

**Experiment Number:** 20303 - 05  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** RATS/F 344/N

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

Vinylidene chloride  
**CAS Number:** 75-35-4

**Date Report Requested:** 12/12/2011  
**Time Report Requested:** 09:47:55  
**First Dose M/F:** 06/06/05 / 06/06/05  
**Lab:** BNW

F1\_R2

**NTP Study Number:** C20303  
**Lock Date:** 05/09/2008  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 2.5.0.0\_004  
**PWG Approval Date:** NONE

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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		
DAY ON TEST		6	6	7	7	5	7	7	7	7	7	6	7	7	6	6	7	7	3	7	7	6	7	6	6	
FISCHER 344 RATS MALE		7	6	2	3	1	1	2	3	3	0	3	8	1	3	6	2	3	3	6	3	2	7	3	7	
		7	1	9	0	4	2	9	0	1	5	0	6	9	0	9	0	0	0	7	1	9	9	0	6	5
Control		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	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	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
		males (cont...)																								

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum Inflammation, Acute Necrosis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+
												4												
												3												
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	A	+	+	+
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	A	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	A	+	+	+
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	A	+	+	+
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	A	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Basophilic Focus	X		X	X															X		X			
Clear Cell Focus			X	X	X		X	X	X		X			X			X	X		X	X			
Degeneration, Cystic Eosinophilic Focus																								
Fatty Change, Diffuse											1	2												
Hepatodiaphragmatic Nodule Inflammation, Chronic	1	1	1	1	1		1	1	1	1		1	1					1	1		1	1	1	1
Inflammation, Chronic Active Mixed Cell Focus																								
Necrosis																							3	
Bile Duct, Hyperplasia	1	1	1	1		2	2	1		1	1	1	1	1				1	2		1	1	1	1

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

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Species/Strain: RATS/F 344/N

Lab: BNW

		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	males (cont...)		
FISCHER 344 RATS MALE	DAY ON TEST	6	6	7	7	5	7	7	7	7	7	6	7	7	6	6	7	7	3	7	7	6	7		6	6
Control	ANIMAL ID	7	6	2	3	1	1	2	3	3	0	3	8	1	3	6	2	3	3	6	3	2	7		3	7
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	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
Mesentery					+						+						+	+		+					+	
Inflammation, Chronic Active																										2
Fat, Necrosis					2							2					2	2		2						
Pancreas		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy		2			2	2					1		4		1	2	3		+	+	+	+	+	2	1	
Basophilic Focus													X													
Hyperplasia							2					2														3
Salivary Glands		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Mineralization																3										
Ulcer																										3
Stomach, Glandular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Mineralization																3										
Tooth																										+
Dysplasia																										3

CARDIOVASCULAR SYSTEM

Blood Vessel																											
Aorta, Mineralization																											+
																											3
Heart		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cardiomyopathy		1	2	2	2	1	1	2	1	1	2	1	3	2	1			2	1	1	2	1	3	1	2	2	
Mineralization																							3				
Thrombosis							2																				

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<b>FISCHER 344 RATS MALE</b>	DAY ON TEST	0 6 7 7	0 6 6 1	0 7 2 9	0 7 3 0	0 5 1 4	0 7 1 2	0 7 2 9	0 7 3 0	0 7 3 1	0 7 3 5	0 7 3 0	0 6 8 6	0 7 1 9	0 7 3 0	0 6 6 9	0 7 3 0	0 7 3 6	0 7 3 1	0 6 7 9	0 7 3 9	0 6 7 9	0 7 3 0	0 6 7 6	0 6 7 5	<b>males (cont...)</b>
	ANIMAL ID	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 0 0	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 0 0	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	

**ENDOCRINE SYSTEM**

Adrenal Cortex Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia			3	2			2	1	2	2	3		2	2			2	2						2	
Hyperplasia																									
Hyperplasia																									
Adrenal Medulla Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia						2	2	2			3	2			1		2	2	2			2		3	2
Islets, Pancreatic Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia				3																					
Parathyroid Gland Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia															3										
Pituitary Gland Pars Distalis, Angiectasis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Pars Distalis, Hyperplasia																2									
Pars Distalis, Hyperplasia					3	3					2				3				3					3	
Pars Intermedia, Angiectasis									2																
Pars Intermedia, Hyperplasia																			2						
Thyroid Gland C-cell, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
C-cell, Hyperplasia			1											1	1	2	1				1				
Follicular Cell, Hyperplasia																								2	

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

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FISCHER 344 RATS MALE Control	DAY ON TEST																									males (cont...)
	0677	0662	0779	0773	0511	0772	0779	0770	0771	0775	0770	0666	0777	0773	0666	0667	0773	0773	0336	0337	0226	0227	0229	0223	0226	
ANIMAL ID	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	
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Preputial Gland Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Prostate Hyperplasia Inflammation, Suppurative	+	+	+	+	+	+	+	2	+	+	2	+	+	+	+	+	+	+	+	+	+	+	+	1	+	
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	A	+	+	+	
Testes Atrophy Hemorrhage Interstitial Cell, Hyperplasia	+	+	+	+	1	+	4	+	+	+	+	+	4	2	+	+	+	+	+	+	+	+	2	1	1	
<b>HEMATOPOIETIC SYSTEM</b>																										
Bone Marrow Hyperplasia, Reticulum Cell	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymph Node Pancreatic, Hyperplasia, Lymphoid						+					+															
Lymph Node, Bronchial Hyperplasia, Lymphoid	M	M	M	M	+	M	M	M	M	M	M	M	M	M	M	+	M	+	M	M	M	+	M	M	M	
Lymph Node, Mandibular	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	
Lymph Node, Mediastinal Ectasia	M	M	+	+	+	+	+	M	+	+	M	M	+	+	M	M	M	+	+	+	M	M	M	M	+	

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FISCHER 344 RATS MALE Control	DAY ON TEST																									males (cont...)
	0677	0662	0679	0673	0651	0677	0677	0677	0677	0677	0677	0666	0677	0677	0666	0666	0677	0677	0633	0677	0666	0677	0666	0677	0666	
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	
Hyperplasia, Lymphoid				2						3																
Lymph Node, Mesenteric Hyperplasia, Lymphoid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Spleen Fibrosis Hematopoietic Cell Proliferation Hyperplasia, Stromal	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Thymus	+	M	+	+	+	+	+	+	+	+	+	+	M	M	+	M	+	+	+	+	+	+	+	+		
<b>INTEGUMENTARY SYSTEM</b>																										
Mammary Gland	+	+	+	+	M	+	+	+	+	+	+	M	+	+	+	M	M	M	M	+	+	M	M	+	+	
Skin Cyst Epithelial Inclusion Hyperplasia, Squamous Inflammation, Chronic Active	+	+	+	+	+	+	+	+	+	+	+	+	X				X									
															1											
															4											
<b>MUSCULOSKELETAL SYSTEM</b>																										
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Skeletal Muscle																									+	
<b>NERVOUS SYSTEM</b>																										
Brain Hemorrhage	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

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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	0
<b>FISCHER 344 RATS MALE</b>	DAY ON TEST	6	6	7	7	5	7	7	7	7	7	6	7	7	6	6	7	7	3	7	7	6	7	6	6	6	
		7	6	2	3	1	1	2	3	3	0	3	8	1	3	6	2	3	3	6	3	2	7	3	7	7	
		7	1	9	0	4	2	9	0	1	5	0	6	9	0	9	0	0	0	7	1	9	9	0	6	5	
	<b>Control</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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	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	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		
		<b>males (cont...)</b>																									

Peripheral Nerve	+																							
Spinal Cord	+																							

**RESPIRATORY SYSTEM**

Larynx	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+								
Inflammation, Chronic Active																																	
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+								
Foreign Body																																	
Inflammation, Chronic Active																																	
Mineralization																																	
Thrombosis																																	
Alveolar Epithelium, Hyperplasia	1								1								2	1								1							
Mediastinum, Inflammation, Granulomatous																																	
	3																																
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+								
Foreign Body																																	
Inflammation, Acute																																	
Inflammation, Chronic Active																																	
Thrombosis																																	
Olfactory Epithelium, Metaplasia, Respiratory																																	
Respiratory Epithelium, Hyperplasia																																	
	1																																
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+								

**SPECIAL SENSES SYSTEM**

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cataract																									
	3																								

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		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	DAY ON TEST	6	6	7	7	5	7	7	7	7	7	6	7	7	6	6	7	7	3	7	7	6	7	6	6	6	
	<b>FISCHER 344 RATS MALE</b>	7	6	2	3	1	1	2	3	3	0	3	8	1	3	6	2	3	3	6	3	7	3	7	6	6	
	<b>Control</b>	7	1	9	0	4	2	9	0	1	5	0	6	9	0	9	0	0	7	1	9	9	0	6	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	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	1	1	1	1	1	1	1	1	1	1	2	2	2	2	<b>males (cont...)</b>
	Cornea, Inflammation, Acute																										3
	Cornea, Inflammation, Chronic Active																										3
	Retina, Atrophy																										3
	Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	<b>URINARY SYSTEM</b>																										
	Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	Mineralization																3										
	Nephropathy	2	2	3	3	2	1	2	2	1	2	3	4	2	1	4	3	4	3	1	2	2	4	1	2	2	
	Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

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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:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



	DAY ON TEST																											
FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4	5	7	6	7	7	5	7	7	5	6	6	7	7	7	7	7	6	6	7	6	7	6	7	7	5		
	9	5	3	3	2	3	9	2	2	6	9	1	3	3	2	2	2	4	5	3	1	7	2	2	2	6		
Control	2	1	0	5	9	0	1	9	9	4	8	4	0	0	9	9	9	5	4	0	7	0	9	9	2			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	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	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	0	<b>* TOTALS</b>		

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>50</b>
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>48</b>	
Inflammation, Acute																										<b>1 4.0</b>	
Necrosis																										<b>1 3.0</b>	
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>47</b>		
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	I	A	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>46</b>		
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>47</b>		
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>47</b>		
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>47</b>		
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>50</b>		
Basophilic Focus	X							X	X			X	X	X		X	X		X			X		<b>15</b>			
Clear Cell Focus			X			X		X	X			X		X	X		X					X	X	<b>22</b>			
Degeneration, Cystic					2																2				<b>2 2.0</b>		
Eosinophilic Focus											X								X			X		<b>3</b>			
Fatty Change, Diffuse					4				1															<b>4 2.0</b>			
Hepatodiaphragmatic Nodule											X													<b>1</b>			
Inflammation, Chronic				1					1		1				1	1	1	1	1				1	<b>28 1.0</b>			
Inflammation, Chronic Active				1																				<b>1 1.0</b>			
Mixed Cell Focus															X									<b>1</b>			
Necrosis																								2	<b>2 2.5</b>		
Bile Duct, Hyperplasia			1		1	1	2	1		2	2	2	1	1	2	1	1	1	2	1	2	2	1	1	<b>38 1.3</b>		

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BLANK .. Not examined microscopically

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

Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

FISCHER 344 RATS MALE Control	DAY ON TEST																								* TOTALS			
	04	05	07	06	07	07	05	07	07	05	06	06	07	07	07	07	07	06	06	07	07	06	07	07		05		
ANIMAL ID	09	05	03	03	02	03	09	02	02	06	09	01	03	03	02	02	09	05	04	05	03	01	07	02	02	06		
	02	01	00	05	09	00	01	09	09	04	08	04	00	00	00	00	00	00	00	00	00	00	00	00	00	00		
Mesentery			+		+	+				+		+			+	+			+		+				+	16		
Inflammation, Chronic Active											2															2	2.0	
Fat, Necrosis			2		2	2						2			2	2			2		2					13	2.0	
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Atrophy	1	2				2	3			2				3			2			1	2			2		21	2.0	
Basophilic Focus																										1		
Hyperplasia			2																							4	2.3	
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Mineralization																										1	3.0	
Ulcer		4		3							3															4	3.3	
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Mineralization																										1	3.0	
Tooth																										1		
Dysplasia																										1	3.0	
<b>CARDIOVASCULAR SYSTEM</b>																												
Blood Vessel																											1	
Aorta, Mineralization																											1	3.0
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Cardiomyopathy	1		3	1		1		1	1	2	2	3	2	1	2	1	2		2	1			1	1	2	42	1.6	
Mineralization																										1	3.0	
Thrombosis											1														4	3	2.3	

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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
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 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

FISCHER 344 RATS MALE	DAY ON TEST																								* TOTALS
	04	05	07	06	07	07	05	07	07	05	06	06	07	07	07	07	06	06	07	06	07	07	05		
Control	9	5	3	3	2	3	9	2	2	6	9	1	3	3	2	2	4	5	3	1	7	2	2	6	
	2	1	0	5	9	0	1	9	9	4	8	4	0	0	9	9	9	5	4	0	7	0	9	2	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	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	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	

**ENDOCRINE SYSTEM**

Adrenal Cortex Hyperplasia	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	49	26	2.0
Hyperplasia	2		2			2		2			2				2		2		2		2		2		1	2.0
Adrenal Medulla Hyperplasia	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	49	25	2.2
Hyperplasia			2	2			2	2	3		2		3	2				2	2			2	2	3		
Islets, Pancreatic Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	1	3.0
Parathyroid Gland Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	1	3.0
Pituitary Gland Pars Distalis, Angiectasis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	2	2.0
Pars Distalis, Hyperplasia			2						3									2					2	10	2.6	
Pars Intermedia, Angiectasis																								1	1	2.0
Pars Intermedia, Hyperplasia																								1	1	2.0
Thyroid Gland C-cell, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	15	1.1
Follicular Cell, Hyperplasia	1	1						1	2								1	1			1	1	1	2	2.0	

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

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 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

FISCHER 344 RATS MALE Control	DAY ON TEST																								* TOTALS
	04	05	07	06	07	07	05	07	07	05	06	06	07	07	07	07	07	06	06	07	07	06	07	07	
ANIMAL ID	09	05	03	03	02	03	09	02	02	06	09	01	03	03	02	02	04	05	03	01	07	02	02	06	
ANIMAL ID	02	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
ANIMAL ID	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Preputial Gland Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1 2.0	
Prostate Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 5 1.8	
Prostate Inflammation, Suppurative				2		2				2							2						2	4 2.0	
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Testes Atrophy	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 9 3.1	
Testes Hemorrhage					3								4	3	4								3	1 2.0	
Testes Interstitial Cell, Hyperplasia	2																	1						4 1.3	
<b>HEMATOPOIETIC SYSTEM</b>																									
Bone Marrow Hyperplasia, Reticulum Cell	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	49 1 4.0	
Lymph Node Pancreatic, Hyperplasia, Lymphoid							+			+	+													6 1 2.0	
Lymph Node, Bronchial Hyperplasia, Lymphoid	M	+	M	M	+	M	M	M	M	+	M	+	M	M	M	M	M	M	M	M	M	M	M	8 1 2.0	
Lymph Node, Mandibular	M	+	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	1	
Lymph Node, Mediastinal Ectasia	M	M	+	M	+	M	+	M	+	M	+	M	M	M	+	+	+	M	+	+	+	+	+	28 1 2.0	

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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

FISCHER 344 RATS MALE Control	DAY ON TEST																								* TOTALS	
	04	05	07	06	07	07	05	07	07	05	06	06	07	07	07	07	06	06	07	07	06	07	07	05		
ANIMAL ID	09	05	03	03	02	03	09	02	02	06	09	01	03	03	02	02	04	05	03	01	07	02	02	06		
	2	1	0	5	9	0	1	9	9	4	8	4	0	0	9	9	9	5	4	0	7	0	9	2		
	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	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00		
	22	22	22	22	33	33	33	33	33	33	33	33	33	33	44	44	44	44	44	44	44	44	44	55		
	66	77	88	99	00	01	02	03	04	05	06	07	08	09	00	01	02	03	04	05	06	07	08	09		
Hyperplasia, Lymphoid																								2 2.5		
Lymph Node, Mesenteric Hyperplasia, Lymphoid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1 2.0		
Spleen Fibrosis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 3 2.3		
Hematopoietic Cell Proliferation Hyperplasia, Stromal	2														3									3 2.3 1 3.0		
Thymus	+	+	M	+	+	+	+	+	+	I	+	+	+	M	+	+	+	+	+	+	+	M	+	+	+	42
<b>INTEGUMENTARY SYSTEM</b>																										
Mammary Gland	+	M	M	+	+	+	+	+	M	+	M	M	+	+	+	+	+	+	M	+	+	+	+	+	+	36
Skin Cyst Epithelial Inclusion	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 4 3.0
Hyperplasia, Squamous					X				3																1 1.0	
Inflammation, Chronic Active	4																								2 4.0	
<b>MUSCULOSKELETAL SYSTEM</b>																										
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Skeletal Muscle									+																+	3
<b>NERVOUS SYSTEM</b>																										
Brain Hemorrhage	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1 2.0

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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
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FISCHER 344 RATS MALE	DAY ON TEST																				* TOTALS			
	04	05	07	06	07	07	05	07	07	05	06	06	07	07	07	07	06	06	07	06		07	07	05
Control	9	5	3	3	2	3	9	2	2	6	9	1	3	3	2	2	4	5	3	1	7	2	2	6
ANIMAL ID	2	1	0	5	9	0	1	9	4	8	4	0	0	0	9	9	5	4	0	7	0	9	9	2
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	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	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

Peripheral Nerve	2
Spinal Cord	2

**RESPIRATORY SYSTEM**

Larynx	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation, Chronic Active						2																		1 2.0
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Foreign Body																								1
Inflammation, Chronic Active																					1			2 2.5
Mineralization																								1 3.0
Thrombosis																							2	1 2.0
Alveolar Epithelium, Hyperplasia								1							1									7 1.1
Mediastinum, Inflammation, Granulomatous																								1 3.0
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Foreign Body															X									2
Inflammation, Acute																								2 2.0
Inflammation, Chronic Active						2				1					2		1		1		1			9 1.2
Thrombosis											2								2				3	4 2.3
Olfactory Epithelium, Metaplasia, Respiratory						1								1						1				3 1.0
Respiratory Epithelium, Hyperplasia						2				1					2				2					5 1.6
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

**SPECIAL SENSES SYSTEM**

Eye	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	48
Cataract															4	2								3 3.0

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Experiment Number: 20303 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

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

Vinylidene chloride

CAS Number: 75-35-4

Date Report Requested: 12/12/2011

Time Report Requested: 09:47:55

First Dose M/F: 06/06/05 / 06/06/05

Lab: BNW

DAY ON TEST	FISCHER 344 RATS MALE																								* TOTALS	
	04	05	07	06	07	07	05	07	07	05	06	06	07	07	07	07	07	06	06	07	07	06	07	07		05
Control	9	5	3	3	2	3	9	2	2	6	9	1	3	3	2	2	2	4	5	3	1	7	2	2	6	50
ANIMAL ID	2	1	0	5	9	0	1	9	9	4	8	4	0	0	9	9	9	5	4	0	7	0	9	9	2	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	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	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	0

Cornea, Inflammation, Acute 1 3.0  
 Cornea, Inflammation, Chronic Active 1 3.0  
 Retina, Atrophy 2 3.5

4

Harderian Gland 50

**URINARY SYSTEM**

Kidney 50

Mineralization 1 3.0

Nephropathy 50 2.2

Urinary Bladder 49

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

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







Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

		DAY ON TEST																							males (cont...)
FISCHER 344 RATS MALE		0631	0661	0661	0672	0665	0637	0677	0677	0677	0666	0656	0677	0677	0677	0677	0677	0657	0672	0677	0655	0666	0677	0667	
25 ppm	ANIMAL ID	0020	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
Adrenal Medulla Hyperplasia		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
				2					2		2				3	3			2	2		2			
Islets, Pancreatic Hyperplasia		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
								4																	
Parathyroid Gland Hyperplasia		+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
														3											
Pituitary Gland Pars Distalis, Hemorrhage		+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Pars Distalis, Hyperplasia						2			2				2			3				3					
Thyroid Gland C-cell, Hyperplasia		+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		1							2		1	1	1							2	1				
<b>GENERAL BODY SYSTEM</b>																									
Peritoneum Mesothelium, Hyperplasia																									
<b>GENITAL SYSTEM</b>																									
Epididymis Granuloma Sperm Hyperplasia, Mesothelium		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
														3											
Preputial Gland Hyperplasia		+	+	+	+	+	+	+	+	+	+	+	+	+	+	I	+	+	+	+	+	+	+	+	
																						2			
Prostate		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

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 + .. 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

FISCHER 344 RATS MALE  25 ppm	DAY ON TEST																									males (cont...)			
	06319	06611	06671	06672	06673	06674	06675	06676	06677	06678	06679	06680	06681	06682	06683	06684	06685	06686	06687	06688	06689	06690	06691	06692	06693		06694	06695	
	ANIMAL ID	00200	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	
Hyperplasia Inflammation, Suppurative		3				2																	2		1		3		
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Atrophy					4								4	4		3	4										3	4	
Hemorrhage			1																										
Hyperplasia, Mesothelium									1																				
Arteriole, Inflammation															3														
Interstitial Cell, Hyperplasia									1																			1	
Tunic, Hyperplasia																													
<b>HEMATOPOIETIC SYSTEM</b>																													
Bone Marrow	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymph Node		+	+																									+	
Lymph Node, Bronchial Ectasia	M	+	M	+	+	M	M	M	M	M	M	M	M	M	M	M	M	M	M	+	M	+	M	+	+	M	+	M	
Lymph Node, Mandibular	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Lymph Node, Mediastinal	M	M	+	M	M	M	+	+	+	M	+	M	+	+	M	M	M	M	M	+	+	M	M	M	+	+	M	+	
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hematopoietic Cell Proliferation																													
Necrosis															2														

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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

FISCHER 344 RATS MALE 25 ppm	DAY ON TEST																				ANIMAL ID	males (cont...)							
	0631	0661	0661	0672	0663	0654	0637	0677	0677	0677	0666	0665	0677	0677	0677	0677	0677	0659	0672	0677			0655	0666	0677	0663	0665	0677	0663
Thymus	M	+	+	+	+	+	+	+	+	+	M	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
<b>INTEGUMENTARY SYSTEM</b>																													
Mammary Gland Hyperplasia	M	M	M	M	M	M	+	+	+	M	+	+	M	+	+	M	+	+	+	+	+	+	+	M	+	+			
Skin Cyst Epithelial Inclusion Hyperkeratosis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<b>MUSCULOSKELETAL SYSTEM</b>																													
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Skeletal Muscle																													
<b>NERVOUS SYSTEM</b>																													
Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<b>RESPIRATORY SYSTEM</b>																													
Larynx Inflammation, Chronic Active	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lung Inflammation, Acute Thrombosis Alveolar Epithelium, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

FISCHER 344 RATS MALE  25 ppm	DAY ON TEST																								males (cont...)
	063119	066111	067212	068313	069414	070515	071616	072717	073818	074919	075020	076121	077222	078323	079424	080525	081626	082727	083828	084929	085030	086131	087232		
	ANIMAL ID	00200	00300	00400	00500	00600	00700	00800	00900	01000	01100	01200	01300	01400	01500	01600	01700	01800	01900	02000	02100	02200	02300	02400	

Nose	+																							
Foreign Body																								
Inflammation, Chronic Active	2		1	3	1	2		1	3		3	1	1	1	2	3	3		2	2	1		2	
Thrombosis						4					3										1			
Olfactory Epithelium, Metaplasia, Respiratory	3	2	3	4	3	1	2	3	3	2	2	3	2	2	2	2	3	3	2	3	2	3	3	2
Respiratory Epithelium, Hyperplasia																	2		1					
Turbinate, Atrophy	3	3	3	3	2	3	2	2	2	2	2	3	2	2	2	2	2	3	2	2	2	2	3	2
Turbinate, Hyperostosis	2	3	2	3	3	2	2	3	2	3	1	2	2	3	2	2	1	1		2	2	3	2	3

Pleura																								
Trachea	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

**SPECIAL SENSES SYSTEM**

Eye	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Cataract																									
Degeneration																									
Cornea, Inflammation, Acute													4												
Harderian Gland	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Hyperplasia																									
Zymbal's Gland																									

**URINARY SYSTEM**

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Cyst																									
Hydronephrosis																									
Inflammation, Suppurative													3												
													2												

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 I .. Insufficient tissue

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

Experiment Number: 20303 - 05  
Test Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY  
Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
Vinylidene chloride  
CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
Time Report Requested: 09:47:55  
First Dose M/F: 06/06/05 / 06/06/05  
Lab: BNW

		DAY ON TEST																								males (cont...)		
FISCHER 344 RATS MALE		0 6 3 1	0 6 1 9	0 6 1 1	0 7 2 9	0 6 3 0	0 5 4 3	0 3 5 5	0 7 2 9	0 7 2 9	0 7 3 0	0 6 1 9	0 6 6 8	0 5 4 8	0 7 3 0	0 7 2 9	0 7 3 1	0 7 3 1	0 5 9 9	0 7 2 9	0 7 2 9	0 5 6 3	0 6 5 6	0 7 3 0				
25 ppm		ANIMAL ID																										
		0 0 2 0 1	0 0 2 0 2	0 0 2 0 3	0 0 2 0 4	0 0 2 0 5	0 0 2 0 6	0 0 2 0 7	0 0 2 0 8	0 0 2 0 9	0 0 2 1 0	0 0 2 1 1	0 0 2 1 1	0 0 2 1 1	0 0 2 1 1	0 0 2 1 1	0 0 2 1 1	0 0 2 1 1	0 0 2 2 0	0 0 2 2 0	0 0 2 2 1	0 0 2 2 2	0 0 2 2 2	0 0 2 2 3	0 0 2 2 4	0 0 2 2 5		
Nephropathy		3	2	2	3	1		3	2	3	4	3	2	1	2	4	4	2	2	2	3	2	2	2	2	2	2	
Thrombosis																												
Renal Tubule, Hyperplasia																					2							
Urinary Bladder		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

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	<b>* TOTALS</b>
<b>FISCHER 344 RATS MALE</b>	7	7	7	7	7	7	7	7	4	5	7	2	7	6	7	6	6	7	4	6	7	5	7	
	2	3	3	2	2	2	3	2	6	3	3	9	3	6	3	9	0	3	9	4	3	2	6	
	9	1	1	9	9	9	0	9	6	5	0	4	1	1	0	4	7	1	2	9	0	9	0	
<b>25 ppm</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	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	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	

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	I	<b>49</b>	
Intestine Large, Cecum Inflammation, Acute	+	+	+	+	+	+	+	+	+	A	+	A	+	+	+	+	+	+	+	+	+	+	A	+	+	<b>44</b>	<b>1 3.0</b>
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>46</b>	
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>47</b>	
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	A	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>45</b>	
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	A	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>45</b>	
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	A	+	A	+	+	+	+	+	+	+	+	+	+	+	A	+	+	<b>43</b>
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>50</b>	
Angiectasis																									2	<b>2 2.0</b>	
Basophilic Focus											X								X							<b>7</b>	
Clear Cell Focus	X	X	X	X	X	X	X				X	X		X			X		X	X		X				<b>23</b>	
Degeneration, Cystic									3							2					3					<b>5 2.8</b>	
Eosinophilic Focus									X				X		X		X									<b>6</b>	
Fatty Change, Diffuse				2				2		1		1		1	1				1	2	1					<b>19 1.7</b>	
Hepatodiaphragmatic Nodule									X																	<b>1</b>	
Inflammation, Chronic	1	1	1	1	1	1	1	2	2	1	2	1	2	1	2	1	1	1	1	1	2	1	2	1	1	<b>46 1.2</b>	
Mixed Cell Focus																	X									<b>1</b>	
Necrosis									3	3									4							<b>6 2.8</b>	
Bile Duct, Hyperplasia		1		1				1			1		2			2		1		4		1		1	1	<b>23 1.1</b>	
Mesentery		+	+					+	+	+	+					+							+			<b>15</b>	

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1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
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 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

FISCHER 344 RATS MALE 25 ppm	DAY ON TEST																								* TOTALS
	0729	0731	0732	0739	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	
ANIMAL ID	002226	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	
Fat, Necrosis		2		2				2	2						2							2			
Pancreas		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Atrophy		2				3				1			1	1			1			3	3			2	
Hyperplasia		1						3							2										
Salivary Glands		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Atrophy		2																							
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia, Squamous																				3					
Inflammation, Chronic Active																									
Ulcer																							1		
Stomach, Glandular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Tongue																								1	
<b>CARDIOVASCULAR SYSTEM</b>																									
Heart		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cardiomyopathy		1	2	1	2	3	3	2	3		1	1	1	2		2	2	1	2	1	1	1	2	2	
Inflammation, Chronic Active									3																
Thrombosis															2										
<b>ENDOCRINE SYSTEM</b>																									
Adrenal Cortex		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia			2	2	2	2	2		2		2		2	2	2		2		2	2			2		
Hypertrophy																						2			
Necrosis																			3						

