

**Experiment Number:** 07040 - 01  
**Test Type:** 28-DAY  
**Route:** GAVAGE  
**Species/Strain:** RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Perfluorobutane sulfonate (PFBS)  
**CAS Number:** 375-73-5

**Date Report Requested:** 02/06/2018  
**Time Report Requested:** 12:38:00  
**First Dose M/F:** 01/19/12 / 01/20/12  
**Lab:** BAT

PFBS\_Final 1

**NTP Study Number:** C07040  
**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

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 151

TRT#: 1

SEX: Male

DAY ON TEST: 29

DOSE: 0mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204385

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Epididymis                | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Liver                     | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Nose                   |
| * Pancreas                 | * Pituitary Gland         | * Preputial Gland           | * Prostate               |
| * Salivary Glands          | * Seminal Vesicle         | * Skin                      | * Spleen                 |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Testes                    | * Thymus                 |
| * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |                          |

**MISSING**

- \* Parathyroid Gland

**OBSERVATIONS**

- |          |             |                       |
|----------|-------------|-----------------------|
| * Kidney | Nephropathy | Chronicprogr, Minimal |
|----------|-------------|-----------------------|

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 152

TRT#: 1

SEX: Male

DAY ON TEST: 29

DOSE: 0mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204386

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

**ANIMAL ID:** 153

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 0mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204387

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel           | * Bone                     |
| * Bone Marrow             | * Brain                     | * Epididymis             | * Esophagus                |
| * Eye                     | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Liver                     | * Lung                   | * Lymph Node, Mandibular   |
| * Lymph Node, Mesenteric  | * Mammary Gland             | * Nose                   | * Pancreas                 |
| * Pituitary Gland         | * Preputial Gland           | * Prostate               | * Salivary Glands          |
| * Seminal Vesicle         | * Skin                      | * Spleen                 | * Stomach, Forestomach     |
| * Stomach, Glandular      | * Testes                    | * Thymus                 | * Thyroid Gland            |
| * Trachea                 | * Urinary Bladder           |                          |                            |

**MISSING**

- \* Parathyroid Gland

**OBSERVATIONS**

- |                   |                       |                       |
|-------------------|-----------------------|-----------------------|
| * Harderian Gland | Infiltration Cellular | Mononuclear CI, Mild  |
| * Kidney          | Nephropathy           | Chronicprogr, Minimal |

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 154

TRT#: 1

SEX: Male

DAY ON TEST: 29

DOSE: 0mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204388

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

\* Parathyroid Gland

**OBSERVATIONS**

* Kidney	Nephropathy	Chronicprogr, Minimal
* Liver	Infiltration Cellular	Mixed Cell, Minimal

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

**ANIMAL ID:** 155

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 0mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204389

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel           | * Bone                     |
| * Bone Marrow             | * Brain                     | * Epididymis             | * Esophagus                |
| * Eye                     | * Harderian Gland           | * Heart                  | * Intestine Large, Cecum   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lung                      | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   |
| * Mammary Gland           | * Nose                      | * Pancreas               | * Parathyroid Gland        |
| * Pituitary Gland         | * Preputial Gland           | * Prostate               | * Salivary Glands          |
| * Seminal Vesicle         | * Skin                      | * Spleen                 | * Stomach, Forestomach     |
| * Stomach, Glandular      | * Testes                    | * Thymus                 | * Thyroid Gland            |
| * Trachea                 | * Urinary Bladder           |                          |                            |

**OBSERVATIONS**

- |                          |                       |                       |
|--------------------------|-----------------------|-----------------------|
| * Intestine Large, Colon | Infiltration Cellular | Minimal               |
| * Kidney                 | Nephropathy           | Chronicprogr, Minimal |
| * Liver                  | Infiltration Cellular | Mixed Cell, Minimal   |

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 156

TRT#: 1

SEX: Male

DAY ON TEST: 29

DOSE: 0mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204390

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

**ANIMAL ID:** 157

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 0mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204391

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Epididymis                | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Liver                     | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Nose                   |
| * Pancreas                 | * Parathyroid Gland       | * Pituitary Gland           | * Preputial Gland        |
| * Prostate                 | * Salivary Glands         | * Seminal Vesicle           | * Skin                   |
| * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        | * Testes                 |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |

**OBSERVATIONS**

- |          |             |                       |
|----------|-------------|-----------------------|
| * Kidney | Nephropathy | Chronicprogr, Minimal |
|----------|-------------|-----------------------|



Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 158

TRT#: 1

SEX: Male

DAY ON TEST: 29

DOSE: 0mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204392

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel           | * Bone                     |
| * Bone Marrow             | * Brain                     | * Epididymis             | * Esophagus                |
| * Eye                     | * Harderian Gland           | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Liver                     | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   |
| * Mammary Gland           | * Nose                      | * Pancreas               | * Parathyroid Gland        |
| * Pituitary Gland         | * Preputial Gland           | * Prostate               | * Salivary Glands          |
| * Seminal Vesicle         | * Skin                      | * Spleen                 | * Stomach, Forestomach     |
| * Stomach, Glandular      | * Testes                    | * Thymus                 | * Thyroid Gland            |
| * Trachea                 | * Urinary Bladder           |                          |                            |

OBSERVATIONS

- |          |                       |                         |
|----------|-----------------------|-------------------------|
| * Heart  | Cardiomyopathy        | Minimal                 |
| * Kidney | Nephropathy           | Chronicprogr, Minimal   |
| * Lung   | Erythrophagocytosis   | Minimal                 |
|          | Infiltration Cellular | Mononuclear CI, Minimal |
|          | Inflammation          | Chronic Active, Minimal |

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 159

TRT#: 1

SEX: Male

DAY ON TEST: 29

DOSE: 0mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204393

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Epididymis                | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Kidney                    | * Liver                  |
| * Lung                     | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Mammary Gland          |
| * Nose                     | * Pancreas                | * Parathyroid Gland         | * Pituitary Gland        |
| * Preputial Gland          | * Prostate                | * Salivary Glands           | * Seminal Vesicle        |
| * Skin                     | * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Testes                   | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          |                           |                             |                          |

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

**ANIMAL ID:** 160

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 0mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204394

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

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**ANIMAL ID:** 161

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204395

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Liver

\* Nose

\* Pancreas

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 162

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204396

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Liver

\* Nose

\* Pancreas

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronicprogr, Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 163

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204397

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Liver

\* Nose

\* Pancreas

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronicprogr, Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 164

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204398

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow  
\* Pancreas  
\* Thyroid Gland

\* Kidney  
\* Spleen

\* Liver  
\* Testes

\* Nose  
\* Thymus

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 165

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204399

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Nose

\* Pancreas

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Liver

Infiltration Cellular

Mixed Cell, Minimal

---



Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 166

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204400

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Liver

\* Nose

\* Pancreas

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 167

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204401

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Liver

\* Nose

\* Pancreas

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronicprogr, Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 168

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204402

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow  
\* Pancreas  
\* Thyroid Gland

\* Kidney  
\* Spleen

\* Liver  
\* Testes

\* Nose  
\* Thymus

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 169

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204403

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Liver

\* Nose

\* Pancreas

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronicprogr, Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 170

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204404

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Nose

\* Pancreas

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Liver

Hepatodiaphragmatic Nodule

Minimal

[ Hepatodiaphragmatic Nodule TGLs = 1-17 ]

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 171

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 125mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204405

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Nose

\* Pancreas

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Liver

Hepatocyte

Hypertrophy

Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 172

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 125mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204406

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Nose

\* Pancreas

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Liver

Hepatocyte

Hypertrophy

Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 173

TRT#: 5

SEX: Male

DAY ON TEST: 29

DOSE: 125mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204407

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Bone Marrow

\* Kidney

\* Pancreas

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

**OBSERVATIONS**

\* Liver

Hepatocyte

Hypertrophy

Minimal

Infiltration Cellular

Mixed Cell, Minimal

\* Nose

Olfactory Epi

Degeneration

Minimal



Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 174

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 125mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204408

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Nose

\* Pancreas

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Liver

Hepatocyte

Hypertrophy  
Infiltration Cellular

Minimal  
Mixed Cell, Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 175

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 125mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204409

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Pancreas

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronicprogr, Minimal

\* Liver

Hepatocyte

Hypertrophy

Minimal

\* Nose

Olfactory Epi

Degeneration

Minimal

Olfactory Epi

Hyperplasia

Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 176

TRT#: 5

SEX: Male

DAY ON TEST: 29

DOSE: 125mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204410

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Bone Marrow

\* Pancreas

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronicprogr, Minimal

\* Liver

Hepatocyte

Cytoplasmic Alteration

Minimal

Hepatocyte

Hypertrophy

Minimal

\* Nose

Olfactory Epi

Degeneration

Minimal

Olfactory Epi

Hyperplasia

Minimal

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 177

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 125mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204411

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Nose

\* Pancreas

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Liver

Hepatocyte

Hypertrophy

Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 178

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 125mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204412

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Nose

\* Pancreas

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Liver

Hepatocyte

Hypertrophy

Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 179

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 125mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204413

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Liver

\* Nose

\* Pancreas

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 180

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 125mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204414

