|   | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>5      | 0<br>6<br>9<br>1      | 0<br>6<br>1<br>4      | 0<br>5<br>8<br>9      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>3      | 0<br>6<br>2<br>8      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>5      | 0<br>3<br>2<br>3      | 0<br>3<br>4<br>3      | 0<br>7<br>3<br>6      | 0<br>5<br>0<br>4      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      |                       | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>4      |                        |
|   | ANIMAL ID             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                        |
|   | 0<br>0<br>1<br>7<br>6 | 0<br>0<br>1<br>7<br>7 | 0<br>0<br>1<br>7<br>8 | 0<br>0<br>1<br>7<br>8 | 0<br>0<br>1<br>8<br>0 | 0<br>0<br>1<br>8<br>1 | 0<br>0<br>1<br>8<br>2 | 0<br>0<br>1<br>8<br>3 | 0<br>0<br>1<br>8<br>4 | 0<br>0<br>1<br>8<br>5 | 0<br>0<br>1<br>8<br>6 | 0<br>0<br>1<br>8<br>7 | 0<br>0<br>1<br>8<br>8 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 1<br>50<br>1<br>2<br>1 |

|                              |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |
|------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---------|
| Retina, Dysplasia            | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 1.0   |
| Harderian Gland              | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50      |
| Atrophy                      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 1 4.0 |
| Inflammation, Chronic Active |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 2 3.0 |
| Duct, Metaplasia, Squamous   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 1 3.0 |

**URINARY SYSTEM**

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |  |  |        |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|--|--|--------|
| Kidney                           | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50      |  |  |        |
| Infarct                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1 1.0 |  |  |        |
| Inflammation, Chronic            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0   |  |  |        |
| Inflammation, Chronic Active     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0   |  |  |        |
| Nephropathy, Chronic Progressive | 3 | 3 | 3 | 1 | 1 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 4 | 1 | 2 | 2 | 2 | 2 | 1 | 3 | 1 | 3 | 3 | 3 | 2 |         |  |  | 49 2.3 |
| Renal Tubule, Necrosis           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0   |  |  |        |
| 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

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>10000 ppm Male | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | males<br>(cont...)    |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>5      | 0<br>6<br>2<br>1      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>5      | 0<br>6<br>6<br>1      | 0<br>7<br>3<br>5      | 0<br>6<br>5<br>3      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>3      |                       |                       |
| ANIMAL ID  | 0<br>0<br>2<br>0<br>1 | 0<br>0<br>2<br>0<br>2 | 0<br>0<br>2<br>0<br>3 | 0<br>0<br>2<br>0<br>4 | 0<br>0<br>2<br>0<br>5 | 0<br>0<br>2<br>0<br>6 | 0<br>0<br>2<br>0<br>7 | 0<br>0<br>2<br>0<br>8 | 0<br>0<br>2<br>0<br>9 | 0<br>0<br>2<br>0<br>0 | 0<br>0<br>2<br>0<br>1 | 0<br>0<br>2<br>0<br>2 | 0<br>0<br>2<br>0<br>3 | 0<br>0<br>2<br>0<br>4 | 0<br>0<br>2<br>0<br>5 | 0<br>0<br>2<br>0<br>6 | 0<br>0<br>2<br>0<br>7 | 0<br>0<br>2<br>0<br>8 | 0<br>0<br>2<br>0<br>9 | 0<br>0<br>2<br>0<br>0 | 0<br>0<br>2<br>0<br>1 | 0<br>0<br>2<br>0<br>2 | 0<br>0<br>2<br>0<br>3 | 0<br>0<br>2<br>0<br>4 | 0<br>0<br>2<br>0<br>5 |

**ALIMENTARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon<br>Parasite Metazoan<br>Polyarteritis Nodosa  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|  |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Large, Rectum<br>Parasite Metazoan<br>Polyarteritis Nodosa | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|  | X | X |   |   |   | X |   | X | X | X |   |   | X |   |   |   |   |   |   | X |   |   |   |   |   |
|  |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Small, Duodenum  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Basophilic Focus   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| Clear Cell Focus   | X | X | X | X |   | X | X | X |   | X | X | X |   | X | X | X | X | X |   | X |   | X | X |   |   |
| Degeneration, Cystic   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Eosinophilic Focus   | X | X | X | X |   |   | X |   | X |   |   | X |   |   | X | X |   |   | X |   |   | X |   |   |   |
| Mixed Cell Focus   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Necrosis   |   |   |   |   | 2 |   |   |   |   |   |   | 2 |   |   |   |   | 1 |   |   |   |   |   |   |   | 1 |
| Pigment  | 2 | 3 | 3 | 2 | 1 | 2 | 1 | 2 | 3 | 2 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 |
| Bile Duct, Hyperplasia   | 1 |   |   |   |   |   |   |   |   | 1 |   | 1 | 1 |   |   | 1 |   |   |   |   |   | 1 |   |   |   |
| Hepatocyte, Cytoplasmic Alteration                                   | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 1 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 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: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>10000 ppm Male | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | males<br>(cont...)    |                       |                       |                       |                       |   |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---|
|  | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>5      | 0<br>6<br>2<br>1      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>5      | 0<br>6<br>3<br>1      | 0<br>7<br>3<br>5      |                       | 0<br>6<br>3<br>3      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>3      |                       |   |
| ANIMAL ID  | 0<br>0<br>2<br>0<br>1 | 0<br>0<br>2<br>0<br>2 | 0<br>0<br>2<br>0<br>3 | 0<br>0<br>2<br>0<br>4 | 0<br>0<br>2<br>0<br>5 | 0<br>0<br>2<br>0<br>6 | 0<br>0<br>2<br>0<br>7 | 0<br>0<br>2<br>0<br>8 | 0<br>0<br>2<br>0<br>9 | 0<br>0<br>2<br>0<br>0 | 0<br>0<br>2<br>0<br>1 | 0<br>0<br>2<br>0<br>2 | 0<br>0<br>2<br>0<br>3 | 0<br>0<br>2<br>0<br>4 | 0<br>0<br>2<br>0<br>5 | 0<br>0<br>2<br>0<br>6 | 0<br>0<br>2<br>0<br>7 | 0<br>0<br>2<br>0<br>8 | 0<br>0<br>2<br>0<br>9 | 0<br>0<br>2<br>0<br>0 | 0<br>0<br>2<br>0<br>1 | 0<br>0<br>2<br>0<br>2 | 0<br>0<br>2<br>0<br>3 | 0<br>0<br>2<br>0<br>4 | 0<br>0<br>2<br>0<br>5 |   |
| Hepatocyte, Hypertrophy                              | 1                     |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Mesentery  |                       |                       | +                     |                       | +                     |                       |                       |                       | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | + |
| Polyarteritis Nodosa                                 |                       |                       |                       |                       |                       |                       |                       |                       | 2                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Fat, Necrosis  |                       |                       | 2                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Oral Mucosa  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Gingival, Cyst                                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Pancreas   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + |
| Fibrosis   |                       |                       |                       |                       |                       | 2                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Inflammation, Chronic Active                         |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 3                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Polyarteritis Nodosa                                 |                       |                       |                       |                       |                       |                       |                       | 2                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Acinus, Atrophy                                      |                       | 1                     |                       |                       | 3                     |                       |                       |                       |                       | 1                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1 |
| Acinus, Hyperplasia                                  | 3                     |                       | 1                     | 4                     |                       | 2                     | 4                     |                       |                       | 1                     | 4                     | 2                     |                       |                       | 4                     | 3                     | 2                     | 3                     |                       |                       | 4                     |                       |                       |                       |                       | 3 |
| Bile Duct, Dilation                                  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Salivary Glands                                      | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + |
| Fibrosis   |                       |                       | 2                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Inflammation, Chronic Active                         |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Stomach, Forestomach                                 | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + |
| Inflammation, Granulomatous                          |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Inflammation, Chronic Active                         |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Polyarteritis Nodosa                                 |                       |                       |                       |                       |                       |                       |                       | 2                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Epithelium, Hyperplasia                              |                       |                       |                       | 2                     |                       |                       |                       | 4                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Stomach, Glandular                                   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + |

CARDIOVASCULAR 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: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>10000 ppm Male | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | males<br>(cont...) |   |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|
|  | 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 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 6 |                    | 7 |
| ANIMAL ID  | 3           | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 3 | 5 | 3                  | 3 |
|  | 4           | 4 | 5 | 5 | 1 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 4 | 4 | 3 | 3 | 5 | 5 | 1 | 5 | 3                  | 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 | 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 |
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 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 |

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Aneurysm                |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Aorta, Mineral          |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   | 1 |   |   |   |   |
| Pulmonary Vein, Mineral |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |
| Heart                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy          |   | 1 | 1 |   |   |   | 2 | 2 | 1 | 2 |   |   | 1 | 2 | 1 | 1 | 1 |   | 3 |   | 1 | 1 |
| Valve, Degeneration     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Valve, Fibrosis         | 2 |   |   |   |   |   |   |   | 2 |   |   | 1 |   |   |   |   |   |   | 3 |   |   | 2 |
| Valve, Thrombus         | 1 |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   | 4 |   |   |   |

ENDOCRINE SYSTEM

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Degeneration, Cystic       |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |
| Hyperplasia                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |
| Hypertrophy, Focal         |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   | 1 |   | 2 |   |
| Adrenal Medulla            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Hyperplasia, Focal         |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |
| Islets, Pancreatic         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Hyperplasia                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |
| Parathyroid Gland          | M | + | + | + | + | M | + | + | + | + | M | + | + | + | + | M | + | + | + | + | + | + |   |
| Pituitary Gland            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Cyst                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pars Distalis, Hyperplasia |   |   | 3 |   | 1 | 2 |   |   |   | 2 | 2 |   |   | 4 |   |   |   | 1 | 2 | 1 |   | 3 | 2 |

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+ .. 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: 10188 - 01

Test Type: CHRONIC

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Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>10000 ppm Male | DAY ON TEST      |                  | ANIMAL ID        |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | males<br>(cont...) |                  |                  |   |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------|------------------|------------------|---|
|  | 0<br>7<br>3<br>4 | 0<br>7<br>3<br>4 | 0<br>7<br>3<br>5 | 0<br>7<br>3<br>5 | 0<br>6<br>2<br>1 | 0<br>7<br>3<br>5 | 0<br>7<br>3<br>5 | 0<br>7<br>3<br>5 | 0<br>7<br>3<br>6 | 0<br>7<br>3<br>6 | 0<br>7<br>3<br>6 | 0<br>7<br>3<br>6 | 0<br>7<br>3<br>4 | 0<br>7<br>3<br>4 | 0<br>7<br>3<br>3 | 0<br>7<br>3<br>3 | 0<br>7<br>3<br>5 | 0<br>7<br>3<br>5 | 0<br>6<br>6<br>1 | 0<br>7<br>3<br>5 | 0<br>6<br>5<br>3 | 0<br>7<br>3<br>3 |                    | 0<br>7<br>3<br>3 | 0<br>7<br>3<br>3 |   |
| Pars Distalis, Hypertrophy                           | 2                | 3                | 2                | 2                | 3                | 2                | 2                |                  | 1                | 2                | 1                |                  | 3                |                  |                  |                  |                  |                  | 1                | 2                | 1                | 2                | 2                  |                  | 1                | 1 |
| Thyroid Gland  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                  | +                | +                | + |
| C-cell, Hyperplasia                                  |                  |                  |                  |                  | 4                |                  |                  |                  | 1                | 1                | 3                |                  | 1                | 3                | 1                |                  |                  |                  |                  |                  |                  | 2                |                    |                  |                  | 4 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Epididymis                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Bilateral, Hypospermia                        | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |   |   | 4 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Bilateral, Inflammation, Chronic Active       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Bilateral, Polyarteritis Nodosa               |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Bilateral, Duct, Exfoliated Germ Cell         | 1 | 1 |   |   | 1 | 1 | 1 | 1 | 1 |   | 1 | 2 | 2 |   |   | 2 | 2 | 2 | 2 |   | 2 |   | 1 | 1 | 1 |
| Preputial Gland                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Chronic                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Chronic Active                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Metaplasia, Squamous                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Duct, Hyperplasia, Squamous                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |
| Prostate                                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Polyarteritis Nodosa                          |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Dorsal, Lateral, Inflammation, Granulomatous  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Dorsal, Lateral, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   | 2 |   |   |
| Epithelium, Ventral, Hyperplasia              | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   | 2 |   |   |   |   |   |   |
| Seminal Vesicle                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

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X .. Lesion present

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Di(2-ethylhexyl) Phthalate

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Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>10000 ppm Male | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | males<br>(cont...) |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
|  | 0734        | 0734  | 0735  | 0735  | 0721  | 0735  | 0735  | 0735  | 0736  | 0736  | 0736  | 0736  | 0736  | 0736  | 0736  | 0736  | 0736  | 0736  | 0736  | 0736  | 0736  | 0736  | 0736  | 0736  | 0736  |                    |
| ANIMAL ID  | 00201       | 00202 | 00203 | 00204 | 00205 | 00206 | 00207 | 00208 | 00209 | 00210 | 00211 | 00212 | 00213 | 00214 | 00215 | 00216 | 00217 | 00218 | 00219 | 00220 | 00221 | 00222 | 00223 | 00224 | 00225 | 00226              |

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Testis                                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Edema  |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   | 2 | 3 |   |   |   |   |   |   |
| Bilateral, Edema                             | 3 |   | 3 | 3 | 2 | 3 | 3 | 1 | 3 |   | 3 | 3 |   | 1 | 3 | 2 |   |   | 2 | 3 | 2 | 3 | 3 | 2 |   |   |
| Bilateral, Polyarteritis Nodosa              |   |   | 3 |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |
| Bilateral, Germinal Epithelium, Degeneration | 4 | 4 |   | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |   | 2 | 4 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Bilateral, Interstitial Cell, Hyperplasia    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Germinal Epithelium, Degeneration            |   |   | 4 |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |
| Interstitial Cell, Hyperplasia               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |

HEMATOPOIETIC SYSTEM

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Congestion                   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hypercellularity             |   | 1 | 2 |   | 3 |   | 2 | 2 | 2 |   | 1 | 1 | 2 | 2 |   |   | 2 |   |   | 4 | 1 | 2 | 2 |   | 2 |   |
| Lymph Node, Mandibular       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Dilation                     |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mesenteric       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia, Lymphocyte      |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Spleen                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Extramedullary Hematopoiesis |   | 1 | 2 | 1 | 3 | 2 |   | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 |   | 2 | 2 | 2 |   |
| Pigment                      | 1 | 1 |   | 1 |   | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |   | 2 | 2 | 2 | 2 |   |   |   |
| White Pulp, Atrophy          |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thymus                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy                      | 1 | 2 | 2 | 2 | 4 | 3 | 3 | 2 | 1 |   |   |   | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 |   | 3 | 2 | 4 |
| Ectopic Parathyroid Gland    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

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|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>5      | 0<br>6<br>2<br>1      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>5      | 0<br>6<br>3<br>1      | 0<br>7<br>3<br>5      | 0<br>6<br>3<br>3      | 0<br>7<br>3<br>3      |                       | 0<br>7<br>3<br>3      |
| ANIMAL ID  | 0<br>0<br>2<br>0<br>1 | 0<br>0<br>2<br>0<br>2 | 0<br>0<br>2<br>0<br>3 | 0<br>0<br>2<br>0<br>4 | 0<br>0<br>2<br>0<br>5 | 0<br>0<br>2<br>0<br>6 | 0<br>0<br>2<br>0<br>7 | 0<br>0<br>2<br>0<br>8 | 0<br>0<br>2<br>0<br>9 | 0<br>0<br>2<br>1<br>0 | 0<br>0<br>2<br>1<br>1 | 0<br>0<br>2<br>1<br>2 | 0<br>0<br>2<br>1<br>3 | 0<br>0<br>2<br>1<br>4 | 0<br>0<br>2<br>1<br>5 | 0<br>0<br>2<br>1<br>6 | 0<br>0<br>2<br>1<br>7 | 0<br>0<br>2<br>1<br>8 | 0<br>0<br>2<br>2<br>0 | 0<br>0<br>2<br>2<br>1 | 0<br>0<br>2<br>2<br>2 | 0<br>0<br>2<br>2<br>3 | 0<br>0<br>2<br>2<br>4 | 0<br>0<br>2<br>2<br>5 |

**INTEGUMENTARY SYSTEM**

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skin                      | + | + | + | + | + | X | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst Epithelial Inclusion |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Fibrosis                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Chronic     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**MUSCULOSKELETAL SYSTEM**

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

**NERVOUS SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cerebrum, Gliosis                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Meninges, Venule, Developmental Malformation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |

**RESPIRATORY SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infiltration Cellular, Histiocyte           | 1 | 2 | 2 | 2 | 2 |   |   | 3 |   |   | 2 | 2 | 3 |   | 2 | 2 | 1 |   |   | 2 |   | 2 |   | 1 | 1 |
| Inflammation, Granulomatous                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 1 |   |
| Inflammation, Acute                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Chronic Active                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   | 1 |
| Alveolar Epithelium, Hyperplasia            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 | 2 |   |   |
| Alveolus, Infiltration Cellular, Histiocyte |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. 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: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>10000 ppm Male | DAY ON TEST           |                       | ANIMAL ID             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | males<br>(cont...)    |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>5      | 0<br>6<br>2<br>1      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>5      | 0<br>7<br>3<br>5      | 0<br>6<br>3<br>1      | 0<br>7<br>6<br>5      | 0<br>6<br>3<br>3      | 0<br>7<br>3<br>3      |                       | 0<br>7<br>3<br>3      |
|  | 0<br>0<br>2<br>0<br>1 | 0<br>0<br>2<br>0<br>2 | 0<br>0<br>2<br>0<br>3 | 0<br>0<br>2<br>0<br>4 | 0<br>0<br>2<br>0<br>5 | 0<br>0<br>2<br>0<br>6 | 0<br>0<br>2<br>0<br>7 | 0<br>0<br>2<br>0<br>8 | 0<br>0<br>2<br>0<br>9 | 0<br>0<br>1<br>1<br>0 | 0<br>0<br>2<br>1<br>1 | 0<br>0<br>2<br>1<br>2 | 0<br>0<br>2<br>1<br>3 | 0<br>0<br>2<br>1<br>4 | 0<br>0<br>2<br>1<br>5 | 0<br>0<br>2<br>1<br>6 | 0<br>0<br>2<br>1<br>7 | 0<br>0<br>2<br>1<br>8 | 0<br>0<br>2<br>2<br>0 | 0<br>0<br>2<br>2<br>1 | 0<br>0<br>2<br>2<br>2 | 0<br>0<br>2<br>2<br>3 | 0<br>0<br>2<br>2<br>4 | 0<br>0<br>2<br>2<br>5 |

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nose  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Amyloid   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Chronic Active                        |   |   |   | 2 | 1 |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |
| Glands, Dilation                                    |   |   |   |   | 2 |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 1 | 1 | 1 | 1 | 2 |   |   |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |   |   | 1 | 1 |   | 1 | 1 |
| Trachea   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

SPECIAL SENSES SYSTEM

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cataract                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hemorrhage                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Optic Nerve, Degeneration |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Retina, Degeneration      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Retina, Dysplasia         | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Retina, Fibrosis          |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Harderian Gland           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Fibrosis                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |
| Hyperplasia               |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Metaplasia                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Necrosis                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |

URINARY SYSTEM

|         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infarct |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

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

Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

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First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| DAY ON TEST  | HARLAN SPRAGUE DAWLEY RATS MALE |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | ANIMAL ID | males (cont...) |
|--|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|-----------------|
|  | 0734                            | 0734  | 0735  | 0735  | 0721  | 0735  | 0735  | 0735  | 0736  | 0736  | 0736  | 0736  | 0734  | 0734  | 0733  | 0733  | 0735  | 0735  | 0735  | 0761  | 0735  | 0763  | 0733  | 0733  |           |                 |
| 10000 ppm Male   | 00201                           | 00202 | 00203 | 00204 | 00205 | 00206 | 00207 | 00208 | 00209 | 00210 | 00211 | 00212 | 00213 | 00214 | 00215 | 00216 | 00217 | 00218 | 00219 | 00220 | 00221 | 00222 | 00223 | 00224 | 00225     |                 |
| Nephropathy, Chronic Progressive Renal Tubule, Hyperplasia, Atypical | 1                               | 2     | 3     | 2     | 2     | 1     | 3     | 3     | 2     | 2     | 1     | 1     | 1     | 2     | 2     | 2     | 2     | 1     | 2     | 2     | 1     | 1     | 2     | 2     | 1         |                 |
| Urinary Bladder  | +                               | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +         |                 |

\* .. 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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1-4 .. Lesion qualified as:  
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| DAY ON TEST    | HARLAN SPRAGUE DAWLEY RATS MALE |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |
|----------------|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
|                | 0614                            | 0736  | 0776  | 0773  | 0773  | 0773  | 0776  | 0776  | 0776  | 0776  | 0776  | 0776  | 0776  | 0776  | 0776  | 0776  | 0776  | 0776  | 0776  | 0776  | 0776  | 0776  | 0776  |          |
| 10000 ppm Male | 0                               | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 50       |
| ANIMAL ID      | 00226                           | 00227 | 00228 | 00229 | 00230 | 00231 | 00232 | 00233 | 00234 | 00235 | 00236 | 00237 | 00238 | 00239 | 00240 | 00241 | 00242 | 00243 | 00244 | 00245 | 00246 | 00247 | 00248 | 50       |

ALIMENTARY SYSTEM

|                                    |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |       |
|------------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-------|
| Esophagus                          | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |       |
| Intestine Large, Cecum             | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |       |
| Intestine Large, Colon             | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |       |
| Parasite Metazoan                  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 1     |
| Polyarteritis Nodosa               |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 1 3.0 |
| Intestine Large, Rectum            | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |       |
| Parasite Metazoan                  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 16    |
| Polyarteritis Nodosa               |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 1 3.0 |
| Intestine Small, Duodenum          | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |       |
| Intestine Small, Ileum             | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |       |
| Intestine Small, Jejunum           | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |       |
| Liver                              | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |       |
| Basophilic Focus                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 3     |
| Clear Cell Focus                   | X X X X X X                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 39 |       |
| Degeneration, Cystic               |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 1 1.0 |
| Eosinophilic Focus                 | X X X X X X                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 24 |       |
| Mixed Cell Focus                   | X   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1  |       |
| Necrosis                           | 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 8  | 1.3   |
| Pigment                            | 2 3 3 2 3 3 2 3 3 1 3 3 3 3 3 1 2 4 3 2 3 3 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 | 2.5   |
| Bile Duct, Hyperplasia             | 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11 | 1.0   |
| Hepatocyte, Cytoplasmic Alteration | 4 4 3 4 4 4 4 1 4 4 4 4 3 3 3 4 4 4 3 4 2 3 4 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 49 | 3.6   |

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+ .. Tissue examined microscopically M .. Missing tissue  
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I .. Insufficient tissue BLANK .. Not examined microscopically  
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Experiment Number: 10188 - 01

