

Experiment Number: 04049 - 01

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Date Report Requested: 02/06/2018

Test Type: 28-DAY

Perfluorononanoic Acid

Time Report Requested: 12:36:11

Route: GAVAGE

CAS Number: 375-95-1

First Dose M/F: 02/02/12 / 02/03/12

Species/Strain: RATS/HSD

Lab: BAT

PFNA_Final 1

NTP Study Number: C04049
Lock Date: 01/22/2016
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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Species/Strain: RATS/HSD

Lab: BAT

Harlan Sprague Dawley RATS MALE	0 mg/kg/d M	0.625mg/kg/d M	1.25 mg/kg/d M	2.5 mg/kg/d M	5 mg/kg/d M	10 mg/kg/d M
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Disposition Summary

Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Natural Death					8	10
Survivors						
Terminal Sacrifice	10	10	10	10	2	
Animals Examined Microscopically	10	10	10	10	10	10

ALIMENTARY SYSTEM

Esophagus	(10)	(0)	(0)	(10)	(10)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(10)	(9)	(10)
Intestine Large, Colon	(10)	(0)	(0)	(10)	(8)	(10)
Intestine Large, Rectum	(10)	(0)	(0)	(10)	(10)	(10)
Intestine Small, Duodenum	(10)	(0)	(0)	(10)	(8)	(10)
Intestine Small, Ileum	(10)	(0)	(0)	(10)	(9)	(10)
Intestine Small, Jejunum	(10)	(0)	(0)	(10)	(9)	(10)
Liver	(10)	(10)	(10)	(10)	(9)	(10)
Pancreas	(10)	(10)	(10)	(10)	(8)	(10)
Salivary Glands	(10)	(0)	(0)	(10)	(9)	(10)
Stomach, Forestomach	(10)	(10)	(10)	(10)	(8)	(10)
Stomach, Glandular	(10)	(0)	(0)	(10)	(9)	(10)

CARDIOVASCULAR SYSTEM

Blood Vessel	(10)	(0)	(0)	(10)	(10)	(10)
Heart	(10)	(0)	(0)	(10)	(10)	(10)

ENDOCRINE SYSTEM

Adrenal Cortex	(10)	(0)	(0)	(10)	(10)	(10)
Adrenal Medulla	(10)	(0)	(0)	(10)	(10)	(10)
Parathyroid Gland	(6)	(0)	(0)	(7)	(9)	(9)
Pituitary Gland	(10)	(0)	(0)	(10)	(10)	(10)

a - Number of animals examined microscopically at site and number of animals with lesion

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Thyroid Gland	(10)	(10)	(10)	(10)	(10)	(10)
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Epididymis	(10)	(10)	(10)	(10)	(9)	(10)
Preputial Gland	(10)	(0)	(0)	(10)	(10)	(10)
Prostate	(10)	(0)	(0)	(10)	(10)	(10)
Seminal Vesicle	(10)	(0)	(0)	(10)	(10)	(10)
Testes	(10)	(10)	(10)	(10)	(9)	(10)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(10)	(10)	(10)	(10)	(10)	(10)
Lymph Node, Mandibular	(10)	(10)	(10)	(10)	(7)	(10)
Lymph Node, Mesenteric	(10)	(10)	(10)	(10)	(8)	(10)
Spleen	(10)	(10)	(10)	(10)	(8)	(10)
Thymus	(10)	(10)	(10)	(10)	(10)	(8)
INTEGUMENTARY SYSTEM						
Mammary Gland	(10)	(0)	(0)	(10)	(10)	(10)
Skin	(10)	(0)	(0)	(10)	(10)	(10)
MUSCULOSKELETAL SYSTEM						
Bone	(10)	(0)	(0)	(10)	(10)	(10)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 04049 - 01

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

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Species/Strain: RATS/HSD

Lab: BAT

Harlan Sprague Dawley RATS MALE	0 mg/kg/d M	0.625mg/kg/d M	1.25 mg/kg/d M	2.5 mg/kg/d M	5 mg/kg/d M	10 mg/kg/d M
NERVOUS SYSTEM						
Brain	(10)	(0)	(0)	(10)	(10)	(10)
RESPIRATORY SYSTEM						
Lung	(10)	(0)	(0)	(10)	(10)	(10)
Nose	(10)	(10)	(10)	(10)	(10)	(10)
Trachea	(10)	(0)	(0)	(10)	(10)	(10)
SPECIAL SENSES SYSTEM						
Eye	(10)	(0)	(0)	(10)	(10)	(10)
Harderian Gland	(10)	(0)	(0)	(10)	(10)	(10)
URINARY SYSTEM						
Kidney	(10)	(10)	(10)	(10)	(10)	(10)
Urinary Bladder	(10)	(0)	(0)	(10)	(10)	(10)

a - Number of animals examined microscopically at site and number of animals with lesion

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Lab: BAT

Harlan Sprague Dawley RATS MALE

0 mg/kg/d M

0.625mg/kg/d M

1.25 mg/kg/d M

2.5 mg/kg/d M

5 mg/kg/d M

10 mg/kg/d M

Tumor Summary for Males

Total Animals with Primary Neoplasms (b)