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Nose

\* Pancreas

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Liver

Hepatocyte

Hypertrophy

Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 181

TRT#: 7

SEX: Male

DAY ON TEST: 29

DOSE: 250mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204415

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Bone Marrow

\* Pancreas

\* Spleen

\* Stomach, Forestomach

\* Testes

\* Thymus

\* Thyroid Gland

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronicprogr, Minimal

\* Liver

Hepatocyte

Hypertrophy

Mild

\* Nose

Olfactory Epi

Degeneration

Minimal

Olfactory Epi

Hyperplasia

Minimal



Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 182

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 250mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204416

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Pancreas

\* Spleen

\* Stomach, Forestomach

\* Testes

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Liver

Hepatocyte

Hypertrophy

Minimal

\* Nose

Olfactory Epi

Degeneration

Minimal

Olfactory Epi

Hyperplasia

Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 183

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 250mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204417

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow  
\* Spleen  
\* Thyroid Gland

\* Kidney  
\* Stomach, Forestomach

\* Nose  
\* Testes

\* Pancreas  
\* Thymus

---

**OBSERVATIONS**

\* Liver

Hepatocyte

Hypertrophy

Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 184

TRT#: 7

SEX: Male

DAY ON TEST: 29

DOSE: 250mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204418

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Bone Marrow

\* Pancreas

\* Spleen

\* Stomach, Forestomach

\* Testes

\* Thymus

\* Thyroid Gland

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronicprogr, Minimal

\* Liver

Hepatocyte

Hypertrophy

Mild

\* Nose

Olfactory Epi

Infiltration Cellular

Mixed Cell, Minimal

Olfactory Epi

Degeneration

Minimal

Inflammation

Suppurative, Minimal

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

**ANIMAL ID:** 185

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 250mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204419

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Bone Marrow

\* Pancreas

\* Spleen

\* Stomach, Forestomach

\* Testes

\* Thymus

\* Thyroid Gland

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronicprogr, Minimal

\* Liver

Hepatocyte

Hypertrophy

Minimal

\* Nose

Olfactory Epi

Infiltration Cellular

Mixed Cell, Minimal

Olfactory Epi

Degeneration

Mild

Hyperplasia

Minimal

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 186

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 250mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204420

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Pancreas

\* Spleen

\* Stomach, Forestomach

\* Testes

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronicprogr, Minimal

\* Liver

Hepatocyte

Hypertrophy

Mild

\* Nose

Olfactory Epi

Degeneration

Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 187

TRT#: 7

SEX: Male

DAY ON TEST: 29

DOSE: 250mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204421

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Bone Marrow

\* Pancreas

\* Spleen

\* Stomach, Forestomach

\* Testes

\* Thymus

\* Thyroid Gland

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronicprogr, Minimal

\* Liver

Hepatocyte

Hypertrophy

Minimal

\* Nose

Olfactory Epi

Degeneration

Mild

Olfactory Epi

Hyperplasia

Mild

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 188

TRT#: 7

SEX: Male

DAY ON TEST: 29

DOSE: 250mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204422

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Cortex  
\* Pancreas  
\* Thymus

\* Adrenal Medulla  
\* Spleen  
\* Thyroid Gland

\* Bone Marrow  
\* Stomach, Forestomach

\* Kidney  
\* Testes

**OBSERVATIONS**

* Liver	Hepatocyte	Hypertrophy Infiltration Cellular	Minimal Mixed Cell, Minimal
* Nose	Olfactory Epi Olfactory Epi Olfactory Epi	Degeneration Hyperplasia Inflammation	Mild Minimal Suppurative, Minimal

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 189

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 250mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204423

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Nose

\* Pancreas

\* Spleen

\* Stomach, Forestomach

\* Testes

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronicprogr, Minimal

\* Liver

Hepatocyte

Hypertrophy

Minimal

---



Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 190

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 250mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204424

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow  
\* Spleen  
\* Thyroid Gland

\* Kidney  
\* Stomach, Forestomach

\* Nose  
\* Testes

\* Pancreas  
\* Thymus

---

**OBSERVATIONS**

\* Liver

Hepatocyte

Hypertrophy

Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 191

TRT#: 9

SEX: Male

DAY ON TEST: 29

DOSE: 500mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204425

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Epididymis               | * Eye                     |
| * Harderian Gland           | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Kidney                    | * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  |
| * Mammary Gland             | * Pancreas               | * Parathyroid Gland        | * Pituitary Gland         |
| * Preputial Gland           | * Prostate               | * Salivary Glands          | * Seminal Vesicle         |
| * Skin                      | * Spleen                 | * Stomach, Glandular       | * Testes                  |
| * Thymus                    | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |