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Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>10000 ppm Male | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |        |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|--------|
|  | 0614        | 0736  | 0776  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  |          | 0777   |
| ANIMAL ID  | 00226       | 00007 | 00008 | 00009 | 00010 | 00011 | 00012 | 00013 | 00014 | 00015 | 00016 | 00017 | 00018 | 00019 | 00020 | 00021 | 00022 | 00023 | 00024 | 00025 | 00026 | 00027 | 00028 | 00029 | 00030    |        |
| Hepatocyte, Hypertrophy                              |             |       |       |       |       |       |       |       | 1     | 1     |       |       | 1     | 1     |       |       |       |       |       |       |       |       |       |       |          | 6 1.2  |
| Mesentery  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 4      |
| Polyarteritis Nodosa                                 |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1 2.0  |
| Fat, Necrosis  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1 2.0  |
| Oral Mucosa  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1      |
| Gingival, Cyst                                       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1      |
| Pancreas   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | 50     |
| Fibrosis   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1 2.0  |
| Inflammation, Chronic Active                         |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1 3.0  |
| Polyarteritis Nodosa                                 |             |       |       |       |       |       |       |       |       |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |          | 2 2.0  |
| Acinus, Atrophy                                      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 4     |       |       |       |       |       |          | 5 2.0  |
| Acinus, Hyperplasia                                  |             |       | 4     |       | 4     | 2     | 4     |       |       |       |       | 1     |       |       |       | 4     | 4     | 4     |       |       | 3     |       | 3     | 4     | 1        | 26 3.0 |
| Bile Duct, Dilatation                                |             |       |       |       |       |       |       |       |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       | 2     |          | 2 2.0  |
| Salivary Glands                                      | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | 50     |
| Fibrosis   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1 2.0  |
| Inflammation, Chronic Active                         |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1 2.0  |
| Stomach, Forestomach                                 | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | 50     |
| Inflammation, Granulomatous                          |             |       |       |       |       |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1 2.0  |
| Inflammation, Chronic Active                         |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 2 1.5  |
| Polyarteritis Nodosa                                 |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1 2.0  |
| Epithelium, Hyperplasia                              |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 3 3.0  |
| Stomach, Glandular                                   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | 50     |

CARDIOVASCULAR 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: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>10000 ppm Male | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |        |  |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|--------|--|
|  | 0614        | 0736  | 0776  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  |          | 0777  |       |       |        |  |
| ANIMAL ID  | 00226       | 00227 | 00228 | 00229 | 00230 | 00231 | 00232 | 00233 | 00234 | 00235 | 00236 | 00237 | 00238 | 00239 | 00240 | 00241 | 00242 | 00243 | 00244 | 00245 | 00246    | 00247 | 00248 | 00249 | 00250  |  |
| Blood Vessel   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50     |  |
| Aneurysm   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 3.0  |  |
| Aorta, Mineral                                       |             |       |       |       |       |       |       |       |       | 1     |       |       |       |       |       | 1     |       |       | 1     |       |          |       |       |       | 5 1.0  |  |
| Pulmonary Vein, Mineral                              |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 1.0  |  |
| Heart  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50     |  |
| Cardiomyopathy                                       | 1           | 1     |       |       | 1     | 1     | 1     | 2     |       | 1     |       | 1     |       | 1     | 1     | 1     | 2     | 3     | 1     | 1     |          |       |       |       | 30 1.3 |  |
| Valve, Degeneration                                  |             |       |       |       |       |       |       |       |       |       |       |       |       | 1     |       |       |       |       |       |       |          |       |       |       | 1 1.0  |  |
| Valve, Fibrosis                                      |             |       |       |       |       |       |       |       |       |       |       | 1     | 2     |       |       |       | 2     | 2     |       |       |          |       |       |       | 9 1.9  |  |
| Valve, Thrombus                                      |             |       |       |       |       |       |       | 1     |       |       |       |       |       |       |       |       | 1     | 3     |       |       |          |       |       |       | 6 1.8  |  |
| <b>ENDOCRINE SYSTEM</b>                              |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |        |  |
| Adrenal Cortex                                       | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50     |  |
| Degeneration, Cystic                                 |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |       |       |       |          |       |       |       | 2 1.5  |  |
| Hyperplasia  |             |       |       | 1     |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |       |          |       |       |       | 3 1.0  |  |
| Hypertrophy, Focal                                   |             |       |       |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 5 1.4  |  |
| Adrenal Medulla                                      | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50     |  |
| Hyperplasia, Focal                                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 2 1.0  |  |
| Islets, Pancreatic                                   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50     |  |
| Hyperplasia  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |       |       |       |          |       |       |       | 2 1.5  |  |
| Parathyroid Gland                                    | +           | +     | +     | M     | +     | +     | +     | +     | +     | M     | +     | M     | +     | +     | +     | +     | +     | +     | +     | M     | M        | +     | +     | +     | 40     |  |
| Pituitary Gland                                      | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50     |  |
| Cyst   |             |       |       |       | X     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1     |        |  |
| Pars Distalis, Hyperplasia                           |             |       |       | 1     |       | 2     | 1     |       |       | 2     |       | 3     | 2     |       |       | 4     | 2     |       |       | 4     | 4        |       | 1     | 1     | 23 2.2 |  |

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+ .. Tissue examined microscopically

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Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>10000 ppm Male | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |    |     |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|----|-----|
|  | 0614        | 0736 | 0776 | 0777 | 0777 | 0777 | 0777 | 0676 | 0777 | 0777 | 0477 | 0777 | 0777 | 0777 | 0777 | 0777 | 0477 | 0777 | 0777 | 0777 | 0676 | 0777 | 0777 | 0777 |          |    |     |
| ANIMAL ID  | 00226       | 0007 | 0008 | 0009 | 0000 | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0000 | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 |          |    |     |
| Pars Distalis, Hypertrophy                           | 1           |      |      | 2    | 3    | 1    |      |      | 2    |      | 2    | 2    | 2    | 2    | 2    | 3    | 2    |      | 2    | 2    | 2    | 1    | 2    | 3    | 2        | 37 | 1.9 |
| Thyroid Gland  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | 50 |     |
| C-cell, Hyperplasia                                  |             |      |      |      | 1    | 4    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 11 | 2.3 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Epididymis                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50  |     |
| Bilateral, Hypospermia                        | 4 | 4 | 4 | 4 | 4 |   | 4 | 4 | 4 |   | 4 | 4 | 4 | 4 | 4 | 4 |   | 4 | 4 |   | 4 | 4 | 4 | 4  | 43  | 4.0 |
| Bilateral, Inflammation, Chronic Active       |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1   | 2.0 |
| Bilateral, Polyarteritis Nodosa               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1   | 3.0 |
| Bilateral, Duct, Exfoliated Germ Cell         | 1 | 1 | 2 | 1 | 1 |   | 2 | 1 |   | 1 | 2 | 2 | 1 | 1 | 1 |   | 1 |   | 2 | 2 | 2 | 2 |   | 36 | 1.4 |     |
| Preputial Gland                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50  |     |
| Inflammation, Chronic                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |    | 1   | 2.0 |
| Inflammation, Chronic Active                  |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |    | 1   | 4.0 |
| Metaplasia, Squamous                          |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1   | 4.0 |
| Duct, Hyperplasia, Squamous                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1   | 2.0 |
| Prostate                                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50  |     |
| Polyarteritis Nodosa                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1   | 2.0 |
| Dorsal, Lateral, Inflammation, Granulomatous  |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1   | 1.0 |
| Dorsal, Lateral, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2   | 1.5 |
| Epithelium, Ventral, Hyperplasia              |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   | 3 |   |   |   |   |   |   |   |   |    | 5   | 3.0 |
| Seminal Vesicle                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 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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BLANK .. Not examined microscopically

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

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First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| DAY ON TEST    | HARLAN SPRAGUE DAWLEY RATS MALE |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |       |
|----------------|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|
|                | 064                             | 073   | 073   | 073   | 073   | 073   | 073   | 063   | 073   | 074   | 074   | 074   | 074   | 074   | 074   | 043   | 073   | 073   | 073   | 063   |          | 073   | 073   | 073   |       |
| 10000 ppm Male | 00226                           | 00227 | 00228 | 00229 | 00230 | 00231 | 00232 | 00233 | 00234 | 00235 | 00236 | 00237 | 00238 | 00239 | 00240 | 00241 | 00242 | 00243 | 00244 | 00245 | 00246    | 00247 | 00248 | 00249 | 00250 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |       |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-------|
| Testis                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |       |
| Edema  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 6 2.7 |
| Bilateral, Edema                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 39 | 2.7   |
| Bilateral, Polyarteritis Nodosa              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 5  | 2.2   |
| Bilateral, Germinal Epithelium, Degeneration |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 48 | 3.7   |
| Bilateral, Interstitial Cell, Hyperplasia    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1  | 1.0   |
| Germinal Epithelium, Degeneration            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2  | 2.5   |
| Interstitial Cell, Hyperplasia               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3  | 2.7   |

HEMATOPOIETIC SYSTEM

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |       |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-------|
| Bone Marrow                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |       |
| Congestion                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 2 1.5 |
| Hypercellularity                               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 34 | 1.9   |
| Lymph Node, Mandibular Dilation                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 | 1 3.0 |
| Lymph Node, Mesenteric Hyperplasia, Lymphocyte |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 | 1 3.0 |
| Spleen   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |       |
| Extramedullary Hematopoiesis                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 44 | 1.8   |
| Pigment  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 43 | 1.8   |
| White Pulp, Atrophy                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1  | 3.0   |
| Thymus   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 46 |       |
| Atrophy  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 44 | 2.3   |
| Ectopic Parathyroid Gland                      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1  | 1.0   |

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X .. Lesion present  
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|-------------|---------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|----|
|             | 06                              | 07 | 07 | 07 | 07 | 07 | 07 | 06 | 07 | 07 | 04 | 07 | 07 | 07 | 07 | 07 | 07 | 04 | 07 | 07 |          | 07 | 06 | 07 | 07 |
| 1           | 3                               | 3  | 3  | 3  | 3  | 3  | 6  | 3  | 3  | 2  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 5  | 3  | 3  | 3        | 8  | 3  | 3  | 3  |
| 4           | 6                               | 6  | 6  | 6  | 6  | 6  | 3  | 5  | 4  | 5  | 3  | 3  | 3  | 3  | 4  | 4  | 5  | 4  | 5  | 5  | 4        | 3  | 4  | 4  |    |
| 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 |
| 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  | 3  | 3  | 4  | 4  | 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  |    |

INTEGUMENTARY SYSTEM

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Mammary Gland             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Skin                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Cyst Epithelial Inclusion |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2     |
| Fibrosis                  |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   | 1 3.0 |
| Inflammation, Chronic     |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   | 1 3.0 |

MUSCULOSKELETAL SYSTEM

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

NERVOUS SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Brain  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Cerebrum, Gliosis                            | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0 |
| Meninges, Venule, Developmental Malformation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0 |

RESPIRATORY SYSTEM

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Lung  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Infiltration Cellular, Histiocyte           | 1 | 2 | 2 | 1 | 2 |   | 3 |   | 3 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 3 | 2 | 1 | 2 | 3 | 3 | 1 | 2     |
| Inflammation, Granulomatous                 |   |   |   | 1 | 1 | 1 |   | 2 |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   | 1 | 8 1.1 |
| Inflammation, Acute                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   | 1 1.0 |
| Inflammation, Chronic Active                |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   | 4 1.0 |
| Alveolar Epithelium, Hyperplasia            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   | 3 2.3 |
| Alveolus, Infiltration Cellular, Histiocyte |   |   |   |   |   |   |   | 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

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>10000 ppm Male | DAY ON TEST |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | * TOTALS |    |    |    |    |
|--|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|----|
|  | 06          | 07 | 07 | 07 | 07 | 07 | 07 | 06 | 07 | 07 | 04 | 07 | 07 | 07 | 07 | 07 | 07 | 04 | 07 | 07 |          | 07 | 06 | 07 | 07 |
| ANIMAL ID  | 01          | 03 | 03 | 03 | 03 | 03 | 03 | 06 | 07 | 07 | 04 | 07 | 07 | 07 | 07 | 07 | 07 | 04 | 07 | 07 | 07       | 06 | 07 | 07 | 07 |
|  | 4           | 6  | 6  | 6  | 6  | 6  | 6  | 3  | 5  | 4  | 5  | 3  | 3  | 3  | 3  | 3  | 4  | 4  | 5  | 3  | 3        | 5  | 4  | 3  | 4  |
|  | 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          | 22 | 22 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23       | 23 | 23 | 23 |    |
|  | 67          | 78 | 89 | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07       | 08 | 09 | 00 |    |

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |        |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|--------|
| Nose  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |        |
| Amyloid   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0 |        |
| Inflammation, Chronic Active                        |   |   |   | 1 | 1 | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6 1.2 |        |
| Glands, Dilation                                    |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 1.7 |        |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 |   | 3 | 1 |   | 1 | 1 |   | 1 | 1 | 1 |   | 1 | 2 | 1 | 1     | 42 1.2 |
| Trachea   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |        |

SPECIAL SENSES SYSTEM

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Eye                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Cataract                  |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0 |
| Hemorrhage                |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0 |
| Optic Nerve, Degeneration |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0 |
| Retina, Degeneration      |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0 |
| Retina, Dysplasia         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0 |
| Retina, Fibrosis          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0 |
| Harderian Gland           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Atrophy                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0 |
| Fibrosis                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   | 1 2.0 |
| Hyperplasia               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0 |
| Metaplasia                |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0 |
| Necrosis                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0 |

URINARY SYSTEM

|         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Kidney  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Infarct |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 2.0 |

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



**Experiment Number:** 10188 - 01  
**Test Type:** CHRONIC  
**Route:** DOSED FEED  
**Species/Strain:** RATS/HSD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Di(2-ethylhexyl) Phthalate  
 CAS Number: 117-81-7

**Date Report Requested:** 12/17/2019  
**Time Report Requested:** 10:43:08  
**First Dose M/F:** 02/17/11 / 02/18/11  
**Lab:** BAT

|   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                          |    |    |    |    |   |   |
|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------------------|----|----|----|----|---|---|
| <b>DAY ON TEST</b>  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 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  | 7  | 7  | 4  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 5  | 6  | 7  | 7  | 7  | 7  | 7  | 7                        | 7  | 7  | 7  | 7  |   |   |
| <b>HARLAN SPRAGUE DAWLEY RATS FEMALE</b><br><b>0 ppm Female</b> | 4  | 7  | 4  | 4  | 8  | 4  | 4  | 4  | 3  | 3  | 3  | 3  | 4  | 4  | 4  | 4  | 3  | 3  | 3  | 7  | 4  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 3                        | 3  | 3  | 3  | 3  |   |   |
|   | 0  | 5  | 0  | 0  | 9  | 1  | 1  | 1  | 6  | 6  | 6  | 6  | 0  | 0  | 0  | 0  | 9  | 9  | 9  | 5  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6                        | 6  | 6  | 6  | 6  |   |   |
| <b>ANIMAL ID</b>  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0                        | 0  | 0  | 0  | 0  |   |   |
|   | 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 | 00 | 00 | 00 | 00                       | 00 | 00 | 00 | 00 |   |   |
|   | 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  |   |   |
|   | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5                        | 5  | 5  | 5  | 5  |   |   |
|   | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9                        | 0  | 1  | 2  | 3  | 4 | 5 |
|   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | <b>females (cont...)</b> |    |    |    |    |   |   |

**ALIMENTARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                                    | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Large, Cecum                       | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Large, Colon<br>Parasite Metazoan  | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Large, Rectum<br>Parasite Metazoan | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum                    | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Small, Ileum<br>Parasite Metazoan  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum                     | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Liver  | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Angiectasis                                  | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Basophilic Focus                             | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cholangiofibrosis                            | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Clear Cell Focus                             | X |   |   |   | X |   |   |   |   |   | X |   |   |   |   |   |   | X |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |
| Eosinophilic Focus                           |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Extramedullary Hematopoiesis                 |   |   |   |   | 2 |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   | 1 |   |   |   |   |
| Hepatodiaphragmatic Nodule                   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Focal                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mixed Cell Focus                             |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   | X |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |
| Necrosis                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 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: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>0 ppm Female | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | females<br>(cont...) |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
|  | 0740        | 0754  | 0774  | 0774  | 0784  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  |                      |
| ANIMAL ID  | 00251       | 00002 | 00003 | 00004 | 00005 | 00006 | 00007 | 00008 | 00009 | 00010 | 00011 | 00012 | 00013 | 00014 | 00015 | 00016 | 00017 | 00018 | 00019 | 00020 | 00021 | 00022 | 00023 | 00024 | 00025                |

Pigment 1 1  
 Bile Duct, Cyst X X  
 Bile Duct, Hyperplasia 1 1 1  
 Centrilobular, Degeneration 2  
 Hepatocyte, Fatty Change, Diffuse  
 Serosa, Fibrosis 1

Oral Mucosa  
 Cyst, Squamous

Pancreas  
 Polyarteritis Nodosa  
 Acinus, Atrophy 1

Salivary Glands

Stomach, Forestomach  
 Inflammation, Chronic  
 Inflammation, Chronic Active  
 Ulcer  
 Epithelium, Hyperplasia

Stomach, Glandular  
 Mineral

CARDIOVASCULAR SYSTEM

Blood Vessel  
 Aorta, Mineral

\* .. 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:  
 1) Minimal 3) Moderate  
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Experiment Number: 10188 - 01  
 Test Type: CHRONIC  
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**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Di(2-ethylhexyl) Phthalate  
 CAS Number: 117-81-7

Date Report Requested: 12/17/2019  
 Time Report Requested: 10:43:08  
 First Dose M/F: 02/17/11 / 02/18/11  
 Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>0 ppm Female                             | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | females<br>(cont...) |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
|  | 0740        | 0745  | 0770  | 0774  | 0784  | 0774  | 0774  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  |                      |
| ANIMAL ID  | 00251       | 00252 | 00253 | 00254 | 00255 | 00256 | 00257 | 00258 | 00259 | 00260 | 00261 | 00262 | 00263 | 00264 | 00265 | 00266 | 00267 | 00268 | 00269 | 00270 | 00271 |                      |
| Heart  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     |                      |
| Cardiomyopathy   |             |       |       | 1     |       |       |       |       |       |       |       | 1     |       |       |       | 1     |       | 1     |       |       |       |                      |
| Inflammation, Chronic Active<br>Myocardium, Mineral<br>Schwann Cell, Hyperplasia |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                      |
| <b>ENDOCRINE SYSTEM</b>  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                      |
| Adrenal Cortex   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     |                      |
| Degeneration, Cystic<br>Metaplasia, Osseous<br>Necrosis                          |             |       |       |       |       |       |       |       |       | 1     |       |       |       |       | 1     | 1     |       |       | 1     |       | 1     |                      |
| Adrenal Medulla  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     |                      |
| Hyperplasia  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 3     |       |       |       |       |                      |
| Islets, Pancreatic   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     |                      |
| Hyperplasia  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 3     |                      |
| Parathyroid Gland  | +           | +     | +     | +     | +     | +     | +     | +     | +     | M     | +     | +     | +     | +     | +     | +     | M     | +     | +     | +     | +     |                      |
| Pituitary Gland  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     |                      |
| Cyst<br>Pars Distalis, Hyperplasia   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | X     |                      |
| Pars Distalis, Hyperplasia   |             |       |       |       |       | 2     | 4     |       |       | 1     |       |       | 2     | 3     |       |       |       |       | 2     | 2     | 3     |                      |
| Thyroid Gland  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     |                      |
| C-cell, Hyperplasia<br>Follicle, Cyst  | 3           | 1     | 4     |       |       |       |       |       | 1     |       |       |       | 4     |       |       | 3     |       |       |       | 4     |       |                      |

**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: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

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 |                   |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------------------|
|                                      | 7 | 5 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 7 |                   |
| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE | 4 | 7 | 4 | 4 | 8 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 3 | 7 | 4 | 3 | 3 | 3 | 2 |                   |
|                                      | 0 | 5 | 0 | 0 | 9 | 1 | 1 | 1 | 6 | 6 | 6 | 6 | 0 | 0 | 0 | 0 | 9 | 9 | 5 | 6 | 6 | 6 | 6 | 6 |                   |
| 0 ppm 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 |                   |
| 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 |                   |
|                                      | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 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...) |

Vagina  
Inflammation

**HEMATOPOIETIC SYSTEM**

|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Congestion                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |
| Hypercellularity                   | 2 | 4 | 2 | 3 | 4 |   |   |   | 3 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 4 | 2 | 2 | 4 | 3 | 2 | 3 | 4 |   |
| Pigment                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |
| Lymph Node                         |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mediastinal, Hemorrhage            |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mediastinal, Pigment               |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mandibular<br>Dilation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M |   |
| Lymph Node, Mesenteric<br>Atrophy  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Spleen                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Accessory Spleen                   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Extramedullary Hematopoiesis       | 2 | 3 | 2 | 3 | 3 | 1 | 2 | 2 | 2 | 3 | 1 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 4 | 2 | 2 | 2 | 2 |   |
| Pigment                            | 2 |   | 2 | 1 | 1 | 2 | 2 | 2 |   | 2 | 3 | 2 |   | 2 | 2 | 2 |   | 2 | 1 | 1 | 2 | 2 | 2 | 3 |   |
| White Pulp, Atrophy                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thymus                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Atrophy                            | 3 | 4 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 1 | 2 | 3 | 2 | 3 | 2 | 1 | 3 |   | 2 | 2 | 3 | 1 | 3 | 3 | 2 |

**INTEGUMENTARY SYSTEM**

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

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

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

| DAY ON TEST                       |  | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | females (cont...) |
|-----------------------------------|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------------------|
|                                   |  | 7 5 7 7 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 5 6 7 7 7 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| HARLAN SPRAGUE DAWLEY RATS FEMALE |  | 4 7 4 4 8 4 4 4 3 3 3 3 4 4 4 4 3 3 3 7 4 3 3 3 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
|                                   |  | 0 5 0 0 9 1 1 1 6 6 6 6 0 0 0 0 9 9 9 5 6 6 6 6 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| 0 ppm Female                      |  | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
|                                   |  | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| ANIMAL ID                         |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
|                                   |  | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
|                                   |  | 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| Mammary Gland                     |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| Hyperplasia                       |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| Inflammation, Chronic             |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| Inflammation, Chronic Active      |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| Skin                              |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| MUSCULOSKELETAL SYSTEM            |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| Bone                              |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| NERVOUS SYSTEM                    |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| Brain                             |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| RESPIRATORY SYSTEM                |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| Lung                              |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| Infiltration Cellular, Histiocyte |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| Inflammation, Granulomatous       |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| Inflammation, Chronic Active      |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| Pigment                           |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| Thrombus                          |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| Alveolar Epithelium, Hyperplasia  |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| Alveolus, Metaplasia, Squamous    |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| Nose                              |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| Cyst, Squamous                    |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |
| Inflammation, Chronic Active      |  | +   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
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 1) Minimal 3) Moderate  
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Experiment Number: 10188 - 01