Total Primary Neoplasms

Total Animals with Benign Neoplasms

Total Benign Neoplasms

Total Animals with Malignant Neoplasms

Total Malignant Neoplasms

Total Animals with Metastatic Neoplasms

Total Metastatic Neoplasms

Total Animals with Malignant Neoplasms

Uncertain Primary Site

Total Animals with Neoplasms Uncertain-

Benign or Malignant

Total Uncertain Neoplasms

*** END OF MALE ***

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

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First Dose M/F: 02/02/12 / 02/03/12

Species/Strain: RATS/HSD

Lab: BAT

Harlan Sprague Dawley RATS FEMALE	0 mg/kg/d F	1.56mg/kg/d F	3.12mg/kg/d F	6.25mg/kg/d F	12.5mg/kg/d F	25mg/kg/d F
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Disposition Summary

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

ALIMENTARY SYSTEM

Esophagus	(10)	(0)	(0)	(10)	(10)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(10)	(10)	(10)
Intestine Large, Colon	(10)	(0)	(0)	(10)	(10)	(10)
Intestine Large, Rectum	(10)	(0)	(0)	(10)	(10)	(10)
Intestine Small, Duodenum	(10)	(0)	(0)	(10)	(9)	(10)
Intestine Small, Ileum	(10)	(0)	(0)	(10)	(9)	(10)
Intestine Small, Jejunum	(10)	(0)	(0)	(10)	(9)	(10)
Liver	(10)	(10)	(10)	(10)	(10)	(10)
Pancreas	(10)	(10)	(10)	(10)	(10)	(10)
Salivary Glands	(10)	(0)	(0)	(10)	(10)	(10)
Stomach, Forestomach	(10)	(10)	(10)	(10)	(10)	(10)
Stomach, Glandular	(10)	(0)	(0)	(10)	(10)	(10)

CARDIOVASCULAR SYSTEM

Blood Vessel	(10)	(0)	(0)	(10)	(10)	(10)
Heart	(10)	(0)	(0)	(10)	(10)	(10)

ENDOCRINE SYSTEM

Adrenal Cortex	(10)	(0)	(0)	(10)	(10)	(10)
Adrenal Medulla	(10)	(0)	(0)	(10)	(10)	(10)
Parathyroid Gland	(7)	(0)	(0)	(9)	(7)	(8)
Pituitary Gland	(10)	(0)	(0)	(8)	(10)	(10)

a - Number of animals examined microscopically at site and number of animals with lesion

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Thyroid Gland	(10)	(10)	(10)	(10)	(10)	(10)
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Clitoral Gland	(10)	(0)	(0)	(10)	(10)	(10)
Ovary	(10)	(10)	(10)	(10)	(10)	(10)
Uterus	(10)	(0)	(0)	(10)	(10)	(10)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(10)	(10)	(10)	(10)	(10)	(10)
Lymph Node, Mandibular	(10)	(10)	(10)	(10)	(8)	(9)
Lymph Node, Mesenteric	(10)	(10)	(10)	(10)	(9)	(10)
Spleen	(10)	(10)	(10)	(10)	(10)	(10)
Thymus	(10)	(10)	(10)	(10)	(10)	(10)
INTEGUMENTARY SYSTEM						
Mammary Gland	(10)	(0)	(0)	(10)	(10)	(10)
Skin	(10)	(0)	(0)	(10)	(10)	(10)
MUSCULOSKELETAL SYSTEM						
Bone	(10)	(0)	(0)	(10)	(10)	(10)
NERVOUS SYSTEM						
Brain	(10)	(0)	(0)	(10)	(10)	(10)

a - Number of animals examined microscopically at site and number of animals with lesion

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<hr/>						
RESPIRATORY SYSTEM						
Lung	(10)	(0)	(0)	(10)	(10)	(10)
Nose	(10)	(10)	(10)	(10)	(10)	(10)
Trachea	(10)	(0)	(0)	(10)	(10)	(10)
<hr/>						
SPECIAL SENSES SYSTEM						
Eye	(10)	(0)	(0)	(10)	(10)	(10)
Harderian Gland	(10)	(0)	(0)	(10)	(10)	(10)
<hr/>						
URINARY SYSTEM						
Kidney	(10)	(10)	(10)	(10)	(10)	(10)
Urinary Bladder	(10)	(0)	(0)	(10)	(10)	(10)

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Harlan Sprague Dawley RATS FEMALE

0 mg/kg/d F

1.56mg/kg/d F

3.12mg/kg/d F

6.25mg/kg/d F

12.5mg/kg/d F

25mg/kg/d F

Tumor Summary for Females

Total Animals with Primary Neoplasms (b)

Total Primary Neoplasms

Total Animals with Benign Neoplasms

Total Benign Neoplasms

Total Animals with Malignant Neoplasms

Total Malignant Neoplasms

Total Animals with Metastatic Neoplasms

Total Metastatic Neoplasms

Total Animals with Malignant Neoplasms

Uncertain Primary Site

Total Animals with Neoplasms Uncertain-

Benign or Malignant

Total Uncertain Neoplasms

*** END OF REPORT ***

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors