

**Experiment Number:** 20617 - 01  
**Test Type:** 28-DAY  
**Route:** GAVAGE  
**Species/Strain:** RATS/HSD

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)**

Perfluorooctane Sulfonate

**CAS Number:** 1763-23-1

**Date Report Requested:** 02/06/2018

**Time Report Requested:** 12:39:01

**First Dose M/F:** 01/24/12 / 01/25/12

**Lab:** BAT

PFOS\_Final 1

**NTP Study Number:** C20617  
**Lock Date:** 04/25/2016  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 3.0.2.3\_002  
**PWG Approval Date:** NONE

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Harlan Sprague Dawley RATS MALE

0mg/kg/d M

.312mg/kg/d M

.625mg/kg/d M

1.25mg/kg/d M

2.5mg/kg/d M

5mg/kg/d M

## Disposition Summary

Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Survivors						
Terminal Sacrifice	10	10	10	10	10	10
Animals Examined Microscopically	10	10	10	10	10	10

## ALIMENTARY SYSTEM

Esophagus	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Colon	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Rectum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Duodenum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Ileum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Jejunum	(10)	(0)	(0)	(0)	(0)	(10)
Liver	(10)	(10)	(10)	(10)	(10)	(10)
Infiltration Cellular, Mixed Cell	1 (10%)	4 (40%)	1 (10%)		3 (30%)	
Inflammation, Granulomatous, Focal						1 (10%)
Hepatocyte, Hypertrophy				3 (30%)	8 (80%)	10 (100%)
Hepatocyte, Vacuolization Cytoplasmic					2 (20%)	4 (40%)
Pancreas	(10)	(10)	(10)	(10)	(10)	(10)
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(10)

## CARDIOVASCULAR SYSTEM

Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)
Heart	(10)	(0)	(0)	(0)	(0)	(10)
Epicardium, Infiltration Cellular, Mononuclear Cell	1 (10%)					

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Harlan Sprague Dawley RATS MALE	0mg/kg/d M	.312mg/kg/d M	.625mg/kg/d M	1.25mg/kg/d M	2.5mg/kg/d M	5mg/kg/d M
<b>ENDOCRINE SYSTEM</b>						
Adrenal Cortex	(10)	(0)	(0)	(0)	(0)	(10)
Adrenal Medulla	(10)	(0)	(0)	(0)	(0)	(10)
Islets, Pancreatic	(10)	(0)	(0)	(0)	(0)	(10)
Parathyroid Gland	(10)	(0)	(0)	(0)	(0)	(8)
Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Thyroid Gland	(10)	(10)	(10)	(10)	(10)	(10)
<b>GENERAL BODY SYSTEM</b>						
None						
<b>GENITAL SYSTEM</b>						
Epididymis	(10)	(0)	(0)	(0)	(0)	(10)
Preputial Gland	(10)	(0)	(0)	(0)	(0)	(10)
Prostate	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic	1 (10%)					
Seminal Vesicle	(10)	(0)	(0)	(0)	(0)	(10)
Testes	(10)	(10)	(10)	(10)	(10)	(10)
<b>HEMATOPOIETIC SYSTEM</b>						
Bone Marrow	(10)	(10)	(10)	(10)	(10)	(10)
Hypocellularity				5 (50%)	4 (40%)	8 (80%)
Lymph Node, Mandibular	(8)	(0)	(0)	(0)	(0)	(9)
Lymph Node, Mesenteric	(9)	(0)	(0)	(0)	(0)	(10)
Spleen	(10)	(10)	(10)	(10)	(10)	(10)
Extramedullary Hematopoiesis, Decreased	1 (10%)	1 (10%)	2 (20%)	7 (70%)	8 (80%)	10 (100%)
Thymus	(9)	(0)	(0)	(0)	(0)	(10)

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Harlan Sprague Dawley RATS MALE	0mg/kg/d M	.312mg/kg/d M	.625mg/kg/d M	1.25mg/kg/d M	2.5mg/kg/d M	5mg/kg/d M
<b>INTEGUMENTARY SYSTEM</b>						
Mammary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Skin	(10)	(0)	(0)	(0)	(0)	(10)
<b>MUSCULOSKELETAL SYSTEM</b>						
Bone	(10)	(0)	(0)	(0)	(0)	(10)
<b>NERVOUS SYSTEM</b>						
Brain	(10)	(0)	(0)	(0)	(0)	(10)
<b>RESPIRATORY SYSTEM</b>						
Lung	(10)	(0)	(0)	(0)	(0)	(10)
Alveolus, Infiltration Cellular, Mixed Cell	1 (10%)					1 (10%)
Nose	(10)	(10)	(10)	(10)	(10)	(10)
Respiratory Epithelium, Fibrosis, Focal					1 (10%)	
Respiratory Epithelium, Hyperplasia	3 (30%)		6 (60%)	4 (40%)		
Respiratory Epithelium, Inflammation, Granulomatous, Focal					1 (10%)	
Respiratory Epithelium, Inflammation, Chronic Active	4 (40%)		5 (50%)	5 (50%)		
Respiratory Epithelium, Ulcer					1 (10%)	
Trachea	(10)	(0)	(0)	(0)	(0)	(10)
<b>SPECIAL SENSES SYSTEM</b>						
Eye	(10)	(0)	(0)	(0)	(0)	(10)
Harderian Gland	(10)	(0)	(0)	(0)	(0)	(10)