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 12/17/2019

Test Type: CHRONIC

Di(2-ethylhexyl) Phthalate

Time Report Requested: 10:43:08

Route: DOSED FEED

CAS Number: 117-81-7

First Dose M/F: 02/17/11 / 02/18/11

Species/Strain: RATS/HSD

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>0 ppm Female | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | females<br>(cont...)  |                       |                       |                       |                       |   |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---|
|  | 0<br>7<br>4<br>0      | 0<br>5<br>7<br>5      | 0<br>7<br>4<br>5      | 0<br>7<br>4<br>0      | 0<br>4<br>8<br>9      | 0<br>7<br>4<br>1      | 0<br>7<br>4<br>1      | 0<br>7<br>4<br>1      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>7<br>4<br>0      | 0<br>7<br>4<br>0      | 0<br>7<br>4<br>0      | 0<br>7<br>3<br>9      | 0<br>7<br>3<br>9      | 0<br>7<br>3<br>9      | 0<br>5<br>4<br>5      | 0<br>6<br>3<br>6      | 0<br>7<br>3<br>6      |                       | 0<br>7<br>3<br>6      |                       |                       |                       |   |
| ANIMAL ID  | 0<br>0<br>2<br>5<br>1 | 0<br>0<br>2<br>5<br>2 | 0<br>0<br>2<br>5<br>3 | 0<br>0<br>2<br>5<br>4 | 0<br>0<br>2<br>5<br>5 | 0<br>0<br>2<br>5<br>6 | 0<br>0<br>2<br>5<br>7 | 0<br>0<br>2<br>5<br>8 | 0<br>0<br>2<br>5<br>9 | 0<br>0<br>2<br>6<br>0 | 0<br>0<br>2<br>6<br>1 | 0<br>0<br>2<br>6<br>2 | 0<br>0<br>2<br>6<br>3 | 0<br>0<br>2<br>6<br>4 | 0<br>0<br>2<br>6<br>5 | 0<br>0<br>2<br>6<br>6 | 0<br>0<br>2<br>6<br>7 | 0<br>0<br>2<br>6<br>8 | 0<br>0<br>2<br>6<br>9 | 0<br>0<br>2<br>7<br>0 | 0<br>0<br>2<br>7<br>1 | 0<br>0<br>2<br>7<br>2 | 0<br>0<br>2<br>7<br>3 | 0<br>0<br>2<br>7<br>4 | 0<br>0<br>2<br>7<br>5 |   |
| Olfactory Epithelium, Accumulation, Hyaline Droplet  | 1                     | 1                     | 2                     | 2                     | 2                     | 2                     | 3                     | 1                     | 2                     | 2                     | 2                     | 2                     | 2                     | 3                     | 2                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     |   |
| Respiratory Epithelium, Metaplasia, Squamous         |                       |                       |                       | 1                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Trachea  | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     |   |
| <b>SPECIAL SENSES SYSTEM</b>                         |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Eye  | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + |
| Cornea, Inflammation, Chronic Active                 |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Harderian Gland                                      | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + |
| <b>URINARY SYSTEM</b>                                |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Kidney   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + |
| Infarct  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1                     |                       |                       |                       |   |
| Mineral  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Nephropathy, Chronic Progressive                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     |                       | 1                     | 1                     | 1                     | 1                     | 1                     |                       | 1                     | 1                     | 1                     | 2                     | 1                     | 2                     | 1                     | 1                     | 2                     | 1                     |   |
| Renal Tubule, Cyst                                   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Urinary Bladder                                      | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + |

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

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X .. Lesion present

I .. Insufficient tissue

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**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| DAY ON TEST | HARLAN SPRAGUE DAWLEY RATS FEMALE |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |
|-------------|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|
|             | 0741                              | 0468  | 0741  | 0754  | 0677  | 0774  | 0774  | 0774  | 0774  | 0676  | 0774  | 0774  | 0579  | 0665  | 0668  | 0744  | 0744  | 0643  | 0733  | 0533  |          | 0655  | 0375  | 0739  |
| ANIMAL ID   | 00276                             | 00277 | 00278 | 00279 | 00280 | 00281 | 00282 | 00283 | 00284 | 00285 | 00286 | 00287 | 00288 | 00289 | 00290 | 00291 | 00292 | 00293 | 00294 | 00295 | 00296    | 00297 | 00298 | 00299 |

**ALIMENTARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
| Esophagus                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Intestine Large, Cecum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Intestine Large, Colon<br>Parasite Metazoan  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X |   | X |   | + | + | + | + | 50<br>2 |
| Intestine Large, Rectum<br>Parasite Metazoan | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50<br>6 |
| Intestine Small, Duodenum                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Intestine Small, Ileum<br>Parasite Metazoan  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50<br>1 |
| Intestine Small, Jejunum                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Angiectasis                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0   |
| Basophilic Focus                             |   |   | X | X |   |   | X |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   | 6       |
| Cholangiofibrosis                            |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   | 1 2.0   |
| Clear Cell Focus                             |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   | X | X |   |   |   |   |   |   | 8       |
| Eosinophilic Focus                           | X |   | X |   |   |   | X |   |   |   |   | X |   |   |   |   |   |   | X |   |   |   |   |   | 7       |
| Extramedullary Hematopoiesis                 |   | 2 |   |   |   | 1 | 1 |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   | 1 |   |   | 9 1.2   |
| Hepatodiaphragmatic Nodule                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Inflammation, Focal                          |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0   |
| Mixed Cell Focus                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3       |
| Necrosis                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   | 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: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>0 ppm Female | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
|  | 0741        | 0468  | 0741  | 0759  | 0679  | 0770  | 0771  | 0771  | 0771  | 0674  | 0774  | 0772  | 0598  | 0668  | 0668  | 0744  | 0774  | 0663  | 0733  | 0533  |          | 0655  | 0355  |
| ANIMAL ID  | 00276       | 00277 | 00278 | 00279 | 00280 | 00281 | 00282 | 00282 | 00282 | 00282 | 00282 | 00282 | 00282 | 00282 | 00282 | 00282 | 00282 | 00282 | 00282 | 00282 | 00282    | 00282 | 00282 |

|                                   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |   |   |     |     |
|-----------------------------------|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|---|---|-----|-----|
| Pigment                           |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  | 1 | 3 | 1.0 |     |
| Bile Duct, Cyst                   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |   | X | 4   |     |
| Bile Duct, Hyperplasia            |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |   | 1 | 6   | 1.0 |
| Centrilobular, Degeneration       |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |   |   | 1   | 2.0 |
| Hepatocyte, Fatty Change, Diffuse |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  | 3 |  |  |  |  |  |  |  |   |   | 1   | 3.0 |
| Serosa, Fibrosis                  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |   |   | 1   | 1.0 |

|                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |
|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|---|
| Oral Mucosa    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |   |   |   |
| Cyst, Squamous |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   | X | 1 | 1 |

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |  |   |     |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|---|-----|
| Pancreas             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |  |   |     |
| Polyarteritis Nodosa |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |  | 1 | 2.0 |
| Acinus, Atrophy      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |  | 1 | 1.0 |

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |  |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |  |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Stomach, Forestomach         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |     |
| Inflammation, Chronic        |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 | 2.0 |
| Inflammation, Chronic Active |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  | 2 | 2.5 |
| Ulcer                        |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  | 2 | 2.0 |
| Epithelium, Hyperplasia      |   |   | 2 |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2 | 2.0 |

|                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |     |
| Mineral            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 1 | 1.0 |

CARDIOVASCULAR SYSTEM

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Blood Vessel   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |     |
| Aorta, Mineral |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 | 2.0 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically  
1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
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Experiment Number: 10188 - 01

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

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| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>0 ppm Female | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|
|  | 0741        | 0468  | 0741  | 0754  | 0677  | 0777  | 0777  | 0777  | 0777  | 0676  | 0777  | 0777  | 0575  | 0666  | 0666  | 0774  | 0774  | 0664  | 0773  | 0773  |          | 0553  | 0665  | 0355  |
| ANIMAL ID  | 00276       | 00277 | 00278 | 00279 | 00280 | 00281 | 00282 | 00283 | 00284 | 00285 | 00286 | 00287 | 00288 | 00289 | 00290 | 00291 | 00292 | 00293 | 00294 | 00295 | 00296    | 00297 | 00298 | 00299 |
|  | 0           | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0        | 0     | 0     | 0     |

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Heart                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiomyopathy               |   |   |   |   |   |   |   |   | 1 | 1 |   |   |   |   |   | 1 | 1 |   |   |   | 1 |   | 1 | 14 |
| Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   | 1  |
| Myocardium, Mineral          |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Schwann Cell, Hyperplasia    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

ENDOCRINE SYSTEM

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Degeneration, Cystic       | 2 |   |   | 2 |   |   |   |   |   |   | 1 | 4 | 1 |   |   |   |   |   |   |   |   | 1 |   | 12 |
| Metaplasia, Osseous        |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Necrosis                   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Adrenal Medulla            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia                |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 4  |
| Islets, Pancreatic         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Parathyroid Gland          | + | + | + | + | M | M | + | + | + | + | + | + | + | M | + | + | M | + | + | + | M | + | + | 42 |
| Pituitary Gland            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | 49 |
| Cyst                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pars Distalis, Hyperplasia |   |   |   |   | 3 |   | 1 | 1 |   | 2 |   |   | 1 | 2 |   |   | 3 | 2 | 1 |   |   | 2 |   | 20 |
| Thyroid Gland              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| C-cell, Hyperplasia        |   |   |   | 1 |   |   |   |   | 4 |   |   |   |   |   |   |   |   | 4 | 3 |   |   |   |   | 12 |
| Follicle, Cyst             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

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:  
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Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>0 ppm Female | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|
|  | 0741        | 0468  | 0074  | 0074  | 0057  | 0067  | 0077  | 0077  | 0077  | 0077  | 0067  | 0077  | 0077  | 0057  | 0066  | 0066  | 0077  | 0077  | 0066  | 0077  |          | 0057  | 0066  | 0037  |
| ANIMAL ID  | 00276       | 00077 | 00008 | 00009 | 00000 | 00001 | 00002 | 00003 | 00004 | 00005 | 00006 | 00007 | 00008 | 00009 | 00000 | 00001 | 00002 | 00003 | 00004 | 00005 | 00006    | 00007 | 00008 | 00009 |
|  | 0           | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0        | 0     | 0     | 0     |
|  | 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     | 3     |
|  | 7           | 7     | 7     | 7     | 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     |

|   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |       |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|-------|
| Peritoneum Inflammation, Chronic Active |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + | 1 | 1 2.0 |
|   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |   |       |

GENITAL SYSTEM

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Clitoral Gland Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | 49 | 1 4.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|

|                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |    |     |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|----|-----|
| Ovary Cyst Bilateral, Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  |  |  |  |  |  |  |  |  |  |  | 50 | 4   |
| Follicle, Cyst                | 2 |   | 2 | 2 |   | 2 | 2 | 2 | 2 |   | 2 | 2 | 2 | 2 |   | 2 | 2 | 2 |   | 2 |   | 2 |   |  |  |  |  |  |  |  |  |  |  |  |  | 36 | 2.0 |
| Granulosa Cell, Hyperplasia   | X |   |   | X |   |   |   |   | X |   |   |   |   |   |   | X |   |   |   |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 5  | 5   |
| Paraovarian Tissue, Cyst      |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 1  | 1.0 |
|                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  | X  | 2   |

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |    |       |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|----|-------|
| Uterus Adenomyosis                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  |  |  |  |  |  |  |  |  |  |  | 50 | 3 2.3 |
| Cyst, Squamous                       |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 1  | 1     |
| Hemorrhage                           |   |   |   |   |   | 4 |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 2  | 4.0   |
| Hyperplasia, Adenomatous             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 1  | 2.0   |
| Inflammation, Suppurative            |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 3  | 2.3   |
| Inflammation, Chronic Active         |   |   |   |   |   |   | 2 | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 2  | 2.5   |
| Thrombus                             |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 1  | 2.0   |
| Cervix, Cyst, Squamous               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 1  | 1     |
| Cervix, Hypertrophy                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 1  | 3.0   |
| Cervix, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 2  | 2     |
| Endometrium, Atypical Hyperplasia    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 1  | 1     |
| Endometrium, Hyperplasia, Cystic     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 2  | 1.8   |
| Endometrium, Metaplasia, Squamous    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 2  | 1.8   |
|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 1  | 2.3   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically  
1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
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Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

|  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>0 ppm Female | DAY ON TEST | 0741  | 0468  | 0741  | 0759  | 0679  | 0770  | 0771  | 0771  | 0771  | 0674  | 0779  | 0772  | 0598  | 0668  | 0764  | 0774  | 0663  | 0773  | 0533  | 0655  | 0355  | 0739  | * TOTALS |
|  | ANIMAL ID   | 00276 | 00277 | 00278 | 00279 | 00280 | 00281 | 00282 | 00283 | 00284 | 00285 | 00286 | 00287 | 00288 | 00289 | 00290 | 00291 | 00292 | 00293 | 00294 | 00295 | 00296 | 00297 |          |
|  |             | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |          |

|              |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |     |
|--------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|-----|
| Vagina       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |   |     |
| Inflammation | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   | 1 | 3.0 |

HEMATOPOIETIC SYSTEM

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Bone Marrow                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |     |
| Congestion                   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 | 3  | 1.7 |     |
| Hypercellularity             | 2 | 3 | 2 | 1 | 3 | 3 | 3 | 1 | 2 | 3 |   | 1 | 4 | 3 | 4 | 4 | 4 | 2 |   | 2 | 4 | 4 | 4 | 2 | 43 | 2.7 |     |
| Pigment                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 1.0 |     |
| Lymph Node                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + | 2  |     |     |
| Mediastinal, Hemorrhage      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 2.0 |     |
| Mediastinal, Pigment         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 2.0 |     |
| Lymph Node, Mandibular       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | +  | 48  |     |
| Dilation                     |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1   | 4.0 |
| Lymph Node, Mesenteric       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |     |
| Atrophy                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   | 4  | 2   | 3.5 |
| Spleen                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |     |
| Accessory Spleen             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1   |     |
| Extramedullary Hematopoiesis | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 1 | 2 | 2 |   | 2 | 3 | 3 | 3 | 4 | 2 | 2 | 1 | 2 | 1 | 3 | 2 | 2 | 47 | 2.3 |     |
| Pigment                      | 2 | 1 | 1 | 2 | 2 |   | 1 | 2 | 2 | 2 | 2 | 1 |   |   | 1 |   |   | 1 | 2 | 2 | 3 |   | 2 | 3 | 38 | 1.8 |     |
| White Pulp, Atrophy          |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   | 2 |   |   |   |   | 1 |   |   | 2 | 2 | 5  | 1.8 |     |
| Thymus                       | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |     |     |
| Atrophy                      | 1 |   | 2 | 3 | 3 | 3 | 3 | 2 | 1 | 4 | 4 | 3 | 2 | 2 | 4 | 2 | 2 | 4 | 1 | 4 | 3 | 2 | 4 | 4 | 47 | 2.6 |     |

INTEGUMENTARY SYSTEM

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically  
1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
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Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>0 ppm Female                                  | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |        |        |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|--------|--------|
|   | 0741        | 0468  | 0741  | 0750  | 0677  | 0777  | 0777  | 0777  | 0676  | 0777  | 0777  | 0569  | 0666  | 0764  | 0774  | 0663  | 0733  | 0753  | 0665  | 0355  |          | 0737  |        |        |
| ANIMAL ID   | 00276       | 00077 | 00078 | 00079 | 00080 | 00081 | 00082 | 00083 | 00084 | 00085 | 00086 | 00087 | 00088 | 00089 | 00090 | 00091 | 00092 | 00093 | 00094 | 00095 | 00096    | 00097 |        |        |
| Mammary Gland<br>Hyperplasia<br>Inflammation, Chronic<br>Inflammation, Chronic Active | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | 50     |        |
|   |             | 2     |       |       | 3     |       |       |       |       |       |       | 4     |       |       |       |       |       | 3     |       |       | 2        |       | 3      |        |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 13 2.7 |        |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 1 2.0  |        |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 1 4.0  |        |
| Skin  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | 50     |        |
| <b>MUSCULOSKELETAL SYSTEM</b>   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |        |        |
| Bone  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | 50     |        |
| <b>NERVOUS SYSTEM</b>   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |        |        |
| Brain   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | 50     |        |
| <b>RESPIRATORY SYSTEM</b>   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |        |        |
| Lung  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | 50     |        |
| Infiltration Cellular, Histiocyte<br>Inflammation, Granulomatous                      | 2           |       | 2     | 3     | 2     | 1     | 3     | 1     | 3     | 2     | 2     | 3     | 3     | 2     | 2     | 2     | 1     | 2     | 2     | 2     | 1        | 3     | 3      | 2      |
| Inflammation, Chronic Active  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |        | 47 2.3 |
| Pigment   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |        | 6 1.3  |
| Thrombus  | 1           |       | 1     | 2     |       |       |       |       | 1     | 1     |       |       | 1     |       |       |       |       |       |       |       |          |       |        | 16 1.3 |
| Alveolar Epithelium, Hyperplasia  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |        | 1 1.0  |
| Alveolus, Metaplasia, Squamous  |             |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |       |       |       |       |       |          |       |        | 1 1.0  |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |        | 2 2.0  |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |        | 1 3.0  |
| Nose  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | 50     |        |
| Cyst, Squamous  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | X     |        | 1      |
| Inflammation, Chronic Active  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |        | 3 1.3  |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |        | 1      |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |        | 3 1.3  |

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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1-4 .. Lesion qualified as:

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Experiment Number: 10188 - 01

Test Type: CHRONIC

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Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>0 ppm Female | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |       |       |       |       |               |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|-------|---------------|
|  | 0741        | 0748  | 0741  | 0744  | 0759  | 0769  | 0777  | 0777  | 0777  | 0777  | 0764  | 0777  | 0777  | 0759  | 0766  | 0766  | 0777  | 0777  | 0766  | 0777  |          |       | 0759  | 0766  | 0737  | 0737  | 0737  | 0759  | 0759          |
| ANIMAL ID  | 00276       | 00277 | 00278 | 00279 | 00280 | 00281 | 00282 | 00283 | 00284 | 00285 | 00286 | 00287 | 00288 | 00289 | 00290 | 00291 | 00292 | 00293 | 00294 | 00295 | 00296    | 00297 | 00298 | 00299 | 00300 | 00301 | 00302 | 00303 | 00304         |
| Olfactory Epithelium, Accumulation, Hyaline Droplet  | 1           | 2     | 1     | 2     | 2     | 2     | 1     | 2     | 1     | 3     | 1     | 1     | 1     | 1     | 2     | 2     | 2     | 3     | 2     | 2     | 2        | 1     | 2     | 1     | 2     |       |       |       | <b>48 1.6</b> |
| Respiratory Epithelium, Metaplasia, Squamous         |             |       |       |       | 1     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       | <b>2 1.0</b>  |
| Trachea  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | +     | +     | +     | <b>50</b>     |
| <b>SPECIAL SENSES SYSTEM</b>                         |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       |               |
| Eye  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | +     | +     | +     | <b>50</b>     |
| Cornea, Inflammation, Chronic Active                 |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       | <b>1 1.0</b>  |
| Harderian Gland                                      | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | +     | +     | +     | <b>50</b>     |
| <b>URINARY SYSTEM</b>                                |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       |               |
| Kidney   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | +     | +     | +     | <b>50</b>     |
| Infarct  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       | <b>3 1.0</b>  |
| Mineral  |             |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       | <b>1 2.0</b>  |
| Nephropathy, Chronic Progressive                     | 2           | 1     | 1     | 2     |       |       | 1     | 1     | 1     | 1     |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       | <b>40 1.1</b> |
| Renal Tubule, Cyst                                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       | <b>1</b>      |
| Urinary Bladder                                      | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | +     | +     | +     | <b>50</b>     |

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

+ .. Tissue examined microscopically

X .. Lesion present

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1-4 .. Lesion qualified as:

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

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First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>300 ppm Female | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | females<br>(cont...) |      |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|------|
|  | 0736        | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 |                      | 0736 |
| ANIMAL ID  | 0030        | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030                 |      |

ALIMENTARY SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum<br>Parasite Metazoan | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + |
| Intestine Small, Duodenum                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Basophilic Focus                             |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | X |   | X |   |   |   |   |   |   |
| Clear Cell Focus                             |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   | X | X | X |   |   |   |   | X |   |
| Eosinophilic Focus                           |   |   |   | X | X |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   | X |   |   |
| Extramedullary Hematopoiesis                 |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   | 1 |   |   |   |
| Hepatodiaphragmatic Nodule                   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Focal                          |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mixed Cell Focus                             |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Necrosis                                     |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |
| Bile Duct, Cyst                              | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Bile Duct, Hyperplasia                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hepatocyte, Cytoplasmic Alteration           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 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: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>300 ppm 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 | 0 | ANIMAL ID | females<br>(cont...) |  |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------------------|--|
|  |             | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 5 | 7 | 7 | 7 |           |                      |  |
|  |             | 3 | 6 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 8 | 3 | 3 | 8 | 3 | 3 | 3 | 4 | 4 | 9 | 9 | 4 | 8 | 4 | 4 | 3         | 0                    |  |
|  |             | 6 | 9 | 6 | 6 | 0 | 0 | 0 | 0 | 9 | 7 | 9 | 9 | 0 | 6 | 6 | 6 | 1 | 1 | 3 | 7 | 0 | 0 | 0 | 0 | 6         | 0                    |  |
|  |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0         | 0                    |  |
|  |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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         | 0                    |  |
|  |             | 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         | 0                    |  |
|  |             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5         | 0                    |  |

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mesentery                    | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pancreas                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Acinus, Hyperplasia          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Salivary Glands              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Stomach, Forestomach         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mineral                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Epithelium, Hyperplasia      |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   | 1 | 2 |   |
| Stomach, Glandular           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Mineral                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Artery, Polyarteritis Nodosa |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

CARDIOVASCULAR SYSTEM

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|
| Blood Vessel   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |   |
| Heart          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |   |
| Cardiomyopathy |   |   |   |   |   | 1 |   |   |   |   |   |   |   | 1 | 1 | 1 |   |   |   |   |   |   |   |   |   |  | 1 |

ENDOCRINE SYSTEM

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| Adrenal Cortex       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  |
| Angiectasis          |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Atrophy              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Degeneration, Cystic |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |  |  |
| Hyperplasia          | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |  |  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
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: 10188 - 01

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 12/17/2019

Test Type: CHRONIC

Di(2-ethylhexyl) Phthalate

Time Report Requested: 10:43:08

Route: DOSED FEED

CAS Number: 117-81-7

First Dose M/F: 02/17/11 / 02/18/11

Species/Strain: RATS/HSD

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>300 ppm 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 | 0 | females<br>(cont...) |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
|  | ANIMAL ID   | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 5 | 7 | 7 | 7 |   |                      |
|  | 6           | 6 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 8 | 3 | 3 | 8 | 3 | 3 | 3 | 4 | 4 | 9 | 9 | 4 | 8 | 4 | 4 | 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 | 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 |   |                      |
|  |             | 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 |   |                      |