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 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

FISCHER 344 RATS MALE 25 ppm	DAY ON TEST																								* TOTALS
	0729	0731	0739	0772	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	
ANIMAL ID	002226	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	
Adrenal Medulla Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
	2	2	2	2	2	2	2								3		3					2	2	2	22 2.2
Islets, Pancreatic Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
												3		2										3 3.0	
Parathyroid Gland Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
																						2		2 2.5	
Pituitary Gland Pars Distalis, Hemorrhage	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Pars Distalis, Hyperplasia	3				2					2				2			4		2				2	2	1 3.0
																								13 2.4	
Thyroid Gland C-cell, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
	1	1	1				3		1				1	1	1		2							16 1.3	
<b>GENERAL BODY SYSTEM</b>																									
Peritoneum Mesothelium, Hyperplasia																								2	
																							1	1 1.0	
<b>GENITAL SYSTEM</b>																									
Epididymis Granuloma Sperm Hyperplasia, Mesothelium	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
																						1		1 3.0	
			1																				1	3 1.0	
Preputial Gland Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
																								1 2.0	
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

FISCHER 344 RATS MALE 25 ppm	DAY ON TEST																								* TOTALS
	0729	0731	0732	0739	0749	0770	0772	0773	0774	0775	0776	0777	0778	0779	0780	0781	0782	0783	0784	0785	0786	0787	0788	0789	
ANIMAL ID	002226	002227	002228	002229	002230	002231	002232	002233	002234	002235	002236	002237	002238	002239	002240	002241	002242	002243	002244	002245	002246	002247	002248	002249	
Hyperplasia	2						3						2												
Inflammation, Suppurative									2																
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Atrophy	4								3						4									10 3.7	
Hemorrhage																								1 1.0	
Hyperplasia, Mesothelium																			1					2 1.0	
Arteriole, Inflammation																								1 3.0	
Interstitial Cell, Hyperplasia							2			2														4 1.5	
Tunic, Hyperplasia			1																1					2 1.0	
<b>HEMATOPOIETIC SYSTEM</b>																									
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Lymph Node																							+	4	
Lymph Node, Bronchial Ectasia	M	M	M	M	M	M	M	M	M	M	M	+	M	M	M	M	M	M	M	M	M	+	M	9 1 3.0	
Lymph Node, Mandibular	M	M	M	M	M	M	+	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	1	
Lymph Node, Mediastinal	M	+	M	+	M	+	M	+	M	M	+	M	M	M	+	M	M	M	+	+	+	+	+	21	
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hematopoietic Cell Proliferation																								1 2.0	
Necrosis										2														1 2.0	

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 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

FISCHER 344 RATS MALE 25 ppm	DAY ON TEST																						* TOTALS			
	0729	0731	0731	0732	0732	0732	0732	0732	0732	0732	0732	0732	0732	0732	0732	0732	0732	0732	0732	0732	0732	0732				
ANIMAL ID	0022	0022	0022	0022	0023	0023	0023	0023	0023	0023	0023	0023	0023	0023	0023	0023	0023	0023	0023	0023	0023	0023				
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	M	M	M	+	+	+	+	+	M	43			
<b>INTEGUMENTARY SYSTEM</b>																										
Mammary Gland Hyperplasia	M	M	+	M	+	+	+	+	M	+	+	M	M	M	+	+	+	M	M	+	+	M	29	1	2.0	
Skin Cyst Epithelial Inclusion Hyperkeratosis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	2	1	3.0
<b>MUSCULOSKELETAL SYSTEM</b>																										
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50			
Skeletal Muscle																							4			
<b>NERVOUS SYSTEM</b>																										
Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50			
<b>RESPIRATORY SYSTEM</b>																										
Larynx Inflammation, Chronic Active	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	1	2.0	
Lung Inflammation, Acute Thrombosis Alveolar Epithelium, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	1	4.0	
									4															1	3.0	
	1	1	1	3	3	1								1	1		3						18	1.5		

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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

FISCHER 344 RATS MALE 25 ppm	DAY ON TEST																				* TOTALS			
	0729	0731	0732	0739	0749	0770	0773	0779	0780	0786	0789	0790	0793	0794	0796	0797	0798	0799	0800	0801				
ANIMAL ID	002226	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022				
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50			
Foreign Body	X					X															2			
Inflammation, Chronic Active	2	3	1	1	1	2	3	4	1		2		4	1		3	2	2		1	2	2	36 2.0	
Thrombosis										4													4 3.0	
Olfactory Epithelium, Metaplasia, Respiratory	2	4	3	3	2	2	3	4	2	2	2	3	2	2	3	2	2		2	2	2	2	3	49 2.5
Respiratory Epithelium, Hyperplasia		2				1	1	2				1								2				8 1.5
Turbinate, Atrophy	2	3	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	3	2	2	2	3	2	50 2.2
Turbinate, Hyperostosis	3	2	2	2	2	2	2	3	1	2	2	2	2	1	3	2	1	2	1	2	3	3	2	49 2.1
Pleura																								1
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
<b>SPECIAL SENSES SYSTEM</b>																								
Eye	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	48	
Cataract																				2				1 2.0
Degeneration																								1 4.0
Cornea, Inflammation, Acute													2											1 2.0
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hyperplasia																			1				1	2 1.0
Zymbal's Gland														+										1
<b>URINARY SYSTEM</b>																								
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Cyst													2											1 2.0
Hydronephrosis																								1 3.0
Inflammation, Suppurative										2														2 2.0

\* .. 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

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Experiment Number: 20303 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Vinylidene chloride

CAS Number: 75-35-4

Date Report Requested: 12/12/2011

Time Report Requested: 09:47:55

First Dose M/F: 06/06/05 / 06/06/05

Lab: BNW

		DAY ON TEST																																																							
FISCHER 344 RATS MALE	ANIMAL ID	07	07	07	07	07	07	07	07	07	04	05	07	02	07	06	07	06	06	07	04	06	07	07	05	07	07	* TOTALS																													
		23	33	22	22	22	33	22	66	33	33	93	36	33	90	33	94	33	94	71	22	49	33	22	96	22	22			47	2.4																										
		91	11	99	99	99	09	90	99	66	55	00	44	11	11	00	44	77	11	22	44	66	77	00	00	99	77			93	1	3.0																									
25 ppm		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	66	77	88	99	00	11	22	33	33	33	33	33	33	33	33	44	44	44	44	44	44	44	44	44	44	55	99	00	1	2.0
Nephropathy		2	3	2	2	1	3	2	3	3		2		2	2	3	2	1	2	2	4	2	3	2	3	2	47	2.4																													
Thrombosis										3																	1	3.0																													
Renal Tubule, Hyperplasia																											1	2.0																													
Urinary Bladder		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50																														

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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

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
<b>FISCHER 344 RATS MALE</b>		7	7	6	6	7	5	6	6	7	6	5	7	7	6	7	7	2	4	6	5	5	7
		3	0	0	4	2	0	9	6	3	6	8	2	2	4	3	2	9	1	6	5	0	3
		0	5	3	2	9	0	8	0	0	1	6	9	9	2	0	9	6	8	6	7	2	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 ppm</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
		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	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

**males  
(cont...)**

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum Arteriole, Inflammation	+	+	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon Arteriole, Inflammation	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum Thrombosis	+	+	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Basophilic Focus																						X
Clear Cell Focus	X				X			X			X	X						X	X			
Cyst		2																				
Degeneration, Cystic										2				3				2				
Eosinophilic Focus	X						X					X	X									
Fatty Change, Diffuse	1		3	1				3						1	1	2		3		1	2	
Hepatodiaphragmatic Nodule																		X				
Inflammation, Chronic	2	1	1	1	1	1		2	2	1	1	1	1	1	1	1	1	1	1	1	1	2
Mixed Cell Focus								X							X					X		
Necrosis	1	2				3																3

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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

FISCHER 344 RATS MALE  50 ppm	DAY ON TEST																				ANIMAL ID	males (cont...)				
	0 7 3 0	0 7 0 5	0 6 0 3	0 6 4 2	0 7 2 9	0 5 0 0	0 6 9 8	0 6 6 0	0 7 3 1	0 6 6 6	0 5 8 9	0 7 2 9	0 7 2 9	0 6 4 2	0 7 3 0	0 7 2 9	0 2 1 6	0 4 6 8	0 6 5 7	0 5 0 2			0 7 3 0	0 6 8 9	0 5 9 1	0 6 8 3
Bile Duct, Hyperplasia	1							1					1	2	1			2					2	1		
Bile Duct, Inflammation, Suppurative																								4		
Mesentery Inflammation, Chronic Active Fat, Necrosis	+	+		+		+		+	+					+	+	+								+		
	2							2		2	2			2	2									2		
Pancreas Atrophy Hyperplasia Inflammation, Chronic Active	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
	2	3	1		1		4	1	1			1						1	1		2	2	3	1	4	
																								4		
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Stomach, Forestomach Hyperplasia, Squamous Ulcer	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
																								2		
Stomach, Glandular Mineralization Necrosis Ulcer	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
																							4			
																								1		

### CARDIOVASCULAR SYSTEM

Blood Vessel Aorta, Mineralization																								+	3		
Heart Cardiomyopathy	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
	1	2	2	1	2	1	1	1	2		1	2	2	2	2	3			+	+			1	2	2	2	

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Experiment Number: 20303 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

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

Vinylidene chloride

CAS Number: 75-35-4

Date Report Requested: 12/12/2011

Time Report Requested: 09:47:55

First Dose M/F: 06/06/05 / 06/06/05

Lab: BNW

<b>FISCHER 344 RATS MALE</b>  <b>50 ppm</b>	DAY ON TEST	07	07	06	06	07	05	06	06	07	06	05	07	07	06	07	07	02	04	06	05	05	07	06	05	06	05	06
		30	00	00	04	02	00	09	06	03	06	08	02	02	04	03	02	09	01	06	05	00	03	08	09	09	08	03
	ANIMAL ID	0040	0044	0044	0044	0044	0044	0044	0044	0044	0044	0044	0044	0044	0044	0044	0044	0044	0044	0044	0044	0044	0044	0044	0044	0044	0044	0044
	01	02	03	04	05	06	07	08	09	00	01	01	02	03	04	05	06	07	08	09	00	01	02	02	03	04	05	06

**males**  
**(cont...)**

Thrombosis

3

3

**ENDOCRINE SYSTEM**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia	2	2					2	2					1	2	2		2			2	2	2				
Hypertrophy																	2									
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia	2				2							2	2	2	1				2					2		
Bilateral, Hyperplasia																										
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia										2																
Parathyroid Gland	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia																							2			
Pituitary Gland	+	+	+	+	I	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Pars Distalis, Hyperplasia	2	2				2			2					3					2		3					
Thyroid Gland	+	+	+	+	I	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
C-cell, Hyperplasia						2	1						1			1			1	2			1	1	1	
Follicular Cell, Hyperplasia															3											

**GENERAL BODY SYSTEM**

Peritoneum	+		+		+																					
------------	---	--	---	--	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**GENITAL 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: 20303 - 05  
Test Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY  
Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
Vinylidene chloride  
CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
Time Report Requested: 09:47:55  
First Dose M/F: 06/06/05 / 06/06/05  
Lab: BNW

FISCHER 344 RATS MALE	DAY ON TEST																								males (cont...)
50 ppm	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	6	6	7	5	6	6	7	6	5	7	7	6	7	7	2	4	6	5	5	7	6	5	
	3	0	0	4	2	0	9	6	3	6	8	2	2	4	3	2	9	1	6	5	0	3	8	9	
	0	5	3	2	9	0	8	0	1	6	9	2	9	2	0	9	6	8	6	7	2	0	9	1	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	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		
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3		

Ectasia

4

Lymph Node, Mandibular

M + M

Lymph Node, Mediastinal  
Congestion  
Hyperplasia, Lymphoid

+ + A + + M + M M + M M M + + + M + + M + M M + M  
2 2

Lymph Node, Mesenteric  
Congestion  
Hyperplasia, Lymphoid

+ + + + + + + + + + + 2 + + + + + + + + + + +

Spleen  
Fibrosis  
Hematopoietic Cell Proliferation  
Necrosis  
Capsule, Hyperplasia

+  
4  
3 1

Thymus

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

### INTEGUMENTARY SYSTEM

Mammary Gland

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

Skin  
Cyst Epithelial Inclusion  
Inflammation, Acute  
Inflammation, Chronic Active

+ M +  
X 2 3

### MUSCULOSKELETAL SYSTEM

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

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

Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

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

Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

|                       |           | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | males<br>(cont...) |      |      |      |      |      |      |    |    |    |    |
|-----------------------|-----------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|------|------|------|------|------|------|----|----|----|----|
| FISCHER 344 RATS MALE |           | 0730        | 0770 | 0776 | 0776 | 0777 | 0775 | 0776 | 0776 | 0777 | 0776 | 0775 | 0777 | 0777 | 0776 | 0777 | 0777 | 0772 | 0774 | 0776 | 0775 | 0775 | 0777 | 0776 | 0775 |                    | 0776 | 0778 | 0773 | 0778 | 0779 | 0778 |    |    |    |    |
| 50 ppm                |           | 0040        | 0040 | 0040 | 0040 | 0040 | 0040 | 0040 | 0040 | 0040 | 0040 | 0040 | 0040 | 0040 | 0040 | 0040 | 0040 | 0040 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 |                    | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 |    |    |    |    |
|                       | ANIMAL ID | 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                 | 06   | 07   | 08   | 09   | 00   | 01   | 02 | 03 | 04 | 05 |

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |

**NERVOUS SYSTEM**

|                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Peripheral Nerve | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spinal Cord      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

**RESPIRATORY SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Lung  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Chronic Active                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mineralization                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thrombosis                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Alveolar Epithelium, Hyperplasia              | 3 |   |   |   | 3 |   |   |   |   | 1 | 1 |   |   |   |   |   |   | 1 | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Alveolar Epithelium, Metaplasia, Squamous     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Alveolar Epithelium, Metaplasia, Mucous       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nose  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Foreign Body                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Chronic Active                  | 4 | 1 | 3 | 1 | 4 | 2 | 2 | 4 | 1 | 3 | 2 | 2 | 3 | 3 | 4 | 4 |   |   |   |   |   |   |   |   | 3 | 3 | 2 | 3 | 1 | 3 | 1 |   |   |   |   |   |   |   |
| Thrombosis                                    |   |   | 2 |   |   |   | 4 | 3 |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |
| Olfactory Epithelium, Metaplasia, Respiratory | 4 | 2 | 3 | 2 | 4 | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 2 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 3 |   |   |   |   |   |   |   |   |   |
| Olfactory Epithelium, Metaplasia, Squamous    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Respiratory Epithelium, Hyperplasia           | 3 |   |   |   | 3 | 3 |   |   | 3 |   | 2 |   |   | 2 | 2 | 3 | 3 |   |   |   |   |   |   | 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  
 2) Mild 4) Marked

Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE<br>50 ppm                                      |  | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | males<br>(cont...) |      |
|--|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|------|
|  |  | 0730        | 0735 | 0740 | 0745 | 0750 | 0755 | 0760 | 0765 | 0770 | 0775 | 0780 | 0785 | 0790 | 0795 | 0800 | 0805 | 0810 | 0815 | 0820 | 0825 |                    | 0830 |
| ANIMAL ID  |  | 0040        | 0042 | 0043 | 0044 | 0045 | 0046 | 0047 | 0048 | 0049 | 0050 | 0051 | 0052 | 0053 | 0054 | 0055 | 0056 | 0057 | 0058 | 0059 | 0060 | 0061               | 0062 |
| Respiratory Epithelium, Metaplasia, Squamous Turbinate, Atrophy      |  | 4           | 3    | 4    | 4    | 4    | 3    | 3    | 4    | 3    | 4    | 3    | 3    | 3    | 4    | 3    | 3    | 4    | 3    | 3    | 4    | 3                  | 3    |
| Respiratory Epithelium, Metaplasia, Squamous Turbinate, Hyperostosis |  | 2           | 3    | 3    | 2    | 2    | 1    | 3    | 3    | 4    | 3    | 3    | 3    | 3    | 2    | 3    | 3    | 2    | 2    | 2    | 2    | 3                  | 3    |
| Trachea  |  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                  | +    |
| <b>SPECIAL SENSES SYSTEM</b>   |  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                    |      |
| Eye  |  | +           | +    | A    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                  | +    |
| Cataract   |  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                    |      |
| Retina, Atrophy  |  | 2           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                    |      |
| Harderian Gland  |  | +           | +    | A    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                  | +    |
| Hyperplasia  |  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                    |      |
| <b>URINARY SYSTEM</b>  |  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                    |      |
| Kidney   |  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                  | +    |
| Infarct  |  |             |      |      |      |      |      |      |      |      |      |      |      | 3    |      |      |      |      |      |      |      |                    |      |
| Inflammation, Suppurative  |  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 4    |                    |      |
| Nephropathy  |  | 4           | 3    | 2    | 2    | 3    |      | 2    | 3    | 2    | 3    | 3    | 2    | 3    | 2    | 2    | 2    | 1    | 1    | 2    | 2    | 4                  | 4    |
| Renal Tubule, Hyperplasia  |  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |      |                    |      |
| Renal Tubule, Necrosis   |  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |      |                    |      |
| Transitional Epithelium, Hyperplasia                                 |  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 3                  |      |
| Urinary Bladder  |  | +           | +    | A    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                  | +    |
| Inflammation, Chronic Active   |  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2    |                    |      |
| Transitional Epithelium, Hyperplasia                                 |  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 3                  |      |

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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |       |       |
|-----------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|
|                       | 0730        | 0668  | 0729  | 0733  | 0533  | 0729  | 0637  | 0555  | 0554  | 0729  | 0742  | 0774  | 0773  | 0422  | 0723  | 0733  | 0631  | 0733  | 0559  | 0556  |          | 0557  | 0661  | 0722  | 0733  | 0733  |
| 50 ppm                | 00426       | 00427 | 00428 | 00429 | 00430 | 00431 | 00432 | 00433 | 00434 | 00435 | 00436 | 00437 | 00438 | 00439 | 00440 | 00441 | 00442 | 00443 | 00444 | 00445 | 00446    | 00447 | 00448 | 00449 | 00450 | 00451 |
|                       | 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     |

**ALIMENTARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |       |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|-------|
| Esophagus                                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +      | 49    |
| Intestine Large, Cecum Arteriole, Inflammation | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | +      | 45    |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        | 1 1.0 |
| Intestine Large, Colon Arteriole, Inflammation | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | +      | 47    |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        | 1 1.0 |
| Intestine Large, Rectum Thrombosis             | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | +      | 46    |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        | 1 2.0 |
| Intestine Small, Duodenum                      | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | +      | 45    |
| Intestine Small, Ileum                         | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | +      | 45    |
| Intestine Small, Jejunum                       | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | +      | 45    |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +      | 50    |
| Basophilic Focus                               | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   | 5      |       |
| Clear Cell Focus                               | X |   | X | X |   |   |   |   | X | X |   |   |   |   | X | X |   |   |   | X | X | X | X | X | 19     |       |
| Cyst   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |       |
| Degeneration, Cystic                           |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 2 |   | 1 |   |   |   |   |   |   |   | 7 1.9  |       |
| Eosinophilic Focus                             | X |   |   |   |   | X |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   | 7      |       |
| Fatty Change, Diffuse                          | 2 | 1 |   | 3 |   |   | 1 |   |   | 2 | 1 |   |   | 1 |   |   |   |   |   |   |   |   | 1 |   | 18 1.7 |       |
| Hepatodiaphragmatic Nodule                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1      |       |
| Inflammation, Chronic                          | 2 |   | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 |   | 2 | 1 | 2 | 2 | 2 | 46 1.3 |       |
| Mixed Cell Focus                               | X |   |   |   |   |   |   |   |   |   | X |   |   | X |   |   |   |   |   |   |   |   | X | X | 8      |       |
| Necrosis                                       |   |   | 3 |   |   | 4 |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 | 8 2.6  |       |

\* .. 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE<br>50 ppm                           | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|
|   | 0730        | 0668  | 0729  | 0733  | 0535  | 0769  | 0657  | 0555  | 0554  | 0772  | 0674  | 0523  | 0723  | 0733  | 0631  | 0739  | 0566  | 0557  | 0557  | 0661  |          | 0723  | 0733  | 0731  |
| ANIMAL ID   | 00426       | 00447 | 00448 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444    | 00444 | 00444 | 00444 |
| Bile Duct, Hyperplasia                                    |             |       |       | 1     |       | 2     |       |       |       |       |       |       |       |       |       | 1     | 1     | 1     | 1     | 1     |          |       | 1     |       |
| Bile Duct, Inflammation, Suppurative                      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |
| Mesentery Inflammation, Chronic Active Fat, Necrosis      | +           | +     | +     | +     |       |       |       |       | +     | +     |       |       |       |       | +     |       |       |       | +     | +     |          |       | +     |       |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       | 2     |       |       |       |       |       |          |       |       | 21    |
|   | 2           |       | 2     | 2     |       |       |       |       | 2     |       |       |       |       |       | 2     |       |       |       |       | 2     |          |       | 2     |       |
| Pancreas Atrophy Hyperplasia Inflammation, Chronic Active | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50    |
|   |             |       | 3     | 1     |       | 2     |       |       | 2     |       |       |       |       |       | 3     |       | 2     |       |       | 2     | 1        | 3     | 1     |       |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 25    |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1.9   |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 2     |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 2.5   |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1     |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 4.0   |
| Salivary Glands   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50    |
| Stomach, Forestomach Hyperplasia, Squamous Ulcer          | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50    |
|   |             |       |       |       |       | 1     |       |       |       |       |       |       |       |       |       |       |       |       |       | 3     |          |       |       |       |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 2     |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 2.0   |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1     |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 2.0   |
| Stomach, Glandular Mineralization Necrosis Ulcer          | +           | +     | +     | +     | A     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 49    |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1     |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1     |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 3     |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 4.0   |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 3     |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1.0   |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1     |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 3.0   |

**CARDIOVASCULAR SYSTEM**

|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|
| Blood Vessel Aorta, Mineralization |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1   |
|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1   |
|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.0 |
| Heart Cardiomyopathy               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50  |
|                                    | 2 | 2 | 1 | 1 | 2 |   | 1 | 1 | 1 | 1 | 1 |   | 1 | 2 | 2 |   | 2 |   | 1 | 1 |   | 1 | 2 | 3   |
|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 39  |
|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1.6 |

\* .. 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: 20303 - 05  
Test Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY  
Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
Vinylidene chloride  
CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
Time Report Requested: 09:47:55  
First Dose M/F: 06/06/05 / 06/06/05  
Lab: BNW

|                                     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
|-------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| FISCHER 344 RATS MALE<br><br>50 ppm | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
|                                     | 0730        | 0668  | 0729  | 0730  | 0535  | 0767  | 0659  | 0557  | 0554  | 0779  | 0740  | 0772  | 0773  | 0773  | 0667  | 0771  | 0596  | 0556  | 0557  | 0667  | 0773  | 0773  | 0772  | 0779  |  |
| ANIMAL ID                           |             | 00426 | 00442 | 00442 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 |  |

Thrombosis 3 3 4 2 6 3.0

**ENDOCRINE SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |        |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| Adrenal Cortex Hyperplasia Hypertrophy                         | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | 27 2.0 |
| Adrenal Medulla Hyperplasia Bilateral, Hyperplasia             | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | I | + | 48 | 17 1.9 |
| Islets, Pancreatic Hyperplasia                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 3 2.7  |
| Parathyroid Gland Hyperplasia                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | 47 | 1 2.0  |
| Pituitary Gland Pars Distalis, Hyperplasia                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | 14 2.5 |
| Thyroid Gland C-cell, Hyperplasia Follicular Cell, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | 19 1.3 |

**GENERAL BODY SYSTEM**

Peritoneum + 4

**GENITAL SYSTEM**

\* .. 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE<br>50 ppm  | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |   |      |  |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|---|------|--|
|  | 0730        | 0668  | 0729  | 0730  | 0533  | 0729  | 0635  | 0554  | 0554  | 0729  | 0729  | 0423  | 0729  | 0729  | 0673  | 0731  | 0731  | 0596  | 0553  | 0557  |          | 0671  | 0723  | 0733                                    | 0729 |  |
| ANIMAL ID  | 00426       | 00447 | 00448 | 00449 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444    | 00444 | 00444 | 00444                                   |      |  |
| Epididymis<br>Hyperplasia, Mesothelium   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50<br>1 1.0                             |      |  |
| Penis<br>Inflammation, Suppurative   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1<br>1 4.0                              |      |  |
| Preputial Gland  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 49                                      |      |  |
| Prostate<br>Hyperplasia<br>Inflammation, Suppurative   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50<br>7 1.9<br>9 2.3                    |      |  |
| Seminal Vesicle<br>Hyperplasia   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | A     | +     | +        | +     | +     | 48<br>1 2.0                             |      |  |
| Testes<br>Atrophy<br>Arteriole, Inflammation<br>Interstitial Cell, Hyperplasia<br>Tunic, Hyperplasia | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50<br>13 3.3<br>1 1.0<br>6 1.3<br>2 1.0 |      |  |
| <b>HEMATOPOIETIC SYSTEM</b>  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |   |      |  |
| Bone Marrow  | +           | +     | +     | +     | A     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 48                                      |      |  |
| Lymph Node<br>Pancreatic, Congestion<br>Pancreatic, Infiltration Cellular, Histiocyte                |             |       |       |       |       | +     |       |       | +     |       |       |       |       |       |       |       |       |       | +     | +     |          | +     |       | 9<br>1 2.0<br>1 2.0                     |      |  |
| Lymph Node, Bronchial<br>Congestion  | +           | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | +     | M     | M     | +     | +     | M     | M        | M     | M     | 9<br>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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE<br>50 ppm  | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |      |                                  |                         |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|------|----------------------------------|-------------------------|
|  | 0730        | 0668  | 0729  | 0733  | 0535  | 0729  | 0637  | 0555  | 0554  | 0779  | 0772  | 0422  | 0723  | 0773  | 0671  | 0739  | 0566  | 0557  | 0557  | 0661  |          | 0723  | 0733  | 0731  | 0729 |                                  |                         |
| ANIMAL ID  | 00426       | 00442 | 00442 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444    | 00444 | 00444 | 00444 |      |                                  |                         |
| Ectasia  | 2           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 2 3.0    |       |       |       |      |                                  |                         |
| Lymph Node, Mandibular   | M           | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M        | M     | M     | M     | 1    |                                  |                         |
| Lymph Node, Mediastinal<br>Congestion<br>Hyperplasia, Lymphoid                             | +           | M     | M     | +     | M     | +     | M     | M     | M     | +     | M     | +     | M     | +     | M     | +     | M     | M     | +     | +     | +        | M     | M     | M     | +    | 24                               | 1 3.0<br>2 2.0          |
| Lymph Node, Mesenteric<br>Congestion<br>Hyperplasia, Lymphoid                              | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50   | 1 2.0<br>1 2.0                   |                         |
| Spleen<br>Fibrosis<br>Hematopoietic Cell Proliferation<br>Necrosis<br>Capsule, Hyperplasia | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50   | 2 2.0<br>1 4.0<br>2 2.5<br>1 1.0 |                         |
| Thymus   | +           | M     | +     | +     | +     | +     | +     | M     | +     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | M     | +     | +     | 41   |                                  |                         |
| <b>INTEGUMENTARY SYSTEM</b>  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |      |                                  |                         |
| Mammary Gland  | +           | +     | +     | +     | M     | +     | +     | M     | M     | +     | +     | +     | M     | +     | M     | M     | +     | +     | M     | M     | M        | +     | +     | M     | M    | 24                               |                         |
| Skin<br>Cyst Epithelial Inclusion<br>Inflammation, Acute<br>Inflammation, Chronic Active   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +    | 49                               | 2 2.0<br>1 3.0<br>1 4.0 |
| <b>MUSCULOSKELETAL SYSTEM</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  
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1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
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Experiment Number: 20303 - 05  
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 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
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 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE<br>50 ppm               | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |        |        |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|--------|--------|
|   | 0730        | 0668  | 0729  | 0730  | 0533  | 0729  | 0637  | 0555  | 0554  | 0729  | 0772  | 0422  | 0723  | 0773  | 0671  | 0739  | 0566  | 0557  | 0555  | 0671  |          | 0723  | 0733  | 0721  | 0731   | 0729   |
| ANIMAL ID                                     | 00426       | 00447 | 00448 | 00449 | 00400 | 00401 | 00402 | 00403 | 00404 | 00405 | 00406 | 00407 | 00408 | 00409 | 00410 | 00411 | 00412 | 00413 | 00414 | 00415 | 00416    | 00417 | 00418 | 00419 | 00420  |        |
| Bone  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50     |        |
| Skeletal Muscle                               |             | +     |       |       | +     |       |       | +     |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 7      |        |
| <b>NERVOUS SYSTEM</b>                         |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |        |        |
| Brain   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50     |        |
| Peripheral Nerve                              |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1      |        |
| Spinal Cord                                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1      |        |
| <b>RESPIRATORY SYSTEM</b>                     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |        |        |
| Larynx  | +           | +     | +     | +     | A     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 49     |        |
| Lung  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50     |        |
| Inflammation, Chronic Active                  |             |       |       |       |       |       |       |       |       |       |       |       |       | 1     |       |       |       |       |       |       |          |       |       |       | 1 1.0  |        |
| Mineralization                                |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 2.0  |        |
| Thrombosis                                    |             |       | 1     |       |       |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 2 1.5  |        |
| Alveolar Epithelium, Hyperplasia              | 2           |       | 1     |       |       |       |       |       |       |       | 2     |       |       |       |       | 2     |       |       |       |       | 2        |       |       |       | 14 1.6 |        |
| Alveolar Epithelium, Metaplasia, Squamous     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 2     |       |       | 1 2.0  |        |
| Alveolar Epithelium, Metaplasia, Mucous       |             |       |       |       |       |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 2.0  |        |
| Nose  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50     |        |
| Foreign Body                                  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | X     | 2      |        |
| Inflammation, Chronic Active                  | 4           | 3     | 3     | 3     |       | 4     | 4     | 2     | 2     | 3     | 1     | 1     | 3     | 4     | 4     | 2     | 3     | 1     |       |       | 2        | 3     | 3     | 4     | 3      | 45 2.7 |
| Thrombosis                                    |             |       | 4     |       |       | 4     |       |       | 3     | 3     |       |       |       |       |       |       |       |       | 3     | 4     |          |       |       |       | 11 3.3 |        |
| Olfactory Epithelium, Metaplasia, Respiratory | 4           | 4     | 3     | 3     |       | 4     | 3     | 3     | 3     | 3     | 3     | 1     | 4     | 4     | 4     | 3     | 4     | 3     | 3     | 1     | 3        | 4     | 3     | 4     | 3      | 49 3.2 |
| Olfactory Epithelium, Metaplasia, Squamous    |             |       |       |       |       |       |       |       |       |       |       |       |       | 2     |       |       |       |       |       |       |          |       |       |       | 1 2.0  |        |
| Respiratory Epithelium, Hyperplasia           | 4           | 2     | 2     |       |       | 1     |       |       |       |       |       |       | 2     | 2     | 3     |       | 2     |       |       |       |          |       | 3     | 2     | 22 2.5 |        |