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Harlan Sprague Dawley RATS MALE	0mg/kg/d M	.312mg/kg/d M	.625mg/kg/d M	1.25mg/kg/d M	2.5mg/kg/d M	5mg/kg/d M
URINARY SYSTEM						
Kidney	(10)	(10)	(10)	(10)	(10)	(10)
Nephropathy, Chronic Progressive	9 (90%)	8 (80%)	6 (60%)	8 (80%)	4 (40%)	5 (50%)
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

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

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Harlan Sprague Dawley RATS FEMALE	0mg/kg/d F	.312mg/kg/d F	.625mg/kg/d F	1.25mg/kg/d F	2.5mg/kg/d F	5mg/kg/d F
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**Disposition Summary**

<b>Animals Initially In Study</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>
<b>Early Deaths</b>						
<b>Natural Death</b>						<b>1</b>
<b>Survivors</b>						
<b>Terminal Sacrifice</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>9</b>
<b>Animals Examined Microscopically</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>

## ALIMENTARY SYSTEM

Esophagus	(10)	(0)	(0)	(0)	(0)	(10)
Degeneration	1 (10%)					
Inflammation, Chronic Active	1 (10%)					
Intestine Large, Cecum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Colon	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Rectum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Duodenum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Ileum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Jejunum	(10)	(0)	(0)	(0)	(0)	(10)
Liver	(10)	(10)	(10)	(10)	(10)	(10)
Clear Cell Focus		1 (10%)				
Congestion, Diffuse	1 (10%)					
Infiltration Cellular, Mixed Cell		3 (30%)	3 (30%)	3 (30%)	2 (20%)	1 (10%)
Hepatocyte, Cytoplasmic Alteration				3 (30%)	5 (50%)	10 (100%)
Hepatocyte, Hypertrophy				2 (20%)	3 (30%)	10 (100%)
Hepatocyte, Necrosis, Diffuse	1 (10%)					
Pancreas	(10)	(10)	(10)	(10)	(10)	(10)
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(0)	(10)
Hyperkeratosis						1 (10%)
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(10)

## CARDIOVASCULAR SYSTEM

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Harlan Sprague Dawley RATS FEMALE	0mg/kg/d F	.312mg/kg/d F	.625mg/kg/d F	1.25mg/kg/d F	2.5mg/kg/d F	5mg/kg/d F
Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)
Heart	(10)	(0)	(0)	(0)	(0)	(10)
Infiltration Cellular, Mixed Cell	1 (10%)					

## ENDOCRINE SYSTEM

Adrenal Cortex	(10)	(0)	(0)	(0)	(0)	(10)
Adrenal Medulla	(10)	(0)	(0)	(0)	(0)	(10)
Islets, Pancreatic	(10)	(0)	(0)	(0)	(0)	(10)
Parathyroid Gland	(10)	(0)	(0)	(0)	(0)	(5)
Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Thyroid Gland	(10)	(10)	(10)	(10)	(10)	(10)

## GENERAL BODY SYSTEM

None

## GENITAL SYSTEM

Clitoral Gland	(10)	(0)	(0)	(0)	(0)	(10)
Ovary	(10)	(10)	(10)	(10)	(10)	(10)
Uterus	(10)	(0)	(0)	(0)	(0)	(10)
Bilateral, Dilatation	2 (20%)					1 (10%)

## HEMATOPOIETIC SYSTEM

Bone Marrow	(10)	(10)	(10)	(10)	(10)	(10)
Hypocellularity		2 (20%)	1 (10%)	1 (10%)	5 (50%)	9 (90%)
Lymph Node, Mandibular	(10)	(0)	(0)	(0)	(10)	(10)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(8)
Spleen	(10)	(10)	(10)	(10)	(10)	(10)
Extramedullary Hematopoiesis, Decreased	2 (20%)	3 (30%)	3 (30%)	8 (80%)	10 (100%)	10 (100%)
Thymus	(10)	(0)	(0)	(0)	(10)	(10)

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Atrophy						1 (10%)
<b>INTEGUMENTARY SYSTEM</b>						
Mammary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Skin	(10)	(0)	(0)	(0)	(0)	(10)
<b>MUSCULOSKELETAL SYSTEM</b>						
Bone	(10)	(0)	(0)	(0)	(0)	(10)
<b>NERVOUS SYSTEM</b>						
Brain	(10)	(0)	(0)	(0)	(0)	(10)
<b>RESPIRATORY SYSTEM</b>						
Lung	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Granulomatous, Focal						1 (10%)
Nose	(10)	(10)	(10)	(10)	(10)	(10)
Respiratory Epithelium, Inflammation, Chronic Active					1 (10%)	
Trachea	(10)	(0)	(0)	(0)	(0)	(10)
<b>SPECIAL SENSES SYSTEM</b>						
Eye	(10)	(0)	(0)	(0)	(0)	(10)
Harderian Gland	(10)	(0)	(0)	(0)	(0)	(10)
<b>URINARY SYSTEM</b>						
Kidney	(10)	(10)	(10)	(10)	(10)	(10)
Nephropathy, Chronic Progressive	2 (20%)	1 (10%)	2 (20%)	3 (30%)	1 (10%)	2 (20%)

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Renal Tubule, Mineral		1 (10%)	1 (10%)	1 (10%)		1 (10%)
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

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

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