Hypertrophy  
Thrombus

1

Adrenal Medulla  
Hyperplasia+  
1 1 1Islets, Pancreatic  
Hyperplasia

+ +

Parathyroid Gland  
Hyperplasia+  
3Pituitary Gland  
Angiectasis  
Pars Distalis, Hyperplasia  
Pars Intermedia, Hyperplasia+  
3  
2 2 1 2 2 3 2 2Thyroid Gland  
Necrosis  
Artery, Degeneration, Hyaline  
C-cell, Hyperplasia+  
4  
3  
1 3 1

## GENERAL BODY SYSTEM

Peritoneum

+

## GENITAL SYSTEM

Clitoral Gland  
Inflammation, Chronic Active  
Metaplasia, Squamous+ + + + + + + + + + + + + M + + + + + + + + + + + + +  
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

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Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>300 ppm Female | DAY ON TEST |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | females<br>(cont...) |      |
|--|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------------|------|
|  | 0736        | 0739   | 0736   | 0736   | 0740   | 0740   | 0740   | 0740   | 0740   | 0740   | 0740   | 0740   | 0740   | 0740   | 0740   | 0740   | 0740   | 0740   | 0740   | 0740   | 0740   | 0740   | 0740   | 0740   |                      | 0740 |
| ANIMAL ID  | 003001      | 003002 | 003003 | 003004 | 003005 | 003006 | 003007 | 003008 | 003009 | 003010 | 003011 | 003012 | 003013 | 003014 | 003015 | 003016 | 003017 | 003018 | 003019 | 003020 | 003021 | 003022 | 003023 | 003024 | 003025               |      |
| Duct, Hyperplasia, Squamous                            |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |                      | 4    |
| Ovary  | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +                    | +    |
| Atrophy  |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |                      |      |
| Cyst   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |                      |      |
| Bilateral, Atrophy                                     |             |        | 2      | 2      | 2      | 1      |        | 2      | 2      |        | 2      | 2      | 3      | 3      | 2      |        | 2      |        | 3      |        | 2      | 2      |        | 2      |                      |      |
| Bursa, Cyst  |             |        |        |        |        |        |        |        |        |        |        | X      |        |        |        |        |        |        |        |        |        |        |        |        |                      |      |
| Follicle, Cyst   | X           |        |        |        |        |        |        |        |        |        | X      |        |        |        |        |        |        |        | X      |        |        |        |        |        |                      |      |
| Paraovarian Tissue, Cyst                               |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |                      |      |
| Rete Ovarii, Cyst                                      |             |        |        | X      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |                      |      |
| Oviduct  |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |                      |      |
| Cyst   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |                      |      |
| Uterus   | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +                    | +    |
| Adenomyosis  |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |                      |      |
| Dilation   |             |        |        |        |        |        |        |        |        |        |        |        | 4      |        |        |        |        |        | 3      |        |        |        | 4      |        |                      |      |
| Hemorrhage   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 4      |        |                      |      |
| Inflammation, Suppurative                              |             |        | 2      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |                      |      |
| Inflammation, Chronic Active                           |             |        |        | 2      |        |        |        |        | 2      |        | 4      |        |        | 1      |        |        | 2      |        |        |        | 2      |        |        |        | 1                    |      |
| Cervix, Hypertrophy                                    |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |                      |      |
| Cervix, Metaplasia, Squamous                           |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 4      |        |        |        |        |        |                      |      |
| Endometrium, Atypical Hyperplasia                      |             |        |        | 2      |        |        |        |        |        |        | 2      | 1      |        |        |        |        |        |        |        |        |        |        |        |        |                      |      |
| Endometrium, Hyperplasia, Cystic                       |             |        | 2      | 2      | 3      |        |        | 2      |        |        | 2      |        | 1      | 2      | 2      |        |        |        |        |        |        |        | 1      |        | 2                    |      |
| Endometrium, Metaplasia, Squamous                      |             |        | 2      | 2      | 2      |        |        | 1      | 3      |        | 1      | 1      |        | 3      | 1      | 2      |        | 2      |        |        |        |        | 4      | 2      |                      | 2    |
| Vagina   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |                      |      |

HEMATOPOIETIC SYSTEM

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
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|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|
|  | 0736        | 0469 | 0736 | 0736 | 0774 | 0777 | 0777 | 0777 | 0777 | 0777 | 0579 | 0738 | 0733 | 0683 | 0773 | 0773 | 0773 | 0773 | 0669 | 0669 |           |                      | 0744 | 0584 |
|  | 0000        | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000      | 0000                 | 0000 | 0000 |
|  | 3333        | 3333 | 3333 | 3333 | 3333 | 3333 | 3333 | 3333 | 3333 | 3333 | 3333 | 3333 | 3333 | 3333 | 3333 | 3333 | 3333 | 3333 | 3333 | 3333 | 3333      | 3333                 | 3333 | 3333 |
|  | 6666        | 6666 | 6666 | 6666 | 6666 | 6666 | 6666 | 6666 | 6666 | 6666 | 6666 | 6666 | 6666 | 6666 | 6666 | 6666 | 6666 | 6666 | 6666 | 6666 | 6666      | 6666                 | 6666 | 6666 |

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow<br>Hypercellularity                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|  | 1 | 4 | 2 | 2 | 2 | 1 |   |   |   | 2 | 4 | 3 | 3 | 4 | 2 | 3 |   | 1 | 3 | 3 | 4 | 4 | 4 |   |
| Lymph Node<br>Axillary, Infiltration Cellular, Plasma Cell |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|  |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Lumbar, Infiltration Cellular, Plasma Cell     |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|  |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mandibular                                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node, Mediastinal                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mesenteric                                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spleen   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accessory Spleen   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Extramedullary Hematopoiesis                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|  | 1 | 3 | 2 | 2 | 2 |   | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 |   |   |   | 2 | 2 | 2 | 2 |
| Pigment  | 2 |   | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 |   |   |   | 1 | 2 |   | 2 |
| White Pulp, Atrophy  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thymus   | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy  | 4 |   | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 2 | 1 | 2 | 3 | 1 | 3 | 1 | 2 | 2 |   | 3 |
| Epithelial Cell, Hyperplasia                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

INTEGUMENTARY SYSTEM

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland<br>Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|                              | 2 |   | 2 |   |   | 1 | 3 |   |   |   |   | 1 |   |   |   | 3 |   | 2 |   |   | 4 |   | 3 | 2 |
| Skin                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst Epithelial Inclusion    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. 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: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>300 ppm Female | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | females<br>(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|
|  | 0736        | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 | 0736 |                      |
| ANIMAL ID  | 0030        | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030                 |
|  | 1           | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 0    | 1    | 2                    |

MUSCULOSKELETAL SYSTEM

|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cartilage, Joint, Degeneration |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |

NERVOUS SYSTEM

|          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Necrosis |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

RESPIRATORY SYSTEM

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infiltration Cellular, Histiocyte                   | 2 | 2 | 2 | 1 | 3 |   | 2 | 3 | 2 | 2 | 1 | 2 | 2 | 1 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 2 |
| Inflammation, Granulomatous                         | 1 |   |   |   |   | 1 |   | 1 |   |   |   |   |   | 1 |   |   | 1 |   | 1 |   |   |   |
| Alveolar Epithelium, Hyperplasia                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nose  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Chronic Active                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   | 1 |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 3 | 4 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 2 | 3 | 1 | 3 | 2 | 3 | 3 | 2 | 4 | 3 | 3 | 1 | 3 |
| Olfactory Epithelium, Metaplasia, Respiratory       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 | 3 |
| Trachea   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

SPECIAL SENSES SYSTEM

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Retina, Degeneration |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
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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: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| DAY ON TEST | HARLAN SPRAGUE DAWLEY RATS FEMALE |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |
|-------------|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
|             | 0736                              | 0634  | 0736  | 0483  | 0523  | 0741  | 0771  | 0779  | 0799  | 0799  | 0799  | 0799  | 0377  | 0233  | 0741  | 0546  | 0287  | 0575  | 0741  | 0370  | 0741  | 0741  | 0741  | 0666  |          |
| ANIMAL ID   | 00326                             | 00327 | 00328 | 00329 | 00330 | 00331 | 00332 | 00333 | 00334 | 00335 | 00336 | 00337 | 00338 | 00339 | 00340 | 00341 | 00342 | 00343 | 00344 | 00345 | 00346 | 00347 | 00348 | 00349 | 50       |

**ALIMENTARY SYSTEM**

|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|
| Esophagus                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50  |
| Intestine Large, Cecum             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50  |
| Intestine Large, Colon             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50  |
| Intestine Large, Rectum            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49  |
| Parasite Metazoan                  |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   | X | 6   |
| Intestine Small, Duodenum          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50  |
| Intestine Small, Ileum             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50  |
| Intestine Small, Jejunum           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50  |
| Liver                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50  |
| Basophilic Focus                   | X |   |   |   |   |   |   | X |   |   |   |   |   |   | X |   |   |   |   |   |   |   | X |   | 7   |
| Clear Cell Focus                   |   |   |   |   |   |   |   | X | X | X |   |   |   |   | X |   |   |   | X |   |   |   |   |   | 10  |
| Eosinophilic Focus                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | X |   | 6   |
| Extramedullary Hematopoiesis       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   | 4   |
| Hepatodiaphragmatic Nodule         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1   |
| Inflammation, Focal                |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2   |
| Mixed Cell Focus                   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1.5 |
| Necrosis                           |   |   | 2 |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2   |
| Bile Duct, Cyst                    |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 | 5   |
| Bile Duct, Hyperplasia             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   | 3   |
| Hepatocyte, Cytoplasmic Alteration | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   | 2   |
|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1.0 |
|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 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  
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 1) Minimal 3) Moderate  
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Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>300 ppm Female | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |   |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|
|  | ANIMAL ID   |   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |          | 0 |
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0 |
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 |
|  | 6           | 4 | 6 | 3 | 3 | 1 | 1 | 9 | 9 | 9 | 9 | 9 | 9 | 7 | 9 | 8 | 1 | 6 | 6 | 5 | 1 | 0 | 1        | 1 |
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0 |
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0 |
|  | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3        | 3 |
|  | 2           | 2 | 2 | 2 | 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 |

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |     |   |   |     |     |     |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|-----|---|---|-----|-----|-----|
| Mesentery                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |     |   |   |     | 1   |     |
| Pancreas                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   | + | + | + | + | +   | + | + | +   | 50  |     |
| Acinus, Hyperplasia          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |     | 2 | 1 | 2.0 |     |     |
| Salivary Glands              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   | + | + | + | + | +   | + | + | 50  |     |     |
| Stomach, Forestomach         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   | + | + | + | + | +   | + | + | 50  |     |     |
| Inflammation, Chronic Active |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |     |   |   | 2   | 1.0 |     |
| Mineral                      |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |     |   |   |   |   |     |   |   |     | 1   | 1.0 |
| Epithelium, Hyperplasia      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   | 1 | 5 | 1.6 |   |   |     |     |     |
| Stomach, Glandular           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   | + | + | + | + | +   | + | + | 50  |     |     |
| Mineral                      |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 3 | 1.3 |   |   |   |   |     |   |   |     |     |     |
| Artery, Polyarteritis Nodosa |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |     |   |   | 1   | 1.0 |     |

CARDIOVASCULAR SYSTEM

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Blood Vessel   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Heart          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Cardiomyopathy |   |   |   | 1 |   | 1 |   | 1 |   | 1 |   |   | 1 |   | 1 |   |   |   |   |   |   | 1 | 12 | 1.0 |

ENDOCRINE SYSTEM

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |     |   |    |     |     |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|-----|---|----|-----|-----|
| Adrenal Cortex       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   | + | + | + | +   | + | 50 |     |     |
| Angiectasis          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |     |   | 1  | 2.0 |     |
| Atrophy              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |     |   | 4  | 1   | 4.0 |
| Degeneration, Cystic |   |   |   |   |   |   |   |   |   |   | 2 |   | 1 |   | 1 |   | 1   |   | 1 | 7 | 1.3 |   |    |     |     |
| Hyperplasia          |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 3 | 1.3 |   |   |   |     |   |    |     |     |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
M .. Missing tissue  
A .. Autolysis precludes evaluation  
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1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
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**Experiment Number:** 10188 - 01  
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**Species/Strain:** RATS/HSD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Di(2-ethylhexyl) Phthalate  
**CAS Number:** 117-81-7

**Date Report Requested:** 12/17/2019  
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**First Dose M/F:** 02/17/11 / 02/18/11  
**Lab:** BAT

|                                   | DAY ON TEST |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                 |              |
|-----------------------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------------|--------------|
|                                   | 07          | 06 | 07 | 04 | 05 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 03 | 07 | 02 | 07 | 05 | 02 | 05 | 07 | 03 | 07 | 07 | 07 |    | 06              |              |
| <b>HARLAN SPRAGUE DAWLEY RATS</b> | 3           | 3  | 3  | 8  | 2  | 4  | 4  | 3  | 3  | 3  | 3  | 3  | 2  | 3  | 3  | 4  | 4  | 8  | 7  | 4  | 7  | 4  | 4  | 4  | 6  |                 |              |
| <b>FEMALE</b>                     | 6           | 4  | 6  | 3  | 3  | 1  | 1  | 9  | 9  | 9  | 9  | 9  | 7  | 9  | 8  | 1  | 6  | 6  | 5  | 1  | 0  | 1  | 1  | 1  | 6  |                 |              |
| <b>300 ppm Female</b>             |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                 |              |
|                                   | 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 | <b>* TOTALS</b> |              |
| Hypertrophy                       |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 2               | <b>2 1.5</b> |
| Thrombus                          |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 1               | <b>2 1.5</b> |
| Adrenal Medulla                   | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | 50              | <b>3 1.0</b> |
| Hyperplasia                       |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                 |              |
| Islets, Pancreatic                | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | 50              | <b>1 2.0</b> |
| Hyperplasia                       |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 2               |              |
| Parathyroid Gland                 | +           | +  | +  | +  | +  | +  | +  | M  | +  | +  | +  | +  | +  | +  | +  | M  | +  | +  | +  | +  | +  | +  | +  | +  | +  | 48              | <b>1 3.0</b> |
| Hyperplasia                       |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                 |              |
| Pituitary Gland                   | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | 50              | <b>1 3.0</b> |
| Angiectasis                       |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                 |              |
| Pars Distalis, Hyperplasia        |             |    |    | 2  |    |    |    |    |    | 2  |    |    |    | 2  |    | 2  | 2  |    |    |    |    | 1  | 1  | 1  |    | 17              | <b>1 1.8</b> |
| Pars Intermedia, Hyperplasia      |             |    |    |    |    |    |    |    |    |    |    | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    | 1               | <b>1 1.0</b> |
| Thyroid Gland                     | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | 50              | <b>1 4.0</b> |
| Necrosis                          |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                 |              |
| Artery, Degeneration, Hyaline     |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                 | <b>1 3.0</b> |
| C-cell, Hyperplasia               |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 3  |    |    |    |    | 1  |    |    |    | 5               | <b>1.8</b>   |
| <b>GENERAL BODY SYSTEM</b>        |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                 |              |
| Peritoneum                        |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                 | <b>1</b>     |
| <b>GENITAL SYSTEM</b>             |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                 |              |
| Clitoral Gland                    | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | 49              | <b>1 4.0</b> |
| Inflammation, Chronic Active      |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 4  |    |    |    |    |    |    |    |    |    |                 |              |
| Metaplasia, Squamous              |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                 | <b>1 3.0</b> |

\* .. 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: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>300 ppm Female | DAY ON TEST    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | * TOTALS       |     |     |     |  |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----|-----|-----|--|
|  | 07<br>36<br>6  | 06<br>34<br>4  | 07<br>33<br>6  | 04<br>83<br>3  | 05<br>22<br>3  | 07<br>44<br>1  | 07<br>44<br>1  | 07<br>33<br>9  | 07<br>33<br>9  | 07<br>33<br>9  | 07<br>33<br>9  | 07<br>33<br>9  | 03<br>23<br>7  | 07<br>33<br>9  | 02<br>33<br>8  | 07<br>44<br>1  | 05<br>44<br>6  | 02<br>87<br>5  | 07<br>44<br>1  | 03<br>74<br>0  | 07<br>44<br>1  | 07<br>44<br>1  | 06<br>66<br>6  |                |                |     |     |     |  |
| ANIMAL ID  | 00<br>33<br>26 | 00<br>33<br>27 | 00<br>33<br>28 | 00<br>33<br>29 | 00<br>33<br>30 | 00<br>33<br>31 | 00<br>33<br>32 | 00<br>33<br>33 | 00<br>33<br>34 | 00<br>33<br>35 | 00<br>33<br>36 | 00<br>33<br>37 | 00<br>33<br>38 | 00<br>33<br>39 | 00<br>33<br>40 | 00<br>33<br>41 | 00<br>33<br>42 | 00<br>33<br>43 | 00<br>33<br>44 | 00<br>33<br>45 | 00<br>33<br>46 | 00<br>33<br>47 | 00<br>33<br>48 | 00<br>33<br>49 | 00<br>33<br>50 |     |     |     |  |
| Duct, Hyperplasia, Squamous                            |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 1              | 4.0 |     |     |  |
| Ovary  | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | 50             |     |     |     |  |
| Atrophy  |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 2              | 1   | 2.0 |     |  |
| Cyst   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 2   |     |     |  |
| Bilateral, Atrophy                                     | 2              |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 32  | 2.2 |     |  |
| Bursa, Cyst  |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 2   |     |     |  |
| Follicle, Cyst   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 4   |     |     |  |
| Paraovarian Tissue, Cyst                               |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 1   |     |     |  |
| Rete Ovarii, Cyst                                      |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 1   |     |     |  |
| Oviduct  |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 1   |     |     |  |
| Cyst   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 1   |     |     |  |
| Uterus   | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | 50             |     |     |     |  |
| Adenomyosis  |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 2   | 2   | 2.0 |  |
| Dilation   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |     | 5   | 3.4 |  |
| Hemorrhage   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |     | 2   | 4.0 |  |
| Inflammation, Suppurative                              |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |     | 2   | 2.0 |  |
| Inflammation, Chronic Active                           |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |     | 9   | 2.0 |  |
| Cervix, Hypertrophy                                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |     | 1   | 3.0 |  |
| Cervix, Metaplasia, Squamous                           |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |     | 1   | 4.0 |  |
| Endometrium, Atypical Hyperplasia                      |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |     | 5   | 1.8 |  |
| Endometrium, Hyperplasia, Cystic                       | 2              |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |     | 22  | 1.9 |  |
| Endometrium, Metaplasia, Squamous                      |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |     | 27  | 1.8 |  |
| Vagina   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |     |     | 1   |  |

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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 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
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Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| DAY ON TEST | HARLAN SPRAGUE DAWLEY RATS FEMALE |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |
|-------------|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|
|             | 0736                              | 0734  | 0736  | 0738  | 0732  | 0734  | 0731  | 0731  | 0739  | 0739  | 0739  | 0739  | 0737  | 0732  | 0733  | 0734  | 0738  | 0736  | 0735  | 0737  |          | 0733  | 0737  | 0737  |
| ANIMAL ID   | 300 ppm Female                    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |
|             | 00326                             | 00337 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333    | 00333 | 00333 | 00333 |

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Bone Marrow Hypercellularity                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 39  | 2.8 |
| Lymph Node Axillary, Infiltration Cellular, Plasma Cell |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |     | 4.0 |
| Lymph Node Lumbar, Infiltration Cellular, Plasma Cell   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |     | 3.0 |
| Lymph Node, Mandibular                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |     |
| Lymph Node, Mediastinal                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |     |     |
| Lymph Node, Mesenteric                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |     |
| Spleen Accessory Spleen                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |     | 1   |
| Spleen Extramedullary Hematopoiesis                     | 2 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 2 | 45 | 2.3 |     |
| Spleen Pigment  | 2 |   |   |   |   | 1 | 2 | 2 | 2 | 1 |   | 2 | 1 | 1 |   | 2 | 3 | 1 | 1 | 2 |   | 2 | 2 | 38 | 1.5 |     |
| Spleen White Pulp, Atrophy                              |   | 2 |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 5  | 1.8 |     |
| Thymus Atrophy  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | 45  | 2.4 |
| Thymus Epithelial Cell, Hyperplasia                     | 3 | 3 | 2 | 1 | 3 | 2 | 3 | 3 | 3 |   | 2 | 3 | 1 |   | 1 | 2 | 3 |   | 2 | 3 | 2 | 3 | 3 | 3  | 1   | 2.0 |

INTEGUMENTARY SYSTEM

|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |     |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Mammary Gland Hyperplasia      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 20 | 2.1 |
| Skin Cyst Epithelial Inclusion | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |    | 1   |

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+ .. 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:** 10188 - 01  
**Test Type:** CHRONIC  
**Route:** DOSED FEED  
**Species/Strain:** RATS/HSD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Di(2-ethylhexyl) Phthalate  
**CAS Number:** 117-81-7

**Date Report Requested:** 12/17/2019  
**Time Report Requested:** 10:43:08  
**First Dose M/F:** 02/17/11 / 02/18/11  
**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   | * TOTALS |     |
|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|----------|-----|
| <b>HARLAN SPRAGUE DAWLEY RATS FEMALE</b><br><b>300 ppm Female</b> |           | 7 | 6 | 7 | 4 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 7 | 2 | 7 | 5 | 2 | 5 | 7 | 3 | 7 | 7 | 7 | 6   |          | 50  |
|   | ANIMAL ID | 3 | 3 | 3 | 8 | 2 | 4 | 4 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 4 | 4 | 8 | 7 | 4 | 7 | 4 | 4 | 4 | 6   |          |     |
|   |           | 6 | 4 | 6 | 3 | 3 | 1 | 1 | 9 | 9 | 9 | 9 | 9 | 7 | 9 | 8 | 1 | 6 | 6 | 5 | 1 | 0 | 1 | 1 | 6   | 1.0      |     |
|   | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50  |          |     |
|   | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |     |          | 1.0 |
|   | 3         | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |     | 50       |     |
|   | 2         | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 1.0 |          |     |
|   | 6         | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |     |          | 50  |

**MUSCULOSKELETAL SYSTEM**

|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Bone                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 1.0 |
| Cartilage, Joint, Degeneration |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |

**NERVOUS SYSTEM**

|          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |
|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Brain    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 4.0 |
| Necrosis |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |    |   |     |