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

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

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

Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE<br>50 ppm                                 | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |       |        |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|--------|
|   | 0730        | 0668  | 0729  | 0730  | 0535  | 0729  | 0637  | 0555  | 0554  | 0779  | 0770  | 0423  | 0722  | 0733  | 0733  | 0617  | 0731  | 0596  | 0553  | 0557  |          | 0661  | 0772  | 0773  | 0733  | 0731   |
| ANIMAL ID   | 00426       | 00447 | 00448 | 00449 | 00450 | 00451 | 00452 | 00453 | 00454 | 00455 | 00456 | 00457 | 00458 | 00459 | 00460 | 00461 | 00462 | 00463 | 00464 | 00465 | 00466    | 00467 | 00468 | 00469 | 00470 |        |
| Respiratory Epithelium, Metaplasia, Squamous Turbinate, Atrophy | 3           | 4     | 3     | 3     | 3     | 3     | 2     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 4     | 4        | 3     | 3     | 3     | 3     | 1 2.0  |
| Turbinate, Hyperostosis   | 2           | 2     | 3     | 3     | 3     | 2     | 1     | 3     | 3     | 2     | 3     | 2     | 3     | 3     | 1     | 3     | 3     | 2     | 2     | 3     | 3        | 3     | 3     | 2     | 3     | 50 3.2 |
| Trachea   | +           | +     | +     | +     | A     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 49    |        |
| <b>SPECIAL SENSES SYSTEM</b>                                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |        |
| Eye   | +           | +     | +     | +     | A     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | A     | +        | +     | +     | +     | 47    |        |
| Cataract  |             |       |       |       |       |       | 1     |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 1.0 |        |
| Retina, Atrophy   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 2.0 |        |
| Harderian Gland   | +           | +     | +     | +     | A     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 48    |        |
| Hyperplasia   |             |       |       |       |       |       |       |       |       |       |       |       |       |       | 3     |       |       |       |       |       |          |       |       |       | 1 3.0 |        |
| <b>URINARY SYSTEM</b>   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |        |
| Kidney  | +           | +     | +     | +     | A     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 49    |        |
| Infarct   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 3.0 |        |
| Inflammation, Suppurative                                       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 4.0 |        |
| Nephropathy   | 4           | 3     | 2     | 3     |       | 3     | 2     | 1     | 2     | 2     | 3     | 1     | 3     | 4     | 3     | 2     | 2     | 1     | 2     |       | 1        | 3     | 2     | 3     | 2     | 47 2.4 |
| Renal Tubule, Hyperplasia                                       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 1.0 |        |
| Renal Tubule, Necrosis  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 2     |       |          |       |       |       | 2 1.5 |        |
| Transitional Epithelium, Hyperplasia                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 3.0 |        |
| Urinary Bladder   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 49    |        |
| Inflammation, Chronic Active                                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 2.0 |        |
| Transitional Epithelium, Hyperplasia                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | ANIMAL ID | males<br>(cont...) |   |   |   |  |
|-----------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------------|---|---|---|--|
|                       | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |           |                    | 0 |   |   |  |
| 100 ppm               | 7           | 7 | 7 | 7 | 6 | 7 | 6 | 4 | 7 | 7 | 4 | 5 | 7 | 7 | 6 | 0 | 7 | 6 | 5 | 7 | 7 | 6         | 5                  | 6 | 7 | 0 |  |
|                       | 0           | 3 | 2 | 2 | 3 | 3 | 5 | 9 | 2 | 3 | 4 | 4 | 2 | 3 | 7 | 1 | 1 | 7 | 3 | 3 | 2 | 0         | 6                  | 1 | 9 | 0 |  |
|                       | 1           | 0 | 9 | 9 | 5 | 0 | 6 | 5 | 9 | 0 | 9 | 2 | 6 | 0 | 0 | 0 | 8 | 6 | 4 | 1 | 9 | 0         | 1                  | 9 | 2 | 0 |  |
|                       | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0         | 0                  | 0 | 0 | 0 |  |
|                       | 6           | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6         | 6                  | 6 | 6 | 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 |  |

**ALIMENTARY SYSTEM**

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Esophagus                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| Hyperplasia, Squamous      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Intestine Large, Cecum     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + |  |
| Intestine Large, Colon     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Large, Rectum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Small, Duodenum  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Small, Ileum     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Small, Jejunum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Liver                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Basophilic Focus           | X | X |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |  |
| Clear Cell Focus           |   |   | X | X |   |   |   |   | X | X |   |   |   | X | X |   | X |   | X | X |   |   |   |   |   |  |
| Degeneration, Cystic       |   |   |   |   |   | 2 |   |   | 2 |   |   |   |   | X | X |   | X |   | 2 | 4 | 1 |   |   |   |   |  |
| Eosinophilic Focus         |   |   |   |   | X | X |   | X |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |  |
| Fatty Change, Diffuse      | 3 | 2 |   | 3 | 1 |   | 3 | 3 | 2 | 1 |   |   | 1 | 1 |   | 3 |   |   | 1 |   |   |   | 3 |   |   |  |
| Hepatodiaphragmatic Nodule |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | X |   |  |
| Inflammation, Acute        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Inflammation, Chronic      | 2 | 2 | 3 | 2 | 3 |   | 2 | 3 | 3 | 3 |   | 1 |   | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 |  |
| Mixed Cell Focus           |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |  |
| Necrosis                   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |  |
| Bile Duct, Hyperplasia     | 2 |   |   | 1 | 2 |   |   |   |   | 1 |   |   |   | 1 |   |   | 3 |   |   |   |   | 1 |   |   | 2 |  |
| Mesentery                  | + | + |   | + | + | + | + |   |   |   | + | + | + |   |   |   |   | + | + | + |   | + |   |   |   |  |

\* .. 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE<br>100 ppm | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID | males<br>(cont...) |      |      |
|----------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|
|                                  | 0701        | 0703 | 0702 | 0702 | 0703 | 0703 | 0705 | 0709 | 0709 | 0704 | 0707 | 0707 | 0704 | 0705 | 0707 | 0707 | 0706 | 0700 | 0707 | 0706 | 0705 | 0707 | 0706 | 0705 |           |                    | 0706 | 0705 |
|                                  | 0           | 0    | 0    | 0    | 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    | 6    | 7    | 6    | 4    | 7    | 7    | 4    | 5    | 7    | 7    | 6    | 0    | 7    | 6    | 5    | 7    | 7    | 6    | 5    | 7    | 6         | 5                  | 6    | 7    |
|                                  | 0           | 3    | 2    | 2    | 3    | 3    | 5    | 9    | 2    | 3    | 4    | 4    | 2    | 3    | 7    | 1    | 1    | 7    | 3    | 3    | 2    | 0    | 6    | 1    | 9         | 2                  | 9    |      |
|                                  | 1           | 0    | 9    | 9    | 5    | 0    | 6    | 5    | 9    | 0    | 9    | 2    | 6    | 0    | 0    | 0    | 8    | 6    | 4    | 1    | 9    | 0    | 1    | 9    | 0         | 2                  | 9    |      |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0         | 0                  | 0    |      |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0         | 0                  | 0    |      |
|                                  | 6           | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6         | 6                  | 6    |      |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    | 2         | 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         |                    |      |      |

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Adrenal Medulla Hyperplasia       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
|                                   | 2 | 2 | 2 | 2 | 2 |   |   |   | 2 | 3 |   |   | 2 | 2 | 2 |   |   |   | 3 | 3 |   | 2 |   |   |   |   |  |
| Islets, Pancreatic Hyperplasia    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   | 3 |  |
| Parathyroid Gland Hyperplasia     | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + |  |
|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |  |
| Pituitary Gland Angiectasis       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Pars Distalis, Angiectasis        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |  |
| Pars Distalis, Hyperplasia        |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   | 2 |   |   |   |   |   |   |   |   |   |   | 2 |  |
| Thyroid Gland C-cell, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Follicular Cell, Hyperplasia      | 1 |   |   |   |   | 1 | 1 | 1 |   |   |   |   | 1 |   |   |   | 1 |   | 1 |   | 1 | 1 | 1 | 1 | 2 |   |  |
|                                   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

**GENERAL BODY SYSTEM**

|            |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |
|------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Peritoneum | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + |
| Tissue NOS |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |

**GENITAL SYSTEM**

|                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coagulating Gland Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |
| Inflammation, Suppurative     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |
| Epididymis                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |

\* .. 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE<br>100 ppm | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID | males<br>(cont...) |      |      |      |      |      |
|----------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|------|------|------|
|                                  | 0701        | 0703 | 0702 | 0722 | 0723 | 0733 | 0735 | 0736 | 0744 | 0747 | 0747 | 0744 | 0755 | 0777 | 0777 | 0766 | 0700 | 0777 | 0766 | 0755 |           |                    | 0777 | 0766 | 0755 | 0766 | 0755 |
|                                  | 0           | 0    | 0    | 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    | 6    | 7    | 6    | 4    | 7    | 7    | 4    | 5    | 7    | 7    | 6    | 0    | 7    | 6    | 5    | 7    | 7         | 6                  | 5    | 6    | 6    | 7    | 7    |
|                                  | 0           | 3    | 2    | 2    | 3    | 3    | 5    | 9    | 2    | 3    | 4    | 4    | 2    | 3    | 7    | 1    | 1    | 7    | 3    | 3    | 2         | 0                  | 6    | 1    | 1    | 2    | 2    |
|                                  | 1           | 0    | 9    | 9    | 5    | 0    | 6    | 5    | 9    | 0    | 9    | 2    | 6    | 0    | 0    | 0    | 8    | 6    | 4    | 1    | 9         | 0                  | 1    | 9    | 0    | 0    | 0    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0         | 0                  | 0    | 0    | 0    | 0    | 0    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0         | 0                  | 0    | 0    | 0    | 0    | 0    |
|                                  | 6           | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6         | 6                  | 6    | 6    | 6    | 6    | 6    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 2         | 2                  | 2    | 2    | 2    | 2    | 2    |
|                                  | 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    |

|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Degeneration                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |
| Preputial Gland                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Prostate                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 | 2 |   |   |   |   |   |
| Inflammation, Suppurative      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 | 3 |   |   |   |   |   |
| Seminal Vesicle                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Testes                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy                        | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |
| Interstitial Cell, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 1 |   |   |   |   |   |
| Tunic, Hyperplasia             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 1 |   |   |   |   |   |

**HEMATOPOIETIC SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node<br>Pancreatic, Hyperplasia, Lymphoid            | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | + |   |   |   |   |
| Lymph Node, Bronchial<br>Infiltration Cellular, Histiocyte | M | M | M | M | M | M | M | + | M | M | M | M | M | M | M | M | M | M | M | M | M | + | M | M | + |   |   |
| Lymph Node, Mandibular                                     | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |
| Lymph Node, Mediastinal<br>Hyperplasia, Lymphoid           | + | + | M | + | M | + | M | + | + | + | + | M | + | + | + | + | M | M | M | M | + | M | M | M | M |   |   |
| Lymph Node, Mesenteric                                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

\* .. 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

|                              |                | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|------------------------------|----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>FISCHER 344 RATS MALE</b> |                | 0<br>7<br>0<br>1      | 0<br>7<br>3<br>0      | 0<br>7<br>2<br>0      | 0<br>7<br>2<br>0      | 0<br>6<br>3<br>5      | 0<br>7<br>3<br>0      | 0<br>6<br>5<br>6      | 0<br>4<br>9<br>5      | 0<br>7<br>2<br>9      | 0<br>7<br>3<br>0      | 0<br>4<br>4<br>9      | 0<br>5<br>2<br>2      | 0<br>7<br>3<br>6      | 0<br>7<br>7<br>0      | 0<br>6<br>1<br>0      | 0<br>7<br>3<br>8      | 0<br>6<br>3<br>4      | 0<br>5<br>3<br>1      | 0<br>7<br>2<br>9      | 0<br>6<br>0<br>0      | 0<br>5<br>3<br>1      | 0<br>7<br>2<br>0      | 0<br>6<br>6<br>1      | 0<br>5<br>1<br>9      | 0<br>6<br>1<br>2      | 0<br>7<br>2<br>3      | 0<br>6<br>1<br>4      | 0<br>7<br>2<br>5      |                       |                       |
|                              | <b>100 ppm</b> | 0<br>0<br>6<br>0<br>1 | 0<br>0<br>6<br>0<br>2 | 0<br>0<br>6<br>0<br>3 | 0<br>0<br>6<br>0<br>4 | 0<br>0<br>6<br>0<br>5 | 0<br>0<br>6<br>0<br>6 | 0<br>0<br>6<br>0<br>7 | 0<br>0<br>6<br>0<br>8 | 0<br>0<br>6<br>0<br>9 | 0<br>0<br>6<br>0<br>0 | 0<br>0<br>6<br>0<br>1 | 0<br>0<br>6<br>0<br>1 | 0<br>0<br>6<br>0<br>2 | 0<br>0<br>6<br>0<br>3 | 0<br>0<br>6<br>0<br>4 | 0<br>0<br>6<br>0<br>5 | 0<br>0<br>6<br>0<br>6 | 0<br>0<br>6<br>0<br>7 | 0<br>0<br>6<br>0<br>8 | 0<br>0<br>6<br>0<br>9 | 0<br>0<br>6<br>0<br>0 | 0<br>0<br>6<br>0<br>1 | 0<br>0<br>6<br>0<br>2 | 0<br>0<br>6<br>0<br>3 | 0<br>0<br>6<br>0<br>4 | 0<br>0<br>6<br>0<br>5 | 0<br>0<br>6<br>0<br>6 | 0<br>0<br>6<br>0<br>7 | 0<br>0<br>6<br>0<br>8 | 0<br>0<br>6<br>0<br>9 |

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|---|---|
| Ectasia  | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |
| Hyperplasia, Lymphoid<br>Inflammation, Granulomatous | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |
| Spleen   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   | + | + | + | + | + | + | + | + | + | + |
| Fibrosis   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 2 |   |   |   |   |   |   |   |   |   |   |
| Hyperplasia, Lymphoid<br>Necrosis                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2   |   |   |   |   |   |   |   |   |   |   |
| Thymus   | + | + | + | + | M | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | +   | + | + | + | + | + | + | + | + | M |   |
| Infiltration Cellular, Polymorphonuclear             | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |

INTEGUMENTARY SYSTEM

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

MUSCULOSKELETAL SYSTEM

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |

NERVOUS SYSTEM

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

RESPIRATORY SYSTEM

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |

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



Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | ANIMAL ID | males<br>(cont...) |   |   |   |   |  |
|-----------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------------|---|---|---|---|--|
|                       | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |           |                    | 0 |   |   |   |  |
| 100 ppm               | 7           | 7 | 7 | 7 | 6 | 7 | 6 | 4 | 7 | 7 | 4 | 5 | 7 | 7 | 6 | 0 | 7 | 6 | 5 | 7 | 7         | 6                  | 5 | 6 | 7 | 0 |  |
|                       | 0           | 3 | 2 | 2 | 3 | 3 | 5 | 9 | 2 | 3 | 4 | 4 | 2 | 3 | 7 | 1 | 1 | 7 | 3 | 3 | 2         | 0                  | 6 | 1 | 2 | 0 |  |
|                       | 1           | 0 | 0 | 9 | 9 | 5 | 0 | 6 | 5 | 0 | 9 | 2 | 6 | 0 | 0 | 0 | 8 | 6 | 4 | 1 | 9         | 0                  | 1 | 9 | 2 | 0 |  |
|                       | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0         | 0                  | 0 | 0 | 0 | 0 |  |
|                       | 6           | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6         | 6                  | 6 | 6 | 6 | 0 |  |
|                       | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2         | 2                  | 2 | 2 | 2 | 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 |  |

Metaplasia, Squamous

2

Lung

+ +

Metaplasia, Osseous

Alveolar Epithelium, Hyperplasia

3

3

3

Nose

+ +

Foreign Body

X

Hyperplasia

2

Inflammation, Chronic Active

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

Thrombosis

2

2

4

1

Olfactory Epithelium, Metaplasia, Respiratory

3 3 4 4 4 3 3 4 3 4 3 3 4 4 3 3 4 4 4 3 3 3 3 3

Olfactory Epithelium, Metaplasia, Squamous

1

Respiratory Epithelium, Hyperplasia

3

2

2

3

4

2

3

2

2

2

3

1

2

3

1

2

3

3

4

3

3

3

2

3

4

3

3

3

Respiratory Epithelium, Metaplasia, Squamous

2

Turbinate, Atrophy

4 4 3 4 4 3 4 4 4 4 4 4 4 4 2 4 4 4 4 4 4 4 4 4 4

Turbinate, Hyperostosis

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

Pleura

+

Hyperplasia

2

Infiltration Cellular, Mononuclear Cell

3

Trachea

+ +

SPECIAL SENSES SYSTEM

Eye

+ +

Cataract

Degeneration

Cornea, Inflammation, Chronic Active

\* .. 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE<br>100 ppm | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID | males<br>(cont...) |      |      |      |
|----------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|------|
|                                  | 0701        | 0703 | 0702 | 0702 | 0703 | 0703 | 0705 | 0709 | 0709 | 0700 | 0704 | 0705 | 0707 | 0707 | 0704 | 0705 | 0707 | 0706 | 0700 | 0707 | 0706 | 0705 | 0707 | 0707 |           |                    | 0706 | 0705 | 0706 |
|                                  | 0           | 0    | 0    | 0    | 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    | 6    | 7    | 6    | 4    | 7    | 7    | 4    | 5    | 7    | 7    | 6    | 0    | 7    | 6    | 5    | 7    | 7    | 6    | 5    | 7    | 7         | 6                  | 5    | 6    | 7    |
|                                  | 0           | 3    | 2    | 2    | 3    | 3    | 5    | 9    | 2    | 3    | 4    | 4    | 2    | 3    | 7    | 1    | 1    | 7    | 3    | 3    | 2    | 0    | 6    | 1    | 9         | 2                  | 2    | 9    |      |
|                                  | 1           | 0    | 9    | 9    | 5    | 0    | 6    | 5    | 9    | 0    | 9    | 2    | 6    | 0    | 0    | 0    | 8    | 6    | 4    | 1    | 9    | 0    | 1    | 9    | 0         | 1                  | 9    | 2    | 9    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0         | 0                  | 0    | 0    | 0    |
|                                  | 6           | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6         | 6                  | 6    | 6    | 6    |
|                                  | 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    | 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         |                    |      |      |      |

Retina, Atrophy

Harderian Gland  
Degeneration

+ +

**URINARY SYSTEM**

Kidney  
 Infarct  
 Inflammation, Suppurative  
 Nephropathy  
 Renal Tubule, Hyperplasia  
 Transitional Epithelium, Hyperplasia

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

Urinary Bladder  
 Inflammation, Acute  
 Transitional Epithelium, Hyperplasia

+ +

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

Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |
|-----------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|
|                       | 0730        | 0730  | 0668  | 0668  | 0770  | 0770  | 0664  | 0664  | 0575  | 0575  | 0777  | 0777  | 0555  | 0555  | 0666  | 0666  | 0557  | 0557  | 0666  | 0666  |          | 0777  | 0777  | 0667  |
| 100 ppm               | 00626       | 00626 | 00626 | 00626 | 00633 | 00633 | 00633 | 00633 | 00633 | 00633 | 00633 | 00633 | 00633 | 00633 | 00644 | 00644 | 00644 | 00644 | 00644 | 00644 | 00644    | 00644 | 00644 | 00644 |
|                       | 6           | 7     | 8     | 9     | 0     | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 0     | 1     | 2     | 3     | 4     | 5     | 6        | 7     | 8     | 9     |

**ALIMENTARY SYSTEM**

|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |        |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|--------|
| Esophagus<br>Hyperplasia, Squamous | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     | 1 3.0  |
| Intestine Large, Cecum             | + | + | + | + | + | + | + | A | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | +      | 46     |
| Intestine Large, Colon             | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | +      | 48     |
| Intestine Large, Rectum            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | +      | 49     |
| Intestine Small, Duodenum          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | +      | 49     |
| Intestine Small, Ileum             | + | + | + | + | + | + | + | A | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | +      | 47     |
| Intestine Small, Jejunum           | + | + | + | + | + | + | + | A | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | +      | 47     |
| Liver                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +      | 50     |
| Basophilic Focus                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | 5      |        |
| Clear Cell Focus                   | X | X |   |   |   |   |   |   |   |   | X | X |   |   |   |   | X |   |   |   |   |   | X |   | 15     |        |
| Degeneration, Cystic               | 1 | 1 |   |   | 2 |   | 2 |   |   |   |   |   |   |   | 3 |   |   |   | 2 |   |   |   | 3 |   | 12 2.1 |        |
| Eosinophilic Focus                 |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5      |        |
| Fatty Change, Diffuse              | 2 | 2 | 3 |   | 1 |   | 2 |   |   | 1 |   | 1 | 2 |   | 2 | 2 | 1 |   | 2 |   |   |   | 3 |   | 26 2.0 |        |
| Hepatodiaphragmatic Nodule         |   |   |   |   | X |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   | 5      |        |
| Inflammation, Acute                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 | 1 2.0  |        |
| Inflammation, Chronic              | 3 | 2 | 1 | 2 | 3 | 3 | 1 |   |   |   | 1 | 1 | 2 | 2 | 1 | 1 | 3 | 1 | 3 | 2 | 2 | 1 | 3 | 1 | 3      | 44 1.9 |
| Mixed Cell Focus                   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   | X |   | 6      |        |
| Necrosis                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 | 1 |   | 3 |   |   | 2 |   | 6 2.3  |        |
| Bile Duct, Hyperplasia             | 1 |   |   |   | 1 |   |   |   |   |   |   |   |   |   | 1 |   |   |   | 1 |   | 1 |   | 2 |   | 14 1.4 |        |
| Mesentery                          |   |   |   |   |   |   |   | + |   | + |   |   |   |   | + | + | + |   |   |   | + | + |   |   | 23     |        |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
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 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE<br>100 ppm | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |       |        |        |
|----------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|--------|--------|
|                                  | 0730        | 0730  | 0668  | 0668  | 0770  | 0770  | 0664  | 0664  | 0557  | 0557  | 0777  | 0777  | 0555  | 0555  | 0666  | 0666  | 0557  | 0557  | 0666  | 0666  |          | 0777  | 0777  | 0667  | 0667  | 0777   | 0777   |
| ANIMAL ID                        | 00626       | 00667 | 00668 | 00669 | 00670 | 00671 | 00672 | 00673 | 00674 | 00675 | 00676 | 00677 | 00678 | 00679 | 00680 | 00681 | 00682 | 00683 | 00684 | 00685 | 00686    | 00687 | 00688 | 00689 | 00690 |        |        |
| Fat, Necrosis                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       | 12 2.0 |        |
| Pancreas                         | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | A     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | 49     |        |
| Atrophy                          |             | 2     | 1     |       |       |       | 3     | 1     |       |       |       |       |       |       | 2     |       |       |       | 2     | 1     |          |       |       | 1     | 2     | 20 1.6 |        |
| Hyperplasia                      | 2           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 2     |       | 2     |       | 7 2.1  |        |
| Inflammation, Chronic Active     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       | 1 3.0  |        |
| Salivary Glands                  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | 50     |        |
| Stomach, Forestomach             | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | 50     |        |
| Hyperplasia, Squamous            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       | 1 2.0  |        |
| Ulcer                            |             |       |       |       |       |       |       | 4     |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 3     |       |       | 6 3.3  |        |
| Stomach, Glandular               | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | 50     |        |
| Necrosis                         |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       | 3 1.3  |        |
| Ulcer                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       | 1 3.0  |        |
| Tongue                           |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       | 2      |        |
| Hyperplasia, Squamous            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       | 2 2.5  |        |
| <b>CARDIOVASCULAR SYSTEM</b>     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |        |        |
| Heart                            | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | 50     |        |
| Cardiomyopathy                   | 2           | 1     | 2     | 1     | 3     | 1     | 1     |       |       | 1     |       | 1     |       |       |       | 2     | 1     | 1     |       |       |          |       | 2     | 2     | 1     | 2      | 35 1.5 |
| Thrombosis                       |             |       |       |       |       |       |       | 2     |       |       |       |       |       |       | 2     |       | 2     | 3     |       |       |          |       |       |       |       |        | 8 2.6  |
| <b>ENDOCRINE SYSTEM</b>          |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |        |        |
| Adrenal Cortex                   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | 50     |        |
| Hyperplasia                      | 2           | 2     | 2     | 2     |       |       | 2     |       |       | 2     |       | 2     |       |       | 2     |       |       |       |       |       |          |       |       |       | 3     | 2      | 27 2.0 |
| Hypertrophy                      |             |       |       |       |       | 2     | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 2     |        | 4 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE<br>100 ppm  | DAY ON TEST |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | * TOTALS |     |
|-----------------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|-----|
|                                   | 0730        | 0733   | 0736   | 0739   | 0743   | 0747   | 0751   | 0754   | 0758   | 0762   | 0766   | 0770   | 0774   | 0778   | 0782   | 0786   | 0790   | 0794   | 0798   | 0802   | 0806   | 0810   | 0814   | 0818   |          |     |
| ANIMAL ID                         | 006266      | 006666 | 006666 | 006666 | 006666 | 006666 | 006666 | 006666 | 006666 | 006666 | 006666 | 006666 | 006666 | 006666 | 006666 | 006666 | 006666 | 006666 | 006666 | 006666 | 006666 | 006666 | 006666 | 006666 |          |     |
| Adrenal Medulla Hyperplasia       | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      |          |     |
|                                   | 2           | 2      | 3      |        | 3      | 2      | 2      |        | 2      |        | 4      | 2      | 2      |        | 3      |        | 2      | 2      |        | 3      |        | 2      |        |        |          |     |
|                                   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 50       |     |
|                                   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 29       | 2.3 |
| Islets, Pancreatic Hyperplasia    | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | A      | +      | +      | +      | +      | +      | +      | +      | +      |          |     |
|                                   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 49       |     |
|                                   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 3        | 2.3 |
| Parathyroid Gland Hyperplasia     | +           | +      | M      | +      | +      | M      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | M      | +      | +      |          |     |
|                                   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 45       |     |
|                                   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 2        | 2.0 |
| Pituitary Gland Angiectasis       | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      |          |     |
|                                   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 50       |     |
|                                   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1        | 2.0 |
| Pars Distalis, Angiectasis        |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1        | 2.0 |
| Pars Distalis, Hyperplasia        |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 9        | 2.2 |
| Thyroid Gland C-cell, Hyperplasia | +           | +      | +      | +      | +      | +      | +      | A      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      |          |     |
|                                   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 48       |     |
|                                   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 19       | 1.1 |
| Follicular Cell, Hyperplasia      |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1        | 1.0 |
| <b>GENERAL BODY SYSTEM</b>        |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |     |
| Peritoneum                        |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 3        |     |
| Tissue NOS                        |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1        |     |
| <b>GENITAL SYSTEM</b>             |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |     |
| Coagulating Gland Hyperplasia     |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 3        |     |
|                                   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 2        | 3.0 |
| Inflammation, Suppurative         |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1        | 3.0 |
| Epididymis                        | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      |          |     |
|                                   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 50       |     |

\* .. 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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 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE<br>100 ppm | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |       |       |       |       |       |       |       |       |       |       |       |    |     |     |
|----------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|-----|-----|
|                                  | 0730        | 0730  | 0668  | 0668  | 0770  | 0770  | 0664  | 0664  | 0575  | 0575  | 0777  | 0777  | 0559  | 0559  | 0663  | 0663  | 0557  | 0557  | 0666  | 0666  |          | 0666  | 0666  | 0776  | 0776  | 0667  | 0667  | 0773  | 0773  | 0661  | 0661  | 0777  | 0777  |       |       |    |     |     |
| ANIMAL ID                        | 00626       | 00667 | 00668 | 00669 | 00670 | 00671 | 00672 | 00673 | 00674 | 00675 | 00676 | 00677 | 00678 | 00679 | 00680 | 00681 | 00682 | 00683 | 00684 | 00685 | 00686    | 00687 | 00688 | 00689 | 00690 | 00691 | 00692 | 00693 | 00694 | 00695 | 00696 | 00697 | 00698 | 00699 | 00700 |    |     |     |
| Degeneration                     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1  | 2.0 |     |
| Preputial Gland                  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50 |     |     |
| Prostate                         | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50 |     |     |
| Hyperplasia                      | 2           |       |       |       |       |       |       |       |       |       |       |       |       | 1     |       |       |       |       |       |       |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 5  | 2.0 |     |
| Inflammation, Suppurative        |             |       | 3     |       |       |       |       | 4     | 3     |       |       |       |       |       | 2     |       | 3     |       |       |       |          |       | 4     |       |       |       |       |       |       |       |       |       |       |       |       | 8  | 3.0 |     |
| Seminal Vesicle                  | +           | +     | +     | +     | +     | +     | +     | +     | +     | A     | +     | +     | +     | +     | +     | +     | A     | +     | +     | +     | +        | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 48 |     |     |
| Testes                           | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50 |     |     |
| Atrophy                          |             |       |       |       |       |       |       |       |       |       |       |       |       | 3     |       |       |       |       |       |       |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |    | 4   | 3.0 |
| Interstitial Cell, Hyperplasia   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1  | 3   | 1.0 |
| Tunic, Hyperplasia               |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |    | 2   | 1.0 |

**HEMATOPOIETIC SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |    |       |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|----|-------|
| Bone Marrow  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |       |    |       |
| Lymph Node<br>Pancreatic, Hyperplasia, Lymphoid            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       | 7  | 1 1.0 |
| Lymph Node, Bronchial<br>Infiltration Cellular, Histiocyte | M | M | M | M | M | M | + | M | M | M | M | M | + | M | M | + | M | + | M | + | M | M | + | M | M | + | M | M | + | M | M | + | M | M | 9  | 1 3.0 |    |       |
| Lymph Node, Mandibular                                     | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M  | 0     |    |       |
| Lymph Node, Mediastinal<br>Hyperplasia, Lymphoid           | + | + | + | + | + | + | M | M | + | + | M | + | + | + | + | M | + | M | M | + | + | M | + | + | M | + | + | M | + | + | M | + | + | M | 30 | 2 2.5 |    |       |
| 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  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE<br>100 ppm | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                  | 0730        | 0730  | 0668  | 0668  | 0770  | 0770  | 0664  | 0664  | 0575  | 0575  | 0777  | 0777  | 0575  | 0575  | 0666  | 0666  | 0575  | 0575  | 0777  | 0777  |          | 0666  | 0666  | 0777  | 0777  | 0666  | 0666  | 0777  | 0777  | 0666  | 0666  | 0777  | 0777  |       |       |
| ANIMAL ID                        | 00626       | 00667 | 00668 | 00669 | 00670 | 00671 | 00672 | 00673 | 00674 | 00675 | 00676 | 00677 | 00678 | 00679 | 00680 | 00681 | 00682 | 00683 | 00684 | 00685 | 00686    | 00687 | 00688 | 00689 | 00690 | 00691 | 00692 | 00693 | 00694 | 00695 | 00696 | 00697 | 00698 | 00699 | 00700 |

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |   |   |   |   |   |    |    |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|---|---|---|---|---|----|----|
| Ectasia                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 3.0   |   |   |   |   |   |    |    |
| Hyperplasia, Lymphoid                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 2.0   |   |   |   |   |   |    |    |
| Inflammation, Granulomatous              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 | 3.0   |   |   |   |   |   |    |    |
| Spleen                                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +     | + | + | + | + | + | +  | 50 |
| Fibrosis                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 | 4 2.8 |   |   |   |   |   |    |    |
| Hyperplasia, Lymphoid                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 | 1 2.0 |   |   |   |   |   |    |    |
| Necrosis                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 | 2 2.5 |   |   |   |   |   |    |    |
| Thymus                                   | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | I | + | + | + | + | + | M | + | + | + | + | + | + | +     | + | + | + | + | + | 44 |    |
| Infiltration Cellular, Polymorphonuclear |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 3.0   |   |   |   |   |   |    |    |

| INTEGUMENTARY SYSTEM |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |    |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|----|
| Mammary Gland        | + | + | + | + | + | + | M | M | + | + | + | + | M | M | + | M | + | M | M | M | M | + | M | M | + | + | + | + | + | + | + | + | + | 32 |   |    |
| Skin                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | + | 50 |

| MUSCULOSKELETAL SYSTEM |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Skeletal Muscle        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + | + | + | + | + | + | + | +  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 11 |

| NERVOUS SYSTEM |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

| RESPIRATORY SYSTEM           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |    |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|----|
| Larynx                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   | + | + | + | + | + | + | 49 |
| Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE<br>100 ppm              | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |        |        |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|--------|--------|
|   | 0730        | 0733  | 0738  | 0739  | 0733  | 0730  | 0734  | 0737  | 0738  | 0731  | 0739  | 0739  | 0735  | 0735  | 0736  | 0735  | 0737  | 0735  | 0736  | 0736  |          | 0737  | 0736  | 0737   |        |
| ANIMAL ID                                     | 00626       | 00662 | 00668 | 00669 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666    | 00666 | 00666 | 1      |        |
| Metaplasia, Squamous                          |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1 2.0  |        |
| Lung  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50     |        |
| Metaplasia, Osseous                           |             |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1 2.0  |        |
| Alveolar Epithelium, Hyperplasia              | 3           |       |       | 2     |       |       | 1     |       |       |       |       |       | 1     |       |       | 2     | 3     | 2     |       | 1     |          | 4     | 2     | 2      | 14 2.3 |
| Nose  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50     |        |
| Foreign Body                                  |             |       |       |       |       | X     |       |       |       |       | X     |       |       |       |       | X     | X     |       |       |       |          |       |       | 5      |        |
| Hyperplasia                                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1 2.0  |        |
| Inflammation, Chronic Active                  | 4           | 4     | 3     | 4     | 4     | 4     | 4     | 3     | 4     | 1     | 3     | 4     | 3     | 3     | 3     | 4     | 4     | 4     | 4     | 3     | 4        | 2     | 1     | 48 3.2 |        |
| Thrombosis                                    |             |       |       |       |       |       | 3     |       |       |       |       |       |       | 4     |       |       |       |       |       |       |          |       |       | 7 2.7  |        |
| Olfactory Epithelium, Metaplasia, Respiratory | 4           | 4     | 4     | 3     | 4     | 4     | 4     | 3     | 4     | 3     | 4     | 4     | 3     | 4     | 4     | 4     | 2     | 4     | 4     | 4     | 3        | 4     | 2     | 3      | 48 3.5 |
| Olfactory Epithelium, Metaplasia, Squamous    |             |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |       |       | 1     | 2     | 1     |          |       |       | 5 1.2  |        |
| Respiratory Epithelium, Hyperplasia           | 3           | 2     | 2     | 2     | 2     | 2     | 1     |       | 2     |       | 2     | 3     |       | 1     | 1     |       | 3     |       | 3     | 3     | 4        | 2     |       | 31 2.3 |        |
| Respiratory Epithelium, Metaplasia, Squamous  | 2           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 2     |       | 3 2.0  |        |
| Turbinate, Atrophy                            | 3           | 4     | 4     | 3     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 3     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4        | 4     | 3     | 4      | 50 3.8 |
| Turbinate, Hyperostosis                       | 2           | 3     | 3     | 3     | 3     | 4     | 3     | 3     | 3     | 3     | 4     | 4     | 4     | 3     | 3     | 3     | 3     | 3     | 2     | 3     | 3        | 2     | 2     | 3      | 50 2.9 |
| Pleura  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1      |        |
| Hyperplasia                                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1 2.0  |        |
| Infiltration Cellular, Mononuclear Cell       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1 3.0  |        |
| Trachea                                       | +           | +     | +     | +     | +     | +     | +     | A     | +     | +     | +     | +     | +     | +     | +     | A     | +     | +     | +     | +     | +        | +     | +     | 48     |        |

**SPECIAL SENSES SYSTEM**

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Eye                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 49    |
| Cataract                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   | 1 4.0 |
| Degeneration                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   | 1 4.0 |
| Cornea, Inflammation, Chronic Active |   |   |   |   | 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS MALE<br>100 ppm     | DAY ON TEST |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | * TOTALS |    |    |    |    |     |     |
|--------------------------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|----|-----|-----|
|                                      | 07          | 07 | 06 | 06 | 07 | 07 | 06 | 04 | 05 | 07 | 07 | 07 | 05 | 05 | 06 | 05 | 07 | 05 | 06 | 06 |          | 06 | 06 | 07 | 06 | 07  |     |
| ANIMAL ID                            | 00          | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00       | 00 | 00 | 00 | 00 |     |     |
| Retina, Atrophy                      |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |          |    |    |    | 4  |     |     |
| Harderian Gland Degeneration         | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | A  | +  | +  | +  | +  | +        | +  | +  | +  | 49 |     |     |
|                                      |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |          |    |    |    | 3  |     |     |
| <b>URINARY SYSTEM</b>                |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |          |    |    |    |    |     |     |
| Kidney                               | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +        | +  | +  | +  | 50 |     |     |
| Infarct                              |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 2  |    |    |    |    |          |    |    |    | 2  |     |     |
| Inflammation, Suppurative            |             |    |    |    |    |    |    | 3  |    |    |    |    |    |    |    |    |    |    | 2  |    |          |    |    |    | 2  |     |     |
| Nephropathy                          | 3           | 2  | 4  | 2  | 3  | 3  | 2  | 1  | 1  | 1  | 4  | 3  | 2  | 1  | 2  |    |    | 4  | 1  | 2  |          | 3  | 1  | 1  | 2  | 3   |     |
| Renal Tubule, Hyperplasia            |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 4  |    |          |    |    |    | 1  | 4.0 |     |
| Transitional Epithelium, Hyperplasia |             |    | 1  |    |    |    |    |    |    |    |    |    |    | 2  |    |    |    |    |    |    |          |    |    |    |    | 2   | 1.5 |
| Urinary Bladder                      | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +        | +  | +  | +  | 50 |     |     |
| Inflammation, Acute                  |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |          |    |    |    |    | 2   |     |
| Transitional Epithelium, Hyperplasia |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |          |    |    |    |    | 2   |     |

\*\*\* END OF MALE DATA \*\*\*

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

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

Experiment Number: 20303 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Vinylidene chloride

CAS Number: 75-35-4

Date Report Requested: 12/12/2011

Time Report Requested: 09:47:55

First Dose M/F: 06/06/05 / 06/06/05

Lab: BNW

|                                | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                          |
|--------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------------|
| <b>FISCHER 344 RATS FEMALE</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 |   |                          |
|                                | 7           | 7 | 5 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 6 | 7 |   | 5                        |
| <b>Control</b>                 | 3           | 3 | 5 | 2 | 6 | 3 | 3 | 2 | 3 | 9 | 2 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 6 | 6 | 8 | 9 | 3 | 9 | <b>females (cont...)</b> |
|                                | 2           | 3 | 1 | 4 | 6 | 3 | 2 | 3 | 5 | 1 | 8 | 4 | 1 | 1 | 2 | 7 | 3 | 3 | 3 | 3 | 1 | 7 | 8 | 3 | 2 |   |                          |
|                                | ANIMAL ID   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                          |
|                                | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |                          |
|                                | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 |   |                          |
|                                | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |   |                          |
|                                | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |   |                          |

**ALIMENTARY SYSTEM**

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum    | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis                |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Basophilic Focus           | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Clear Cell Focus           | X |   |   | X |   | X |   | X |   | X |   |   |   |   |   |   | X |   |   |   | X |   |   |   |   |
| Eosinophilic Focus         |   |   | X |   |   |   |   |   | X |   |   | X |   |   | X |   |   | X |   |   |   |   |   |   |   |
| Fatty Change               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Fatty Change, Focal        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Fatty Change, Diffuse      |   |   |   |   | 1 |   |   |   |   |   | 1 | 1 |   | 1 | 1 | 1 |   | 1 |   |   | 1 |   |   |   | 1 |
| Hepatodiaphragmatic Nodule | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |
| Inflammation, Chronic      |   |   | 1 | 1 | 1 | 1 | 1 |   |   | 1 | 1 | 1 | 1 |   |   |   |   |   |   | 1 | 1 | 1 | 1 | 1 | 1 |
| Mixed Cell Focus           |   |   |   |   |   |   |   |   | X |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Bile Duct, Hyperplasia     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mesentery                  | + |   | + |   |   |   |   |   |   | + |   |   |   |   |   |   | + | + |   |   | + |   | + |   | + |

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20303 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

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

Vinylidene chloride

CAS Number: 75-35-4

Date Report Requested: 12/12/2011

Time Report Requested: 09:47:55

First Dose M/F: 06/06/05 / 06/06/05

Lab: BNW

| FISCHER 344 RATS FEMALE | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | females<br>(cont...) |
|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|
|                         | 0<br>7<br>3<br>2      | 0<br>7<br>3<br>3      | 0<br>5<br>5<br>1      | 0<br>7<br>2<br>4      | 0<br>6<br>6<br>6      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>2      | 0<br>7<br>3<br>3      | 0<br>7<br>2<br>5      | 0<br>7<br>3<br>1      | 0<br>7<br>6<br>8      | 0<br>7<br>2<br>4      | 0<br>7<br>3<br>1      | 0<br>7<br>3<br>1      | 0<br>5<br>3<br>2      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>3      | 0<br>6<br>6<br>1      | 0<br>6<br>8<br>7      | 0<br>6<br>9<br>8      | 0<br>7<br>3<br>1      | 0<br>5<br>9<br>2      |                       |                       |                      |
| Control                 | ANIMAL ID             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                      |
|                         | 0<br>0<br>1<br>0<br>1 | 0<br>0<br>1<br>0<br>2 | 0<br>0<br>1<br>0<br>3 | 0<br>0<br>1<br>0<br>4 | 0<br>0<br>1<br>0<br>5 | 0<br>0<br>1<br>0<br>6 | 0<br>0<br>1<br>0<br>7 | 0<br>0<br>1<br>0<br>8 | 0<br>0<br>1<br>0<br>9 | 0<br>0<br>1<br>1<br>0 | 0<br>0<br>1<br>1<br>1 | 0<br>0<br>1<br>1<br>2 | 0<br>0<br>1<br>1<br>3 | 0<br>0<br>1<br>1<br>4 | 0<br>0<br>1<br>1<br>5 | 0<br>0<br>1<br>1<br>6 | 0<br>0<br>1<br>1<br>7 | 0<br>0<br>1<br>1<br>8 | 0<br>0<br>1<br>2<br>9 | 0<br>0<br>1<br>2<br>0 | 0<br>0<br>1<br>2<br>1 | 0<br>0<br>1<br>2<br>2 | 0<br>0<br>1<br>2<br>3 | 0<br>0<br>1<br>2<br>4 |                      |

|                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fat, Necrosis                       | 2 | 2 | 2 |   |   |   |   |   | 2 |   |   |   |   |   | 2 | 2 |   |   | 2 | 2 |   |   |   |   |
| Pancreas                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Basophilic Focus<br>Acinus, Atrophy |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   | 1 |   |   | 1 | 2 |   | 1 |   |   |   |
| Salivary Glands                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Stomach, Forestomach<br>Ulcer       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Stomach, Glandular<br>Necrosis      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Tongue                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |

**CARDIOVASCULAR SYSTEM**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |   |
| Heart          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Cardiomyopathy | 1 |   | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |   |   |   |   | 2 | 1 | 1 |

**ENDOCRINE SYSTEM**

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia               | 2 | 3 |   |   |   | 3 | 2 | 2 | 2 | 2 |   | 2 | 2 | 2 | 2 |   | 2 |   | 2 | 2 | 2 | 2 | 2 |   |
| Hypertrophy               | 2 | 2 |   |   | 2 |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Vacuolization Cytoplasmic |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Adrenal Medulla           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

\* .. 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: 20303 - 05

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

Date Report Requested: 12/12/2011

Test Type: CHRONIC

Vinylidene chloride

Time Report Requested: 09:47:55

Route: RESPIRATORY EXPOSURE WHOLE BODY

CAS Number: 75-35-4

First Dose M/F: 06/06/05 / 06/06/05

Species/Strain: RATS/F 344/N

Lab: BNW

| FISCHER 344 RATS FEMALE<br><br>Control                                      | DAY ON TEST      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | females<br>(cont...) |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|
|   | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>3 | 0<br>5<br>5<br>1 | 0<br>7<br>2<br>4 | 0<br>6<br>6<br>6 | 0<br>7<br>3<br>3 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>3 | 0<br>7<br>2<br>3 | 0<br>7<br>3<br>5 | 0<br>7<br>1<br>8 | 0<br>6<br>7<br>4 | 0<br>7<br>7<br>3 | 0<br>7<br>3<br>3 | 0<br>5<br>4<br>7 | 0<br>7<br>3<br>3 | 0<br>7<br>3<br>3 | 0<br>6<br>6<br>6 | 0<br>6<br>6<br>8 | 0<br>6<br>9<br>3 | 0<br>7<br>3<br>9 | 0<br>5<br>9<br>2 |                      |
|   | ANIMAL ID        |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |
|   | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                |                      |
|   | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                |                      |
|   | 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                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 2                | 2                | 2                | 2                |                      |
|   | 1                | 2                | 3                | 4                | 5                | 6                | 7                | 8                | 9                | 0                | 1                | 2                | 3                | 4                | 5                | 6                | 7                | 8                | 9                | 0                | 1                | 2                |                      |
| Hyperplasia   | 2                |                  | 2                |                  |                  |                  |                  |                  | 2                |                  | 2                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |
| Islets, Pancreatic  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                |                      |
| Parathyroid Gland<br>Hyperplasia  | M                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                |                      |
|   |                  |                  |                  | 3                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |
| Pituitary Gland<br>Pars Distalis, Angiectasis<br>Pars Distalis, Hyperplasia | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                |                      |
|   |                  | 1                |                  |                  | 3                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 1                |                  |                  |                  |                  |                  |                      |
|   | 2                | 2                |                  |                  | 2                |                  |                  |                  | 3                |                  |                  |                  |                  |                  |                  |                  | 2                |                  |                  |                  |                  |                  |                      |
| Thyroid Gland<br>C-cell, Hyperplasia  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                |                      |
|   |                  | 1                | 2                |                  | 1                | 1                | 2                |                  | 1                | 1                | 1                | 1                |                  | 1                | 1                | 1                | 1                |                  | 2                |                  | 1                | 1                | 4                    |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

Clitoral Gland

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

Ovary

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

Bursa, Dilatation

2

Interstitial Cell, Hyperplasia

3

Uterus

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

Inflammation, Chronic Active

4

Endometrium, Hyperplasia, Cystic

**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

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>Control  | DAY ON TEST      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | ANIMAL ID | females<br>(cont...) |                            |                  |   |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|----------------------------|------------------|---|
|   | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>3 | 0<br>5<br>5<br>1 | 0<br>7<br>2<br>4 | 0<br>6<br>6<br>6 | 0<br>7<br>3<br>3 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>3 | 0<br>7<br>2<br>5 | 0<br>7<br>3<br>1 | 0<br>7<br>3<br>8 | 0<br>6<br>2<br>4 | 0<br>7<br>3<br>1 | 0<br>7<br>3<br>1 | 0<br>5<br>4<br>7 | 0<br>7<br>3<br>3 | 0<br>7<br>3<br>3 | 0<br>6<br>6<br>1 | 0<br>6<br>8<br>7 | 0<br>6<br>9<br>8 |           |                      | 0<br>7<br>3<br>1           | 0<br>5<br>9<br>2 |   |
|   | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0         | 0                    | 0<br>0<br>1<br>0<br>1<br>2 |                  |   |
| Bone Marrow<br>Hyperplasia, Reticulum Cell                                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    |                            |                  |   |
| Lymph Node  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                            |                  |   |
| Lymph Node, Bronchial<br>Congestion                                       | M                | M                | +                | M                | M                | M                | M                | M                | +                | M                | M                | M                | M                | M                | M                | M                | M                | M                | M                | M                | M         | M                    | +                          |                  | 3 |
| Lymph Node, Mandibular  | M                | M                | M                | M                | M                | M                | M                | M                | M                | M                | M                | M                | M                | M                | M                | M                | M                | M                | M                | M                | M         | M                    | +                          | M                | M |
| Lymph Node, Mediastinal<br>Ectasia<br>Hemorrhage<br>Hyperplasia, Lymphoid | +                | M                | M                | M                | M                | +                | +                | M                | +                | +                | +                | +                | M                | M                | M                | +                | +                | M                | +                | +                | +         | +                    | +                          |                  | 3 |
| Lymph Node, Mesenteric<br>Congestion<br>Hyperplasia, Lymphoid             | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                          |                  | 2 |
| Spleen<br>Fibrosis  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                          |                  |   |
| Thymus  | +                | +                | +                | +                | M                | +                | +                | +                | +                | +                | +                | M                | +                | +                | M                | +                | +                | +                | +                | +                | +         | +                    | +                          |                  |   |

**INTEGUMENTARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| Mammary Gland<br>Galactoceles<br>Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  |
| Skin   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  |

\* .. 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE | DAY ON TEST |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | females<br>(cont...)  |                       |                       |                       |  |
|-------------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|
|                         | Control     | ANIMAL ID             | 0<br>7<br>3<br>2      | 0<br>7<br>3<br>3      | 0<br>5<br>5<br>1      | 0<br>7<br>2<br>4      | 0<br>6<br>6<br>6      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>2      | 0<br>7<br>3<br>3      | 0<br>7<br>2<br>5      | 0<br>7<br>3<br>3      | 0<br>7<br>2<br>5      | 0<br>7<br>3<br>1      | 0<br>7<br>6<br>8      | 0<br>7<br>2<br>4      | 0<br>7<br>3<br>1      | 0<br>7<br>3<br>1      | 0<br>7<br>3<br>3      | 0<br>6<br>6<br>6      | 0<br>6<br>8<br>8      | 0<br>6<br>9<br>9      |                       | 0<br>7<br>3<br>1      | 0<br>5<br>9<br>2      |                       |  |
|                         |             | 0<br>0<br>1<br>0<br>1 | 0<br>0<br>1<br>0<br>2 | 0<br>0<br>1<br>0<br>3 | 0<br>0<br>1<br>0<br>4 | 0<br>0<br>1<br>0<br>5 | 0<br>0<br>1<br>0<br>6 | 0<br>0<br>1<br>0<br>7 | 0<br>0<br>1<br>0<br>8 | 0<br>0<br>1<br>0<br>9 | 0<br>0<br>1<br>0<br>0 | 0<br>0<br>1<br>0<br>1 | 0<br>0<br>1<br>0<br>2 | 0<br>0<br>1<br>0<br>3 | 0<br>0<br>1<br>0<br>4 | 0<br>0<br>1<br>0<br>5 | 0<br>0<br>1<br>0<br>6 | 0<br>0<br>1<br>0<br>7 | 0<br>0<br>1<br>0<br>8 | 0<br>0<br>1<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 |  |

Cyst Epithelial Inclusion

**MUSCULOSKELETAL SYSTEM**

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**NERVOUS SYSTEM**

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

**RESPIRATORY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Chronic Active<br>Metaplasia, Squamous |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |
| Lung   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Chronic Active                         |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Alveolar Epithelium, Hyperplasia                     |   |   |   |   | 1 |   |   |   | 2 |   | 2 |   | 1 |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |
| Alveolar Epithelium, Metaplasia, Squamous            |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nose   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Foreign Body   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Acute                                  |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Chronic Active                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 | 1 |
| Olfactory Epithelium, Metaplasia, Respiratory        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Respiratory Epithelium, Hyperplasia                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |
| Trachea  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

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

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

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

Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | females<br>(cont...) |      |      |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|------|------|
|                         | 0732        | 0733 | 0735 | 0772 | 0776 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 |                      | 0777 | 0777 |
| Control                 | 0010        | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011                 | 0011 | 0011 |

**SPECIAL SENSES SYSTEM**

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cataract                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Degeneration                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cornea, Inflammation, Chronic Active |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Retina, Atrophy                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Harderian Gland                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia                          | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Chronic                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**URINARY SYSTEM**

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hydronephrosis               |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hyperplasia, Oncocytic       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Infarct                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nephropathy                  | 2 | 1 | 1 |   | 1 | 1 | 2 |   | 2 | 2 | 1 | 2 | 2 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Renal Tubule, Hyperplasia    |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   | 2 | 1 |
| Urinary Bladder              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation, Chronic Active |   |   |   |   | 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
|                         | 0731        | 0739 | 0779 | 0765 | 0773 | 0766 | 0777 | 0766 | 0777 | 0766 | 0777 | 0766 | 0777 | 0766 | 0777 | 0766 | 0777 | 0766 | 0777 | 0766 | 0777 | 0766 | 0777 | 0766 |          |
| Control                 | 001         | 001  | 001  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000      |
|                         | 6           | 7    | 8    | 9    | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 0        |