OBSERVATIONS

- |                        |               |                        |                  |
|------------------------|---------------|------------------------|------------------|
| * Esophagus            |               | Inflammation           | Chronic, Minimal |
| * Heart                |               | Cardiomyopathy         | Minimal          |
| * Liver                | Hepatocyte    | Cytoplasmic Alteration | Minimal          |
|                        | Hepatocyte    | Hypertrophy            | Mild             |
| * Nose                 | Olfactory Epi | Degeneration           | Minimal          |
|                        | Olfactory Epi | Hyperplasia            | Minimal          |
| * Stomach, Forestomach | Epithelium    | Hyperplasia            | Minimal          |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 192

TRT#: 9

SEX: Male

DAY ON TEST: 29

DOSE: 500mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204426

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Epididymis                | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Kidney                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Pancreas               |
| * Parathyroid Gland        | * Pituitary Gland         | * Preputial Gland           | * Prostate               |
| * Salivary Glands          | * Seminal Vesicle         | * Skin                      | * Spleen                 |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Testes                    | * Thymus                 |
| * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |                          |

**OBSERVATIONS**

- |         |               |                        |         |
|---------|---------------|------------------------|---------|
| * Liver | Hepatocyte    | Cytoplasmic Alteration | Minimal |
|         | Hepatocyte    | Hypertrophy            | Mild    |
| * Nose  | Olfactory Epi | Degeneration           | Mild    |
|         | Olfactory Epi | Hyperplasia            | Mild    |

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 193

TRT#: 9

SEX: Male

DAY ON TEST: 29

DOSE: 500mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204427

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Epididymis                | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lymph Node, Mandibular    | * Lymph Node, Mesenteric |
| * Mammary Gland            | * Pancreas                | * Parathyroid Gland         | * Pituitary Gland        |
| * Preputial Gland          | * Prostate                | * Salivary Glands           | * Seminal Vesicle        |
| * Skin                     | * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Testes                   | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          |                           |                             |                          |

**OBSERVATIONS**

- |          |               |                        |                         |
|----------|---------------|------------------------|-------------------------|
| * Kidney |               | Nephropathy            | Chronicprogr, Minimal   |
| * Liver  | Hepatocyte    | Cytoplasmic Alteration | Minimal                 |
|          | Hepatocyte    | Hypertrophy            | Mild                    |
| * Lung   |               | Infiltration Cellular  | Mononuclear CI, Minimal |
| * Nose   | Olfactory Epi | Degeneration           | Minimal                 |
|          | Olfactory Epi | Hyperplasia            | Minimal                 |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 194

TRT#: 9

SEX: Male

DAY ON TEST: 29

DOSE: 500mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204428

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Epididymis                | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Kidney                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Pancreas               |
| * Parathyroid Gland        | * Pituitary Gland         | * Preputial Gland           | * Prostate               |
| * Salivary Glands          | * Seminal Vesicle         | * Skin                      | * Spleen                 |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Testes                    | * Thymus                 |
| * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |                          |

OBSERVATIONS

- |         |               |                        |                      |
|---------|---------------|------------------------|----------------------|
| * Liver | Hepatocyte    | Cytoplasmic Alteration | Minimal              |
|         | Hepatocyte    | Hypertrophy            | Minimal              |
|         |               | Infiltration Cellular  | Mixed Cell, Minimal  |
| * Nose  | Olfactory Epi | Degeneration           | Mild                 |
|         | Olfactory Epi | Hyperplasia            | Mild                 |
|         | Olfactory Epi | Inflammation           | Suppurative, Minimal |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 195

TRT#: 9

SEX: Male

DAY ON TEST: 29

DOSE: 500mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204429

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**OBSERVATIONS**

* Kidney		Nephropathy	Chronicprogr, Minimal
* Liver	Hepatocyte	Cytoplasmic Alteration	Minimal
	Hepatocyte	Hypertrophy	Mild
* Nose	Olfactory Epi	Degeneration	Minimal
	Olfactory Epi	Hyperplasia	Minimal

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 196

TRT#: 9

SEX: Male

DAY ON TEST: 29

DOSE: 500mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204430

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Epididymis                | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Kidney                    | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric   | * Mammary Gland           | * Pancreas                  | * Parathyroid Gland      |
| * Pituitary Gland          | * Preputial Gland         | * Prostate                  | * Salivary Glands        |
| * Seminal Vesicle          | * Skin                    | * Spleen                    | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Testes                  | * Thymus                    | * Thyroid Gland          |
| * Trachea                  | * Urinary Bladder         |                             |                          |

OBSERVATIONS

- |         |                |                        |                     |
|---------|----------------|------------------------|---------------------|
| * Liver | Hepatocyte     | Cytoplasmic Alteration | Minimal             |
|         | Hepatocyte     | Hypertrophy            | Mild                |
| * Lung  |                | Erythrophagocytosis    | Minimal             |
|         | Alveolar Epith | Hyperplasia            | Minimal             |
|         |                | Infiltration Cellular  | Histiocyte, Minimal |
| * Nose  | Olfactory Epi  | Degeneration           | Mild                |
|         | Olfactory Epi  | Hyperplasia            | Mild                |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 197