**RESPIRATORY SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |     |     |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|-----|
| Lung  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 45 | 2.4 |     |
| Infiltration Cellular, Histiocyte                   | 3 | 3 |   |   | 2 | 4 | 2 | 3 | 3 | 4 | 3 | 1 | 2 |   | 3 | 2 | 2 | 1 | 2 | 2 | 3 | 3 | 3 | 3 |    | 11 | 1.1 |     |
| Inflammation, Granulomatous                         |   |   |   |   | 1 |   | 1 |   |   | 1 | 2 |   |   |   |   |   |   |   |   |   |   |   | 1 |   |    | 1  | 1.0 |     |
| Alveolar Epithelium, Hyperplasia                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |    |    |     |     |
| Nose  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 4  | 1.0 |     |
| Inflammation, Chronic Active                        |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |    | 4  | 1.0 |     |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 3 | 3 | 3 | 3 | 1 | 2 |   | 3 | 3 | 3 | 3 | 1 | 3 | 2 | 1 | 1 | 2 | 2 | 3 | 4 | 4 | 1 | 3 | 2 | 1  |    | 49  | 2.6 |
| Olfactory Epithelium, Metaplasia, Respiratory       |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |    | 2  | 1.0 |     |
| Trachea   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |    |     |     |

**SPECIAL SENSES SYSTEM**

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Eye                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 2 | 1.0 |
| Retina, Degeneration |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |    |   |     |

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Experiment Number: 10188 - 01

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**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

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   | * TOTALS |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|----------|
|  | 7 | 6 | 7 | 4 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 7 | 2 | 7 | 5 | 2 | 5 | 7 | 3 | 7 | 7 | 7 | 6 | 6  |     |          |
| <b>HARLAN SPRAGUE DAWLEY RATS FEMALE</b> | 3 | 3 | 3 | 8 | 2 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 4 | 4 | 8 | 7 | 4 | 7 | 4 | 4 | 4 | 6  |     |          |
| <b>300 ppm Female</b>                    | 6 | 4 | 6 | 3 | 3 | 1 | 1 | 9 | 9 | 9 | 9 | 9 | 7 | 9 | 8 | 1 | 6 | 6 | 5 | 1 | 0 | 1 | 1 | 1 | 6  |     |          |
| 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  |     |          |
|  | 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  |     |          |
|  | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 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  |     |          |
| Harderian Gland                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |          |
| <b>URINARY SYSTEM</b>                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |          |
| Kidney                                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |          |
| Nephropathy, Chronic Progressive         | 1 |   | 1 | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   | 1 | 1 | 1 |   | 1 | 2 |   |   |   | 1 | 1 | 34 | 1.2 |          |
| Pelvis, Dilation                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 2.0 |          |
| 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: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| DAY ON TEST     | HARLAN SPRAGUE DAWLEY RATS FEMALE |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | ANIMAL ID | females (cont...) |
|-----------------|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|-------------------|
|                 | 0740                              | 0658  | 0740  | 0744  | 0544  | 0744  | 0773  | 0774  | 0771  | 0771  | 0452  | 0741  | 0633  | 0733  | 0636  | 0774  | 0776  | 0774  | 0772  | 0773  | 0779  | 0779  | 0772  | 0773  |           |                   |
| 1000 ppm Female | 00351                             | 00352 | 00353 | 00354 | 00355 | 00356 | 00357 | 00358 | 00359 | 00360 | 00361 | 00362 | 00363 | 00364 | 00365 | 00366 | 00367 | 00368 | 00369 | 00370 | 00371 | 00372 | 00373 | 00374 | 00375     |                   |

ALIMENTARY SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum<br>Polyarteritis Nodosa   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon<br>Parasite Metazoan<br>Polyarteritis Nodosa  | + | + | + | + | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum<br>Parasite Metazoan<br>Polyarteritis Nodosa   | + | + | + | + | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum<br>Polyarteritis Nodosa  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum<br>Parasite Metazoan  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver<br>Clear Cell Focus<br>Eosinophilic Focus<br>Extramedullary Hematopoiesis<br>Hepatodiaphragmatic Nodule<br>Inflammation, Chronic<br>Mixed Cell Focus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|  | X |   |   | X |   | X |   | X | X |   |   |   | X | X |   | X | X |   |   |   |   |   |   |   |   |   |
|  |   |   |   |   |   |   | X | X |   |   |   |   |   | X | X |   |   |   | 1 |   |   |   |   |   |   |   |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 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  
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: 10188 - 01

Test Type: CHRONIC

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Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>1000 ppm Female | DAY ON TEST | 0740  | 0658  | 0740  | 0754  | 0777  | 0777  | 0777  | 0777  | 0744  | 0776  | 0777  | 0766  | 0777  | 0777  | 0777  | 0766  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0766  |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|   | ANIMAL ID   | 00351 | 00352 | 00353 | 00354 | 00355 | 00356 | 00357 | 00358 | 00359 | 00360 | 00361 | 00362 | 00363 | 00364 | 00365 | 00366 | 00367 | 00368 | 00369 | 00370 | 00371 | 00372 | 00373 | 00374 | 00375 |
| Necrosis  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 2     |
| Pigment   |             |       |       | 1     |       | 1     |       | 1     |       |       | 1     |       |       | 1     |       |       | 2     |       | 1     |       | 1     |       |       | 1     |       | 1     |
| Polyarteritis Nodosa                                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Vacuolization Cytoplasmic                               |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 4     |
| Bile Duct, Cyst   |             |       |       |       |       |       |       |       |       | X     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Bile Duct, Hyperplasia                                  |             |       |       | 1     |       |       |       |       |       |       |       |       |       | 1     |       |       |       |       |       |       |       |       |       |       |       |       |
| Centrilobular, Degeneration                             |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Hepatocyte, Cytoplasmic Alteration                      |             |       |       |       |       |       | 1     |       |       |       |       |       |       |       | 2     |       |       | 1     |       |       |       |       |       | 1     |       |       |
| Hepatocyte, Fatty Change, Diffuse                       |             |       |       |       |       |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Hepatocyte, Hypertrophy                                 |             |       |       |       |       | 1     |       |       |       |       |       |       |       |       |       |       | 1     |       | 1     |       |       |       |       |       |       |       |
| Oval Cell, Hyperplasia                                  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Serosa, Fibrosis  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Mesentery   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Polyarteritis Nodosa                                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Pancreas  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Polyarteritis Nodosa                                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Acinus, Hyperplasia                                     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |       |       |       |       |       |       |       |       |
| Salivary Glands   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Stomach, Forestomach                                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Inflammation, Acute                                     |             |       |       |       |       |       | 1     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Inflammation, Chronic Active                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |
| Polyarteritis Nodosa                                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Ulcer   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |
| Epithelium, Hyperplasia                                 |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |
| Stomach, Glandular                                      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

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+ .. 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: 10188 - 01

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Di(2-ethylhexyl) Phthalate

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Lab: BAT

|  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>HARLAN SPRAGUE DAWLEY RATS</b><br><b>FEMALE</b><br><b>1000 ppm Female</b> | DAY ON TEST | 0740  | 0658  | 0740  | 0754  | 0775  | 0777  | 0777  | 0777  | 0777  | 0744  | 0776  | 0777  | 0766  | 0776  | 0777  | 0776  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0766  |
|  | ANIMAL ID   | 00351 | 00352 | 00353 | 00354 | 00355 | 00356 | 00357 | 00358 | 00359 | 00360 | 00361 | 00362 | 00363 | 00364 | 00365 | 00366 | 00367 | 00368 | 00369 | 00370 | 00371 | 00372 | 00373 | 00374 |
|  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

females (cont...)

Mineral  
Artery, Mineral

CARDIOVASCULAR SYSTEM

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy       | 1 | 1 | 1 |   |   | 1 |   | 1 | 1 |   |   |   |   |   | 1 |   |   |   |   |   |   |   | 1 |   |
| Polyarteritis Nodosa |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

ENDOCRINE SYSTEM

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis          |   | 2 |   |   |   |   |   |   |   |   |   |   |   | 2 | 1 |   |   |   |   |   |   |   |   |   |
| Degeneration, Cystic | 1 |   |   |   |   | 2 |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   | 1 |   |
| Hemorrhage           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |
| Hyperplasia          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Necrosis             |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thrombus             | 1 | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Adrenal Medulla      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia          |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Islets, Pancreatic   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland    | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibrosis             |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hyperplasia          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pituitary Gland      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

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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 | 0 | 0 | 0 | 0 | 0 | females<br>(cont...) |
|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
| DAY ON TEST   |  | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 4 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 |                      |
| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>1000 ppm Female |  | 4 | 5 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 5 | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 4 | 4 | 2 | 3 | 3 | 2 | 2 | 3 | 5 |   |                      |
| ANIMAL ID   |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                      |
|   |  | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |                      |
|   |  | 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 | 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 | 6 | 7 | 8 |                      |

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Cyst<br>Pars Distalis, Hyperplasia   | 1 |   |   |   |   | 2 |   |   |   |   | 1 |   |   | 3 |   | 2 | 3 |   |   |   |   | 2 |   |   |   |   | 2 |   |   | 2 | 2 |  |
| Thyroid Gland<br>Infiltration Cellular, Lymphocyte<br>C-cell, Hyperplasia<br>Follicular Cell, Degeneration | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
|  |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   | 2 |   |   |   |   |   |   |   |  |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| Clitoral Gland<br>Duct, Hyperplasia   | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |  |
| Ovary<br>Cyst<br>Bilateral, Atrophy<br>Bursa, Cyst<br>Follicle, Cyst<br>Paraovarian Tissue, Cyst    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  |
|   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
|   | 2 |   | 3 | 2 | 2 | 2 |   |   |   |   | 2 | 2 | 2 |   |   |   |   |   |   |   | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 |   |  |  |
|   |   |   |   |   | X |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   | X | X |   |   |   | X |   |   |   |   |   |  |  |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Uterus<br>Adenomyosis<br>Dilation<br>Inflammation, Chronic<br>Inflammation, Chronic Active<br>Ulcer | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  |
|   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
|   |   |   |   |   |   |   | 2 |   | 4 |   |   |   |   | 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:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>1000 ppm Female | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | females<br>(cont...)  |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|   | 0<br>7<br>4<br>0      | 0<br>6<br>5<br>8      | 0<br>7<br>4<br>0      | 0<br>7<br>4<br>0      | 0<br>5<br>4<br>6      | 0<br>7<br>4<br>1      | 0<br>7<br>3<br>7      | 0<br>7<br>4<br>1      | 0<br>7<br>4<br>1      | 0<br>4<br>5<br>2      | 0<br>7<br>4<br>1      | 0<br>6<br>3<br>4      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>6<br>4<br>0      | 0<br>7<br>3<br>5      | 0<br>7<br>4<br>0      | 0<br>7<br>4<br>0      | 0<br>7<br>2<br>2      | 0<br>7<br>3<br>9      | 0<br>7<br>3<br>9      | 0<br>7<br>2<br>2      | 0<br>6<br>3<br>5      |                       |
| ANIMAL ID   | 0<br>0<br>3<br>5<br>1 | 0<br>0<br>3<br>5<br>2 | 0<br>0<br>3<br>5<br>3 | 0<br>0<br>3<br>5<br>4 | 0<br>0<br>3<br>5<br>5 | 0<br>0<br>3<br>5<br>6 | 0<br>0<br>3<br>5<br>7 | 0<br>0<br>3<br>5<br>8 | 0<br>0<br>3<br>5<br>9 | 0<br>0<br>3<br>6<br>0 | 0<br>0<br>3<br>6<br>1 | 0<br>0<br>3<br>6<br>2 | 0<br>0<br>3<br>6<br>3 | 0<br>0<br>3<br>6<br>4 | 0<br>0<br>3<br>6<br>5 | 0<br>0<br>3<br>6<br>6 | 0<br>0<br>3<br>6<br>7 | 0<br>0<br>3<br>6<br>8 | 0<br>0<br>3<br>6<br>9 | 0<br>0<br>3<br>7<br>0 | 0<br>0<br>3<br>7<br>1 | 0<br>0<br>3<br>7<br>2 | 0<br>0<br>3<br>7<br>3 | 0<br>0<br>3<br>7<br>4 | 0<br>0<br>3<br>7<br>5 |

Cervix, Hypertrophy

3

Cervix, Polyarteritis Nodosa

Endometrium, Atypical Hyperplasia

2

Endometrium, Hyperplasia, Cystic

2

Endometrium, Inflammation, Chronic Active

2

Endometrium, Metaplasia, Squamous

1

4

2

3

1

1

2

3

1

1

2

1

1

2

2

1

2

1

2

2

Vagina

Inflammation

HEMATOPOIETIC SYSTEM

Bone Marrow

+

+

+

+

+

+

+

+

+

+

+

+

+

+

+

+

+

+

+

+

+

+

Hypercellularity

1

4

1

4

2

2

4

2

3

2

3

3

4

3

4

2

4

3

2

4

2

2

Necrosis

3

Lymph Node

+

Lumbar, Hyperplasia, Lymphocyte

Lymph Node, Mandibular

+

+

+

+

+

+

+

+

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+

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+

Infiltration Cellular, Plasma Cell

3

Lymph Node, Mesenteric

+

+

+

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Spleen

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Extramedullary Hematopoiesis

2

3

2

2

4

2

2

2

3

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3

2

2

2

3

2

2

1

2

2

3

Pigment

1

2

2

2

1

2

1

1

2

1

1

1

3

1

2

2

2

2

2

1

3

White Pulp, Atrophy

White Pulp, Hyperplasia

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>1000 ppm Female | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | females<br>(cont...)  |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|   | 0<br>7<br>4<br>0      | 0<br>6<br>5<br>8      | 0<br>7<br>4<br>0      | 0<br>7<br>4<br>0      | 0<br>5<br>4<br>6      | 0<br>7<br>4<br>1      | 0<br>7<br>3<br>7      | 0<br>7<br>4<br>1      | 0<br>7<br>5<br>1      | 0<br>4<br>4<br>2      | 0<br>7<br>4<br>1      | 0<br>6<br>3<br>4      | 0<br>7<br>3<br>6      | 0<br>6<br>3<br>5      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>0      | 0<br>6<br>4<br>5      | 0<br>7<br>4<br>0      | 0<br>7<br>4<br>0      | 0<br>7<br>2<br>2      | 0<br>7<br>3<br>9      | 0<br>7<br>3<br>9      | 0<br>7<br>2<br>2      | 0<br>6<br>3<br>5      |                       |
| ANIMAL ID   | 0<br>0<br>3<br>5<br>1 | 0<br>0<br>3<br>5<br>2 | 0<br>0<br>3<br>5<br>3 | 0<br>0<br>3<br>5<br>4 | 0<br>0<br>3<br>5<br>5 | 0<br>0<br>3<br>5<br>6 | 0<br>0<br>3<br>5<br>7 | 0<br>0<br>3<br>5<br>8 | 0<br>0<br>3<br>5<br>9 | 0<br>0<br>3<br>6<br>0 | 0<br>0<br>3<br>6<br>1 | 0<br>0<br>3<br>6<br>2 | 0<br>0<br>3<br>6<br>3 | 0<br>0<br>3<br>6<br>4 | 0<br>0<br>3<br>6<br>5 | 0<br>0<br>3<br>6<br>6 | 0<br>0<br>3<br>6<br>7 | 0<br>0<br>3<br>6<br>8 | 0<br>0<br>3<br>6<br>9 | 0<br>0<br>3<br>7<br>0 | 0<br>0<br>3<br>7<br>1 | 0<br>0<br>3<br>7<br>2 | 0<br>0<br>3<br>7<br>3 | 0<br>0<br>3<br>7<br>4 | 0<br>0<br>3<br>7<br>5 |

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Thymus                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy                 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 |   | 3 | 4 | 2 |   | 3 | 3 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 2 |
| Cyst                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hyperplasia, Lymphocyte |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

INTEGUMENTARY SYSTEM

|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Galactoceles        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   | 4 |   |   | 2 |
| Hyperplasia         |   |   |   |   |   |   |   | 2 | 2 |   | 2 |   |   | 2 | 2 | 2 |   |   |   |   |   |   |   | 4 |
| Skin                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Acute |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

MUSCULOSKELETAL SYSTEM

|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Osteopetrosis                  |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cartilage, Joint, Degeneration |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |

NERVOUS SYSTEM

|            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hemorrhage |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |
| Necrosis   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

RESPIRATORY SYSTEM

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infiltration Cellular, Histiocyte | 3 | 1 | 4 | 3 | 2 | 2 | 2 | 1 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 4 | 3 | 4 | 1 | 2 | 4 | 2 | 2 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically  
1-4 .. Lesion qualified as:  
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Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>1000 ppm Female | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | females<br>(cont...) |  |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|--|
|   | 0740        | 0745  | 0748  | 0749  | 0754  | 0757  | 0757  | 0757  | 0757  | 0757  | 0757  | 0757  | 0757  | 0757  | 0757  | 0757  | 0757  | 0757  | 0757  | 0757  | 0757  | 0757  | 0757  | 0757  | 0757  |                      |  |
| ANIMAL ID   | 00351       | 00352 | 00353 | 00354 | 00355 | 00356 | 00357 | 00358 | 00359 | 00360 | 00361 | 00362 | 00363 | 00364 | 00365 | 00366 | 00367 | 00368 | 00369 | 00370 | 00371 | 00372 | 00373 | 00374 | 00375 |                      |  |
| Inflammation, Granulomatous                             | 1           |       |       | 1     |       |       | 1     |       |       |       |       |       | 1     |       | 1     |       | 2     |       |       | 1     | 1     | 1     |       | 1     |       |                      |  |
| Inflammation, Chronic Active                            |             |       | 1     |       |       |       |       |       |       |       |       |       |       |       |       | 1     |       |       |       |       |       |       |       |       |       |                      |  |
| Alveolar Epithelium, Hyperplasia                        |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                      |  |
| Nose  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +                    |  |
| Inflammation, Chronic Active                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |       |       |       |       |       |       |       |       |       |                      |  |
| Olfactory Epithelium, Accumulation, Hyaline Droplet     | 2           | 1     | 2     | 2     | 3     | 2     | 2     | 2     | 2     | 2     | 2     | 3     | 2     | 3     | 2     | 2     | 3     | 3     | 4     | 3     | 3     | 3     | 3     | 3     | 2     |                      |  |
| Trachea   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +                    |  |
| <b>SPECIAL SENSES SYSTEM</b>                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                      |  |
| Eye   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +                    |  |
| Retinal Detachment                                      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |       |       |       |       |       |       |       |       |       |                      |  |
| Choroid, Hyperplasia                                    |             |       |       |       | 1     |       |       |       |       |       |       |       |       |       |       | 1     |       |       |       |       |       |       |       |       |       |                      |  |
| Retina, Degeneration                                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                      |  |
| Retina, Dysplasia                                       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |       |       |                      |  |
| Harderian Gland   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +                    |  |
| <b>URINARY SYSTEM</b>                                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                      |  |
| Kidney  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +                    |  |
| Cyst  |             |       |       |       |       |       |       |       |       |       | X     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                      |  |
| Nephropathy, Chronic Progressive                        | 1           |       | 2     | 1     | 1     | 2     | 2     | 2     | 1     |       | 2     | 1     | 1     |       | 1     |       | 1     | 1     | 1     | 1     | 2     | 1     | 1     | 1     | 1     |                      |  |
| Polyarteritis Nodosa                                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                      |  |
| Renal Tubule, Accumulation, Hyaline Droplet             |             |       |       |       |       |       |       |       |       |       | 4     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                      |  |
| Urinary Bladder   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +                    |  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically  
1-4 .. Lesion qualified as:  
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Experiment Number: 10188 - 01  
 Test Type: CHRONIC  
 Route: DOSED FEED  
 Species/Strain: RATS/HSD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Di(2-ethylhexyl) Phthalate  
 CAS Number: 117-81-7

Date Report Requested: 12/17/2019  
 Time Report Requested: 10:43:08  
 First Dose M/F: 02/17/11 / 02/18/11  
 Lab: BAT

|  |  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
|--|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------|
| <b>HARLAN SPRAGUE DAWLEY RATS FEMALE</b> |  | DAY ON TEST | 0741  | 0552  | 0741  | 0545  | 0762  | 0771  | 0438  | 0719  | 0273  | 0779  | 0779  | 0779  | 0779  | 0779  | 0779  | 0666  | 0666  | 0773  | 0773  | 0773  | 0773  |       |                 |
|  |  | ANIMAL ID   | 00376 | 00037 | 00038 | 00039 | 00040 | 00041 | 00042 | 00043 | 00044 | 00045 | 00046 | 00047 | 00048 | 00049 | 00050 | 00051 | 00052 | 00053 | 00054 | 00055 | 00056 | 00057 | 00058           |
|  |  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | <b>* TOTALS</b> |

**ALIMENTARY SYSTEM**

|                              |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |       |
|------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-------|
| Esophagus                    | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |       |
| Intestine Large, Cecum       | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |       |
| Polyarteritis Nodosa         |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 2 2.0 |
| Intestine Large, Colon       | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |       |
| Parasite Metazoan            |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 1     |
| Polyarteritis Nodosa         |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 2 2.0 |
| Intestine Large, Rectum      | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |       |
| Parasite Metazoan            |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 7     |
| Polyarteritis Nodosa         |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 2 1.5 |
| Intestine Small, Duodenum    | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |       |
| Polyarteritis Nodosa         |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 1 1.0 |
| Intestine Small, Ileum       | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 49 |       |
| Parasite Metazoan            |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 1     |
| Intestine Small, Jejunum     | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |       |
| Liver                        | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |       |
| Clear Cell Focus             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 14    |
| Eosinophilic Focus           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 6     |
| Extramedullary Hematopoiesis |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 1 1.0 |
| Hepatodiaphragmatic Nodule   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 2     |
| Inflammation, Chronic        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 1 1.0 |
| Mixed Cell Focus             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    | 1     |

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

Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>1000 ppm Female | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |     |     |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|-----|-----|
|   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |          | 0   |     |
|   | 7           | 5 | 7 | 5 | 7 | 6 | 7 | 7 | 4 | 7 | 1 | 2 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 |          | 7   |     |
| ANIMAL ID   | 4           | 5 | 4 | 4 | 4 | 5 | 4 | 3 | 9 | 3 | 9 | 7 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 1 | 5 | 3 | 3 | 3 | 3 | 3 | 3        |     |     |
|   | 1           | 2 | 1 | 5 | 1 | 2 | 1 | 9 | 8 | 9 | 6 | 3 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 7 | 2 | 6 | 6 | 6 | 6 | 6        |     |     |
|   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |     |     |
|   | 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        |     |     |
|   | 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 | 9 | 9        |     |     |
|   | 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 | 0        |     |     |
| Necrosis  | 2           |   |   |   |   |   |   |   | 1 |   |   |   |   |   | 1 |   | 1 |   |   |   |   |   |   |   |   |   | 4        | 1.5 |     |
| Pigment   |             |   | 1 |   | 1 |   |   |   | 2 |   | 1 |   |   |   | 1 |   |   |   | 1 |   | 1 |   | 1 |   |   |   | 18       | 1.1 |     |
| Polyarteritis Nodosa                                    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   | 1        | 3.0 |     |
| Vacuolization Cytoplasmic                               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1        | 4.0 |     |
| Bile Duct, Cyst   |             |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2        |     |     |
| Bile Duct, Hyperplasia                                  |             |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   | 1 |   |   |   |   |   |   |   | 4        | 1.0 |     |
| Centrilobular, Degeneration                             |             |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1        | 2.0 |     |
| Hepatocyte, Cytoplasmic Alteration                      | 1           |   |   |   |   |   |   |   | 1 |   | 1 |   |   |   | 1 |   | 1 |   | 1 |   | 1 |   | 1 |   | 1 |   | 15       | 1.1 |     |
| Hepatocyte, Fatty Change, Diffuse                       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1        | 2.0 |     |
| Hepatocyte, Hypertrophy                                 |             |   |   |   |   |   |   |   | 2 |   |   |   |   |   | 1 |   |   |   |   |   | 1 |   |   |   |   |   | 6        | 1.2 |     |
| Oval Cell, Hyperplasia                                  |             |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1        | 3.0 |     |
| Serosa, Fibrosis  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   | 1        | 2.0 |     |
| Mesentery   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | +        | 1   |     |
| Polyarteritis Nodosa                                    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3        | 3.0 |     |
| Pancreas  | +           |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | 50       |     |     |
| Polyarteritis Nodosa                                    |             |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4        | 2   | 3.0 |
| Acinus, Hyperplasia                                     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1        | 1.0 |     |
| Salivary Glands   | +           |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | 50       |     |     |
| Stomach, Forestomach                                    | +           |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | 50       |     |     |
| Inflammation, Acute                                     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1        | 1.0 |     |
| Inflammation, Chronic Active                            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   | 2        | 1.5 |     |
| Polyarteritis Nodosa                                    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   | 1        | 1.0 |     |
| Ulcer   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2        | 1.5 |     |
| Epithelium, Hyperplasia                                 |             |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   | 3        | 1.3 |     |
| Stomach, Glandular                                      | +           |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | + |   | 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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Experiment Number: 10188 - 01