**ALIMENTARY SYSTEM**

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Esophagus                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Large, Cecum     | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49     |
| Intestine Large, Colon     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Large, Rectum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49     |
| Intestine Small, Duodenum  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Small, Ileum     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Small, Jejunum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Liver                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Angiectasis                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 1.5  |
| Basophilic Focus           | X | X | X |   | X | X | X |   | X |   | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 46     |
| Clear Cell Focus           | X |   |   |   | X |   |   |   | X |   |   |   |   |   |   | X |   | X |   | X | X |   | X |   | 15     |
| Eosinophilic Focus         |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   | 6      |
| Fatty Change               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |
| Fatty Change, Focal        |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | X |   |   |   |   |   |   |   |   | 2      |
| Fatty Change, Diffuse      | 1 |   | 1 |   |   | 1 | 2 |   |   |   |   |   | 2 |   |   | 2 |   | 1 |   |   | 1 |   |   | 1 | 19 1.2 |
| Hepatodiaphragmatic Nodule |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   | 3      |
| Inflammation, Chronic      | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   | 1 | 1 | 1 | 2 | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 42 1.0 |
| Mixed Cell Focus           |   |   |   |   |   |   | X |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   | 4      |
| Bile Duct, Hyperplasia     |   |   | 1 |   | 1 | 1 |   |   |   |   |   | 2 | 1 |   |   |   |   |   |   |   |   |   |   | 1 | 7 1.1  |
| Mesentery                  | + | + |   |   |   | + |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   | + |   | 13     |

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 + .. Tissue examined microscopically  
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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE      | DAY ON TEST |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | * TOTALS |      |     |
|------------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|------|-----|
|                              | 0731        | 0739   | 0749   | 0756   | 0763   | 0770   | 0776   | 0783   | 0790   | 0797   | 0804   | 0811   | 0818   | 0825   | 0832   | 0839   | 0846   | 0853   | 0860   | 0867   |          | 0874 |     |
| Control                      | ANIMAL ID   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |      |     |
|                              | 001267      | 001268 | 001269 | 001270 | 001271 | 001272 | 001273 | 001274 | 001275 | 001276 | 001277 | 001278 | 001279 | 001280 | 001281 | 001282 | 001283 | 001284 | 001285 | 001286 | 001287   |      |     |
| Fat, Necrosis                | 2           | 2      |        |        | 2      |        |        | 2      |        |        |        |        |        |        |        |        |        |        | 2      |        |          | 13   | 2.0 |
| Pancreas                     | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +        | 50   |     |
| Basophilic Focus             |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 1    |     |
| Acinus, Atrophy              |             | 1      |        |        |        |        |        | 1      |        |        |        |        |        |        |        |        | 2      | 1      |        |        |          | 9    | 1.2 |
| Salivary Glands              | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +        | 50   |     |
| Stomach, Forestomach         | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +        | 50   |     |
| Ulcer                        |             |        |        |        |        |        |        | 2      |        |        |        |        |        |        |        |        |        |        |        |        | 1        | 3    | 2.0 |
| Stomach, Glandular           | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +        | 50   |     |
| Necrosis                     |             |        |        |        |        |        |        | 2      |        |        |        |        |        |        |        |        |        |        |        |        |          | 1    | 2.0 |
| Tongue                       |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 1    |     |
| <b>CARDIOVASCULAR SYSTEM</b> |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |      |     |
| Blood Vessel                 |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 1    |     |
| Heart                        | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +        | 50   |     |
| Cardiomyopathy               | 1           |        |        |        | 1      | 1      | 1      |        |        |        | 2      | 1      | 2      | 1      | 2      | 1      | 1      |        |        | 1      | 1        | 33   | 1.2 |
| <b>ENDOCRINE SYSTEM</b>      |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |      |     |
| Adrenal Cortex               | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +        | 50   |     |
| Hyperplasia                  |             | 2      |        |        | 2      |        | 2      | 2      |        |        |        | 2      | 2      | 2      | 2      | 2      |        |        |        | 2      | 2        | 30   | 2.1 |
| Hypertrophy                  |             |        |        |        | 2      |        |        |        | 2      |        |        |        |        |        |        |        |        |        |        |        | 2        | 7    | 2.3 |
| Vacuolization Cytoplasmic    |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 3      |          | 1    | 3.0 |
| Adrenal Medulla              | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +        | 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br><br>Control                                      | DAY ON TEST                                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | * TOTALS              |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |
|---|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|------------------|------------------|
|   | 0<br>7<br>3<br>1                                | 0<br>5<br>7<br>9      | 0<br>7<br>1<br>9      | 0<br>6<br>5<br>6      | 0<br>7<br>3<br>7      | 0<br>6<br>8<br>3      | 0<br>7<br>3<br>5      | 0<br>6<br>7<br>3      | 0<br>7<br>3<br>5      | 0<br>6<br>8<br>3      | 0<br>7<br>3<br>1      | 0<br>6<br>7<br>2      | 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>1      | 0<br>6<br>7<br>2      | 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>7<br>4      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>2      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>3      | 0<br>6<br>7<br>2      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>2      | 0<br>6<br>7<br>3      | 0<br>7<br>3<br>3      | 0<br>6<br>7<br>4      | 0<br>7<br>3<br>4      | 0<br>6<br>7<br>5      | 0<br>7<br>3<br>6      | 0<br>6<br>7<br>7 | 0<br>7<br>3<br>7 | 0<br>6<br>7<br>8 |
| ANIMAL ID   | 0<br>0<br>1<br>2<br>6                           | 0<br>0<br>1<br>2<br>7 | 0<br>0<br>1<br>2<br>8 | 0<br>0<br>1<br>2<br>9 | 0<br>0<br>1<br>3<br>0 | 0<br>0<br>1<br>3<br>1 | 0<br>0<br>1<br>3<br>2 | 0<br>0<br>1<br>3<br>3 | 0<br>0<br>1<br>3<br>4 | 0<br>0<br>1<br>3<br>5 | 0<br>0<br>1<br>3<br>6 | 0<br>0<br>1<br>3<br>7 | 0<br>0<br>1<br>3<br>8 | 0<br>0<br>1<br>3<br>9 | 0<br>0<br>1<br>4<br>0 | 0<br>0<br>1<br>4<br>1 | 0<br>0<br>1<br>4<br>2 | 0<br>0<br>1<br>4<br>3 | 0<br>0<br>1<br>4<br>4 | 0<br>0<br>1<br>4<br>5 | 0<br>0<br>1<br>4<br>6 | 0<br>0<br>1<br>4<br>7 | 0<br>0<br>1<br>4<br>8 | 0<br>0<br>1<br>4<br>9 | 0<br>0<br>1<br>4<br>0 | 0<br>0<br>1<br>4<br>1 | 0<br>0<br>1<br>4<br>2 | 0<br>0<br>1<br>4<br>3 | 0<br>0<br>1<br>4<br>4 | 0<br>0<br>1<br>4<br>5 | 0<br>0<br>1<br>4<br>6 | 0<br>0<br>1<br>4<br>7 | 0<br>0<br>1<br>4<br>8 | 0<br>0<br>1<br>4<br>9 | 0<br>0<br>1<br>4<br>0 |                  |                  |                  |
| Hyperplasia   | 2 2   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2                     | 7 2.0                 |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |
| Islets, Pancreatic  | + |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 50                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |
| Parathyroid Gland<br>Hyperplasia  | + |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 49                    | 1 3.0                 |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |
| Pituitary Gland<br>Pars Distalis, Angiectasis<br>Pars Distalis, Hyperplasia | + |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 50                    | 4 2.0                 |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |
|   |   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 3 2                   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |
|   |   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 12 2.5                |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |
| Thyroid Gland<br>C-cell, Hyperplasia  | + |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 50                    | 35 1.3                |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |
|   | 1 1 2 1 1 1 2 1 1 2 1 1 2 1 1 1 1 1 3 1 1       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |
| <b>GENERAL BODY SYSTEM</b>  |   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |
| NONE  |   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |
| <b>GENITAL SYSTEM</b>   |   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |
| Clitoral Gland  | + |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 47                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |
| Ovary<br>Bursa, Dilatation<br>Interstitial Cell, Hyperplasia                | + |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 50                    | 5 1.8                 |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |
|   | 2 1   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2 2                   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |
|   |   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1 3.0                 |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |
| Uterus<br>Inflammation, Chronic Active<br>Endometrium, Hyperplasia, Cystic  | + |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 50                    | 1 4.0                 |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |
|   |   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1 1.0                 |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |
| <b>HEMATOPOIETIC SYSTEM</b>   |   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |

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

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

Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>Control         | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     | * TOTALS |       |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|----------|-------|
|  | 0731        | 0739 | 0779 | 0766 | 0773 | 0768 | 0776 | 0763 | 0771 | 0767 | 0775 | 0762 | 0774 | 0769 | 0772 | 0764 | 0770 | 0765 | 0777 | 0760 | 0773 | 0761 | 0776 |     |          |       |
| ANIMAL ID                                  | 001         | 002  | 003  | 004  | 005  | 006  | 007  | 008  | 009  | 010  | 011  | 012  | 013  | 014  | 015  | 016  | 017  | 018  | 019  | 020  | 021  | 022  | 023  | 024 |          |       |
| Bone Marrow<br>Hyperplasia, Reticulum Cell | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +   | 50       | 1 4.0 |
| Lymph Node                                 |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     | 2        |       |
| Lymph Node, Bronchial<br>Congestion        | M           | M    | M    | M    | M    | M    | M    | M    | M    | +    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M   | 4        | 1 3.0 |
| Lymph Node, Mandibular                     | M           | M    | M    | M    | M    | M    | M    | +    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M   | 2        |       |
| Lymph Node, Mediastinal<br>Ectasia         | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | M    | +    | +    | +    | M    | +    | M    | M    | M    | M    | +    | +    | +    | +   | 33       | 1 3.0 |
| Hemorrhage                                 |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     | 3        | 1 3.0 |
| Hyperplasia, Lymphoid                      |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     | 2        | 1 2.0 |
| Lymph Node, Mesenteric<br>Congestion       | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +   | 50       | 1 3.0 |
| Hyperplasia, Lymphoid                      |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     | 3        | 1 2.0 |
| Spleen<br>Fibrosis                         | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +   | 50       | 2 2.5 |
| Thymus                                     | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +   | 46       |       |
| <b>INTEGUMENTARY SYSTEM</b>                |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     |          |       |
| Mammary Gland<br>Galactocele               | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +   | 50       | 1 2.0 |
| Hyperplasia                                |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     | 2        | 1 2.0 |
| Skin                                       | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +   | 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |      |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|
|                         | 0731        | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 |          | 0731 |
| Control                 | 0026        | 0027 | 0028 | 0029 | 0030 | 0031 | 0032 | 0033 | 0034 | 0035 | 0036 | 0037 | 0038 | 0039 | 0040 | 0041 | 0042 | 0043 | 0044 | 0045 | 0046 | 0047 | 0048 | 0049 | 0050     | 3    |

Cyst Epithelial Inclusion

3

1 3.0

**MUSCULOSKELETAL SYSTEM**

Bone

+ 50

Skeletal Muscle

+ 1

**NERVOUS SYSTEM**

Brain

+ 50

**RESPIRATORY SYSTEM**

Larynx

+ 50

Inflammation, Chronic Active  
 Metaplasia, Squamous

3 2 3.0  
 1 1.0

Lung

+ 50

Inflammation, Chronic Active  
 Alveolar Epithelium, Hyperplasia  
 Alveolar Epithelium, Metaplasia, Squamous

1 1.0  
 12 1.3  
 1 1.0

Nose

+ 50

Foreign Body  
 Inflammation, Acute  
 Inflammation, Chronic Active  
 Olfactory Epithelium, Metaplasia, Respiratory  
 Respiratory Epithelium, Hyperplasia

2  
 1 3.0  
 7 1.4  
 1 1.0  
 4 1.3

Trachea

+ 50

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
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Experiment Number: 20303 - 05  
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 Lab: BNW

| FISCHER 344 RATS 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 |           |
| Control                 | 7           | 5 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 |           |
|                         | 3           | 7 | 1 | 5 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 9 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 9 | 9 |           |
|                         | 1           | 9 | 9 | 6 | 3 | 7 | 3 | 5 | 3 | 1 | 2 | 3 | 3 | 3 | 1 | 2 | 3 | 4 | 3 | 2 | 3 | 3 | 2 | 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 | 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 | 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> |

**SPECIAL SENSES SYSTEM**

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |  |              |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|--------------|
| Eye                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |  |              |
| Cataract                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |           |  | <b>1 2.0</b> |
| Degeneration                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |           |  | <b>1 4.0</b> |
| Cornea, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |  | <b>1 2.0</b> |
| Retina, Atrophy                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |           |  | <b>1 2.0</b> |
| Harderian Gland                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |  |              |
| Hyperplasia                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |           |  | <b>2 2.0</b> |
| Inflammation, Chronic                |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |  | <b>1 2.0</b> |

**URINARY SYSTEM**

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |               |              |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|---------------|--------------|
| Kidney                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |               |              |
| Hydronephrosis               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |               | <b>1 2.0</b> |
| Hyperplasia, Oncocytic       |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |           |               | <b>1 3.0</b> |
| Infarct                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |           |               | <b>1 2.0</b> |
| Nephropathy                  | 1 | 2 | 2 |   | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 2 | 2 | 2 |   | 2 | 1 | 1 | 1 | 1 | 2 | 1 |           | <b>45 1.5</b> |              |
| Renal Tubule, Hyperplasia    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |               | <b>1 2.0</b> |
| Urinary Bladder              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |               |              |
| Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |               | <b>1 2.0</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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | females<br>(cont...) |      |      |      |      |      |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|------|------|------|------|------|
|                         | 0732        | 0733 | 0735 | 0731 | 0732 | 0732 | 0737 | 0731 | 0735 | 0733 | 0733 | 0732 | 0732 | 0734 | 0731 | 0739 | 0731 | 0732 | 0731 | 0737 | 0736 | 0737 | 0734 | 0737 | 0737 |                      | 0737 | 0733 | 0730 | 0733 | 0733 |
| 25 ppm                  | 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 | 0000 | 0000 | 0000 |
|                         | 3300        | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300                 | 3300 | 3300 | 3300 | 3300 | 3300 |
|                         | 0001        | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0000 | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0000 | 0001 | 0002 | 0003 | 0004 | 0005 | 0006                 | 0007 | 0008 | 0009 | 0000 | 0001 |

**ALIMENTARY SYSTEM**

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Intestine Large, Cecum     | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Intestine Large, Colon     | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Intestine Large, Rectum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Intestine Small, Duodenum  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Intestine Small, Ileum     | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Intestine Small, Jejunum   | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Liver                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Angiectasis                |   |   |   | 1 |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Basophilic Focus           | X | X |   |   | X | X |   | X | X | X |   | X | X | X |   | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |   |
| Clear Cell Focus           | X |   |   |   | X | X |   |   |   |   | X | X |   |   |   | X | X |   |   | X |   | X |   | X |   | X |   | X |   | X | X |   |
| Degeneration, Cystic       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |
| Eosinophilic Focus         |   | X |   | X |   | X |   | X |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | X |
| Fatty Change, Focal        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Fatty Change, Diffuse      | 2 |   |   |   | 2 |   |   | 2 | 2 |   |   | 1 |   | 2 | 2 | 2 |   | 2 | 2 |   | 2 | 2 |   | 2 | 1 | 2 | 1 | 2 |   |   |   |   |
| Fibrosis, Focal            |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hepatodiaphragmatic Nodule | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | X |   |
| Inflammation, Chronic      | 1 | 1 | 1 | 1 | 1 | 1 |   | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |   |   |
| Mixed Cell Focus           |   |   |   |   | X | X |   | X |   | X |   |   |   | X |   | X |   | X |   | X |   |   |   |   |   |   | X |   |   |   |   |   |
| Necrosis                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |
| Mesentery                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                            | + |   |   | + | + | + |   |   |   |   |   |   | + |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
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 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

|                         |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY ON TEST             |  | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 6 | 7 | 7 | 7 | 5 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 4 | 7 | 7 | 7 | 7 | 7 |   |
| FISCHER 344 RATS FEMALE |  | 3 | 3 | 7 | 3 | 3 | 3 | 7 | 1 | 5 | 3 | 3 | 3 | 4 | 1 | 7 | 3 | 3 | 1 | 6 | 3 | 5 | 3 | 0 | 3 | 3 | 3 |   |
| 25 ppm                  |  | 2 | 3 | 5 | 1 | 2 | 2 | 0 | 2 | 3 | 3 | 2 | 2 | 1 | 9 | 1 | 2 | 1 | 7 | 1 | 2 | 1 | 2 | 9 | 3 | 3 | 2 |   |
| ANIMAL ID               |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                         |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 |   |
|                         |  | 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 |   |   |

females  
(cont...)

Inflammation, Chronic Active  
 Fat, Necrosis

2 2

Oral Mucosa

Pancreas  
 Acinus, Atrophy  
 Acinus, Hyperplasia

+  
 1 1 1 1 2 4 1 1

Salivary Glands

+ +

Stomach, Forestomach  
 Hyperplasia, Squamous  
 Necrosis  
 Ulcer

+  
 3

Stomach, Glandular  
 Mineralization  
 Necrosis

+  
 2 2 1

**CARDIOVASCULAR SYSTEM**

Blood Vessel

+

Heart  
 Cardiomyopathy  
 Thrombosis

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

**ENDOCRINE SYSTEM**

Adrenal Cortex

+ +

\* .. 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

|                                  |  | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | females<br>(cont...) |   |   |   |   |   |
|----------------------------------|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|---|---|---|---|
| FISCHER 344 RATS FEMALE          |  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                      | 0 |   |   |   |   |
| 25 ppm                           |  | 7           | 7 | 6 | 7 | 7 | 7 | 4 | 7 | 6 | 7 | 7 | 7 | 5 | 7 | 5 | 7 | 7 | 7 | 6 | 7 |                      | 4 | 7 | 7 | 7 | 7 |
| ANIMAL ID                        |  | 3           | 3 | 7 | 3 | 3 | 3 | 7 | 1 | 5 | 3 | 3 | 3 | 4 | 1 | 7 | 3 | 3 | 1 | 6 | 3 | 5                    | 3 | 0 | 3 | 3 |   |
|                                  |  | 2           | 3 | 5 | 1 | 2 | 2 | 0 | 2 | 3 | 3 | 2 | 2 | 1 | 9 | 1 | 2 | 1 | 7 | 1 | 2 | 1                    | 2 | 9 | 3 | 2 |   |
|                                  |  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                    | 0 | 0 | 0 | 0 |   |
|                                  |  | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2                    | 2 | 2 | 2 |   |   |
|                                  |  | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1                    | 2 | 3 | 4 | 5 |   |
| Hematopoietic Cell Proliferation |  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |   |   |   |   |   |
| Hyperplasia                      |  |             |   |   | 1 | 2 | 2 |   | 2 |   | 2 | 2 | 2 |   |   | 2 | 2 | 2 | 2 | 2 |   |                      | 2 | 2 |   |   |   |
| Hypertrophy                      |  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |                      |   | 2 | 2 |   |   |
| Adrenal Medulla                  |  | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +                    | + | + | + |   |   |
| Hyperplasia                      |  |             |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   | 2 | 2 |   |   |   |                      | 2 |   | 2 |   |   |
| Islets, Pancreatic               |  | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +                    | + | + | + |   |   |
| Hyperplasia                      |  |             |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |                      |   |   |   |   |   |
| Parathyroid Gland                |  | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +                    | + | + | M | M |   |
| Pituitary Gland                  |  | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +                    | + | + | + | + |   |
| Pars Distalis, Angiectasis       |  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |                      | 3 |   |   |   |   |
| Pars Distalis, Hyperplasia       |  |             |   |   | 3 |   |   |   |   |   |   |   |   |   |   | 3 | 3 |   |   |   |   |                      |   |   |   |   |   |
| Thyroid Gland                    |  | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +                    | + | + | + |   |   |
| C-cell, Hyperplasia              |  |             | 2 | 2 |   | 2 | 3 |   | 2 |   | 3 | 2 | 1 |   |   | 2 | 2 |   | 1 | 2 | 1 | 1                    | 1 |   | 1 |   |   |
| Follicular Cell, Hyperplasia     |  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |   |   |   |   |   |
| <b>GENERAL BODY SYSTEM</b>       |  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |   |   |   |   |   |
| Peritoneum                       |  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |   |   |   |   |   |
| Inflammation, Acute              |  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |   |   |   |   |   |
| <b>GENITAL SYSTEM</b>            |  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |   |   |   |   |   |
| Clitoral Gland                   |  | +           | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +                    | + | + | + | + |   |
| Hyperplasia                      |  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |   |   |   |   |   |
| Inflammation, Chronic Active     |  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |   |   |   |   |   |

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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>25 ppm | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID                | females<br>(cont...) |
|-----------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------------|----------------------|
|                                   | 0732        | 0733 | 0735 | 0731 | 0733 | 0732 | 0740 | 0772 | 0763 | 0773 | 0773 | 0754 | 0775 | 0755 | 0773 | 0773 | 0766 | 0776 | 0744 | 0777 | 0777 | 0777 | 0777 | 0777 |                          |                      |
|                                   | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 000000000000000000000000 |                      |
|                                   | 3           | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 333333333333333333333333 |                      |
|                                   | 2           | 3    | 5    | 1    | 2    | 2    | 0    | 2    | 3    | 3    | 2    | 2    | 1    | 9    | 1    | 2    | 1    | 7    | 1    | 6    | 3    | 5    | 3    | 0    | 000000000000000000000000 |                      |
|                                   | 1           | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 0    | 1    | 2    | 3    | 4    | 111111111111111111111111 |                      |

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Ovary                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Bursa, Dilatation                |   |   |   | 4 |   |   |   |   |   |   |   | 4 |   | 3 |   |   |   |   |   |   |   |   |   |  |
| Uterus                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Endometrium, Hyperplasia, Cystic |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |  |
| Vagina                           |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |  |

**HEMATOPOIETIC SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Bone Marrow  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |        |
| Lymph Node   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
| Lymph Node, Bronchial<br>Hyperplasia, Lymphoid                               | M | M | M | M | M | M | + | M | M | M | M | M | M | M | M | + | M | M | M | M | M | M | M |        |
| Lymph Node, Mandibular   | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |        |
| Lymph Node, Mediastinal<br>Hyperplasia, Lymphoid<br>Hyperplasia, Plasma Cell | M | M | M | + | M | + | M | + | M | + | + | + | M | M | M | + | M | M | + | M | + | M | + | 2<br>2 |
| Lymph Node, Mesenteric<br>Hyperplasia, Lymphoid                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 4      |
| Spleen   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |        |
| Fibrosis   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
| Hemorrhage   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
| Hyperplasia, Lymphoid<br>Inflammation, Granulomatous                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | ANIMAL ID             | females<br>(cont...) |
|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|
|                         | 0<br>7<br>3<br>2      | 0<br>7<br>3<br>3      | 0<br>6<br>7<br>5      | 0<br>7<br>3<br>1      | 0<br>7<br>3<br>2      | 0<br>7<br>3<br>2      | 0<br>4<br>7<br>0      | 0<br>7<br>1<br>2      | 0<br>6<br>5<br>3      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>2      | 0<br>7<br>3<br>2      | 0<br>5<br>4<br>1      | 0<br>7<br>1<br>9      | 0<br>5<br>7<br>1      | 0<br>7<br>3<br>2      | 0<br>7<br>3<br>1      | 0<br>6<br>6<br>1      | 0<br>7<br>3<br>2      | 0<br>4<br>5<br>1      | 0<br>7<br>3<br>2      | 0<br>7<br>0<br>9      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>5      |                       |                      |
| 25 ppm                  | 0<br>0<br>3<br>0<br>1 | 0<br>0<br>3<br>0<br>2 | 0<br>0<br>3<br>0<br>3 | 0<br>0<br>3<br>0<br>4 | 0<br>0<br>3<br>0<br>5 | 0<br>0<br>3<br>0<br>6 | 0<br>0<br>3<br>0<br>7 | 0<br>0<br>3<br>0<br>8 | 0<br>0<br>3<br>0<br>9 | 0<br>0<br>3<br>1<br>0 | 0<br>0<br>3<br>1<br>1 | 0<br>0<br>3<br>1<br>1 | 0<br>0<br>3<br>1<br>1 | 0<br>0<br>3<br>1<br>1 | 0<br>0<br>3<br>1<br>1 | 0<br>0<br>3<br>1<br>1 | 0<br>0<br>3<br>1<br>1 | 0<br>0<br>3<br>1<br>1 | 0<br>0<br>3<br>2<br>0 | 0<br>0<br>3<br>2<br>1 | 0<br>0<br>3<br>2<br>2 | 0<br>0<br>3<br>2<br>2 | 0<br>0<br>3<br>2<br>3 | 0<br>0<br>3<br>2<br>4 | 0<br>0<br>3<br>2<br>5 | 0<br>0<br>3<br>2<br>5 |                      |

Inflammation, Acute

2

Thymus

+ + + + + + + + + + + M I + + + M + + + + M + +

**INTEGUMENTARY SYSTEM**

Mammary Gland  
 Galactocele  
 Hyperplasia

+  
 2

Skin  
 Inflammation, Chronic Active

+  
 3

**MUSCULOSKELETAL SYSTEM**

Bone

+ +

Skeletal Muscle

+ +

**NERVOUS SYSTEM**

Brain  
 Hydrocephalus

+ +

**RESPIRATORY SYSTEM**

Larynx  
 Inflammation, Chronic Active  
 Metaplasia, Squamous

+  
 3  
 3

Lung  
 Inflammation, Chronic Active

+ +

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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:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>25 ppm             | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID | females<br>(cont...) |      |   |   |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|---|---|
|   | 0732        | 0733 | 0735 | 0731 | 0733 | 0732 | 0740 | 0762 | 0773 | 0773 | 0773 | 0775 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 |           |                      | 0777 |   |   |
| Alveolar Epithelium, Hyperplasia              | 1           |      | 1    |      | 1    |      | 2    |      |      |      | 1    |      |      |      | 1    | 1    | 4    |      |      |      |           |                      |      |   |   |
| Bronchiole, Hyperplasia                       |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |   |   |
| Nose  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    |      |   |   |
| Foreign Body                                  |             | X    |      |      |      |      |      |      |      |      |      |      | X    |      |      |      |      |      |      |      | X         |                      |      |   |   |
| Inflammation, Chronic Active                  |             | 1    | 3    | 1    | 1    | 2    | 1    |      |      | 1    | 3    | 1    | 1    | 4    | 2    | 1    | 2    | 1    |      | 3    | 1         | 2                    | 1    | 2 | 3 |
| Thrombosis                                    |             |      |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      | 2    |           |                      |      |   |   |
| Olfactory Epithelium, Metaplasia, Respiratory | 2           | 2    | 4    | 3    | 2    | 3    | 2    | 2    | 2    | 2    | 3    | 3    | 2    | 4    | 3    | 2    | 3    | 2    | 2    | 4    | 2         | 3                    | 3    | 3 | 3 |
| Respiratory Epithelium, Hyperplasia           |             |      | 2    |      | 1    |      |      |      |      |      | 1    |      | 2    |      |      |      |      |      | 2    |      |           |                      |      |   | 2 |
| Turbinate, Atrophy                            | 2           | 2    | 3    | 3    | 3    | 3    | 4    | 3    | 3    | 3    | 3    | 2    | 2    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3         | 3                    | 3    | 3 | 3 |
| Turbinate, Hyperostosis                       | 2           | 2    | 1    | 2    | 2    | 3    | 1    | 2    | 2    | 2    | 2    | 3    | 2    | 1    | 1    | 2    | 2    | 2    | 1    | 2    | 2         | 2                    | 1    | 2 | 3 |
| Pleura  |             |      |      |      |      |      |      |      |      |      | +    |      |      |      |      |      |      |      |      |      |           |                      |      |   |   |
| Trachea                                       | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | + | + |
| <b>SPECIAL SENSES SYSTEM</b>                  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |   |   |
| Eye   | +           | +    | +    | +    | +    | +    | +    | +    | A    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | + | + |
| Cataract                                      |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 3    |      |      |      |           |                      |      |   |   |
| Degeneration                                  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 4    |      |           |                      |      |   |   |
| Retina, Atrophy                               |             |      |      |      |      |      |      |      |      |      |      | 2    |      |      | 4    |      | 2    |      |      |      |           |                      |      |   |   |
| Harderian Gland                               | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | + | + |
| <b>URINARY SYSTEM</b>                         |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |   |   |
| Kidney  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | + | + |
| Fibrosis                                      |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2    |      |           |                      |      |   |   |
| Hydronephrosis                                |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |   |   |
| Infarct                                       |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |   | 2 |

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 I .. Insufficient tissue  
 M .. Missing tissue  
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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