TRT#: 9

SEX: Male

DAY ON TEST: 29

DOSE: 500mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204431

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Epididymis                | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric   | * Mammary Gland           | * Pancreas                  | * Parathyroid Gland      |
| * Pituitary Gland          | * Preputial Gland         | * Prostate                  | * Salivary Glands        |
| * Seminal Vesicle          | * Skin                    | * Spleen                    | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Testes                  | * Thymus                    | * Thyroid Gland          |
| * Trachea                  | * Urinary Bladder         |                             |                          |

OBSERVATIONS

- |          |               |                        |                       |
|----------|---------------|------------------------|-----------------------|
| * Kidney |               | Nephropathy            | Chronicprogr, Minimal |
| * Liver  | Hepatocyte    | Cytoplasmic Alteration | Minimal               |
|          | Hepatocyte    | Hypertrophy            | Minimal               |
| * Nose   | Olfactory Epi | Degeneration           | Minimal               |
|          | Olfactory Epi | Hyperplasia            | Mild                  |



Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 198

TRT#: 9

SEX: Male

DAY ON TEST: 29

DOSE: 500mg/kg/d M

DISP: Terminal Sacrifice

HISTO: 1204432

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Epididymis                | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Kidney                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Pancreas               |
| * Parathyroid Gland        | * Pituitary Gland         | * Preputial Gland           | * Prostate               |
| * Salivary Glands          | * Seminal Vesicle         | * Skin                      | * Spleen                 |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Testes                    | * Thymus                 |
| * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |                          |

OBSERVATIONS

- |         |               |                        |         |
|---------|---------------|------------------------|---------|
| * Liver | Hepatocyte    | Cytoplasmic Alteration | Minimal |
|         | Hepatocyte    | Hypertrophy            | Mild    |
| * Nose  | Olfactory Epi | Degeneration           | Minimal |
|         | Olfactory Epi | Hyperplasia            | Minimal |

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

**ANIMAL ID:** 199

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 500mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204433

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Epididymis                | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Kidney                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Nose                   |
| * Pancreas                 | * Parathyroid Gland       | * Pituitary Gland           | * Preputial Gland        |
| * Prostate                 | * Salivary Glands         | * Seminal Vesicle           | * Skin                   |
| * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        | * Testes                 |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |

**OBSERVATIONS**

- |         |            |                        |         |
|---------|------------|------------------------|---------|
| * Liver | Hepatocyte | Cytoplasmic Alteration | Minimal |
|         | Hepatocyte | Hypertrophy            | Mild    |

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

**ANIMAL ID:** 200

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 29

**DOSE:** 500mg/kg/d M

**DISP:** Terminal Sacrifice

**HISTO:** 1204434

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Epididymis                | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Kidney                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Pancreas               |
| * Parathyroid Gland        | * Pituitary Gland         | * Preputial Gland           | * Prostate               |
| * Salivary Glands          | * Seminal Vesicle         | * Skin                      | * Spleen                 |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Testes                    | * Thymus                 |
| * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |                          |

**OBSERVATIONS**

- |         |               |                        |                   |
|---------|---------------|------------------------|-------------------|
| * Liver | Hepatocyte    | Cytoplasmic Alteration | Minimal           |
|         | Hepatocyte    | Hypertrophy            | Minimal           |
| * Nose  | Olfactory Epi | Degeneration           | Moderate          |
|         | Olfactory Epi | Hyperplasia            | Mild              |
|         | Olfactory Epi | Inflammation           | Suppurative, Mild |

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 201

TRT#: 11

SEX: Male

DAY ON TEST: 15

DOSE: 1000mg/kg/d M

DISP: Natural Death

HISTO: 1204435

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Brain                     | * Esophagus              | * Eye                      | * Harderian Gland         |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lung                      | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Mammary Gland           |
| * Pancreas                  | * Parathyroid Gland      | * Pituitary Gland          | * Preputial Gland         |
| * Prostate                  | * Salivary Glands        | * Seminal Vesicle          | * Skin                    |
| * Spleen                    | * Stomach, Glandular     | * Testes                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        |                            |                           |

OBSERVATIONS

- |                        |               |                        |                       |
|------------------------|---------------|------------------------|-----------------------|
| * Bone Marrow          |               | Hypocellularity        | Mild                  |
| * Epididymis           | Duct          | Exfoliated Germ Cell   | Minimal               |
| * Kidney               | Papilla       | Necrosis               | Mild                  |
|                        |               | Nephropathy            | Chronicprogr, Minimal |
| * Liver                | Hepatocyte    | Cytoplasmic Alteration | Mild                  |
|                        | Hepatocyte    | Hypertrophy            | Moderate              |
| * Nose                 | Olfactory Epi | Degeneration           | Mild                  |
|                        | Olfactory Epi | Hyperplasia            | Minimal               |
|                        | Olfactory Epi | Inflammation           | Suppurative, Moderate |
| * Stomach, Forestomach | Epithelium    | Hyperplasia            | Minimal               |
| * Thymus               |               | Atrophy                | Moderate              |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 202

TRT#: 11

SEX: Male

DAY ON TEST: 18

DOSE: 1000mg/kg/d M

DISP: Natural Death

HISTO: 1204436

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- \* Adrenal Cortex
- \* Brain
- \* Heart
- \* Intestine Small, Duodenum
- \* Kidney
- \* Mammary Gland
- \* Preputial Gland
- \* Skin
- \* Thymus
- \* Adrenal Medulla
- \* Esophagus
- \* Intestine Large, Cecum
- \* Intestine Small, Ileum
- \* Lung
- \* Pancreas
- \* Prostate
- \* Spleen
- \* Thyroid Gland
- \* Blood Vessel
- \* Eye
- \* Intestine Large, Colon
- \* Intestine Small, Jejunum
- \* Lymph Node, Mandibular
- \* Parathyroid Gland
- \* Salivary Glands
- \* Stomach, Glandular
- \* Trachea
- \* Bone
- \* Harderian Gland
- \* Intestine Large, Rectum
- \* Islets, Pancreatic
- \* Lymph Node, Mesenteric
- \* Pituitary Gland
- \* Seminal Vesicle
- \* Testes
- \* Urinary Bladder

OBSERVATIONS

- \* Bone Marrow
- \* Epididymis
- \* Liver
- \* Nose
- \* Stomach, Forestomach
- Hypocellularity
- Exfoliated Germ Cell
- Cytoplasmic Alteration
- Hemorrhage
- Hepatocyte
- Hypertrophy
- Necrosis
- Degeneration
- Inflammation
- Necrosis
- Hyperplasia
- Mild
- Minimal
- Mild
- Mild
- Minimal
- Moderate
- Mild
- Suppurative, Minimal
- Moderate
- Minimal

[ Necrosis TGLs = 1,2-12+17+18 ]

PRIMARY CAUSE OF DEATH - UNCERTAIN

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 204

TRT#: 11

SEX: Male

DAY ON TEST: 24

DOSE: 1000mg/kg/d M

DISP: Natural Death

HISTO: 1204438

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel           | * Bone                     |
| * Brain                   | * Epididymis                | * Esophagus              | * Eye                      |
| * Harderian Gland         | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Kidney                    | * Lung                   | * Lymph Node, Mandibular   |
| * Lymph Node, Mesenteric  | * Mammary Gland             | * Pancreas               | * Pituitary Gland          |
| * Preputial Gland         | * Prostate                  | * Salivary Glands        | * Seminal Vesicle          |
| * Skin                    | * Spleen                    | * Stomach, Forestomach   | * Stomach, Glandular       |
| * Testes                  | * Thymus                    | * Thyroid Gland          | * Trachea                  |
| * Urinary Bladder         |                             |                          |                            |

MISSING

- \* Parathyroid Gland

OBSERVATIONS

- |               |               |                        |                     |
|---------------|---------------|------------------------|---------------------|
| * Bone Marrow |               | Hypocellularity        | Moderate            |
| * Liver       | Hepatocyte    | Cytoplasmic Alteration | Mild                |
|               | Hepatocyte    | Hypertrophy            | Mild                |
| * Nose        | Olfactory Epi | Degeneration           | Moderate            |
|               | Olfactory Epi | Inflammation           | Suppurative, Marked |
|               | Olfactory Epi | Necrosis               | Minimal             |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 205

TRT#: 11

SEX: Male

DAY ON TEST: 18

DOSE: 1000mg/kg/d M

DISP: Natural Death

HISTO: 1204439

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel           | * Bone                     |
| * Brain                   | * Epididymis                | * Esophagus              | * Eye                      |
| * Harderian Gland         | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Kidney                    | * Lung                   | * Lymph Node, Mandibular   |
| * Lymph Node, Mesenteric  | * Mammary Gland             | * Pancreas               | * Parathyroid Gland        |
| * Pituitary Gland         | * Preputial Gland           | * Prostate               | * Salivary Glands          |
| * Seminal Vesicle         | * Skin                      | * Spleen                 | * Stomach, Forestomach     |
| * Stomach, Glandular      | * Testes                    | * Thymus                 | * Thyroid Gland            |
| * Trachea                 | * Urinary Bladder           |                          |                            |