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Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

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Lab: BAT

|  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------|
| <b>HARLAN SPRAGUE DAWLEY RATS<br/>FEMALE<br/>1000 ppm Female</b> | DAY ON TEST | 0741  | 0542  | 0741  | 0545  | 0762  | 0771  | 0443  | 0748  | 0179  | 0223  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  | 0661  | 0662  | 0736  | 0736  | 0736  | 0736  | 0736  | <b>* TOTALS</b> |
|  | ANIMAL ID   | 00376 | 00377 | 00378 | 00379 | 00380 | 00381 | 00382 | 00383 | 00384 | 00385 | 00386 | 00387 | 00388 | 00389 | 00390 | 00391 | 00392 | 00393 | 00394 | 00395 | 00396 | 00397 | 00398 |                 |

|                 |   |   |              |
|-----------------|---|---|--------------|
| Mineral         | 1 | 2 | <b>2 1.5</b> |
| Artery, Mineral | 1 |   | <b>1 1.0</b> |

**CARDIOVASCULAR SYSTEM**

|                      |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |           |               |
|----------------------|---|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|-----------|---------------|
| Blood Vessel         | + |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  | <b>50</b> |               |
| Heart                | + |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  | <b>50</b> |               |
| Cardiomyopathy       | 1 |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |           | <b>16 1.0</b> |
| Polyarteritis Nodosa |   |  |  |  |  |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |           | <b>1 2.0</b>  |

**ENDOCRINE SYSTEM**

|                      |   |  |  |   |  |   |   |   |  |  |   |  |  |   |   |  |  |  |  |  |  |  |   |   |           |               |
|----------------------|---|--|--|---|--|---|---|---|--|--|---|--|--|---|---|--|--|--|--|--|--|--|---|---|-----------|---------------|
| Adrenal Cortex       | + |  |  |   |  |   |   |   |  |  |   |  |  |   |   |  |  |  |  |  |  |  |   |   | <b>50</b> |               |
| Angiectasis          |   |  |  |   |  |   |   |   |  |  |   |  |  |   |   |  |  |  |  |  |  |  |   |   |           | <b>3 1.7</b>  |
| Degeneration, Cystic |   |  |  |   |  |   | 1 | 2 |  |  |   |  |  |   |   |  |  |  |  |  |  |  | 1 | 2 | 1         | <b>10 1.3</b> |
| Hemorrhage           |   |  |  |   |  |   |   |   |  |  |   |  |  |   |   |  |  |  |  |  |  |  |   |   |           | <b>1 2.0</b>  |
| Hyperplasia          |   |  |  |   |  | 2 |   |   |  |  |   |  |  |   |   |  |  |  |  |  |  |  |   |   |           | <b>1 2.0</b>  |
| Necrosis             |   |  |  |   |  |   |   |   |  |  |   |  |  |   |   |  |  |  |  |  |  |  |   |   |           | <b>1 4.0</b>  |
| Thrombus             |   |  |  | 1 |  |   |   |   |  |  | 2 |  |  |   |   |  |  |  |  |  |  |  | 1 |   |           | <b>5 1.2</b>  |
| Adrenal Medulla      | + |  |  |   |  |   |   |   |  |  |   |  |  |   |   |  |  |  |  |  |  |  |   |   | <b>50</b> |               |
| Hyperplasia          |   |  |  |   |  |   |   |   |  |  |   |  |  | 1 |   |  |  |  |  |  |  |  |   |   |           | <b>2 1.0</b>  |
| Islets, Pancreatic   | + |  |  |   |  |   |   |   |  |  |   |  |  |   |   |  |  |  |  |  |  |  |   |   | <b>50</b> |               |
| Parathyroid Gland    | + |  |  |   |  |   |   |   |  |  |   |  |  |   |   |  |  |  |  |  |  |  |   |   | <b>47</b> |               |
| Fibrosis             |   |  |  |   |  |   |   |   |  |  |   |  |  |   |   |  |  |  |  |  |  |  |   |   |           | <b>1 2.0</b>  |
| Hyperplasia          |   |  |  |   |  |   |   |   |  |  |   |  |  |   | 3 |  |  |  |  |  |  |  |   |   |           | <b>1 3.0</b>  |
| Pituitary Gland      | + |  |  |   |  |   |   |   |  |  |   |  |  |   |   |  |  |  |  |  |  |  |   |   | <b>50</b> |               |

\* .. 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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|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---|---|---|
|   | ANIMAL ID   |   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |          | 0 | 0 | 0 | 0 |
|   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0 | 0 | 0 | 0 |
|   | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3        | 3 | 3 | 3 | 3 |
|   | 7           | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7        | 7 | 7 | 7 | 7 |
|   | 6           | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6        | 7 | 8 | 9 | 0 |

|                                   |  |  |   |  |  |  |  |  |  |  |  |  |  |   |   |   |   |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |   |   |   |    |     |     |
|-----------------------------------|--|--|---|--|--|--|--|--|--|--|--|--|--|---|---|---|---|--|---|---|---|---|--|--|--|--|--|--|--|--|--|--|---|---|---|----|-----|-----|
| Cyst                              |  |  |   |  |  |  |  |  |  |  |  |  |  |   |   |   |   |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |   |   |   | 1  |     |     |
| Pars Distalis, Hyperplasia        |  |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 | 2 | 2 | 2 |  | 2 | 3 | 2 | 1 |  |  |  |  |  |  |  |  |  |  | 1 | 2 |   | 21 | 1.9 |     |
| Thyroid Gland                     |  |  |   |  |  |  |  |  |  |  |  |  |  |   |   |   |   |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |   |   |   |    | 50  |     |
| Infiltration Cellular, Lymphocyte |  |  |   |  |  |  |  |  |  |  |  |  |  |   |   |   |   |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |   |   |   |    | 1   | 1.0 |
| C-cell, Hyperplasia               |  |  |   |  |  |  |  |  |  |  |  |  |  |   | 1 |   |   |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |   |   | 2 |    | 5   | 2.4 |
| Follicular Cell, Degeneration     |  |  |   |  |  |  |  |  |  |  |  |  |  |   |   |   |   |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |   |   |   |    | 1   | 1.0 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

|                              |  |  |  |   |  |  |  |  |   |   |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |    |     |     |     |     |
|------------------------------|--|--|--|---|--|--|--|--|---|---|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|----|-----|-----|-----|-----|
| Clitoral Gland               |  |  |  | M |  |  |  |  | M |   |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  | 47 |     |     |     |     |
| Duct, Hyperplasia            |  |  |  |   |  |  |  |  |   |   |  |  |  | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |    | 1   | 2.0 |     |     |
| Ovary                        |  |  |  |   |  |  |  |  |   |   |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |    | 50  |     |     |     |
| Cyst                         |  |  |  |   |  |  |  |  |   |   |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |    | 1   |     |     |     |
| Bilateral, Atrophy           |  |  |  |   |  |  |  |  |   |   |  |  |  |   | 1 | 2 | 1 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |  |  |  |  |  |  | 37 | 2.1 |     |     |     |
| Bursa, Cyst                  |  |  |  |   |  |  |  |  |   |   |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |    | 1   |     |     |     |
| Follicle, Cyst               |  |  |  |   |  |  |  |  |   | X |  |  |  |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |    | 8   |     |     |     |
| Paraovarian Tissue, Cyst     |  |  |  |   |  |  |  |  |   |   |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |    | 1   |     |     |     |
| Uterus                       |  |  |  |   |  |  |  |  |   |   |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |    | 50  |     |     |     |
| Adenomyosis                  |  |  |  |   |  |  |  |  |   |   |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |    | 1   | 2   | 1.0 |     |
| Dilation                     |  |  |  |   |  |  |  |  |   |   |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |    | 4   | 2   | 4.0 |     |
| Inflammation, Chronic        |  |  |  |   |  |  |  |  |   |   |  |  |  |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |    | 2   | 3   | 1.3 |     |
| Inflammation, Chronic Active |  |  |  |   |  |  |  |  |   |   |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |    |     | 6   | 2.5 |     |
| Ulcer                        |  |  |  |   |  |  |  |  |   |   |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |    |     | 2   | 1   | 2.0 |

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



Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>1000 ppm Female | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | * TOTALS              |                       |                       |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|   | 0<br>7<br>4<br>1      | 0<br>5<br>5<br>2      | 0<br>7<br>4<br>1      | 0<br>5<br>4<br>5      | 0<br>7<br>4<br>1      | 0<br>6<br>5<br>2      | 0<br>7<br>4<br>1      | 0<br>7<br>3<br>9      | 0<br>4<br>9<br>8      | 0<br>7<br>3<br>9      | 0<br>1<br>9<br>6      | 0<br>2<br>7<br>3      | 0<br>7<br>3<br>9      | 0<br>7<br>3<br>9      | 0<br>7<br>4<br>0      | 0<br>7<br>4<br>0      | 0<br>6<br>4<br>0      | 0<br>6<br>1<br>7      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      |                       | 0<br>7<br>3<br>6      |                       |
| ANIMAL ID   | 0<br>0<br>3<br>7<br>6 | 0<br>0<br>3<br>7<br>8 | 0<br>0<br>3<br>7<br>8 | 0<br>0<br>3<br>8<br>0 | 0<br>0<br>3<br>8<br>1 | 0<br>0<br>3<br>8<br>2 | 0<br>0<br>3<br>8<br>3 | 0<br>0<br>3<br>8<br>4 | 0<br>0<br>3<br>8<br>5 | 0<br>0<br>3<br>8<br>6 | 0<br>0<br>3<br>8<br>7 | 0<br>0<br>3<br>8<br>8 | 0<br>0<br>3<br>8<br>9 | 0<br>0<br>3<br>9<br>0 | 0<br>0<br>3<br>9<br>1 | 0<br>0<br>3<br>9<br>2 | 0<br>0<br>3<br>9<br>3 | 0<br>0<br>3<br>9<br>4 | 0<br>0<br>3<br>9<br>5 | 0<br>0<br>3<br>9<br>6 | 0<br>0<br>3<br>9<br>7 | 0<br>0<br>3<br>9<br>8 | 0<br>0<br>3<br>9<br>9 |
| Thymus  | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50                    |
| Atrophy   | 2                     | 3                     | 2                     | 4                     | 3                     | 3                     | 2                     | 2                     | 4                     | 2                     |                       | 1                     | 3                     | 2                     | 1                     | 3                     | 3                     | 2                     | 3                     | 3                     | 2                     | 3                     | 47 2.4                |
| Cyst  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       |                       | 1                     |
| Hyperplasia, Lymphocyte                                 |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1 1.0                 |
| <b>INTEGUMENTARY SYSTEM</b>                             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Mammary Gland   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50                    |
| Galactoceles  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 3 2.7                 |
| Hyperplasia   |                       | 3                     |                       |                       |                       | 3                     |                       |                       |                       |                       |                       | 2                     | 2                     |                       | 3                     |                       |                       |                       |                       |                       |                       | 2                     | 13 2.4                |
| Skin  | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50                    |
| Inflammation, Acute                                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1 2.0                 |
| <b>MUSCULOSKELETAL SYSTEM</b>                           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Bone  | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50                    |
| Osteopetrosis   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1 2.0                 |
| Cartilage, Joint, Degeneration                          |                       | 1                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1                     |                       |                       |                       |                       |                       |                       |                       |                       | 3 1.0                 |
| <b>NERVOUS SYSTEM</b>                                   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Brain   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50                    |
| Hemorrhage  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2                     |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2 2.0                 |
| Necrosis  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 3                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1 3.0                 |
| <b>RESPIRATORY SYSTEM</b>                               |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Lung  | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50                    |
| Infiltration Cellular, Histiocyte                       | 3                     | 2                     | 3                     | 1                     | 4                     | 3                     |                       | 2                     | 1                     | 3                     | 1                     |                       |                       | 1                     | 2                     | 4                     | 1                     | 3                     | 3                     | 2                     | 2                     | 2                     | 46 2.4                |

\* .. 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: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>1000 ppm Female | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | * TOTALS |    |  |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------|----|--|
|   | 0<br>7<br>4<br>1      | 0<br>5<br>5<br>2      | 0<br>7<br>4<br>1      | 0<br>5<br>4<br>5      | 0<br>7<br>4<br>1      | 0<br>6<br>5<br>2      | 0<br>7<br>4<br>1      | 0<br>7<br>3<br>9      | 0<br>4<br>9<br>8      | 0<br>7<br>3<br>9      | 0<br>1<br>9<br>6      | 0<br>2<br>7<br>3      | 0<br>7<br>3<br>9      | 0<br>7<br>3<br>9      | 0<br>7<br>4<br>0      | 0<br>7<br>4<br>0      | 0<br>7<br>4<br>0      | 0<br>6<br>1<br>7      | 0<br>6<br>5<br>2      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      |                       |          |    |  |
| ANIMAL ID   | 0<br>0<br>3<br>7<br>6 | 0<br>0<br>3<br>7<br>7 | 0<br>0<br>3<br>7<br>8 | 0<br>0<br>3<br>7<br>9 | 0<br>0<br>3<br>8<br>0 | 0<br>0<br>3<br>8<br>1 | 0<br>0<br>3<br>8<br>2 | 0<br>0<br>3<br>8<br>3 | 0<br>0<br>3<br>8<br>4 | 0<br>0<br>3<br>8<br>5 | 0<br>0<br>3<br>8<br>6 | 0<br>0<br>3<br>8<br>7 | 0<br>0<br>3<br>8<br>8 | 0<br>0<br>3<br>8<br>9 | 0<br>0<br>3<br>9<br>0 | 0<br>0<br>3<br>9<br>1 | 0<br>0<br>3<br>9<br>2 | 0<br>0<br>3<br>9<br>3 | 0<br>0<br>3<br>9<br>4 | 0<br>0<br>3<br>9<br>5 | 0<br>0<br>3<br>9<br>6 | 0<br>0<br>3<br>9<br>7 | 0<br>0<br>3<br>9<br>8 | 0<br>0<br>3<br>9<br>9 |          |    |  |
| Inflammation, Granulomatous                             | 1                     |                       |                       |                       | 1                     |                       | 1                     |                       |                       | 1                     |                       |                       |                       |                       |                       | 2                     |                       | 1                     | 1                     |                       |                       |                       |                       | 1                     | 18       |    |  |
| Inflammation, Chronic Active                            |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2        |    |  |
| Alveolar Epithelium, Hyperplasia                        |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1                     |                       | 1                     |                       |                       |                       | 2        |    |  |
| Nose  | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50       |    |  |
| Inflammation, Chronic Active                            |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1                     |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2        |    |  |
| Olfactory Epithelium, Accumulation, Hyaline Droplet     | 3                     | 3                     | 2                     | 3                     | 3                     | 2                     | 2                     | 2                     | 4                     | 3                     | 1                     | 2                     | 4                     | 4                     | 3                     | 3                     | 2                     | 3                     | 3                     | 3                     | 2                     | 3                     | 2                     | 3                     | 50       |    |  |
| Trachea   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50       |    |  |
| <b>SPECIAL SENSES SYSTEM</b>                            |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |          |    |  |
| Eye   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50       |    |  |
| Retinal Detachment                                      |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1        |    |  |
| Choroid, Hyperplasia                                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2        |    |  |
| Retina, Degeneration                                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1                     |                       | 1        |    |  |
| Retina, Dysplasia                                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1        |    |  |
| Harderian Gland   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50       |    |  |
| <b>URINARY SYSTEM</b>                                   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |          |    |  |
| Kidney  | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50       |    |  |
| Cyst  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1        |    |  |
| Nephropathy, Chronic Progressive                        | 1                     | 2                     | 1                     |                       | 2                     | 1                     | 1                     | 2                     | 1                     | 3                     | 1                     | 1                     | 2                     | 2                     | 1                     | 1                     | 1                     | 2                     |                       | 1                     |                       | 2                     | 1                     | 1                     | 2        | 43 |  |
| Polyarteritis Nodosa                                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2                     |          | 1  |  |
| Renal Tubule, Accumulation, Hyaline Droplet             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1        |    |  |
| Urinary Bladder   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 49       |    |  |

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

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Lab: BAT

|                                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |  |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------|--|
|                                   | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |  |
| <b>HARLAN SPRAGUE DAWLEY RATS</b> | 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 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 |                |  |
|                                   | 3           | 3 | 3 | 3 | 1 | 3 | 3 | 1 | 4 | 4 | 4 | 4 | 3 | 6 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 7 | 3 | 3 | 4              |  |
| <b>FEMALE</b>                     | 9           | 6 | 6 | 6 | 8 | 6 | 6 | 2 | 1 | 1 | 1 | 1 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 9 | 7 | 9 | 9 | 0 |                |  |
| <b>3000 ppm Female</b>            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |  |
|                                   | 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 | <b>females</b> |  |
|                                   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                |  |
|                                   | 4           | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |                |  |
|                                   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 |                |  |

ALIMENTARY SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Esophagus                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Large, Cecum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Large, Colon<br>Parasite Metazoan  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Large, Rectum<br>Parasite Metazoan | + | + | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | X | + | X | + | + | X |  |
| Intestine Small, Duodenum                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Small, Ileum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Small, Jejunum                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Angiectasis                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Basophilic Focus                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Clear Cell Focus                             |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   | X | X |   | X | X |  |
| Eosinophilic Focus                           |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   | X |  |
| Extramedullary Hematopoiesis                 |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Hepatodiaphragmatic Nodule                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |  |
| Inflammation, Chronic Active                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Necrosis                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Pigment                                      |   | 1 | 1 | 1 |   | 1 | 1 |   |   |   |   | 1 |   | 1 |   |   | 1 |   | 2 | 1 | 1 | 1 |   |  |
| Bile Duct, Cyst                              |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Bile Duct, Hyperplasia                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   | 1 |   | 1 |   |   | 1 |  |

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



Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>3000 ppm Female | DAY ON TEST |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | females<br>(cont...) |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------------|
|   | 0639        | 0736   | 0773   | 0776   | 0778   | 0777   | 0777   | 0777   | 0777   | 0777   | 0777   | 0777   | 0777   | 0777   | 0777   | 0777   | 0777   | 0777   | 0777   | 0777   | 0777   | 0777   | 0777   | 0777   |                      |
| ANIMAL ID   | 004001      | 004002 | 004003 | 004004 | 004005 | 004006 | 004007 | 004008 | 004009 | 004010 | 004011 | 004012 | 004013 | 004014 | 004015 | 004016 | 004017 | 004018 | 004019 | 004020 | 004021 | 004022 | 004023 | 004024 | 004025               |

|                                    |   |   |   |  |   |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |  |   |   |   |
|------------------------------------|---|---|---|--|---|---|---|---|---|---|---|--|--|---|---|---|---|---|---|---|--|---|---|---|
| Hepatocyte, Cytoplasmic Alteration | 1 | 1 | 2 |  | 2 | 2 | 1 |   | 1 |   | 1 |  |  | 1 | 1 | 2 | 1 | 1 | 2 | 1 |  | 1 | 1 | 1 |
| Hepatocyte, Hypertrophy            |   |   |   |  | 1 | 1 |   | 1 | 1 | 1 |   |  |  |   | 1 | 1 |   |   |   |   |  |   | 1 | 1 |

Mesentery +

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pancreas             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Polyarteritis Nodosa |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Acinus, Atrophy      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Acinus, Hyperplasia  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |

Salivary Glands + M + + +

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Stomach, Forestomach         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Chronic Active |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   | 2 | 2 |   |   |   |   |   |   |   |   |
| Ulcer                        |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |
| Epithelium, Hyperplasia      |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 | 2 |   |   |   |   |   |   |   |   |

Stomach, Glandular Mineral +

CARDIOVASCULAR SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adventitia, Aorta, Inflammation, Chronic |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Aorta, Mineral                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy |   |   | 1 | 1 |   | 1 | 1 |   |   | 1 |   |   |   |   | 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  
1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked

Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

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First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>3000 ppm Female | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID | females<br>(cont...) |      |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|
|   | 0639        | 0733 | 0733 | 0733 | 0631 | 0733 | 0733 | 0712 | 0714 | 0714 | 0714 | 0714 | 0639 | 0733 | 0733 | 0734 | 0734 | 0734 | 0734 | 0639 | 0637 | 0733 | 0733 | 0734 |           |                      | 0734 |
|   | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0         | 0040                 |      |
|   | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0         | 0041                 |      |
|   | 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         | 0042                 |      |
|   | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0         | 0043                 |      |
|   | 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         | 0044                 |      |

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Adrenal Cortex                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |  |
| Angiectasis                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Degeneration, Cystic              |   |   | 2 | 1 |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |  |
| Hyperplasia                       |   | 1 |   |   |   |   |   |   |   | 1 |   |   |   | 2 |   |   |   |   |   |   |   |   | 2 |   |   |   |  |
| Hypertrophy                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Necrosis                          |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Thrombus                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |  |
| Adrenal Medulla                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |  |
| Hyperplasia                       |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Infiltration Cellular, Lymphocyte |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Islets, Pancreatic                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| Parathyroid Gland                 | + | + | + | + | + | + | + | M | + | + | + | M | + | + | + | + | + | + | + | + | + | + | M | + | + | + |  |
| Pituitary Gland                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| Pars Distalis, Hyperplasia        | 1 | 2 | 2 |   | 2 | 1 |   | 3 | 1 | 1 |   | 1 |   |   |   |   |   |   |   | 1 |   |   |   | 2 | 2 |   |  |
| Thyroid Gland                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + |  |
| Cyst                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| C-cell, Hyperplasia               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |  |