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

Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE   | DAY ON TEST | ANIMAL ID |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | females<br>(cont...) |      |  |
|---------------------------|-------------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|------|--|
|                           |             | 0732      | 0733 | 0675 | 0771 | 0772 | 0773 | 0472 | 0772 | 0676 | 0773 | 0773 | 0773 | 0574 | 0771 | 0773 | 0773 | 0773 | 0773 | 0676 | 0771 | 0773 | 0773 | 0773 | 0773 |                      | 0773 |  |
| 25 ppm                    |             | 0000      | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | females<br>(cont...) |      |  |
|                           |             | 3300      | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 |                      |      |  |
|                           |             | 1234      | 1234 | 1234 | 1234 | 1234 | 1234 | 1234 | 1234 | 1234 | 1234 | 1234 | 1234 | 1234 | 1234 | 1234 | 1234 | 1234 | 1234 | 1234 | 1234 | 1234 | 1234 | 1234 | 1234 |                      |      |  |
| Mineralization            |             |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                      |      |  |
| Nephropathy               |             | 2         | 2    |      |      | 1    | 2    | 1    | 1    | 2    | 1    | 1    | 3    | 1    |      | 1    | 1    | 2    | 2    | 3    | 2    |      | 1    |      | 2    | 4                    | 2    |  |
| Papilla, Necrosis         |             |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                      |      |  |
| Renal Tubule, Hyperplasia |             |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                      |      |  |
| Urinary Bladder           |             | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                    | +    |  |

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 2) Mild 4) Marked

Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

|                         |  | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |
|-------------------------|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| FISCHER 344 RATS FEMALE |  | 061         | 073   | 073   | 053   | 073   | 077   | 077   | 077   | 066   | 066   | 055   | 066   | 066   | 066   | 077   | 077   | 077   | 066   | 066   | 067   |          | 077   | 077   |
| 25 ppm                  |  | 061         | 073   | 073   | 053   | 073   | 077   | 077   | 077   | 066   | 066   | 055   | 066   | 066   | 066   | 077   | 077   | 077   | 066   | 066   | 067   | 077      | 077   | 077   |
| ANIMAL ID               |  | 00326       | 00007 | 00008 | 00009 | 00010 | 00011 | 00012 | 00013 | 00014 | 00015 | 00016 | 00017 | 00018 | 00019 | 00020 | 00021 | 00022 | 00023 | 00024 | 00025 | 00026    | 00027 | 00028 |

ALIMENTARY SYSTEM

|                            |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |     |
|----------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-----|
| Esophagus                  | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |     |
| Intestine Large, Cecum     | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 48 |     |
| Intestine Large, Colon     | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 49 |     |
| Intestine Large, Rectum    | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |     |
| Intestine Small, Duodenum  | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |     |
| Intestine Small, Ileum     | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 48 |     |
| Intestine Small, Jejunum   | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 48 |     |
| Liver                      | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 |     |
| Angiectasis                | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4  | 1.8 |
| Basophilic Focus           | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 41 |     |
| Clear Cell Focus           | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 19 |     |
| Degeneration, Cystic       | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2  | 3.0 |
| Eosinophilic Focus         | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11 |     |
| Fatty Change, Focal        | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1  |     |
| Fatty Change, Diffuse      | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 30 | 1.7 |
| Fibrosis, Focal            | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1  | 3.0 |
| Hepatodiaphragmatic Nodule | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 6  |     |
| Inflammation, Chronic      | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 48 | 1.4 |
| Mixed Cell Focus           | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 16 |     |
| Necrosis                   | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3  | 1.7 |
| Mesentery                  | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 20 |     |

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 BLANK .. Not examined microscopically

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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>25 ppm          | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |      |                 |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|-----------------|
|  | 0661        | 0673 | 0673 | 0675 | 0677 | 0677 | 0677 | 0677 | 0677 | 0677 | 0677 | 0677 | 0677 | 0677 | 0677 | 0677 | 0677 | 0677 | 0677 | 0677 |          | 0677 | 0677            |
| ANIMAL ID                                  | 0000        | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000     | 0000 |                 |
| Inflammation, Chronic Active Fat, Necrosis | 2           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      | 1 2.0<br>19 2.0 |
| Oral Mucosa                                |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      | 1               |
| Pancreas                                   | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | 50              |
| Acinus, Atrophy                            |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      | 13 1.5          |
| Acinus, Hyperplasia                        |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      | 1 1.0           |
| Salivary Glands                            | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | 50              |
| Stomach, Forestomach                       | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | 50              |
| Hyperplasia, Squamous                      |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      | 1 3.0           |
| Necrosis                                   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      | 1 2.0           |
| Ulcer                                      |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      | 1 2.0           |
| Stomach, Glandular                         | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | 50              |
| Mineralization                             |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      | 1 3.0           |
| Necrosis                                   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      | 4 2.0           |
| <b>CARDIOVASCULAR SYSTEM</b>               |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |                 |
| Blood Vessel                               |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      | 1               |
| Heart                                      | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | 50              |
| Cardiomyopathy                             |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      | 34 1.4          |
| Thrombosis                                 |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      | 1 3.0           |
| <b>ENDOCRINE SYSTEM</b>                    |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |                 |
| Adrenal Cortex                             | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>25 ppm | DAY ON TEST    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | * TOTALS       |                |     |     |
|-----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----|-----|
|                                   | 06<br>61       | 07<br>73<br>33 | 07<br>73<br>32 | 05<br>53<br>55 | 07<br>73<br>31 | 07<br>73<br>31 | 07<br>73<br>31 | 07<br>73<br>31 | 06<br>68<br>99 | 06<br>63<br>99 | 05<br>53<br>91 | 06<br>63<br>99 | 06<br>63<br>95 | 06<br>63<br>93 | 06<br>63<br>93 | 06<br>63<br>94 | 06<br>63<br>90 | 07<br>73<br>33 | 07<br>73<br>33 | 07<br>73<br>32 | 06<br>63<br>91 | 06<br>63<br>90 | 07<br>73<br>31 | 07<br>73<br>32 |                | 07<br>73<br>32 |     |     |
| ANIMAL ID                         | 00<br>32<br>66 | 00<br>03<br>27 | 00<br>03<br>28 | 00<br>03<br>29 | 00<br>03<br>30 | 00<br>03<br>31 | 00<br>03<br>32 | 00<br>03<br>33 | 00<br>03<br>34 | 00<br>03<br>35 | 00<br>03<br>36 | 00<br>03<br>37 | 00<br>03<br>38 | 00<br>03<br>39 | 00<br>03<br>40 | 00<br>03<br>41 | 00<br>03<br>42 | 00<br>03<br>43 | 00<br>03<br>44 | 00<br>03<br>45 | 00<br>03<br>46 | 00<br>03<br>47 | 00<br>03<br>48 | 00<br>03<br>49 | 00<br>03<br>50 |                |     |     |
| Hematopoietic Cell Proliferation  |                |                | 3              |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 2   | 3.0 |
| Hyperplasia                       | 2              |                |                |                |                |                |                |                | 2              | 2              | 2              |                |                |                | 2              |                | 2              | 2              | 2              |                | 2              | 2              | 2              | 2              |                |                | 28  | 2.0 |
| Hypertrophy                       |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 3   | 2.0 |
| Adrenal Medulla                   | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | 50  |     |
| Hyperplasia                       |                |                |                | 1              |                |                |                |                | 2              |                |                |                |                |                |                |                |                |                | 2              |                |                | 3              |                |                |                | 2              | 10  | 2.0 |
| Islets, Pancreatic                | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | 50  |     |
| Hyperplasia                       |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 1   | 3.0 |
| Parathyroid Gland                 | +              | +              | +              | +              | +              | +              | +              | +              | +              | M              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | M              | +              | 46             |     |     |
| Pituitary Gland                   | +              | +              | I              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | 49             |     |     |
| Pars Distalis, Angiectasis        |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 3              |                |                |                | 2              | 4              | 2.8 |     |
| Pars Distalis, Hyperplasia        |                |                |                |                |                |                |                |                |                | 2              |                |                |                |                |                | 2              |                |                |                |                |                |                |                |                | 2              | 6              | 2.5 |     |
| Thyroid Gland                     | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | 50             |     |     |
| C-cell, Hyperplasia               | 1              | 2              | 2              | 1              | 1              | 3              |                | 2              |                |                |                | 1              | 1              |                |                | 1              | 1              |                | 2              |                |                | 3              |                |                | 2              | 30             | 1.7 |     |
| Follicular Cell, Hyperplasia      |                |                |                |                |                |                |                |                | 2              |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 1              | 2.0 |     |
| <b>GENERAL BODY SYSTEM</b>        |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |     |     |
| Peritoneum                        |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 1   |     |
| Inflammation, Acute               |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 1   | 3.0 |
| <b>GENITAL SYSTEM</b>             |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |     |     |
| Clitoral Gland                    | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | M              | +              | +              | +              | +              | +              | +              | +              | 48  |     |
| Hyperplasia                       |                |                |                |                |                |                |                | 3              | 2              |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 2              | 4   | 2.0 |
| Inflammation, Chronic Active      |                |                |                |                |                |                |                |                |                |                |                |                | 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: 20303 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

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

Vinylidene chloride

CAS Number: 75-35-4

Date Report Requested: 12/12/2011

Time Report Requested: 09:47:55

First Dose M/F: 06/06/05 / 06/06/05

Lab: BNW

| FISCHER 344 RATS FEMALE<br>25 ppm  | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |                      |      |  |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|----------------------|------|--|
|  | 0661        | 0733  | 0732  | 0535  | 0771  | 0771  | 0773  | 0773  | 0773  | 0773  | 0681  | 0666  | 0566  | 0666  | 0666  | 0666  | 0773  | 0773  | 0773  | 0666  |          | 0666  | 0667  | 0777  | 0777                 | 0777 |  |
| ANIMAL ID  | 00326       | 00337 | 00338 | 00339 | 00340 | 00341 | 00342 | 00343 | 00344 | 00345 | 00346 | 00347 | 00348 | 00349 | 00350 | 00351 | 00352 | 00353 | 00354 | 00355 | 00356    | 00357 | 00358 | 00359 | 00360                |      |  |
| Ovary  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50                   |      |  |
| Bursa, Dilatation  | 3           |       |       |       |       | 3     |       |       |       |       | 2     | 3     | 4     |       |       | 3     |       |       |       |       |          | 2     |       | 3     | 11 3.1               |      |  |
| Uterus   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50                   |      |  |
| Endometrium, Hyperplasia, Cystic   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 3.0                |      |  |
| Vagina   |             |       |       |       |       |       |       |       |       |       | +     |       |       |       |       |       |       |       |       |       |          |       |       |       | 2                    |      |  |
| <b>HEMATOPOIETIC SYSTEM</b>  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |                      |      |  |
| Bone Marrow  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50                   |      |  |
| Lymph Node   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | +     |       |       |       |          | +     |       |       | 2                    |      |  |
| Lymph Node, Bronchial<br>Hyperplasia, Lymphoid                               | M           | M     | M     | M     | M     | +     | M     | M     | M     | M     | M     | M     | M     | M     | +     | +     | M     | M     | M     | +     | +        | M     | M     | M     | 7<br>1 2.0           |      |  |
| Lymph Node, Mandibular   | M           | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M        | M     | M     | M     | 0                    |      |  |
| Lymph Node, Mediastinal<br>Hyperplasia, Lymphoid<br>Hyperplasia, Plasma Cell | M           | M     | M     | +     | M     | +     | +     | +     | +     | M     | +     | M     | +     | M     | +     | M     | +     | +     | +     | M     | M        | +     | +     | +     | 26<br>1 2.0<br>1 2.0 |      |  |
| Lymph Node, Mesenteric<br>Hyperplasia, Lymphoid                              | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50<br>1 4.0          |      |  |
| Spleen   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50    |                      |      |  |
| Fibrosis   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 2.0                |      |  |
| Hemorrhage   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 2.0                |      |  |
| Hyperplasia, Lymphoid  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 3     |       |       | 1 3.0                |      |  |
| Inflammation, Granulomatous  |             |       |       |       |       | 4     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 4.0                |      |  |

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked



Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>25 ppm | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |       |  |
|-----------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|--|
|                                   | 0661        | 0673  | 0673  | 0653  | 0673  | 0673  | 0673  | 0673  | 0668  | 0666  | 0656  | 0666  | 0666  | 0666  | 0666  | 0677  | 0677  | 0677  | 0666  | 0666  |          | 0667  | 0677  | 0677  | 0677  |  |
| ANIMAL ID                         | 00326       | 00307 | 00308 | 00309 | 00310 | 00311 | 00312 | 00313 | 00314 | 00315 | 00316 | 00317 | 00318 | 00319 | 00320 | 00321 | 00322 | 00323 | 00324 | 00325 | 00326    | 00327 | 00328 | 00329 |       |  |
| Inflammation, Acute               |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 2.0 |  |
| Thymus                            | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | M     | +     | +     | 45    |  |
| <b>INTEGUMENTARY SYSTEM</b>       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |  |
| Mammary Gland                     | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50    |  |
| Galactocele                       |             |       |       |       |       |       |       |       |       |       |       |       |       | 3     |       |       |       |       |       |       |          | 2     |       |       | 2 2.5 |  |
| Hyperplasia                       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 2.0 |  |
| Skin                              | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50    |  |
| Inflammation, Chronic Active      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 3.0 |  |
| <b>MUSCULOSKELETAL SYSTEM</b>     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |  |
| Bone                              | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50    |  |
| Skeletal Muscle                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 2     |  |
| <b>NERVOUS SYSTEM</b>             |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |  |
| Brain                             | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50    |  |
| Hydrocephalus                     | 2           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 2.0 |  |
| <b>RESPIRATORY SYSTEM</b>         |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |  |
| Larynx                            | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50    |  |
| Inflammation, Chronic Active      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 2 3.0 |  |
| Metaplasia, Squamous              |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 1     |       | 3 2.3 |  |
| Lung                              | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50    |  |
| Inflammation, Chronic Active      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 1.0 |  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
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 Lab: BNW

| FISCHER 344 RATS FEMALE<br>25 ppm             | DAY ON TEST |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | * TOTALS |                |                |
|---|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------|----------------|----------------|
|   | 06<br>61    | 07<br>63<br>32 | 07<br>73<br>32 | 05<br>73<br>55 | 07<br>73<br>31 | 07<br>73<br>31 | 07<br>73<br>31 | 07<br>73<br>31 | 06<br>68<br>99 | 06<br>63<br>99 | 05<br>63<br>51 | 06<br>66<br>39 | 06<br>66<br>39 | 06<br>66<br>39 | 07<br>77<br>33 | 07<br>77<br>33 | 07<br>77<br>32 | 06<br>66<br>31 | 06<br>66<br>91 | 07<br>77<br>33 |          | 07<br>77<br>33 | 07<br>77<br>32 |
| ANIMAL ID                                     | 00326       | 00337          | 00338          | 00339          | 00340          | 00341          | 00342          | 00343          | 00344          | 00345          | 00346          | 00347          | 00348          | 00349          | 00350          | 00351          | 00352          | 00353          | 00354          | 00355          | 00356    | 00357          | 00358          |
| Alveolar Epithelium, Hyperplasia              |             |                |                |                |                |                |                | 1              | 1              |                |                |                |                | 1              |                |                | 1              |                |                |                |          | 1              | 13             |
| Bronchiole, Hyperplasia                       |             |                |                |                |                | 2              | 2              |                |                |                |                |                |                |                |                |                |                |                |                |                |          |                | 2              |
| Nose  | +           | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +        | +              | 50             |
| Foreign Body                                  |             |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | X              |                |          |                | 4              |
| Inflammation, Chronic Active                  | 2           | 1              | 1              | 2              | 2              | 2              | 1              | 3              | 1              |                | 1              | 2              | 1              | 1              | 4              | 2              | 1              | 1              | 3              | 4              | 2        | 1              | 45             |
| Thrombosis                                    |             |                |                | 4              |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |          |                | 3              |
| Olfactory Epithelium, Metaplasia, Respiratory | 3           | 3              | 2              | 2              | 3              | 3              | 3              | 4              | 3              | 2              | 2              | 3              | 3              | 3              | 4              | 3              | 3              | 3              | 4              | 3              | 2        | 3              | 50             |
| Respiratory Epithelium, Hyperplasia           |             |                |                |                |                | 1              |                | 1              |                |                |                |                |                |                | 1              |                |                |                | 2              | 2              |          |                | 12             |
| Turbinate, Atrophy                            | 3           | 3              | 3              | 2              | 3              | 3              | 3              | 2              | 3              | 3              | 3              | 3              | 3              | 3              | 2              | 2              | 3              | 3              | 3              | 3              | 3        | 3              | 50             |
| Turbinate, Hyperostosis                       | 1           | 2              | 3              | 2              | 2              | 2              | 1              | 2              | 2              | 3              | 1              | 2              | 2              | 2              | 1              | 2              | 3              | 2              | 2              | 1              | 2        | 1              | 50             |
| Pleura  |             |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |          |                | 1              |
| Trachea                                       | +           | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +        | +              | 50             |
| <b>SPECIAL SENSES SYSTEM</b>                  |             |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |          |                |                |
| Eye   | +           | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +        | +              | 49             |
| Cataract                                      |             |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |          |                | 1              |
| Degeneration                                  |             |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 4              |                |                | 4        |                | 3              |
| Retina, Atrophy                               |             |                |                |                |                |                |                |                |                |                |                | 2              |                |                |                |                |                |                |                |                |          |                | 4              |
| Harderian Gland                               | +           | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +        | +              | 50             |
| <b>URINARY SYSTEM</b>                         |             |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |          |                |                |
| Kidney  | +           | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +              | +        | +              | 50             |
| Fibrosis                                      |             |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |          |                | 1              |
| Hydronephrosis                                |             |                |                |                |                |                |                |                |                |                |                | 3              |                |                |                |                |                |                |                |                |          |                | 1              |
| Infarct                                       |             |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |          |                | 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: 20303 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Vinylidene chloride

CAS Number: 75-35-4

Date Report Requested: 12/12/2011

Time Report Requested: 09:47:55

First Dose M/F: 06/06/05 / 06/06/05

Lab: BNW

| FISCHER 344 RATS FEMALE<br>25 ppm | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |      |
|-----------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|------|
|                                   | 0661        | 0733  | 0732  | 0535  | 0733  | 0733  | 0733  | 0733  | 0638  | 0639  | 0651  | 0663  | 0663  | 0663  | 0666  | 0666  | 0733  | 0733  | 0733  | 0666  | 0666  | 0667  | 0733  |          | 0733 |
| ANIMAL ID                         | 00326       | 00337 | 00338 | 00390 | 00301 | 00302 | 00303 | 00304 | 00305 | 00306 | 00307 | 00308 | 00309 | 00310 | 00311 | 00312 | 00313 | 00314 | 00315 | 00316 | 00317 | 00318 | 00319 | 00320    |      |
| Mineralization                    |             |       |       |       |       |       |       |       | 3     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1    |
| Nephropathy                       | 2           |       | 2     |       | 1     | 2     |       | 1     | 1     | 3     |       | 1     | 1     | 1     | 2     |       | 2     | 2     | 3     | 1     | 1     |       | 1     | 2        | 4    |
| Papilla, Necrosis                 |             |       |       |       |       |       |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1    |
| Renal Tubule, Hyperplasia         |             |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       | 3     |       |       |       |       |          | 2    |
| 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | females<br>(cont...) |  |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|--|
|                         | 0583        | 0731 | 0732 | 0563 | 0773 | 0773 | 0664 | 0662 | 0777 | 0777 | 0777 | 0666 | 0666 | 0777 | 0777 | 0777 | 0666 | 0666 | 0777 | 0777 | 0777 | 0666 | 0666 | 0777 | 0777 |                      |  |
| 50 ppm                  | 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                 |  |
|                         | 5501        | 5502 | 5503 | 5504 | 5505 | 5506 | 5507 | 5508 | 5509 | 5510 | 5511 | 5512 | 5513 | 5514 | 5515 | 5516 | 5517 | 5518 | 5519 | 5520 | 5521 | 5522 | 5523 | 5524 | 5525 | 5526                 |  |

**ALIMENTARY SYSTEM**

|                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum      | A | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon Cyst | A | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum     | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum   | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum      | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum    | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis                 | 1 |   |   |   |   | 1 |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Basophilic Focus            |   | X | X | X | X | X | X |   |   | X | X | X |   | X | X | X |   |   | X |   | X | X |   |   |   |   |
| Clear Cell Focus            |   | X | X |   | X | X |   |   |   |   | X | X |   |   |   | X |   |   |   |   | X | X | X |   |   |   |
| Degeneration, Cystic        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Eosinophilic Focus          |   |   | X |   |   | X |   |   |   |   |   |   |   |   | X | X |   |   |   |   | 3 |   | X |   |   | X |
| Fatty Change, Focal         |   |   |   |   |   | X |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Fatty Change, Diffuse       | 2 | 2 |   | 2 |   | 1 |   |   |   |   | 3 |   |   |   | 1 | 2 | 3 |   |   | 2 |   |   | 1 |   | 1 |   |
| Hepatodiaphragmatic Nodule  |   |   |   |   |   |   |   |   |   |   |   | X |   |   | X | X |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Chronic       | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |
| Mixed Cell Focus            |   |   |   |   |   | X |   |   | X |   | X |   |   |   | X | X | X | X |   | X |   | X | X | X |   |   |
| Necrosis                    |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |
| Bile Duct, Hyperplasia      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |

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

**Experiment Number:** 20303 - 05  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** RATS/F 344/N

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

Vinylidene chloride  
**CAS Number:** 75-35-4

**Date Report Requested:** 12/12/2011  
**Time Report Requested:** 09:47:55  
**First Dose M/F:** 06/06/05 / 06/06/05  
**Lab:** BNW

| FISCHER 344 RATS FEMALE<br>50 ppm | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID | females<br>(cont...) |      |      |      |   |   |
|-----------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|------|---|---|
|                                   | 0583        | 0731 | 0732 | 0563 | 0773 | 0773 | 0664 | 0662 | 0772 | 0773 | 0773 | 0663 | 0666 | 0776 | 0777 | 0777 | 0667 | 0666 | 0776 | 0777 |           |                      | 0777 | 0667 | 0666 |   |   |
|                                   | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0         | 0                    | 0    | 0    | 0    |   |   |
| Mesentery                         | +           |      |      | +    |      |      |      | +    |      |      |      | +    |      |      |      |      |      |      | +    | +    | +         |                      | +    | +    | +    |   |   |
| Fat, Hemorrhage                   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      | 2    |      |      |   |   |
| Fat, Necrosis                     | 2           |      |      | 2    |      |      |      |      |      | 2    | 2    |      |      |      |      |      |      |      | 2    | 2    | 2         |                      | 2    | 2    |      | 2 |   |
| Pancreas                          | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | +    | +    | + |   |
| Inflammation, Granulomatous       |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |   |   |
| Acinus, Atrophy                   |             |      |      |      |      |      | 1    |      |      |      |      |      |      | 2    | 3    |      |      |      |      |      |           | 4                    |      |      |      | 1 |   |
| Acinus, Hyperplasia               |             |      |      |      |      |      |      |      |      | 2    |      |      |      |      |      |      |      |      |      | 1    |           |                      |      |      |      |   |   |
| Salivary Glands                   | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | +    | +    | + |   |
| Basophilic Focus                  |             |      |      |      |      |      |      |      |      |      | X    |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |   |   |
| Stomach, Forestomach              | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | +    | +    | + |   |
| Hyperplasia, Squamous             |             |      |      |      |      |      |      |      |      |      |      | 2    |      |      |      |      |      |      |      |      |           |                      |      |      |      |   |   |
| Ulcer                             |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |   |   |
| Stomach, Glandular                | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | +    | +    | + |   |
| Necrosis                          |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |   |   |
| <b>CARDIOVASCULAR SYSTEM</b>      |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |   |   |
| Heart                             | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | +    | +    | + |   |
| Cardiomyopathy                    | 2           | 2    | 1    |      |      | 1    | 1    |      |      |      |      | 1    |      |      |      |      |      | 2    | 1    | 1    | 1         | 1                    |      |      | +    | 2 | 2 |
|                                   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |   |   |
| <b>ENDOCRINE SYSTEM</b>           |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |   |   |
| Adrenal Cortex                    | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | +    | +    | + |   |
| Hyperplasia                       |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |   |   |
| Hypertrophy                       |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |   |   |
| Adrenal Medulla                   | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | +    | +    | + |   |

\* .. 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:** 20303 - 05  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Vinylidene chloride  
**CAS Number:** 75-35-4

**Date Report Requested:** 12/12/2011  
**Time Report Requested:** 09:47:55  
**First Dose M/F:** 06/06/05 / 06/06/05  
**Lab:** BNW

| FISCHER 344 RATS FEMALE<br>50 ppm | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | females<br>(cont...) |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
|                                   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |                      |
|                                   | 5           | 7 | 7 | 5 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 |                      |
|                                   | 8           | 3 | 3 | 6 | 3 | 3 | 3 | 7 | 3 | 3 | 3 | 2 | 7 | 3 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 3 | 3 | 0 |                      |
|                                   | 3           | 1 | 2 | 3 | 2 | 3 | 4 | 2 | 2 | 3 | 1 | 3 | 1 | 0 | 2 | 2 | 1 | 3 | 3 | 2 | 1 | 2 | 2 | 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 |                      |
|                                   | 5           | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |                      |
|                                   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |                      |
|                                   | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |                      |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |  |
|----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|--|
| Hyperplasia                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 | 2 |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | 1 |  |
| Islets, Pancreatic         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |   |  |
| Parathyroid Gland          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | M | + |  |   |  |
| Angiectasis                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |  |
| Pituitary Gland            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |   |  |
| Pars Distalis, Angiectasis |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   | 2 |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |  |
| Pars Distalis, Hyperplasia |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   | 2 |   |   | 3 | 2 |   |   | 2 |   |   | 3 |   |   | 3 | 3 |   |   | 2 |   |  |   |  |
| Thyroid Gland              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |   |  |
| C-cell, Hyperplasia        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   | 1 |   |   | 1 |   |   | 1 |   |   | 2 | 2 | 1 | 2 |   |   | 1 |   |   | 1 | 1 | 2 |  |   |  |

**GENERAL BODY SYSTEM**

|            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Peritoneum |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

**GENITAL SYSTEM**

|                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |
|----------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|---|
| Clitoral Gland                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | M | + | + | + | + |   |  |   |   |
| Hyperplasia                      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |
| Ovary                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |   |   |
| Cyst                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |
| Bursa, Dilatation                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   | 3 |   |   |   |   | 3 | 4 | 4 |   |   |   |   | 4 |   |   | 4 |   |   | 2 |   |  | 3 | 2 |
| Follicle, Cyst                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |
| Periovarian Tissue, Cyst         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |
| Uterus                           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |   |   |
| Endometrium, Hyperplasia, Cystic |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   | 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  
 2) Mild 4) Marked

Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

|                                       |             |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |                  |                  |
|---------------------------------------|-------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|------------------|------------------|
| FISCHER 344 RATS FEMALE<br><br>50 ppm | DAY ON TEST | 0<br>5<br>8<br>3 | 0<br>7<br>3<br>1 | 0<br>7<br>3<br>2 | 0<br>5<br>6<br>3 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>3 | 0<br>6<br>7<br>4 | 0<br>6<br>7<br>2 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>3 | 0<br>7<br>3<br>1 | 0<br>7<br>3<br>3 | 0<br>6<br>2<br>1 | 0<br>6<br>7<br>0 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>1 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>2 | 0<br>6<br>6      | females<br>(cont...) |                  |                  |
|                                       | ANIMAL ID   | 0<br>5<br>0<br>1 | 0<br>5<br>0<br>2 | 0<br>5<br>0<br>3 | 0<br>5<br>0<br>4 | 0<br>5<br>0<br>5 | 0<br>5<br>0<br>6 | 0<br>5<br>0<br>7 | 0<br>5<br>0<br>8 | 0<br>5<br>0<br>9 | 0<br>5<br>0<br>0 | 0<br>5<br>0<br>1 | 0<br>5<br>0<br>1 | 0<br>5<br>0<br>1 | 0<br>5<br>0<br>1 | 0<br>5<br>0<br>1 | 0<br>5<br>0<br>1 | 0<br>5<br>0<br>1 | 0<br>5<br>0<br>1 | 0<br>5<br>0<br>1 | 0<br>5<br>0<br>1 | 0<br>5<br>0<br>2 | 0<br>5<br>0<br>2 | 0<br>5<br>0<br>2 | 0<br>5<br>0<br>2 |                      | 0<br>5<br>0<br>3 | 0<br>5<br>0<br>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                |