OBSERVATIONS

- |               |               |                        |                   |
|---------------|---------------|------------------------|-------------------|
| * Bone Marrow |               | Hypocellularity        | Moderate          |
| * Liver       | Hepatocyte    | Cytoplasmic Alteration | Minimal           |
|               | Hepatocyte    | Hypertrophy            | Mild              |
| * Nose        | Olfactory Epi | Degeneration           | Mild              |
|               | Olfactory Epi | Inflammation           | Suppurative, Mild |
|               | Olfactory Epi | Necrosis               | Moderate          |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 206

TRT#: 11

SEX: Male

DAY ON TEST: 25

DOSE: 1000mg/kg/d M

DISP: Natural Death

HISTO: 1204440

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Brain                     | * Epididymis             | * Eye                      | * Harderian Gland         |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lung                      | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Mammary Gland           |
| * Pancreas                  | * Parathyroid Gland      | * Pituitary Gland          | * Preputial Gland         |
| * Prostate                  | * Salivary Glands        | * Seminal Vesicle          | * Skin                    |
| * Spleen                    | * Stomach, Forestomach   | * Stomach, Glandular       | * Testes                  |
| * Thyroid Gland             | * Trachea                | * Urinary Bladder          |                           |

OBSERVATIONS

- |               |                               |                        |                       |
|---------------|-------------------------------|------------------------|-----------------------|
| * Bone Marrow |                               | Hypocellularity        | Moderate              |
| * Esophagus   |                               | Inflammation           | Chronic, Mild         |
| * Kidney      |                               | Nephropathy            | Chronicprogr, Minimal |
| * Liver       | Hepatocyte                    | Cytoplasmic Alteration | Minimal               |
|               | Hepatocyte                    | Hypertrophy            | Mild                  |
|               | [ Hypertrophy TGLs = 2 - 12 ] |                        |                       |
| * Nose        | Olfactory Epi                 | Degeneration           | Moderate              |
|               | Olfactory Epi                 | Hyperplasia            | Minimal               |
|               | Olfactory Epi                 | Inflammation           | Suppurative, Moderate |
| * Thymus      |                               | Atrophy                | Moderate              |
|               | [ Atrophy TGLs = 1 - 6 ]      |                        |                       |

PRIMARY CAUSE OF DEATH

- UNCERTAIN



Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 208

TRT#: 11

SEX: Male

DAY ON TEST: 18

DOSE: 1000mg/kg/d M

DISP: Natural Death

HISTO: 1204442

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel           | * Bone                     |
| * Brain                   | * Epididymis                | * Esophagus              | * Eye                      |
| * Harderian Gland         | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Kidney                    | * Lung                   | * Lymph Node, Mandibular   |
| * Lymph Node, Mesenteric  | * Mammary Gland             | * Nose                   | * Pancreas                 |
| * Parathyroid Gland       | * Pituitary Gland           | * Preputial Gland        | * Prostate                 |
| * Salivary Glands         | * Seminal Vesicle           | * Skin                   | * Spleen                   |
| * Stomach, Glandular      | * Testes                    | * Thyroid Gland          | * Trachea                  |
| * Urinary Bladder         |                             |                          |                            |

OBSERVATIONS

- |                        |            |                        |          |
|------------------------|------------|------------------------|----------|
| * Bone Marrow          |            | Hypocellularity        | Mild     |
| * Liver                | Hepatocyte | Cytoplasmic Alteration | Mild     |
|                        | Hepatocyte | Hypertrophy            | Mild     |
| * Stomach, Forestomach | Epithelium | Hyperplasia            | Minimal  |
| * Thymus               |            | Atrophy                | Moderate |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 209

TRT#: 11

SEX: Male

DAY ON TEST: 17

DOSE: 1000mg/kg/d M

DISP: Natural Death

HISTO: 1204443

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel           | * Bone                     |
| * Brain                   | * Epididymis                | * Esophagus              | * Eye                      |
| * Harderian Gland         | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lung                      | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   |
| * Mammary Gland           | * Pancreas                  | * Parathyroid Gland      | * Pituitary Gland          |
| * Preputial Gland         | * Prostate                  | * Salivary Glands        | * Seminal Vesicle          |
| * Skin                    | * Spleen                    | * Stomach, Forestomach   | * Stomach, Glandular       |
| * Testes                  | * Thymus                    | * Thyroid Gland          | * Trachea                  |
| * Urinary Bladder         |                             |                          |                            |