GENERAL BODY SYSTEM

|            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Peritoneum |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

GENITAL SYSTEM

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
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Experiment Number: 10188 - 01

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Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| DAY ON TEST                       | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ANIMAL ID                                       | females (cont...)                               |
|-----------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|
|                                   | 6 7 7 7 6 7 7 7 7 7 7 7 6 7 7 7 7 7 7 7 6 7 7 7   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
| HARLAN SPRAGUE DAWLEY RATS FEMALE | 3 3 3 3 1 3 3 1 4 4 4 4 3 6 3 3 4 4 4 4 3 7 3 3 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 | 0 |
|                                   | 9 6 6 6 8 6 6 2 1 1 1 1 9 9 9 9 0 0 0 0 9 7 9 9 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|                                   | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
| 3000 ppm Female                   | 4   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |

Hyperplasia, Lymphocyte

3

Spleen  
Extramedullary Hematopoiesis  
Pigment  
White Pulp, Atrophy  
White Pulp, Hyperplasia

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

Thymus  
Atrophy  
Hyperplasia, Lymphocyte

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

INTEGUMENTARY SYSTEM

Mammary Gland  
Galactoceles  
Hyperplasia

+  
4 4 4 4 2 4 4

Skin  
Inflammation, Chronic Active  
Ulcer

+  
2 3

MUSCULOSKELETAL SYSTEM

Bone  
Osteopetrosis  
Cartilage, Joint, Degeneration

+ +

NERVOUS SYSTEM

Brain

+ +

\* .. 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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Di(2-ethylhexyl) Phthalate

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CAS Number: 117-81-7

First Dose M/F: 02/17/11 / 02/18/11

Species/Strain: RATS/HSD

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 | females<br>(cont...) |
|  | HARLAN SPRAGUE DAWLEY RATS<br>FEMALE | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 |                      |
|  | 3000 ppm Female                      | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 1 | 4 | 4 | 4 | 3 | 6 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 7 | 3 | 3 | 4 | 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 |                      |
|  |                                      | 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 |                      |
|  |                                      | 0 | 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 |                      |

Hemorrhage 2  
 Hydrocephalus  
 Necrosis 1

**RESPIRATORY SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infiltration Cellular, Histiocyte                   | 3 | 2 | 2 | 3 | 3 | 4 | 4 | 2 | 1 | 4 | 2 | 3 | 3 | 2 | 2 | 2 |   | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 4 |   |
| Inflammation, Granulomatous                         |   |   |   |   |   |   |   | 2 |   |   |   | 2 |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |
| Inflammation, Chronic Active                        |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   | 1 |
| Alveolar Epithelium, Hyperplasia                    |   |   |   |   | 2 |   | 2 |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nose  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Foreign Body  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Acute                                 |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Chronic Active                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 2 | 4 | 3 | 2 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Trachea   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

**SPECIAL SENSES SYSTEM**

|                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye                                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Choroid, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cornea, Inflammation, Chronic Active  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Harderian Gland                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

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 Route: DOSED FEED  
 Species/Strain: RATS/HSD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Di(2-ethylhexyl) Phthalate  
 CAS Number: 117-81-7

Date Report Requested: 12/17/2019  
 Time Report Requested: 10:43:08  
 First Dose M/F: 02/17/11 / 02/18/11  
 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 | females<br>(cont...) |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
| <b>HARLAN SPRAGUE DAWLEY RATS</b> | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 |   |                      |
| <b>FEMALE</b>                     | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 1 | 4 | 4 | 4 | 4 | 3 | 6 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 7 | 3 | 3 | 4 | 4 |   |                      |
| <b>3000 ppm Female</b>            | 9 | 6 | 6 | 6 | 8 | 6 | 6 | 2 | 1 | 1 | 1 | 1 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 9 | 7 | 9 | 9 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                      |
|                                   | 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 | 4 |                      |
|                                   | 0 | 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 |                      |
|                                   | 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 |                      |

**URINARY SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Kidney                                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| Atrophy                                     | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |  |
| Hydronephrosis                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Inflammation, Chronic Active                | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Nephropathy, Chronic Progressive            |   | 2 | 1 | 1 |   | 2 | 3 |   | 1 | 1 | 1 |   | 1 |   | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 |   |   |   |  |
| Pelvis, Dilation                            | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |  |
| Renal Tubule, Accumulation, Hyaline Droplet |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Ureter                                      | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Dilation                                    | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Urinary Bladder                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Inflammation, Chronic Active                | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

\* .. 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:  
 1) Minimal 3) Moderate  
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| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>3000 ppm 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 | 0 | * TOTALS |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
|   | ANIMAL ID   | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 6 | 5 | 7 | 4 | 7 | 6 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 |          |
|   |             | 4 | 4 | 4 | 3 | 3 | 2 | 3 | 2 | 4 | 5 | 0 | 2 | 0 | 1 | 4 | 4 | 9 | 4 | 4 | 4 | 4 | 4 | 4 | 2 |          |
|   |             | 0 | 0 | 0 | 9 | 9 | 2 | 9 | 7 | 0 | 1 | 0 | 3 | 8 | 0 | 1 | 1 | 7 | 1 | 1 | 1 | 3 | 1 | 1 | 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 |          |
|   |             | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |          |
|   |             | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |          |
|   |             | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 4 | 5 | 6 | 0 |          |

ALIMENTARY SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Esophagus                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50  |
| Intestine Large, Cecum                       | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 49  |
| Intestine Large, Colon<br>Parasite Metazoan  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50  |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2   |
| Intestine Large, Rectum<br>Parasite Metazoan | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50  |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 9   |
| Intestine Small, Duodenum                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50  |
| Intestine Small, Ileum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50  |
| Intestine Small, Jejunum                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50  |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50  |
| Angiectasis                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1   |
| Basophilic Focus                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1   |
| Clear Cell Focus                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 7   |
| Eosinophilic Focus                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 3   |
| Extramedullary Hematopoiesis                 | 1 |   |   |   |   | 1 |   |   |   |   |   |   | 1 | 1 |   |   |   |   |   |   |   |   |   |   |    | 5   |
| Hepatodiaphragmatic Nodule                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1   |
| Inflammation, Chronic Active                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2   |
| Necrosis                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2   |
| Pigment                                      | 1 |   | 1 | 1 | 1 | 1 | 1 | 3 | 2 | 1 | 1 |   | 2 |   | 2 |   | 2 | 1 | 2 | 1 | 1 | 1 |   |   | 30 |     |
| Bile Duct, Cyst                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1   |
| Bile Duct, Hyperplasia                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 7   |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1.0 |

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>3000 ppm Female | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |    |     |     |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|----|-----|-----|
|   | 0740        | 0744 | 0740 | 0743 | 0743 | 0752 | 0773 | 0777 | 0777 | 0777 | 0666 | 0665 | 0774 | 0474 | 0776 | 0666 | 0777 | 0777 | 0777 | 0666 | 0777 | 0777 | 0777 | 0555 |      |          |    |     |     |
| ANIMAL ID   | 0042        | 0047 | 0048 | 0049 | 0050 | 0051 | 0052 | 0053 | 0054 | 0055 | 0056 | 0057 | 0058 | 0059 | 0060 | 0061 | 0062 | 0063 | 0064 | 0065 | 0066 | 0067 | 0068 | 0069 | 0070 |          |    |     |     |
| Hepatocyte, Cytoplasmic Alteration                      | 2           | 2    | 1    | 1    | 1    |      | 1    | 1    | 1    |      | 1    | 1    | 1    |      | 1    | 1    | 1    | 2    | 1    | 2    | 1    |      | 1    | 3    | 38   | 1.3      |    |     |     |
| Hepatocyte, Hypertrophy                                 |             |      |      |      |      |      |      |      |      | 1    |      |      | 1    | 1    |      |      |      |      | 1    |      |      |      |      | 1    | 14   | 1.0      |    |     |     |
| Mesentery   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2        |    |     |     |
| Pancreas  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 50       |    |     |     |
| Polyarteritis Nodosa                                    |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 1  | 1.0 |     |
| Acinus, Atrophy   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |      |          | 1  | 1.0 |     |
| Acinus, Hyperplasia                                     |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 1  | 1.0 |     |
| Salivary Glands   | +           | +    | +    | +    | +    | +    | +    | M    | +    | +    | +    | +    | M    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 47       |    |     |     |
| Stomach, Forestomach                                    | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 50       |    |     |     |
| Inflammation, Chronic Active                            |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |          | 4  | 1.5 |     |
| Ulcer   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 2  | 1.5 |     |
| Epithelium, Hyperplasia                                 |             |      |      |      |      |      |      |      | 1    |      |      | 3    |      |      | 2    |      |      |      |      |      |      |      |      | 2    |      |          | 6  | 2.2 |     |
| Stomach, Glandular                                      | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 50       |    |     |     |
| Mineral   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2    |          | 1  | 2.0 |     |
| <b>CARDIOVASCULAR SYSTEM</b>                            |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |    |     |     |
| Blood Vessel  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | 50 |     |     |
| Adventitia, Aorta, Inflammation, Chronic                |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2    |      |      |      |      |      |      |      |          |    | 1   | 2.0 |
| Aorta, Mineral  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |    | 1   | 2.0 |
| Heart   | +           | +    | +    | +    | +    | +    | +    | M    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 49       |    |     |     |
| Cardiomyopathy  |             |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1        |    | 13  | 1.0 |

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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|-------------|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|----------|
|             | 0740                              | 0740  | 0744  | 0743  | 0739  | 0752  | 0773  | 0772  | 0774  | 0765  | 0766  | 0755  | 0774  | 0741  | 0774  | 0766  | 0766  | 0774  | 0777  | 0777  | 0766  | 0777  | 0777  | 0755  |           |          |
| ANIMAL ID   | 00426                             | 00427 | 00428 | 00429 | 00430 | 00431 | 00432 | 00433 | 00434 | 00435 | 00436 | 00437 | 00438 | 00439 | 00440 | 00441 | 00442 | 00443 | 00444 | 00445 | 00446 | 00447 | 00448 | 00449 |           |          |
|             | 0                                 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | <b>50</b> |          |

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |               |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|---------------|
| Adrenal Cortex       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |               |
| Angiectasis          |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1 2.0</b>  |
| Degeneration, Cystic | 1 |   | 2 | 1 |   | 1 |   |   |   | 1 |   |   |   | 1 |   |   |   |   |   |   |   |   | 1 |   |           | <b>11 1.2</b> |
| Hyperplasia          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>4 1.5</b>  |
| Hypertrophy          |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |           | <b>1 2.0</b>  |
| Necrosis             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1 1.0</b>  |
| Thrombus             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |           | <b>2 1.5</b>  |

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |              |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------|
| Adrenal Medulla                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |              |
| Hyperplasia                       |   | 2 | 1 |   |   |   | 1 |   |   |   | 1 |   |   |   |   |   | 1 |   | 1 | 1 |   | 2 |   |   |           | <b>9 1.3</b> |
| Infiltration Cellular, Lymphocyte |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1 2.0</b> |

|                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |  |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |  |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|

|                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |  |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|
| Parathyroid Gland | + | + | + | + | + | M | M | M | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | M | M | <b>41</b> |  |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |               |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|---------------|
| Pituitary Gland            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |               |
| Pars Distalis, Hyperplasia |   |   |   |   | 1 |   | 3 |   |   |   |   |   |   | 1 |   |   | 3 |   | 2 | 3 |   |   |   | 1 |           | <b>19 1.7</b> |

|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |              |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------|
| Thyroid Gland       | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>48</b> |              |
| Cyst                |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1</b>     |
| C-cell, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   | 4 |   | 4 |           | <b>4 3.5</b> |

**GENERAL BODY SYSTEM**

|            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |  |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|--|
| Peritoneum |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | <b>1</b> |  |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|--|

**GENITAL SYSTEM**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |  |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>49</b> |  |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|

\* .. 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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 1) Minimal 3) Moderate  
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Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| DAY ON TEST | HARLAN SPRAGUE DAWLEY RATS FEMALE |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |      |      |      |  |
|-------------|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|--|
|             | 3000 ppm Female                   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |  |
| ANIMAL ID   | 0740                              | 0740 | 0740 | 0743 | 0743 | 0742 | 0743 | 0747 | 0747 | 0740 | 0741 | 0746 | 0746 | 0747 | 0744 | 0747 | 0746 | 0746 | 0747 | 0747 | 0746     | 0747 | 0747 | 0745 |  |

|                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Ovary                    | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | 49     |
| Cyst                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   | X |   | 7      |
| Bilateral, Atrophy       |   |   | 2 | 2 |   | 2 | 2 |   | 2 | 2 |   | 2 | 2 | 3 |   | 2 |   | 2 | 2 | 2 |   |   |   | 2 | 34 2.0 |
| Bursa, Cyst              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   | 3      |
| Follicle, Cyst           | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   | 6      |
| Paraovarian Tissue, Cyst |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1      |

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Uterus                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Adenomyosis                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 1.5  |
| Dilation                          |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 4.0  |
| Hemorrhage                        |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0  |
| Inflammation, Chronic Active      |   |   |   |   | 2 | 2 |   |   |   |   |   |   |   |   |   | 2 |   | 3 |   | 1 |   |   |   |   | 8 2.0  |
| Cervix, Hypertrophy               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0  |
| Endometrium, Atypical Hyperplasia |   |   |   |   |   | 1 |   |   |   | 1 |   |   |   |   |   |   |   | 1 |   | 1 |   |   |   |   | 6 1.0  |
| Endometrium, Hyperplasia, Cystic  |   |   | 1 |   |   | 2 |   | 3 |   | 2 | 1 |   |   |   | 2 |   | 4 | 2 | 1 | 1 | 1 | 1 |   | 1 | 27 1.6 |
| Endometrium, Metaplasia, Squamous |   |   | 1 | 3 |   | 2 | 1 |   |   | 2 |   |   |   |   |   |   |   | 1 | 3 | 2 |   |   |   |   | 25 1.9 |

|        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |
|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Vagina |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|

**HEMATOPOIETIC SYSTEM**

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Bone Marrow            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Hypercellularity       | 3 | 2 | 1 |   | 2 | 3 | 2 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 2 |   | 4 | 1 | 2 |   | 43 2.7 |
| Lymph Node             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2      |
| Lumbar, Pigment        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |
| Lymph Node, Mandibular | + | + | + | + | + | + | M | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | 47     |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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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Lab: BAT

| DAY ON TEST | HARLAN SPRAGUE DAWLEY RATS FEMALE |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |      |
|-------------|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|------|
|             | 0740                              | 0744  | 0774  | 0773  | 0773  | 0752  | 0773  | 0772  | 0774  | 0765  | 0766  | 0755  | 0774  | 0741  | 0774  | 0766  | 0766  | 0777  | 0777  | 0766  |          | 0777  | 0777 |
| ANIMAL ID   | 00426                             | 00442 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444    | 00444 | 47   |

Hyperplasia, Lymphocyte

1 3.0

Spleen  
 Extramedullary Hematopoiesis  
 Pigment  
 White Pulp, Atrophy  
 White Pulp, Hyperplasia

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |        |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |        |
| 3 | 2 | 2 | 2 | 2 | 3 | 2 |   | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 3  | 43 2.2 |
| 1 | 2 | 2 | 2 | 2 |   | 1 | 3 | 1 |   | 1 |   |   | 1 | 1 | 1 |   |   |   | 2 | 2 |   | 3 | 2  | 40 1.8 |
|   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   | 1 |   |   |   |   | 3 |   |   |    | 6 3.0  |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 2.0  |

Thymus  
 Atrophy  
 Hyperplasia, Lymphocyte

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |        |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|--------|
| + | + | + | + | + | + | M | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | 47 |       |        |
| 2 | 2 | 2 | 3 |   | 2 | 2 |   | 2 | 3 | 1 |   | 2 | 4 | 2 | 3 | 4 | 2 | 2 | 3 | 4 | 4 | 3 | 3  | 2     | 45 2.4 |
|   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 3.0 |        |

INTEGUMENTARY SYSTEM

Mammary Gland  
 Galactocele  
 Hyperplasia

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |        |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |        |
|   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 3 2.7  |
|   |   | 2 |   |   |   | 3 |   |   | 2 |   | 3 |   |   |   |   |   |   |   |   | 1 | 4 | 2 | 2  | 15 2.9 |

Skin  
 Inflammation, Chronic Active  
 Ulcer

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 2.0 |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 3.0 |

MUSCULOSKELETAL SYSTEM

Bone  
 Osteopetrosis  
 Cartilage, Joint, Degeneration

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 1.0 |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |    | 1 1.0 |

NERVOUS SYSTEM

Brain

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

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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CAS Number: 117-81-7

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Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| DAY ON TEST | HARLAN SPRAGUE DAWLEY RATS FEMALE<br>3000 ppm Female |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |
|-------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
|             | ANIMAL ID  | 00426 | 00077 | 00077 | 00077 | 00077 | 00057 | 00077 | 00077 | 00077 | 00066 | 00066 | 00055 | 00077 | 00044 | 00077 | 00066 | 00066 | 00077 | 00077 | 00066 | 00077 | 00077 | 00057 |          |
|             | 0  | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |          |
|             | 0  | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |          |
|             | 4  | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 2        |
|             | 2  | 2     | 2     | 2     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 5     | 9        |
|             | 6  | 7     | 8     | 9     | 0     | 1     | 2     | 3     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 0     | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 5        |

|               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |   |     |   |     |     |
|---------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|---|-----|---|-----|-----|
| Hemorrhage    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  | 1 | 2.0 |   |     |     |
| Hydrocephalus |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  |   |     | 1 | 2.0 |     |
| Necrosis      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |   |     |   | 1   | 1.0 |

**RESPIRATORY SYSTEM**

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Lung                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |     |
| Infiltration Cellular, Histiocyte | 2 | 3 | 3 | 2 | 4 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 1 | 2 | 4 | 2 | 2 | 2 | 3 | 2 | 2 | 4 | 2 | 2 |    | 49  | 2.6 |
| Inflammation, Granulomatous       |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   | 2 |   |   | 1 | 1 |   | 7  | 1.4 |     |
| Inflammation, Chronic Active      |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   | 1 |    | 6   | 1.2 |
| Alveolar Epithelium, Hyperplasia  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 3   | 2.3 |

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|-----|
| Nose  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |     |     |
| Foreign Body  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |    | 1 |     |     |
| Inflammation, Acute                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 | 1.0 |     |
| Inflammation, Chronic Active                        |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 | 1.0 |     |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 2 | 3 | 2 | 3 | 3 | 2 | 1 |   | 2 |   | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 4 | 2 | 2 | 1  |   | 48  | 2.2 |

|         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |  |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|
| Trachea | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |  |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|

**SPECIAL SENSES SYSTEM**

|                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Eye                                   | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |   |     |
| Choroid, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |    | 1 | 1.0 |
| Cornea, Inflammation, Chronic Active  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |    | 1 | 2.0 |

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Harderian Gland Atrophy | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | 3 | + | + | + | + | + | + | + | 49 |   |     |
|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 | 3.0 |

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>3000 ppm Female | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS  |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
|   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |           |
| ANIMAL ID   | 7           | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 6 | 5 | 7 | 4 | 7 | 6 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 |           |
|   | 4           | 4 | 4 | 3 | 3 | 2 | 3 | 2 | 4 | 5 | 0 | 2 | 0 | 1 | 4 | 4 | 9 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 |           |
|   | 0           | 0 | 0 | 9 | 9 | 2 | 9 | 7 | 0 | 1 | 0 | 3 | 8 | 0 | 1 | 1 | 7 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 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           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |           |
|   | 4           | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |           |
|   | 2           | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 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 |           |
|   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>50</b> |

URINARY SYSTEM

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |              |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|--------------|
| Kidney                                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +             | <b>50</b>    |
| Atrophy                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               | <b>2 2.5</b> |
| Hydronephrosis                              |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               | <b>1 4.0</b> |
| Inflammation, Chronic Active                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               | <b>1 2.0</b> |
| Nephropathy, Chronic Progressive            | 1 | 1 | 1 | 1 | 1 |   | 1 |   |   | 2 | 1 |   | 1 | 1 | 1 |   | 2 | 1 | 2 | 2 | 2 | 1 |   |   | <b>36 1.4</b> |              |
| Pelvis, Dilation                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               | <b>2 3.5</b> |
| Renal Tubule, Accumulation, Hyaline Droplet |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               | <b>1 1.0</b> |
| Ureter                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               | <b>1</b>     |
| Dilation                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               | <b>1 2.0</b> |
| Urinary Bladder                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +             | <b>50</b>    |
| Inflammation, Chronic Active                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               | <b>1 4.0</b> |

\* .. 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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1) Minimal 3) Moderate

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Experiment Number: 10188 - 01

Test Type: CHRONIC

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

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First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| DAY ON TEST<br><b>HARLAN SPRAGUE DAWLEY RATS</b><br><b>FEMALE</b><br>10000 ppm Female |   | ANIMAL ID |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | females<br>(cont...) |      |      |      |      |
|---|---|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|------|------|------|------|
|   |   | 0736      | 0734 | 0748 | 0744 | 0758 | 0774 | 0777 | 0777 | 0777 | 0777 | 0766 | 0777 | 0777 | 0777 | 0777 | 0777 | 0766 | 0766 | 0777 | 0777 |                      | 0777 | 0777 | 0777 | 0777 |
| Hepatocyte, Cytoplasmic Alteration  |   | 4         | 2    | 4    |      | 2    | 3    | 4    | 4    | 4    | 4    | 2    | 4    | 4    | 4    | 4    | 4    | 3    | 2    | 4    | 3    | 2                    | 3    | 3    | 3    |      |
| Hepatocyte, Hypertrophy   |   |           |      | 1    | 1    |      | 2    | 1    | 1    | 1    |      |      |      | 1    | 1    |      | 1    | 1    |      | 1    | 1    |                      | 1    | 1    |      |      |
| Mesentery   |   |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                      |      |      |      |      |
| Pancreas  | M | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | M    | +    | +    | +    | +    | +    | +    | +    | +    | +                    | +    | +    | +    |      |
| Acinus, Atrophy   |   |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                      |      |      | 1    |      |
| Acinus, Hyperplasia   |   |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                      |      |      |      |      |
| Salivary Glands   | M | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                    | +    | +    | +    |      |
| Stomach, Forestomach  | + | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                    | +    | +    | +    |      |
| Inflammation, Acute   |   |           |      |      |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |      |                      |      |      |      |      |
| Inflammation, Chronic   |   |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |      |      |      |                      |      |      |      |      |
| Inflammation, Chronic Active  |   |           |      |      |      |      |      |      |      | 2    |      |      | 1    |      |      |      |      |      | 2    |      |      |                      |      |      |      |      |
| Ulcer   |   |           |      |      |      |      |      |      |      | 3    |      |      |      | 3    |      |      |      |      |      |      |      |                      |      |      |      |      |
| Epithelium, Hyperplasia   |   |           |      |      |      |      |      |      |      | 3    |      |      | 1    | 2    |      |      |      |      |      |      |      |                      |      |      |      |      |
| Stomach, Glandular  | + | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                    | +    | +    | +    |      |
| Mineral   |   |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                      |      |      |      |      |
| Necrosis  |   |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                      |      |      |      |      |