**HEMATOPOIETIC SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Lymph Node<br>Deep Cervical, Hemorrhage                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |
| Deep Cervical, Hyperplasia, Lymphoid                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |
| Lymph Node, Bronchial                                  | M | M | M | + | M | M | M | M | M | M | M | M | M | M | + | M | M | + | M | M | M | M | M | M | M | M |   |
| Lymph Node, Mandibular                                 | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |   |
| Lymph Node, Mediastinal<br>Hemorrhage                  | + | M | + | + | M | + | M | M | + | M | M | + | + | + | M | + | M | + | M | + | + | + | M | M | + | 2 |   |
| Lymph Node, Mesenteric                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Spleen<br>Fibrosis<br>Hematopoietic Cell Proliferation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 3 |   |
| Thymus   | + | + | + | + | M | + | M | M | + | + | + | + | + | M | + | + | M | + | + | + | + | + | M | + | + |   |   |

**INTEGUMENTARY SYSTEM**

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland<br>Galactocele | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 3 |
| Skin<br>Hyperkeratosis       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>50 ppm | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | females<br>(cont...) |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
|                                   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                      |
|                                   | 5           | 7 | 7 | 5 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 |                      |
|                                   | 8           | 3 | 3 | 6 | 3 | 3 | 3 | 7 | 3 | 3 | 3 | 3 | 2 | 7 | 3 | 3 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 3 | 3 |                      |
|                                   | 3           | 1 | 2 | 3 | 2 | 3 | 4 | 2 | 2 | 3 | 1 | 3 | 1 | 0 | 2 | 2 | 1 | 3 | 3 | 2 | 1 | 2 | 2 | 2 | 2 |                      |
| ANIMAL ID                         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |
|                                   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                      |
|                                   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                      |
|                                   | 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 |                      |
|                                   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |                      |
|                                   | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |                      |

Inflammation, Chronic Active

### MUSCULOSKELETAL SYSTEM

|                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone<br>Hyperostosis        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle<br>Fibrosis |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

### NERVOUS SYSTEM

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

### RESPIRATORY SYSTEM

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx<br>Inflammation, Chronic Active        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Lung<br>Hemorrhage                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Inflammation, Chronic Active                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |
| Alveolar Epithelium, Hyperplasia              |   |   |   | 1 |   |   |   |   | 1 |   | 1 | 1 |   | 1 | 1 |   |   |   |   | 1 | 1 |   |   | 1 |   |
| Alveolar Epithelium, Metaplasia, Squamous     |   |   | 1 |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Alveolus, Infiltration Cellular, Histiocyte   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Bronchiole, Hyperplasia                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nose<br>Inflammation, Chronic Active          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Thrombosis                                    | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 1 | 1 | 1 | 1 | 2 | 3 | 4 | 2 | 1 | 1 | 3 |   | 2 | 4 | 1 | 4 | 3 | 2 |
| Olfactory Epithelium, Metaplasia, Respiratory | 2 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

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

Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

|                                |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |
|--------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
|                                | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |
| <b>FISCHER 344 RATS FEMALE</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 |   |                      |
|                                | 5           | 7 | 7 | 5 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 6 |                      |
| <b>50 ppm</b>                  | 8           | 3 | 3 | 6 | 3 | 3 | 3 | 7 | 3 | 3 | 3 | 2 | 7 | 3 | 3 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 3 | 3 | 0 |                      |
|                                | 3           | 1 | 2 | 3 | 2 | 3 | 4 | 2 | 2 | 3 | 1 | 3 | 1 | 0 | 2 | 2 | 1 | 3 | 3 | 2 | 1 | 2 | 2 | 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 |                      |
| 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 |   |                      |
|                                | 5           | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |   |                      |
|                                | 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 | 5 | females<br>(cont...) |

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Olfactory Epithelium, Metaplasia, Squamous |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Respiratory Epithelium, Hyperplasia        |   |   |   |   |   | 1 | 1 |   |   |   |   |   |   |   | 1 | 2 |   |   |   |   | 1 | 1 | 3 |   | 2 | 2 |
| Turbinate, Atrophy                         | 4 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 |   |
| Turbinate, Hyperostosis                    | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 4 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 1 |   |
| Trachea                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |

**SPECIAL SENSES SYSTEM**

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Cataract               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Degeneration           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Retina, Atrophy        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Harderian Gland        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Hyperplasia            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |
| Lacrimal Gland         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cytoplasmic Alteration |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |
| Zymbal's Gland         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**URINARY SYSTEM**

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Hyperplasia, Oncocytic |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nephropathy            | 1 | 2 | 1 | 1 | 1 | 1 | 1 |   | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 |   | 1 | 3 | 2 | 1 | 1 |
| Renal Tubule, Necrosis |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 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:  
1) Minimal 3) Moderate  
2) Mild 4) Marked

Experiment Number: 20303 - 05

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 12/12/2011

Test Type: CHRONIC

Vinylidene chloride

Time Report Requested: 09:47:55

Route: RESPIRATORY EXPOSURE WHOLE BODY

CAS Number: 75-35-4

First Dose M/F: 06/06/05 / 06/06/05

Species/Strain: RATS/F 344/N

Lab: BNW

|                                |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |  |
|--------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|--|
|                                | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |  |
| <b>FISCHER 344 RATS FEMALE</b> | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               |  |
| <b>50 ppm</b>                  | 5           | 5 | 6 | 7 | 5 | 7 | 6 | 6 | 7 | 7 | 7 | 5 | 7 | 5 | 7 | 7 | 4 | 7 | 7 | 7 | 7               |  |
|                                | 2           | 6 | 9 | 3 | 1 | 3 | 5 | 0 | 3 | 2 | 2 | 1 | 3 | 7 | 3 | 3 | 2 | 3 | 3 | 3 | 3               |  |
|                                | 6           | 3 | 8 | 1 | 4 | 1 | 9 | 3 | 1 | 6 | 9 | 4 | 3 | 9 | 2 | 3 | 3 | 1 | 3 | 2 | 3               |  |
|                                | ANIMAL ID   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>* TOTALS</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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               |  |
|                                | 5           | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5               |  |
|                                | 2           | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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               |  |

ALIMENTARY SYSTEM

|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                           |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------------------|
| Esophagus                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b>                 |
| Intestine Large, Cecum         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>48</b>                 |
| Intestine Large, Colon<br>Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 3 | + | + | + | + | <b>48</b><br><b>1 3.0</b> |
| Intestine Large, Rectum        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>49</b>                 |
| Intestine Small, Duodenum      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>49</b>                 |
| Intestine Small, Ileum         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>49</b>                 |
| Intestine Small, Jejunum       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>49</b>                 |
| Liver                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b>                 |
| Angiectasis                    |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>4 1.8</b>              |
| Basophilic Focus               |   | X | X | X |   | X | X |   | X | X | X |   |   |   | X | X | X |   | X | X | X | <b>32</b>                 |
| Clear Cell Focus               |   | X |   | X |   | X |   |   | X |   |   |   |   | X | X | X |   | X | X |   | X | <b>22</b>                 |
| Degeneration, Cystic           |   |   |   |   |   |   | 2 |   |   | 2 |   |   |   |   |   |   | 2 |   |   |   |   | <b>4 2.3</b>              |
| Eosinophilic Focus             |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>7</b>                  |
| Fatty Change, Focal            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>3</b>                  |
| Fatty Change, Diffuse          |   |   | 1 |   | 1 | 3 | 1 | 4 |   | 1 |   | 1 | 1 |   |   | 2 | 1 |   | 1 |   | 1 | <b>26 1.7</b>             |
| Hepatodiaphragmatic Nodule     |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>4</b>                  |
| Inflammation, Chronic          | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | <b>49 1.4</b>             |
| Mixed Cell Focus               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   | <b>12</b>                 |
| Necrosis                       | 1 |   |   |   |   |   |   |   |   |   | 2 |   | 3 |   |   |   |   |   |   |   |   | <b>5 2.2</b>              |
| Bile Duct, Hyperplasia         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1 2.0</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: 20303 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

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

Vinylidene chloride

CAS Number: 75-35-4

Date Report Requested: 12/12/2011

Time Report Requested: 09:47:55

First Dose M/F: 06/06/05 / 06/06/05

Lab: BNW

| FISCHER 344 RATS FEMALE<br>50 ppm           | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |      |    |     |     |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|------|----|-----|-----|
|   | 0526        | 0533  | 0568  | 0573  | 0575  | 0577  | 0576  | 0566  | 0577  | 0577  | 0577  | 0557  | 0577  | 0557  | 0577  | 0577  | 0547  | 0577  | 0577  | 0577  |          | 0547  | 0577  | 0577 |    |     |     |
| ANIMAL ID                                   | 00526       | 00557 | 00558 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555    | 00555 | 00555 |      |    |     |     |
| Mesentery                                   |             |       | +     |       |       |       |       |       |       | +     |       |       |       |       |       | +     | +     | +     |       |       | +        | +     |       |      | 23 |     |     |
| Fat, Hemorrhage                             |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |      | 1  | 2.0 |     |
| Fat, Necrosis                               |             |       | 2     |       |       |       |       |       |       | 2     |       |       |       |       |       | 2     | 2     | 2     |       |       | 2        | 2     |       | 2    | 2  | 22  | 2.0 |
| Pancreas                                    | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +    | 50 |     |     |
| Inflammation, Granulomatous Acinus, Atrophy |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 2    | 1  | 2.0 |     |
| Acinus, Hyperplasia                         |             |       |       | 4     |       |       |       |       |       |       | 2     |       |       |       |       | 1     | 3     | 1     |       |       |          |       | 1     |      | 11 | 2.1 |     |
| Acinus, Hyperplasia                         |             |       |       |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |      | 3  | 1.7 |     |
| Salivary Glands                             | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +    | 50 |     |     |
| Basophilic Focus                            |             |       |       |       |       |       | X     |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |      | 2  |     |     |
| Stomach, Forestomach                        | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +    | 50 |     |     |
| Hyperplasia, Squamous                       |             |       |       |       | 1     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |      | 2  | 2   | 1.5 |
| Ulcer                                       |             |       |       |       |       |       |       |       |       |       | 2     |       |       |       |       |       |       |       |       |       |          |       |       |      | 1  | 2.0 |     |
| Stomach, Glandular                          | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +    | 50 |     |     |
| Necrosis                                    |             |       |       |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |      | 1  | 2.0 |     |
| <b>CARDIOVASCULAR SYSTEM</b>                |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |      |    |     |     |
| Heart                                       | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +    | 50 |     |     |
| Cardiomyopathy                              |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |      |    | 32  | 1.3 |
| <b>ENDOCRINE SYSTEM</b>                     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |      |    |     |     |
| Adrenal Cortex                              | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +    | 50 |     |     |
| Hyperplasia                                 |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |      |    | 20  | 2.0 |
| Hypertrophy                                 |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |      | 2  | 1   | 2.0 |
| Adrenal Medulla                             | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +    | 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>50 ppm | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |        |
|-----------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|--------|
|                                   | 0526        | 0533 | 0538 | 0541 | 0545 | 0547 | 0556 | 0566 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 |          | 0577   |
| ANIMAL ID                         | 0052        | 0055 | 0058 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060 | 0060     |        |
| Hyperplasia                       | 1           | 2    |      |      |      | 2    |      |      | 2    |      |      |      |      | 2    |      |      |      |      |      |      |          | 9 1.8  |
| Islets, Pancreatic                | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | 50     |
| Parathyroid Gland                 | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | M        | 45     |
| Angiectasis                       |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 1 4.0  |
| Pituitary Gland                   | +           | +    | +    | +    | +    | +    | +    | +    | +    | M    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | 49     |
| Pars Distalis, Angiectasis        |             |      |      |      |      |      |      |      |      |      |      |      |      | 2    |      |      |      |      |      |      |          | 4 2.3  |
| Pars Distalis, Hyperplasia        |             |      | 2    |      | 2    |      |      |      |      |      |      |      |      |      |      |      |      | 3    | 2    |      |          | 12 2.4 |
| Thyroid Gland                     | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | 48     |
| C-cell, Hyperplasia               | 1           | 1    | 1    |      | 1    |      |      | 2    | 1    | 1    | 1    | 3    | 1    |      | 1    | 1    |      | 1    | 2    |      | 1 1      | 32 1.3 |
| <b>GENERAL BODY SYSTEM</b>        |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |        |
| Peritoneum                        |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 1      |
| <b>GENITAL SYSTEM</b>             |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |        |
| Clitoral Gland                    | +           | M    | +    | +    | M    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | M    | +        | 45     |
| Hyperplasia                       |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2    |      |      |          | 1 2.0  |
| Ovary                             | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | 50     |
| Cyst                              |             |      |      | 3    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 1 3.0  |
| Bursa, Dilatation                 | 3           | 3    |      |      |      | 3    |      |      | 3    | 3    |      | 4    |      |      |      |      | 2    |      |      |      | 3        | 17 3.1 |
| Follicle, Cyst                    |             |      | 2    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 1 2.0  |
| Periovarian Tissue, Cyst          |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2        | 1 2.0  |
| Uterus                            | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | 50     |
| Endometrium, Hyperplasia, Cystic  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 1 4.0  |

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

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

Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>50 ppm | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |      |      |      |      |
|-----------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|
|                                   | 0526        | 0536 | 0668 | 0771 | 0753 | 0771 | 0666 | 0677 | 0777 | 0777 | 0575 | 0777 | 0575 | 0777 | 0777 | 0474 | 0777 | 0777 | 0777 | 0474 |          | 0777 |      |      |      |
| ANIMAL ID                         | 0052        | 0057 | 0008 | 0001 | 0004 | 0001 | 0009 | 0003 | 0001 | 0006 | 0009 | 0004 | 0003 | 0009 | 0002 | 0003 | 0003 | 0001 | 0003 | 0002 | 0003     | 0003 | 0001 | 0005 | 0002 |
|                                   | 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    |

**HEMATOPOIETIC SYSTEM**

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| Bone Marrow                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50       |
| Lymph Node                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4        |
| Deep Cervical, Hemorrhage            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0    |
| Deep Cervical, Hyperplasia, Lymphoid |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0    |
| Lymph Node, Bronchial                | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | + | M | M | M | M | M | M | M | M | M | 4        |
| Lymph Node, Mandibular               | M | M | M | M | M | M | M | M | M | M | M | M | M | + | M | M | M | M | M | M | M | M | M | M | M | 1        |
| Lymph Node, Mediastinal Hemorrhage   | M | M | + | + | + | M | M | + | M | M | M | M | + | M | + | + | + | + | + | M | + | + | + | + | + | 29 1 2.0 |
| Lymph Node, Mesenteric               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50       |
| Spleen                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50       |
| Fibrosis                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 2.0    |
| Hematopoietic Cell Proliferation     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 3.0    |
| Thymus                               | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | 42       |

**INTEGUMENTARY SYSTEM**

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| Mammary Gland Galactocele | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 2 3.0 |
| Skin Hyperkeratosis       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 1 2.0 |

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

Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>50 ppm                  | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | * TOTALS              |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 0<br>5<br>2<br>6      | 0<br>5<br>6<br>3      | 0<br>6<br>9<br>8      | 0<br>7<br>3<br>1      | 0<br>5<br>1<br>4      | 0<br>7<br>3<br>1      | 0<br>6<br>5<br>9      | 0<br>6<br>0<br>3      | 0<br>7<br>3<br>1      | 0<br>7<br>2<br>6      | 0<br>7<br>2<br>9      | 0<br>5<br>1<br>4      | 0<br>7<br>3<br>3      | 0<br>5<br>7<br>2      | 0<br>7<br>3<br>3      | 0<br>4<br>2<br>3      | 0<br>7<br>3<br>1      | 0<br>7<br>3<br>2      | 0<br>7<br>3<br>3      | 0<br>4<br>2<br>1      |                       | 0<br>7<br>1<br>5      | 0<br>7<br>3<br>2      |                       |                       |
| ANIMAL ID  | 0<br>0<br>5<br>2<br>6 | 0<br>0<br>5<br>2<br>7 | 0<br>0<br>5<br>2<br>8 | 0<br>0<br>5<br>2<br>9 | 0<br>0<br>5<br>3<br>0 | 0<br>0<br>5<br>3<br>1 | 0<br>0<br>5<br>3<br>2 | 0<br>0<br>5<br>3<br>3 | 0<br>0<br>5<br>3<br>4 | 0<br>0<br>5<br>3<br>5 | 0<br>0<br>5<br>3<br>6 | 0<br>0<br>5<br>3<br>7 | 0<br>0<br>5<br>3<br>8 | 0<br>0<br>5<br>3<br>9 | 0<br>0<br>5<br>4<br>0 | 0<br>0<br>5<br>4<br>1 | 0<br>0<br>5<br>4<br>2 | 0<br>0<br>5<br>4<br>3 | 0<br>0<br>5<br>4<br>4 | 0<br>0<br>5<br>4<br>5 | 0<br>0<br>5<br>4<br>6 | 0<br>0<br>5<br>4<br>7 | 0<br>0<br>5<br>4<br>8 | 0<br>0<br>5<br>4<br>9 | 0<br>0<br>5<br>5<br>0 |
| Inflammation, Chronic Active                       | 3                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1 3.0                 |                       |                       |                       |                       |
| <b>MUSCULOSKELETAL SYSTEM</b>                      |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Bone Hyperostosis                                  | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 50                    | 1 3.0                 |                       |                       |                       |
| Skeletal Muscle Fibrosis                           | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 3                     | 1 3.0                 |                       |                       |                       |
| <b>NERVOUS SYSTEM</b>                              |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Brain  | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 50                    |                       |                       |                       |                       |
| <b>RESPIRATORY SYSTEM</b>                          |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Larynx Inflammation, Chronic Active                | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 50                    | 1 2.0                 |                       |                       |                       |
| Lung Hemorrhage                                    | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 50                    | 1 1.0                 |                       |                       |                       |
| Lung Inflammation, Chronic Active                  | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 50                    | 1 1.0                 |                       |                       |                       |
| Lung Alveolar Epithelium, Hyperplasia              | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 50                    | 13 1.3                |                       |                       |                       |
| Lung Alveolar Epithelium, Metaplasia, Squamous     | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 50                    | 2 1.5                 |                       |                       |                       |
| Lung Alveolus, Infiltration Cellular, Histiocyte   | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 50                    | 2 1.5                 |                       |                       |                       |
| Lung Bronchiole, Hyperplasia                       | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 50                    | 1 2.0                 |                       |                       |                       |
| Nose Inflammation, Chronic Active                  | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 50                    | 46 2.0                |                       |                       |                       |
| Nose Thrombosis                                    | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 50                    | 2 2.0                 |                       |                       |                       |
| Nose Olfactory Epithelium, Metaplasia, Respiratory | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 50                    | 50 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>50 ppm          | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |        |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|--------|
|  | 0526        | 0553 | 0668 | 0771 | 0775 | 0776 | 0776 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 |          | 0777   |
| ANIMAL ID                                  | 0052        | 0055 | 0066 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077     |        |
| Olfactory Epithelium, Metaplasia, Squamous |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 1 1.0  |
| Respiratory Epithelium, Hyperplasia        |             |      |      |      |      | 2    |      | 2    |      |      | 3    |      |      |      |      |      |      |      | 1    |      | 2        | 14 1.7 |
| Turbinate, Atrophy                         | 4           | 4    | 3    | 3    | 4    | 3    | 4    | 3    | 4    | 3    | 3    | 4    | 3    | 4    | 3    | 3    | 3    | 3    | 3    | 3    | 3        | 50 3.3 |
| Turbinate, Hyperostosis                    | 2           | 3    | 2    | 3    | 3    | 2    | 2    | 1    | 3    | 3    | 2    | 3    | 3    | 2    | 2    | 3    | 2    | 3    | 3    | 2    | 3        | 50 2.6 |
| Trachea                                    | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | 50     |
| <b>SPECIAL SENSES SYSTEM</b>               |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |        |
| Eye  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | 50     |
| Cataract                                   |             |      |      |      |      |      | 3    |      |      |      |      |      |      |      |      |      |      |      | 2    |      |          | 3 2.3  |
| Degeneration                               |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 4    |      |      |          | 1 4.0  |
| Retina, Atrophy                            |             |      |      |      |      |      | 4    |      |      |      |      |      |      |      |      |      |      |      |      | 2    |          | 3 3.0  |
| Harderian Gland                            | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | 50     |
| Hyperplasia                                |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 1 2.0  |
| Lacrimal Gland                             |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 1      |
| Cytoplasmic Alteration                     |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 1 2.0  |
| Zymbal's Gland                             |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 1      |
| <b>URINARY SYSTEM</b>                      |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |        |
| Kidney                                     | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | 50     |
| Hyperplasia, Oncocytic                     |             | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 1 1.0  |
| Nephropathy                                |             | 1    | 1    | 2    |      | 1    | 2    | 1    | 2    | 2    |      | 1    | 1    | 1    | 1    | 2    |      | 2    | 1    | 2    | 1        | 43 1.4 |
| Renal Tubule, Necrosis                     |             |      |      |      | 2    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 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  
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1-4 .. Lesion qualified as:  
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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
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 Lab: BNW

|  |  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <b>FISCHER 344 RATS FEMALE</b><br><br><b>100 ppm</b> |  | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |   |   |   |   |   |   |   |   |   |   |
|  |  | ANIMAL ID   | 6 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 6 | 6 | 7 | 7 | 6 | 5 | 7 | 6 | 7 | 6 | 7 | 6 | 6 | 6 | 6 | 7 | 5 | 9 | 0 | 3 | 0 | 2 | 3 | 3 | 4 | 6 | 3 | 3 | 5 | 7 | 3 | 0 | 5 | 7 | 1 | 4 | 3 | 4 | 7 |

females  
(cont...)

**ALIMENTARY SYSTEM**

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|
| Esophagus                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |   |  |   |
| Intestine Large, Cecum     | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |  |   |
| Intestine Large, Colon     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |  |   |
| Intestine Large, Rectum    | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |  |   |
| Intestine Small, Duodenum  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |  |   |
| Intestine Small, Ileum     | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |  |   |
| Intestine Small, Jejunum   | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |   |
| Liver                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |   |
| Angiectasis                |   |   |   | 2 | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |
| Basophilic Focus           |   |   | X | X | X |   | X | X | X | X |   |   | X |   | X | X | X |   | X |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |
| Clear Cell Focus           |   |   |   |   |   |   | X | X | X | X | X | X | X |   | X |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |  |   |
| Degeneration, Cystic       |   |   | 2 |   |   |   |   |   |   |   |   |   | 2 |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |
| Eosinophilic Focus         |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |
| Fatty Change, Diffuse      |   |   | 2 | 2 | 2 |   | 3 |   |   |   | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 |   |   | 1 |   | 1 | 2 | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |  |   |
| Hepatodiaphragmatic Nodule |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |
| Inflammation, Chronic      | 2 |   | 2 | 3 | 3 | 4 | 1 | 1 | 1 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 4 | 1 | 2 | 1 | 1 | 1 | 1 | 3 | 3 | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |
| Mixed Cell Focus           |   |   |   |   |   |   | X |   |   | X |   |   |   | X |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |
| Necrosis                   |   |   |   |   |   | 2 |   |   |   |   | 1 |   |   |   |   |   |   | 2 |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |
| Bile Duct, Hyperplasia     | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |
| Mesentery                  |   | + |   | + | + |   |   | + | + |   | + | + | + |   |   |   | + |   | + | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | + |

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



Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>100 ppm                             | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID | females<br>(cont...) |      |      |      |      |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|------|------|
|  | 0656        | 0375 | 0773 | 0774 | 0775 | 0776 | 0777 | 0778 | 0656 | 0575 | 0776 | 0777 | 0666 | 0677 | 0776 | 0777 | 0666 | 0575 | 0776 | 0777 |           |                      | 0666 | 0677 | 0666 | 0677 |
| Fat, Necrosis  | 2           |      | 2    | 2    |      |      |      | 2    | 2    |      |      | 2    | 2    |      |      | 2    | 2    |      |      |      |           |                      |      |      | 2    |      |
| Oral Mucosa<br>Pharyngeal, Hyperplasia, Squamous               |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      | +    | 3    |
| Pancreas<br>Acinus, Atrophy<br>Acinus, Hyperplasia             | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | +    | +    | +    |
| Salivary Glands<br>Atrophy<br>Basophilic Focus                 |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |      |
| Stomach, Forestomach<br>Hyperplasia, Squamous<br>Ulcer         | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | +    | +    | +    |
| Stomach, Glandular<br>Necrosis                                 | 4           | 3    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |      |
| Stomach, Glandular<br>Necrosis                                 | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | +    | +    | +    |
| <b>CARDIOVASCULAR SYSTEM</b>                                   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |      |
| Heart<br>Cardiomyopathy<br>Thrombosis<br>Pericardium, Fibrosis | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | +    | +    | +    |
| Adrenal Cortex<br>Degeneration, Cystic                         |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |      |

\* .. 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

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 1) Minimal 3) Moderate  
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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>100 ppm | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID | females<br>(cont...) |
|------------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
|                                    | 0656        | 0375 | 0773 | 0773 | 0772 | 0777 | 0777 | 0665 | 0577 | 0577 | 0663 | 0663 | 0773 | 0773 | 0666 | 0667 | 0776 | 0776 | 0667 | 0666 | 0666 | 0667 | 0667 | 0667 |           |                      |
| Hyperplasia                        | 2           |      | 2    |      | 2    |      | 2    | 2    | 2    | 1    |      | 3    | 2    |      |      |      | 2    | 2    |      |      | 2    | 2    |      |      |           |                      |
| Hypertrophy                        |             |      |      |      |      |      |      |      | 2    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |
| Metaplasia, Osseous                |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |
| Necrosis                           | 2           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |
| Adrenal Medulla                    | +           | M    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    |           |                      |
| Hyperplasia                        |             |      |      |      |      |      |      |      |      |      |      |      |      | 2    |      | 2    |      |      | 2    | 2    |      | 2    |      | 2    |           |                      |
| Islets, Pancreatic                 | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    |           |                      |
| Parathyroid Gland                  | +           | +    | +    | +    | +    | +    | M    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    |           |                      |
| Pituitary Gland                    | +           | +    | +    | +    | +    | +    | +    | +    | +    | I    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    |           |                      |
| Pars Distalis, Angiectasis         |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |
| Pars Distalis, Hyperplasia         |             |      |      |      |      | 2    |      | 2    |      |      |      | 2    | 2    |      |      |      |      |      | 2    |      |      |      |      |      |           |                      |
| Thyroid Gland                      | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    |           |                      |
| C-cell, Hyperplasia                | 2           |      | 1    |      |      | 1    | 1    |      | 1    |      | 1    | 2    | 1    | 1    | 2    | 1    |      | 1    |      | 2    | 1    | 1    |      | 1    |           |                      |
| Follicular Cell, Hyperplasia       |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2    |           |                      |

**GENERAL BODY SYSTEM**

Peritoneum  
 Mesothelium, Hyperplasia

+  
1

**GENITAL SYSTEM**

Clitoral Gland  
 Hyperplasia

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

Ovary

+ +

\* .. 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  
 2) Mild 4) Marked

Experiment Number: 20303 - 05

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Vinylidene chloride

CAS Number: 75-35-4

Date Report Requested: 12/12/2011

Time Report Requested: 09:47:55

First Dose M/F: 06/06/05 / 06/06/05

Lab: BNW

|  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>FISCHER 344 RATS FEMALE</b><br><br><b>100 ppm</b> | DAY ON TEST | 0656 | 0377 | 0777 | 0777 | 0777 | 0777 | 0777 | 0657 | 0577 | 0776 | 0776 | 0667 | 0777 | 0776 | 0667 | 0577 | 0776 | 0776 | 0667 | 0667 | 0667 | 0677 |
|  | ANIMAL ID   | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 |

**females  
(cont...)**

|  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cyst<br>Bursa, Dilatation                  |  | 2 | 3 | 4 |   | 4 |   | 4 |   | 2 |   | 3 | 3 | 3 |   |   | 4 | 2 |   |   | 4 |   |   |
| Uterus<br>Endometrium, Hyperplasia, Cystic |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Vagina                                     |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |

**HEMATOPOIETIC SYSTEM**

|   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow   |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node  |  |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |
| Lymph Node, Bronchial<br>Hyperplasia, Lymphoid<br>Infiltration Cellular, Histiocyte |  | + | M | M | M | M | M | M | M | + | M | M | M | M | M | M | M | + | M | M | M | M | M |
| Lymph Node, Mandibular  |  | + | M | M | M | M | M | M | M | + | M | M | M | M | M | + | M | M | M | M | M | M | M |
| Lymph Node, Mediastinal<br>Ectasia  |  | + | + | + | + | + | + | + | M | M | + | + | + | M | + | + | + | M | + | + | + | + | M |
| Lymph Node, Mesenteric<br>Hyperplasia, Lymphoid<br>Inflammation, Granulomatous      |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spleen<br>Fibrosis<br>Hematopoietic Cell Proliferation<br>Necrosis                  |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

\* .. 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>100 ppm          | DAY ON TEST      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | ANIMAL ID | females<br>(cont...) |                  |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|------------------|
|   | 0<br>6<br>5<br>6 | 0<br>3<br>9<br>5 | 0<br>7<br>0<br>5 | 0<br>7<br>3<br>3 | 0<br>7<br>0<br>4 | 0<br>7<br>2<br>5 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>1 | 0<br>6<br>4<br>2 | 0<br>5<br>6<br>7 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>3 | 0<br>6<br>5<br>5 | 0<br>6<br>7<br>7 | 0<br>7<br>3<br>1 | 0<br>6<br>5<br>6 | 0<br>5<br>7<br>9 | 0<br>7<br>1<br>2 | 0<br>6<br>4<br>2 | 0<br>7<br>3<br>2 | 0<br>6<br>4<br>5 | 0<br>6<br>7<br>0 | 0<br>6<br>5<br>3 | 0<br>6<br>7<br>4 |           |                      | 0<br>6<br>5<br>5 |
| Thymus                                      | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | M                | +                | M                | +                | M                | M                | +                | +                | +                | +                | M                | +                | M                | +         |                      |                  |
| <b>INTEGUMENTARY SYSTEM</b>                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |
| Mammary Gland                               | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         |                      |                  |
| Skin<br>Inflammation, Chronic Active        | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         |                      |                  |
| <b>MUSCULOSKELETAL SYSTEM</b>               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |
| Bone  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                |           |                      |                  |
| <b>NERVOUS SYSTEM</b>                       |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |
| Brain<br>Necrosis                           | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | 2         |                      |                  |
| <b>RESPIRATORY SYSTEM</b>                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |
| Larynx                                      | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                |           |                      |                  |
| Lung<br>Thrombosis                          | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                |           |                      |                  |
| Alveolar Epithelium, Hyperplasia            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 1                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 1         | 4                    |                  |
| Alveolar Epithelium, Metaplasia, Squamous   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 2                |                  |                  |                  |                  |                  |                  |                  |                  |                  | 1                |                  |                  |           |                      |                  |
| Alveolus, Infiltration Cellular, Histiocyte |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 1                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |
| Bronchiole, Hyperplasia                     |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |
| Nose<br>Foreign Body                        | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | 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  
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1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

**Experiment Number:** 20303 - 05  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Vinylidene chloride  
**CAS Number:** 75-35-4

**Date Report Requested:** 12/12/2011  
**Time Report Requested:** 09:47:55  
**First Dose M/F:** 06/06/05 / 06/06/05  
**Lab:** BNW

| <b>FISCHER 344 RATS FEMALE</b>                | <b>DAY ON TEST</b> |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | <b>females<br/>(cont...)</b> |                              |   |   |   |   |   |   |  |  |  |
|---|--------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------------------|------------------------------|---|---|---|---|---|---|--|--|--|
|   | 0<br>6<br>5<br>6   | 0<br>3<br>9<br>5 | 0<br>7<br>0<br>5 | 0<br>7<br>3<br>3 | 0<br>7<br>0<br>4 | 0<br>7<br>2<br>5 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>1 | 0<br>6<br>4<br>2 | 0<br>5<br>6<br>7 | 0<br>7<br>3<br>2 | 0<br>6<br>5<br>3 | 0<br>7<br>3<br>5 | 0<br>6<br>7<br>1 | 0<br>6<br>5<br>7 | 0<br>5<br>7<br>1 | 0<br>7<br>4<br>2 | 0<br>6<br>3<br>2 | 0<br>6<br>4<br>5 | 0<br>6<br>7<br>0 | 0<br>6<br>5<br>3 |                              |                              |   |   |   |   |   |   |  |  |  |
| <b>100 ppm</b>                                | <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                            |                              |   |   |   |   |   |   |  |  |  |
|   | 7                  | 7                | 7                | 7                | 7                | 7                | 7                | 7                | 7                | 7                | 7                | 7                | 7                | 7                | 7                | 7                | 7                | 7                | 7                | 7                | 7                | 7                            |                              |   |   |   |   |   |   |  |  |  |
|   | 0                  | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 2                | 2                | 2                | 2                            |                              |   |   |   |   |   |   |  |  |  |
|   | 1                  | 2                | 3                | 4                | 5                | 6                | 7                | 8                | 9                | 0                | 1                | 2                | 3                | 4                | 5                | 6                | 7                | 8                | 9                | 0                | 1                | 2                            | <b>females<br/>(cont...)</b> |   |   |   |   |   |   |  |  |  |
| Inflammation, Chronic Active                  |                    |                  |                  |                  | 1                | 4                | 2                | 2                | 4                | 4                | 1                | 3                |                  | 1                | 1                | 1                | 1                | 4                | 4                | 4                | 2                | 4                            | 4                            | 1 | 4 | 4 | 4 | 4 |   |  |  |  |
| Polyp, Inflammatory                           |                    |                  |                  |                  |                  |                  |                  | 4                |                  |                  |                  | 2                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                              |                              |   |   |   |   |   |   |  |  |  |
| Thrombosis                                    |                    |                  | 3                |                  |                  |                  | 3                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 2                |                              |                              | 2 |   |   |   | 3 |   |  |  |  |
| Olfactory Epithelium, Metaplasia, Respiratory | 3                  | 3                | 4                | 3                | 4                | 4                | 3                | 3                | 4                | 3                | 3                | 3                | 3                | 3                | 4                | 4                | 4                | 3                | 4                | 4                | 3                | 4                            | 4                            | 4 | 4 | 4 | 4 | 4 | 4 |  |  |  |
| Olfactory Epithelium, Metaplasia, Squamous    |                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 2                |                  |                  |                  |                  |                              |                              |   |   |   |   |   |   |  |  |  |
| Respiratory Epithelium, Hyperplasia           |                    |                  |                  |                  | 2                | 2                | 1                |                  | 2                |                  |                  |                  |                  | 3                | 3                |                  |                  |                  |                  | 2                | 1                |                              |                              |   |   | 1 | 1 | 3 |   |  |  |  |
| Respiratory Epithelium, Metaplasia, Squamous  |                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 3                |                              |                              |   |   |   |   |   |   |  |  |  |
| Turbinate, Atrophy                            | 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 | 4 | 4 |  |  |  |
| Turbinate, Hyperostosis                       | 3                  | 2                | 2                | 3                | 3                | 2                | 2                | 3                | 3                | 3                | 3                | 3                | 3                | 3                | 3                | 3                | 3                | 3                | 3                | 3                | 2                | 3                            | 2                            | 3 | 2 | 3 | 3 | 2 |   |  |  |  |
| Pleura  |                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                              |                              |   |   |   |   |   |   |  |  |  |
| Hyperplasia                                   |                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                              |                              |   |   |   |   |   |   |  |  |  |
| Infiltration Cellular, Mononuclear Cell       |                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                              |                              |   |   |   |   |   |   |  |  |  |
| Trachea                                       |                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                              |                              |   |   |   |   |   |   |  |  |  |
|   | +                  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                            | +                            | + | + | + | + | + | + |  |  |  |
| <b>SPECIAL SENSES SYSTEM</b>                  |                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                              |                              |   |   |   |   |   |   |  |  |  |
| Eye   |                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                              |                              |   |   |   |   |   |   |  |  |  |
| Cataract                                      | +                  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | 2                |                  |                  | +                | +                | +                            | +                            | + | + | + | + | + |   |  |  |  |
| Retina, Atrophy                               |                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 2                | 3                |                  |                  |                  |                  |                  |                  |                              |                              |   |   |   |   |   |   |  |  |  |
| Harderian Gland                               |                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                              |                              |   |   |   |   |   |   |  |  |  |
|   | +                  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                            | +                            | + | + | + | + | + | + |  |  |  |
| Lacrimal Gland                                |                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                              |                              |   |   |   |   |   |   |  |  |  |
| Degeneration                                  |                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                              |                              |   |   |   |   |   |   |  |  |  |
|   |                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                              |                              |   |   |   |   |   |   |  |  |  |

\* .. 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

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

Vinylidene chloride

CAS Number: 75-35-4

Date Report Requested: 12/12/2011

Time Report Requested: 09:47:55

First Dose M/F: 06/06/05 / 06/06/05

Lab: BNW

| FISCHER 344 RATS FEMALE<br><br>100 ppm |  | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  | females<br>(cont...) |
|--|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|----------------------|
|  |  | 0656        | 0375 | 0773 | 0774 | 0775 | 0776 | 0777 | 0778 | 0656 | 0575 | 0773 | 0774 | 0775 | 0776 | 0777 | 0778 | 0656 | 0575 | 0773 | 0774 | 0775 | 0776 | 0777 | 0778 |  |                      |
| ANIMAL ID                              |  | 0070        | 0071 | 0072 | 0073 | 0074 | 0075 | 0076 | 0077 | 0078 | 0079 | 0080 | 0081 | 0082 | 0083 | 0084 | 0085 | 0086 | 0087 | 0088 | 0089 | 0090 | 0091 | 0092 | 0093 |  |                      |
| Nephropathy                            |  | 1           |      | 1    | 2    | 1    | 2    | 1    |      | 1    |      |      |      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |  |                      |
| Renal Tubule, Hyperplasia              |  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |                      |
| 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:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE | DAY ON TEST |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | * TOTALS |    |    |    |    |    |
|-------------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|----|----|
|                         | 06          | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |          | 26 |    |    |    |    |
| 100 ppm                 | 02          | 07 | 08 | 03 | 03 | 06 | 03 | 03 | 00 | 03 | 03 | 01 | 07 | 03 | 09 | 02 | 05 | 03 | 03 | 08 | 03       | 00 | 09 | 03 | 09 | 08 |
|                         | 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 |
|                         | 07          | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07       | 07 | 07 | 07 | 07 | 07 |
|                         | 02          | 02 | 02 | 02 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 04 | 04 | 04 | 04 | 04 | 04 | 04       | 04 | 04 | 04 | 05 | 08 |
|                         | 06          | 07 | 08 | 09 | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 00 | 01 | 02 | 03 | 04 | 05 | 06       | 07 | 08 | 09 | 00 | 00 |

**ALIMENTARY SYSTEM**

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Esophagus                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Large, Cecum     | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48     |
| Intestine Large, Colon     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Large, Rectum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49     |
| Intestine Small, Duodenum  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Small, Ileum     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49     |
| Intestine Small, Jejunum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49     |
| Liver                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Angiectasis                |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   | 2 |   |   |   | 2 |   |   |   |   |   |   | 5 2.0  |
| Basophilic Focus           |   | X | X |   | X | X |   | X | X |   | X |   | X | X | X |   | X | X | X | X | X |   | X | X |   | 29     |
| Clear Cell Focus           |   |   |   | X | X | X |   |   |   | X |   |   |   |   |   |   | X |   | X |   | X | X |   |   |   | 18     |
| Degeneration, Cystic       |   |   | 3 |   |   |   |   |   |   |   |   |   | 4 |   | 3 | 2 |   |   |   |   |   |   |   |   |   | 7 2.7  |
| Eosinophilic Focus         |   |   | X | X |   | X | X | X |   | X |   | X |   | X | X |   | X | X |   |   |   |   | X |   |   | 16     |
| Fatty Change, Diffuse      |   |   |   | 2 |   | 3 |   | 1 |   | 2 | 3 |   | 2 |   | 2 | 4 | 2 |   | 1 |   |   |   | 3 | 1 | 1 | 30 2.0 |
| Hepatodiaphragmatic Nodule |   |   |   | X |   |   | X |   |   |   |   |   | X |   |   |   | X |   |   |   |   |   |   |   |   | 5      |
| Inflammation, Chronic      | 2 | 3 | 1 | 3 | 2 | 3 | 2 | 3 | 1 | 3 | 1 |   | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 3 | 48 2.1 |
| Mixed Cell Focus           |   |   | X | X | X |   | X |   | X | X |   |   |   |   | X |   |   |   |   |   |   | X | X |   |   | 13     |
| Necrosis                   | 1 | 3 |   |   |   |   |   |   | 2 |   |   |   |   | 1 | 2 | 2 |   |   |   |   |   |   |   | 2 |   | 11 1.8 |
| Bile Duct, Hyperplasia     |   |   | 2 |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   | 6 1.3  |
| Mesentery                  | + | + |   | + |   |   |   | + | + |   |   |   |   |   | + | + | + |   |   | + | + | + | + |   |   | 24     |

\* .. 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>100 ppm               | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
|  | 0628        | 0717  | 0831  | 0771  | 0771  | 0677  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  |          |
| ANIMAL ID  | 00726       | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 |          |
| Fat, Necrosis                                    | 2           |       | 2     |       |       |       | 2     | 2     |       |       |       |       |       |       | 2     | 2     | 2     |       |       | 2     | 2     | 2     | 2     |       |          |
| Oral Mucosa<br>Pharyngeal, Hyperplasia, Squamous |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |          |
| Pancreas<br>Acinus, Atrophy                      | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |
| Acinus, Hyperplasia                              | 1           |       | 1     |       | 1     |       |       |       |       |       | 1     |       |       |       |       |       |       | 1     |       |       | 1     |       |       | 11    |          |
| Salivary Glands<br>Atrophy                       |             |       |       |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 50    |          |
| Basophilic Focus                                 | X           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |          |
| Stomach, Forestomach<br>Hyperplasia, Squamous    | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |
| Ulcer  |             |       | 3     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 2     |          |
| Stomach, Glandular<br>Necrosis                   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |
| Cardiovascular System                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |
| Heart<br>Cardiomyopathy                          | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |
| Thrombosis                                       |             |       |       | 1     | 1     | 2     | 1     | 1     |       | 1     | 1     |       |       |       |       |       | 1     | 1     | 1     | 2     | 1     |       |       | 27    |          |
| Pericardium, Fibrosis                            |             |       |       |       |       |       |       |       |       |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       | 1     |          |
| Endocrine System                                 |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |
| Adrenal Cortex<br>Degeneration, Cystic           | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |
|  |             |       | 3     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |          |

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Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>100 ppm | DAY ON TEST |      | ANIMAL ID |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |   |    |     |     |
|------------------------------------|-------------|------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|---|----|-----|-----|
|                                    | 0628        | 0778 | 0000      | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 |          |   |    |     |     |
| Hyperplasia                        | 2           |      |           | 2    | 2    | 3    |      | 2    |      | 2    | 3    |      |      |      | 2    | 2    |      |      |      |      |      |      | 2        | 2 | 25 | 2.1 |     |
| Hypertrophy                        |             |      |           |      |      |      |      |      |      |      |      |      |      |      | 2    |      |      |      |      |      |      |      | 2        | 2 | 4  | 2.0 |     |
| Metaplasia, Osseous                |             |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 2 | 1  | 2.0 |     |
| Necrosis                           |             |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |   | 1  | 2.0 |     |
| Adrenal Medulla                    | +           | +    | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | + | 49 |     |     |
| Hyperplasia                        |             | 2    |           |      |      |      |      | 3    | 2    | 2    |      |      |      |      | 2    |      |      |      |      |      |      |      |          | 2 | 12 | 2.1 |     |
| Islets, Pancreatic                 | +           | +    | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | + | 50 |     |     |
| Parathyroid Gland                  | +           | +    | +         | +    | +    | M    | +    | +    | +    | I    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | + | 47 |     |     |
| Pituitary Gland                    | +           | +    | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | + | 49 |     |     |
| Pars Distalis, Angiectasis         |             |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 3 | 1  | 3.0 |     |
| Pars Distalis, Hyperplasia         | 3           |      |           |      | 3    |      | 2    |      |      |      | 3    |      |      |      | 2    |      |      |      |      |      |      |      | 3        |   | 11 | 2.4 |     |
| Thyroid Gland                      | +           | +    | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | + | 50 |     |     |
| C-cell, Hyperplasia                | 1           | 1    |           | 2    |      |      |      |      |      |      |      |      | 3    |      | 2    | 1    |      | 1    |      | 1    | 1    |      |          | 2 | 1  | 27  | 1.3 |
| Follicular Cell, Hyperplasia       |             |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |   | 1  | 2.0 |     |
| <b>GENERAL BODY SYSTEM</b>         |             |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |   |    |     |     |
| Peritoneum                         |             |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |   |    | 1   |     |
| Mesothelium, Hyperplasia           |             |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |   |    | 1   | 1.0 |
| <b>GENITAL SYSTEM</b>              |             |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |   |    |     |     |
| Clitoral Gland                     | +           | +    | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | + | +  | 48  |     |
| Hyperplasia                        |             |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |   | 2  | 1   | 2.0 |
| Ovary                              | +           | +    | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | + | +  | 50  |     |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>100 ppm | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |    |     |     |
|------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----|-----|-----|
|                                    | 0628        | 0717  | 0618  | 0731  | 0771  | 0669  | 0772  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  |          |    |     |     |
| ANIMAL ID                          | 00726       | 00727 | 00728 | 00729 | 00730 | 00731 | 00732 | 00733 | 00734 | 00735 | 00736 | 00737 | 00738 | 00739 | 00740 | 00741 | 00742 | 00743 | 00744 | 00745 | 00746 | 00747 | 00748 | 00749 |          |    |     |     |
| Cyst                               |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 3        | 1  | 3.0 |     |
| Bursa, Dilatation                  |             |       |       | 4     |       |       |       | 3     | 2     | 3     | 4     |       |       |       |       | 3     | 3     |       |       |       |       | 4     | 2     | 4     | 3        | 3  | 24  | 3.2 |
| Uterus                             | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50       |    |     |     |
| Endometrium, Hyperplasia, Cystic   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 3  | 1   | 3.0 |
| Vagina                             |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1  |     |     |
| <b>HEMATOPOIETIC SYSTEM</b>        |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |    |     |     |
| Bone Marrow                        | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | 50 |     |     |
| Lymph Node                         | +           |       | +     |       |       |       |       |       |       | +     |       |       |       |       |       |       |       |       |       |       |       |       | +     | +     | +        | 9  |     |     |
| Lymph Node, Bronchial              | +           | +     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | +     | +     | +     | +     | M     | M     | M     | +     | M     | M     | M     | M        | 10 |     |     |
| Hyperplasia, Lymphoid              |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 2  | 1   | 2.0 |
| Infiltration Cellular, Histiocyte  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1  | 1   | 2.0 |
| Lymph Node, Mandibular             | +           | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M        | 4  |     |     |
| Lymph Node, Mediastinal            | M           | +     | M     | +     | +     | +     | +     | +     | +     | +     | M     | +     | +     | +     | M     | M     | +     | M     | +     | +     | +     | +     | +     | M     | +        | 38 |     |     |
| Ectasia                            |             |       |       |       |       |       |       |       |       |       | 1     |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1  | 1   | 1.0 |
| Lymph Node, Mesenteric             | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | 50 |     |     |
| Hyperplasia, Lymphoid              |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1  | 1   | 2.0 |
| Inflammation, Granulomatous        | 4           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1  | 4   | 4.0 |
| Spleen                             | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | 50 |     |     |
| Fibrosis                           |             |       |       |       |       |       |       | 2     |       |       |       |       |       |       |       | 3     | 3     |       |       |       |       |       |       |       |          | 3  | 4   | 2.8 |
| Hematopoietic Cell Proliferation   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1  | 1   | 4.0 |
| Necrosis                           |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 2  | 3   | 2.7 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
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 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>100 ppm          | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |       |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|
|   | 0628        | 0717  | 0673  | 0773  | 0773  | 0679  | 0772  | 0772  | 0771  | 0773  | 0773  | 0130  | 0633  | 0773  | 0676  | 0771  | 0674  | 0776  | 0573  | 0773  | 0666  | 0773  | 0667  | 0776  |          |       |       |       |       |
| ANIMAL ID                                   | 00726       | 00777 | 00778 | 00779 | 00780 | 00781 | 00782 | 00783 | 00784 | 00785 | 00786 | 00787 | 00788 | 00789 | 00790 | 00791 | 00792 | 00793 | 00794 | 00795 | 00796 | 00797 | 00798 | 00799 |          |       |       |       |       |
| Thymus                                      | +           | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | 42       |       |       |       |       |
| <b>INTEGUMENTARY SYSTEM</b>                 |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |
| Mammary Gland                               | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50       |       |       |       |       |
| Skin<br>Inflammation, Chronic Active        | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50<br>3  | 1 3.0 |       |       |       |
| <b>MUSCULOSKELETAL SYSTEM</b>               |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |
| Bone  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50       |       |       |       |       |
| <b>NERVOUS SYSTEM</b>                       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |
| Brain<br>Necrosis                           | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50<br>1  | 2.0   |       |       |       |
| <b>RESPIRATORY SYSTEM</b>                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |
| Larynx                                      | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50       |       |       |       |       |
| Lung  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50       |       |       |       |       |
| Thrombosis                                  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1        | 1 1.0 |       |       |       |
| Alveolar Epithelium, Hyperplasia            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1 1 3 | 8 1.6 |       |       |
| Alveolar Epithelium, Metaplasia, Squamous   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 1     | 2 1.5 |       |
| Alveolus, Infiltration Cellular, Histiocyte |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1     | 1 1.0 |
| Bronchiole, Hyperplasia                     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1     | 1 1.0 |
| Nose  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50       |       |       |       |       |
| Foreign Body                                |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | X     | 5     |

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

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

Experiment Number: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

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

Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

|   |                | DAY ON TEST |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |    |   |                 |    |     |     |     |
|---|----------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----|---|-----------------|----|-----|-----|-----|
| <b>FISCHER 344 RATS FEMALE</b>                | <b>100 ppm</b> | 06          | 07     | 08     | 09     | 10     | 11     | 12     | 13     | 14     | 15     | 16     | 17     | 18     | 19     | 20     | 21     | 22     | 23     | 24     | 25     |        |        |    |   |                 |    |     |     |     |
|   |                | 28          | 27     | 26     | 25     | 24     | 23     | 22     | 21     | 20     | 19     | 18     | 17     | 16     | 15     | 14     | 13     | 12     | 11     | 10     | 09     | 08     | 07     | 06 |   |                 |    |     |     |     |
| <b>ANIMAL ID</b>                              |                | 000726      | 000727 | 000728 | 000729 | 000730 | 000731 | 000732 | 000733 | 000734 | 000735 | 000736 | 000737 | 000738 | 000739 | 000740 | 000741 | 000742 | 000743 | 000744 | 000745 | 000746 | 000747 |    |   |                 |    |     |     |     |
|   |                | 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> |    |     |     |     |
| Inflammation, Chronic Active                  |                | 4           | 4      | 1      | 4      | 1      | 1      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 2      | 4      | 1      | 4      | 4      | 4      | 4      | 1      | 4      | 1  | 2 | 2               | 46 | 2.9 |     |     |
| Polyp, Inflammatory                           |                |             |        |        |        |        |        |        |        |        |        |        |        |        | 3      |        |        |        |        |        |        |        |        |    |   |                 | 3  | 3.0 |     |     |
| Thrombosis                                    |                |             |        |        |        |        |        |        |        |        |        |        |        | 2      |        |        |        |        |        |        |        |        |        |    |   | 1               | 7  | 2.3 |     |     |
| Olfactory Epithelium, Metaplasia, Respiratory |                | 4           | 4      | 3      | 4      | 3      | 4      | 4      | 4      | 4      | 4      | 2      | 4      | 4      | 3      | 4      | 4      | 4      | 4      | 3      | 3      | 4      | 3      | 4  | 3 |                 | 50 | 3.6 |     |     |
| Olfactory Epithelium, Metaplasia, Squamous    |                |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |    |   |                 | 1  | 2.0 |     |     |
| Respiratory Epithelium, Hyperplasia           |                | 2           | 3      |        | 3      |        |        | 2      | 2      | 2      | 3      | 4      |        | 2      | 1      |        | 2      | 1      | 3      | 3      |        | 1      |        | 1  |   |                 | 27 | 2.1 |     |     |
| Respiratory Epithelium, Metaplasia, Squamous  |                |             |        |        |        |        |        | 2      |        |        | 2      |        |        |        |        |        |        |        |        |        |        |        |        |    |   |                 | 3  | 2.3 |     |     |
| Turbinate, Atrophy                            |                | 4           | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 3      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4  | 4 | 4               | 4  | 50  | 4.0 |     |
| Turbinate, Hyperostosis                       |                | 3           | 3      | 3      | 4      | 3      | 3      | 3      | 2      | 3      | 3      | 2      | 1      | 3      | 4      | 3      | 3      | 3      | 3      | 3      | 4      | 3      | 4      | 2  | 3 | 3               | 3  | 50  | 2.8 |     |
| Pleura  |                |             |        |        |        |        |        |        |        |        |        |        |        |        | +      |        |        |        |        |        |        |        |        |    |   |                 |    |     | 1   |     |
| Hyperplasia                                   |                |             |        |        |        |        |        |        |        |        |        |        |        |        | 2      |        |        |        |        |        |        |        |        |    |   |                 |    |     | 1   | 2.0 |
| Infiltration Cellular, Mononuclear Cell       |                |             |        |        |        |        |        |        |        |        |        |        |        |        | 3      |        |        |        |        |        |        |        |        |    |   |                 |    |     | 1   | 3.0 |
| Trachea                                       |                | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +  | + | +               |    | 50  |     |     |
| <b>SPECIAL SENSES SYSTEM</b>                  |                |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |    |   |                 |    |     |     |     |
| Eye   |                | +           | +      | +      | +      | +      | A      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +  | + | +               |    | 49  |     |     |
| Cataract                                      |                |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |    |   |                 |    |     | 1   | 2.0 |
| Retina, Atrophy                               |                |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |    |   |                 |    |     | 2   | 2.5 |
| Harderian Gland                               |                | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +  | + | +               |    | 50  |     |     |
| Lacrimal Gland                                |                |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |    |   |                 |    |     | 1   |     |
| Degeneration                                  |                |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |    |   |                 |    |     | 1   | 2.0 |
| <b>URINARY SYSTEM</b>                         |                |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |    |   |                 |    |     |     |     |
| Kidney  |                | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +  | + | +               |    | 50  |     |     |
| Infarct                                       |                |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |    |   |                 | 2  | 2   | 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: 20303 - 05  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Vinylidene chloride  
 CAS Number: 75-35-4

Date Report Requested: 12/12/2011  
 Time Report Requested: 09:47:55  
 First Dose M/F: 06/06/05 / 06/06/05  
 Lab: BNW

| FISCHER 344 RATS FEMALE<br>100 ppm | 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 |           |            |
|                                    | 6           | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 1 | 6 | 7 | 6 | 7 | 6 | 7 | 7 | 5 | 7 | 6 | 6 | 7 | 6         |            |
|                                    | 2           | 1 | 8 | 3 | 3 | 6 | 3 | 3 | 0 | 3 | 3 | 1 | 7 | 3 | 9 | 2 | 5 | 3 | 3 | 8 | 3 | 0 | 9 | 3 | 9         |            |
|                                    | 8           | 7 | 3 | 1 | 1 | 9 | 2 | 2 | 1 | 3 | 2 | 6 | 6 | 1 | 7 | 4 | 6 | 3 | 3 | 6 | 1 | 7 | 1 | 3 | 8         |            |
|                                    | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0         |            |
|                                    | 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         |            |
|                                    | 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         |            |
|                                    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>42</b> | <b>1.3</b> |
| Nephropathy                        | 1           | 2 | 1 | 2 |   | 1 | 1 | 2 | 1 | 1 | 3 |   | 1 | 1 |   | 1 | 1 | 2 | 2 | 1 |   | 1 | 1 | 2 | 2         |            |
| Renal Tubule, Hyperplasia          |             |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |           |            |
|                                    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>2</b>  | <b>3.0</b> |
| Urinary Bladder                    | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +         |            |
|                                    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>50</b> |            |

\*\*\* END OF REPORT \*\*\*

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