**CARDIOVASCULAR SYSTEM**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Blood Vessel   | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Heart          | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Cardiomyopathy |   |   |   |   |   |   |   |   |   |   |   |   | 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  
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1-4 .. Lesion qualified as:  
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Experiment Number: 10188 - 01

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**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>10000 ppm 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 | females<br>(cont...) |   |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------------------|---|
|  | 7           | 7 | 4 | 7 | 4 | 5 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 |           |                      | 7 |
|  | 3           | 4 | 8 | 4 | 8 | 8 | 4 | 4 | 3 | 3 | 3 | 4 | 1 | 3 | 3 | 3 | 3 | 5 | 1 | 3 | 3 | 3 | 3 | 3 | 4         | 0                    |   |
|  | 6           | 0 | 5 | 0 | 9 | 5 | 1 | 1 | 9 | 9 | 9 | 3 | 6 | 9 | 9 | 9 | 9 | 2 | 3 | 9 | 6 | 6 | 6 | 6 | 1         | 0                    |   |
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0         | 0                    |   |
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0         | 0                    |   |
|  | 4           | 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                    |   |
|  | 5           | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7         | 4                    |   |
|  | 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         | 5                    |   |

|                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Adrenal Cortex                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| Angiectasis                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Degeneration, Cystic Hemorrhage |   |   | 2 |   |   |   |   |   |   |   | 1 |   |   |   | 1 |   |   |   |   |   |   |   |   |   | 1 |  |
| Necrosis                        |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |  |
| Adrenal Medulla                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| Hyperplasia                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |  |
| Islets, Pancreatic              | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| Parathyroid Gland               | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| Pituitary Gland                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| Cyst                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Pars Distalis, Hyperplasia      |   |   |   |   |   |   |   |   |   |   | 1 | 2 | 1 |   |   |   |   | 4 |   | 1 |   |   | 1 | 2 |   |  |
| Thyroid Gland                   | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| C-cell, Hyperplasia             |   |   |   |   |   |   | 4 | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |  |
| Follicular Cell, Hyperplasia    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |  |

**GENERAL BODY SYSTEM**

|                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |
|---------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Peritoneum          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + |
| Inflammation, Acute |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |

**GENITAL SYSTEM**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + |  |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|

\* .. 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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Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>10000 ppm Female | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | females<br>(cont...) |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
|  | 0736        | 0734  | 0748  | 0744  | 0758  | 0771  | 0777  | 0777  | 0777  | 0777  | 0777  | 0766  | 0777  | 0777  | 0777  | 0777  | 0766  | 0766  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  |                      |
| ANIMAL ID  | 00451       | 00442 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 |                      |

|                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ovary                    | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + |
| Cyst                     |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |
| Bilateral, Atrophy       | 2 |   | 2 | 2 | 2 |   | 2 | 3 | 2 |   | 2 | 3 |   |   | 2 | 2 | 2 | 2 |   | 2 |   |   | 3 | 2 |
| Bursa, Cyst              |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |
| Follicle, Cyst           |   | X |   | X | X |   |   |   |   |   |   |   | X |   |   |   |   |   |   | X | X |   |   |   |
| Paraovarian Tissue, Cyst |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |
| Rete Ovarii, Hyperplasia |   |   |   |   |   |   |   |   | 3 |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Uterus                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Dilation                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hemorrhage                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Suppurative         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Chronic Active      |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |
| Thrombus                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cervix, Hyperplasia, Squamous     |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Endometrium, Atypical Hyperplasia |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |
| Endometrium, Hyperplasia, Cystic  |   |   | 4 | 2 |   | 2 | 2 | 3 | 1 | 4 |   |   | 1 | 3 | 4 |   |   | 2 | 3 |   | 1 | 4 | 2 |   |
| Endometrium, Metaplasia, Squamous |   |   |   |   |   |   |   | 4 |   |   | 1 |   |   |   |   | 1 |   |   | 2 |   |   |   | 1 |   |

HEMATOPOIETIC SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Congestion                                 |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hypercellularity                           | 4 | 3 | 4 | 3 | 4 | 4 | 2 | 3 | 4 | 2 | 3 | 4 | 2 | 2 | 1 | 3 | 3 | 4 | 4 | 2 | 4 |   | 4 | 2 | 1 |
| Pigment                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node                                 | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lumbar, Infiltration Cellular, Plasma Cell |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |
| Lymph Node, Mandibular                     | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |

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

Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| DAY ON TEST      | HARLAN SPRAGUE DAWLEY RATS FEMALE |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | ANIMAL ID | females (cont...) |
|------------------|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|-------------------|
|                  | 0736                              | 0734  | 0748  | 0744  | 0758  | 0774  | 0777  | 0777  | 0777  | 0777  | 0766  | 0777  | 0777  | 0777  | 0777  | 0766  | 0766  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  |           |                   |
| 10000 ppm Female | 00451                             | 00442 | 00443 | 00444 | 00445 | 00446 | 00447 | 00448 | 00449 | 00450 | 00451 | 00452 | 00453 | 00454 | 00455 | 00456 | 00457 | 00458 | 00459 | 00460 | 00461 | 00462 | 00463 | 00464 | 00465     |                   |

Atrophy 2

Lymph Node, Mesenteric Atrophy + + + + + + + + + + + M + + + + + + + + + + + + +

Spleen Extramedullary Hematopoiesis Hemorrhage Pigment White Pulp, Atrophy M + + + + + + + + + + M + + + + + + + + + + + + + 2 3 2 3 2 2 3 1 2 3 1 2 1 2 3 1 1 2 2 3 2 1 2 2 2 2 1 3 2 2 2 2

Thymus Atrophy Hyperplasia, Lymphocyte M + + + + + + + + + + + + + + + + + M + + + + + 1 2 2 3 2 2 4 3 4 4 2 2 2 2 4 2 2 4

INTEGUMENTARY SYSTEM

Mammary Gland Hyperplasia + 1 1 3 3

Skin +

MUSCULOSKELETAL SYSTEM

Bone +

Skeletal Muscle +

NERVOUS SYSTEM

Brain +

\* .. 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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|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                      |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| <b>HARLAN SPRAGUE DAWLEY RATS FEMALE</b><br><b>10000 ppm Female</b> | DAY ON TEST | 0736  | 0740  | 0748  | 0744  | 0758  | 0771  | 0777  | 0777  | 0777  | 0777  | 0766  | 0777  | 0777  | 0777  | 0777  | 0766  | 0766  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | females<br>(cont...) |
|   | ANIMAL ID   | 00451 | 00442 | 00443 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 |                      |
|   |             | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                      |

|                        |   |
|------------------------|---|
| Hemorrhage             | 4 |
| Peripheral Nerve       | + |
| Spinal Cord Hemorrhage | + |
|                        | 3 |

RESPIRATORY SYSTEM

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung  | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infiltration Cellular, Histiocyte                   |   | 3 | 2 | 3 | 1 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 |
| Inflammation, Granulomatous                         |   |   |   |   |   |   |   |   |   | 1 | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |
| Inflammation, Chronic Active                        |   | 1 | 1 | 1 |   |   | 1 | 1 | 2 |   |   |   |   | 1 |   |   | 1 | 1 | 2 | 2 |   | 2 | 2 | 2 |   |
| Nose  |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Olfactory Epithelium, Accumulation, Hyaline Droplet |   | 1 | 1 |   | 2 | 1 |   |   | 1 | 1 | 1 | 1 | 2 |   | 1 | 1 | 1 | 1 | 1 |   | 1 |   |   | 1 | 1 |
| Olfactory Epithelium, Metaplasia, Respiratory       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Trachea   | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

SPECIAL SENSES SYSTEM

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye             |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Phthisis Bulbi  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Harderian Gland | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

URINARY SYSTEM

|        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|--------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
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Experiment Number: 10188 - 01

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**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

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First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>10000 ppm Female | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | * TOTALS              |                       |                       |                       |                       |                  |            |            |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|------------|------------|
|  | 0<br>7<br>4<br>1      | 0<br>7<br>4<br>1      | 0<br>7<br>4<br>1      | 0<br>7<br>4<br>1      | 0<br>6<br>6<br>2      | 0<br>4<br>0<br>4      | 0<br>4<br>7<br>4      | 0<br>6<br>0<br>3      | 0<br>5<br>9<br>6      | 0<br>4<br>7<br>5      | 0<br>6<br>4<br>2      | 0<br>7<br>4<br>0      | 0<br>7<br>4<br>0      | 0<br>7<br>4<br>0      | 0<br>7<br>4<br>0      | 0<br>7<br>4<br>1      | 0<br>6<br>5<br>6      | 0<br>6<br>4<br>2      | 0<br>6<br>6<br>2      | 0<br>7<br>3<br>6      |                       |                       | 0<br>7<br>3<br>6      | 0<br>7<br>3<br>6      | 0<br>7<br>4<br>0      | 0<br>6<br>6<br>3 |            |            |
| ANIMAL ID  | 0<br>0<br>4<br>7<br>6 | 0<br>0<br>4<br>7<br>7 | 0<br>0<br>4<br>7<br>8 | 0<br>0<br>4<br>7<br>8 | 0<br>0<br>4<br>8<br>0 | 0<br>0<br>4<br>8<br>1 | 0<br>0<br>4<br>8<br>2 | 0<br>0<br>4<br>8<br>3 | 0<br>0<br>4<br>8<br>4 | 0<br>0<br>4<br>8<br>5 | 0<br>0<br>4<br>8<br>6 | 0<br>0<br>4<br>8<br>7 | 0<br>0<br>4<br>8<br>8 | 0<br>0<br>4<br>9<br>9 | 0<br>0<br>4<br>9<br>0 | 0<br>0<br>4<br>9<br>1 | 0<br>0<br>4<br>9<br>2 | 0<br>0<br>4<br>9<br>3 | 0<br>0<br>4<br>9<br>4 | 0<br>0<br>4<br>9<br>5 | 0<br>0<br>4<br>9<br>6 | 0<br>0<br>4<br>9<br>7 | 0<br>0<br>4<br>9<br>8 | 0<br>0<br>4<br>9<br>9 | 0<br>0<br>4<br>9<br>0 |                  |            |            |
| Hepatocyte, Cytoplasmic Alteration                       | 2                     | 2                     | 3                     | 3                     | 1                     |                       | 3                     | 1                     |                       | 1                     |                       | 3                     | 3                     | 3                     | 4                     | 2                     | 2                     | 2                     | 1                     | 1                     | 2                     | 4                     | 3                     | 2                     | 1                     | <b>45</b>        | <b>2.8</b> |            |
| Hepatocyte, Hypertrophy                                  | 1                     | 1                     | 1                     | 1                     |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2                     | 2                     | 2                     |                       | 1                     |                       |                       | 1                     | 3                     | 2                     | 2                     | 1                     | <b>28</b>        | <b>1.3</b> |            |
| Mesentery  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |            |            |
| Pancreas   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | A                     | +                     | +                     | +                     | +                     | +                     | +                     | <b>47</b>        |            |            |
| Acinus, Atrophy  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  | <b>1</b>   | <b>1.0</b> |
| Acinus, Hyperplasia                                      |                       |                       | 2                     |                       |                       |                       |                       |                       |                       |                       |                       |                       | 4                     |                       |                       | 1                     | 4                     |                       |                       |                       |                       |                       | 4                     |                       |                       |                  | <b>5</b>   | <b>3.0</b> |
| Salivary Glands  | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | <b>49</b>        |            |            |
| Stomach, Forestomach                                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | <b>50</b>        |            |            |
| Inflammation, Acute                                      |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  | <b>2</b>   | <b>1.0</b> |
| Inflammation, Chronic                                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  | <b>1</b>   | <b>1.0</b> |
| Inflammation, Chronic Active                             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  | <b>3</b>   | <b>1.7</b> |
| Ulcer  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  | <b>2</b>   | <b>3.0</b> |
| Epithelium, Hyperplasia                                  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1                     |                       |                       |                       |                       |                       |                       |                       | 2                     |                       |                       |                       |                       |                       |                  | <b>6</b>   | <b>2.0</b> |
| Stomach, Glandular                                       | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | <b>50</b>        |            |            |
| Mineral  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  | <b>1</b>   | <b>1.0</b> |
| Necrosis   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  | <b>1</b>   | <b>2.0</b> |

**CARDIOVASCULAR SYSTEM**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |          |            |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------|------------|
| Blood Vessel   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>49</b> |          |            |
| Heart          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>49</b> |          |            |
| Cardiomyopathy | 1 |   | 1 | 1 |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   | 1 |   |   |           | <b>8</b> | <b>1.0</b> |

**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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Experiment Number: 10188 - 01

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**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

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CAS Number: 117-81-7

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Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>10000 ppm Female | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        | * TOTALS |  |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|----------|--|
|  | 0741        | 0741  | 0741  | 0741  | 0762  | 0764  | 0764  | 0766  | 0765  | 0764  | 0767  | 0767  | 0767  | 0767  | 0767  | 0767  | 0766  | 0766  | 0766  | 0767  | 0767  | 0767  | 0767  | 0766   |          |  |
| ANIMAL ID  | 00476       | 00477 | 00478 | 00479 | 00480 | 00481 | 00482 | 00483 | 00484 | 00485 | 00486 | 00487 | 00488 | 00489 | 00490 | 00491 | 00492 | 00493 | 00494 | 00495 | 00496 | 00497 | 00498 | 00499  | 00500    |  |
| Adrenal Cortex   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +      | 50       |  |
| Angiectasis  |             |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        | 1 2.0    |  |
| Degeneration, Cystic                                     | 2           |       | 1     |       |       |       |       |       | 1     |       |       | 2     |       | 3     |       | 1     |       |       |       |       |       |       |       |        | 10 1.5   |  |
| Hemorrhage   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        | 1 3.0    |  |
| Necrosis   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        | 1 3.0    |  |
| Adrenal Medulla  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50     |          |  |
| Hyperplasia  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        | 1 1.0    |  |
| Islets, Pancreatic                                       | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | A     | +     | +     | +     | +     | +     | 48     |          |  |
| Parathyroid Gland  | M           | +     | +     | +     | +     | M     | +     | +     | M     | +     | M     | +     | M     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | 43     |          |  |
| Pituitary Gland  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50     |          |  |
| Cyst   | X           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1      |          |  |
| Pars Distalis, Hyperplasia                               |             |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       | 1     |       |       |       | 1     |       |       |       | 10 1.6 |          |  |
| Thyroid Gland  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 49     |          |  |
| C-cell, Hyperplasia                                      |             |       | 4     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 2     |       |       |       | 5 3.0  |          |  |
| Follicular Cell, Hyperplasia                             |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1 1.0  |          |  |
| <b>GENERAL BODY SYSTEM</b>                               |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |          |  |
| Peritoneum   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        | 1        |  |
| Inflammation, Acute                                      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        | 1 2.0    |  |
| <b>GENITAL SYSTEM</b>                                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |          |  |
| Clitoral Gland   | +           | +     | +     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 48     |          |  |

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 I .. Insufficient tissue

M .. Missing tissue  
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Di(2-ethylhexyl) Phthalate

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Lab: BAT

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|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|-----|-----|-----|
|  | 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   | 48  |     |
| Ovary  | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | 5   |     |     |
| Cyst   |             |   |   |   |   |   |   |   |   |   |   |   |   | X |   | X |   | X |   |   |   |   |          | 29  |     |     |
| Bilateral, Atrophy                                       |             |   |   | 2 |   | 2 | 2 | 2 | 2 | 2 | 2 |   |   | 2 | 2 | 1 | 2 |   |   |   |   | 2 |          | 2.1 |     |     |
| Bursa, Cyst  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | 2   |     |     |
| Follicle, Cyst   |             | X |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   | X | X |   |   |          | 10  |     |     |
| Paraovarian Tissue, Cyst                                 |             |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |          | 2   |     |     |
| Rete Ovarii, Hyperplasia                                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | 2   |     |     |
|  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | 2.0 |     |     |
| Uterus   | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | 49  |     |     |
| Dilation   |             |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |          | 1   |     |     |
| Hemorrhage   |             |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   | 1 |          | 4.0 |     |     |
| Inflammation, Suppurative                                |             |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | 2   |     |     |
| Inflammation, Chronic Active                             |             |   |   |   |   |   |   | 4 |   | 4 |   |   |   | 2 | 2 | 4 |   |   |   |   |   | 4 |          | 4.0 |     |     |
| Thrombus   |             |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | 3.0 |     |     |
| Cervix, Hyperplasia, Squamous                            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | 1   |     |     |
| Endometrium, Atypical Hyperplasia                        |             |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |          | 2.0 |     |     |
| Endometrium, Hyperplasia, Cystic                         |             | 2 | 2 |   |   | 1 | 4 | 4 |   | 4 |   |   |   | 2 |   |   | 4 | 3 |   |   | 2 |   | 4        | 2.3 |     |     |
| Endometrium, Metaplasia, Squamous                        |             | 1 |   | 4 |   | 1 |   |   |   | 2 | 1 |   |   |   |   |   |   |   |   |   | 2 |   |          | 2.7 |     |     |
|  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | 1.8 |     |     |
| <b>HEMATOPOIETIC SYSTEM</b>                              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |     |     |     |
| Bone Marrow  | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | 50  |     |     |
| Congestion   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | 1   |     |     |
| Hypercellularity   | 1           | 3 | 2 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 2 |   | 4 | 2 | 4 | 2 | 4 | 4 |   | 2 | 2 | 2        | 2   | 4   | 2.9 |
| Pigment  |             |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |     | 1.0 |     |
| Lymph Node   |             |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |          | 4   |     |     |
| Lumbar, Infiltration Cellular, Plasma Cell               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | 1   |     |     |
|  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | 3.0 |     |     |
| Lymph Node, Mandibular                                   | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | 49  |     |     |

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked



Experiment Number: 10188 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Di(2-ethylhexyl) Phthalate

CAS Number: 117-81-7

Date Report Requested: 12/17/2019

Time Report Requested: 10:43:08

First Dose M/F: 02/17/11 / 02/18/11

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>FEMALE<br>10000 ppm Female | DAY ON TEST |      | ANIMAL ID |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |        |             |      |  |
|--|-------------|------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|--------|-------------|------|--|
|  | 0741        | 0741 | 0741      | 0741 | 0762 | 0764 | 0764 | 0766 | 0765 | 0764 | 0767 | 0767 | 0767 | 0767 | 0767 | 0767 | 0766 | 0766 | 0766 | 0767 | 0767 | 0767 |          |        | 0767        | 0766 |  |
| Atrophy  |             |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |        | 1 2.0       |      |  |
| Lymph Node, Mesenteric Atrophy                           | +           | +    | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | M    | +    | +    | +    | +    | +        | +      | 48<br>1 2.0 |      |  |
| Spleen   | +           | +    | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | M    | +    | +    | +    | +    | +        | +      | 47          |      |  |
| Extramedullary Hematopoiesis                             | 2           | 2    |           | 2    | 3    | 3    |      |      | 1    | 2    | 3    | 2    |      | 2    |      | 2    |      |      | 2    | 1    |      | 1    |          | 3      | 39 2.1      |      |  |
| Hemorrhage   |             |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 4    |      |      |      |          |        | 1 4.0       |      |  |
| Pigment  | 2           | 2    |           | 2    | 1    | 1    |      |      | 3    | 2    | 3    | 2    | 2    | 1    | 2    | 2    | 2    | 1    |      | 2    | 2    | 3    | 2        | 36 1.9 |             |      |  |
| White Pulp, Atrophy                                      |             |      |           |      |      |      |      |      | 2    | 3    | 2    | 2    |      |      |      |      |      | 4    |      |      |      |      |          | 7 2.4  |             |      |  |
| Thymus   | +           | +    | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | 48     |             |      |  |
| Atrophy  | 3           | 2    | 2         | 2    | 2    |      | 1    | 3    | 4    | 3    | 4    | 3    | 3    |      | 1    | 2    | 2    | 3    | 2    |      | 1    | 3    | 2        | 3      | 42 2.5      |      |  |
| Hyperplasia, Lymphocyte                                  |             |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |        | 1 4.0       |      |  |
| <b>INTEGUMENTARY SYSTEM</b>                              |             |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |        |             |      |  |
| Mammary Gland  | +           | +    | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +      | 50          |      |  |
| Hyperplasia  | 2           |      |           | 2    |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |      | 1    |      |      | 2        |        | 9 1.8       |      |  |
| Skin   | +           | +    | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +      | 50          |      |  |
| <b>MUSCULOSKELETAL SYSTEM</b>                            |             |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |        |             |      |  |
| Bone   | +           | +    | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +      | 50          |      |  |
| Skeletal Muscle  |             |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | +    | +    |      |          |        | 3           |      |  |
| <b>NERVOUS SYSTEM</b>                                    |             |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |        |             |      |  |
| 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:  
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Lab: BAT

| DAY ON TEST | HARLAN SPRAGUE DAWLEY RATS FEMALE |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |
|-------------|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
|             | 0741                              | 0741  | 0771  | 0771  | 0662  | 0644  | 0644  | 0663  | 0556  | 0544  | 0672  | 0677  | 0677  | 0677  | 0677  | 0677  | 0666  | 0666  | 0666  | 0773  | 0773  | 0773  | 0664  | 0666  |          |
| ANIMAL ID   | 10000 ppm Female                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |
|             | 00476                             | 00477 | 00478 | 00479 | 00480 | 00481 | 00482 | 00483 | 00484 | 00485 | 00486 | 00487 | 00488 | 00489 | 00490 | 00491 | 00492 | 00493 | 00494 | 00495 | 00496 | 00497 | 00498 | 00499 |          |
|             | 0                                 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |          |

Hemorrhage 1 4.0

Peripheral Nerve 1

Spinal Cord Hemorrhage 1 3.0

RESPIRATORY SYSTEM

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |        |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|--------|
| Lung                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49     |        |
| Infiltration Cellular, Histiocyte | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 |   | 3 | 2 | 2 | 2 | 4 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 1 | 3      | 48 2.6 |
| Inflammation, Granulomatous       | 2 |   | 2 |   |   |   |   |   |   |   |   | 2 |   |   |   |   | 1 |   |   | 2 | 2 |   | 2 |   | 10 1.7 |        |
| Inflammation, Chronic Active      |   | 1 |   |   |   |   |   |   |   |   |   |   |   | 1 | 1 | 1 |   |   |   |   |   |   |   |   | 18 1.3 |        |

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Nose  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 1 |   | 1 | 1 | 1 |   | 2 |   | 1 | 1 |   | 1 | 1 |   |   | 2 |   | 1 |   | 1 | 1 | 1 | 1 | 1 | 33 1.1 |
| Olfactory Epithelium, Metaplasia, Respiratory       |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   | 1 1.0  |

Trachea 49

SPECIAL SENSES SYSTEM

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Eye            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Phthisis Bulbi |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

Harderian Gland 49

URINARY SYSTEM

Kidney 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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