OBSERVATIONS

- |               |               |                        |                       |
|---------------|---------------|------------------------|-----------------------|
| * Bone Marrow |               | Hypocellularity        | Moderate              |
| * Kidney      |               | Nephropathy            | Chronicprogr, Minimal |
| * Liver       | Hepatocyte    | Cytoplasmic Alteration | Minimal               |
|               | Hepatocyte    | Hypertrophy            | Mild                  |
| * Nose        | Olfactory Epi | Degeneration           | Mild                  |
|               | Olfactory Epi | Hyperplasia            | Mild                  |
|               | Olfactory Epi | Inflammation           | Suppurative, Minimal  |
|               | Olfactory Epi | Necrosis               | Moderate              |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 210

TRT#: 11

SEX: Male

DAY ON TEST: 6

DOSE: 1000mg/kg/d M

DISP: Dosing Accident

HISTO: 1204444

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Brain                     | * Epididymis             | * Eye                      | * Harderian Gland         |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Kidney                    | * Liver                  | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  |
| * Mammary Gland             | * Pancreas               | * Pituitary Gland          | * Preputial Gland         |
| * Prostate                  | * Salivary Glands        | * Seminal Vesicle          | * Skin                    |
| * Spleen                    | * Stomach, Glandular     | * Testes                   | * Thymus                  |
| * Thyroid Gland             | * Trachea                | * Urinary Bladder          |                           |

**MISSING**

- \* Parathyroid Gland

**OBSERVATIONS**

- |                        |                             |                 |                       |
|------------------------|-----------------------------|-----------------|-----------------------|
| * Bone Marrow          |                             | Hypocellularity | Mild                  |
| * Esophagus            |                             | Hemorrhage      | Moderate              |
|                        |                             | Perforation     | Moderate              |
|                        | [ Perforation TGLs = 2-17 ] |                 |                       |
| * Lung                 |                             | Hemorrhage      | Mild                  |
|                        | Perivascular                | Inflammation    | Acute, Minimal        |
| * Nose                 | Olfactory Epi               | Degeneration    | Mild                  |
|                        | Olfactory Epi               | Hyperplasia     | Mild                  |
|                        | Olfactory Epi               | Inflammation    | Suppurative, Moderate |
|                        | Olfactory Epi               | Necrosis        | Mild                  |
| * Stomach, Forestomach | Epithelium                  | Hyperplasia     | Mild                  |
|                        |                             | Inflammation    | Acute, Minimal        |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 211

TRT#: 2

SEX: Female

DAY ON TEST: 29

DOSE: 0mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204445

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus	* Vagina	

**MISSING**

\* Parathyroid Gland

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 212

TRT#: 2

SEX: Female

DAY ON TEST: 29

DOSE: 0mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204446

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	* Vagina

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

**ANIMAL ID:** 213

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 0mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204447

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Clitoral Gland            | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Kidney                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Nose                   |
| * Ovary                    | * Pancreas                | * Parathyroid Gland         | * Pituitary Gland        |
| * Salivary Glands          | * Skin                    | * Spleen                    | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          | * Uterus                  | * Vagina                    |                          |

**OBSERVATIONS**

- |         |                       |                     |
|---------|-----------------------|---------------------|
| * Liver | Infiltration Cellular | Mixed Cell, Minimal |
|---------|-----------------------|---------------------|



Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 214

TRT#: 2

SEX: Female

DAY ON TEST: 29

DOSE: 0mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204448

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	* Vagina

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 215

TRT#: 2

SEX: Female

DAY ON TEST: 29

DOSE: 0mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204449

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus	* Vagina	

**MISSING**

\* Parathyroid Gland

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 216

TRT#: 2

SEX: Female

DAY ON TEST: 29

DOSE: 0mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204450

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus	* Vagina	

**MISSING**

\* Parathyroid Gland

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 217

TRT#: 2

SEX: Female

DAY ON TEST: 29

DOSE: 0mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204451

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	* Vagina

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

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ANIMAL ID: 218

TRT#: 2

SEX: Female

DAY ON TEST: 29

DOSE: 0mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204452

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	* Vagina

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 219

TRT#: 2

SEX: Female

DAY ON TEST: 29

DOSE: 0mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204453

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	* Vagina

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 220

TRT#: 2

SEX: Female

DAY ON TEST: 29

DOSE: 0mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204454

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	* Vagina

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

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ANIMAL ID: 221

TRT#: 4

SEX: Female

DAY ON TEST: 29

DOSE: 62.6mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204455

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Liver

\* Nose

\* Ovary

\* Pancreas

\* Spleen

\* Thymus

\* Thyroid Gland

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Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 222

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204456

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow  
\* Ovary  
\* Thyroid Gland

\* Kidney  
\* Pancreas

\* Liver  
\* Spleen

\* Nose  
\* Thymus

---

**Experiment Number:** 07040 - 01

**Test Type:** 28-DAY

**Route:** GAVAGE

**Species/Strain:** RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

**CAS Number:** 375-73-5

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

**Time Report Requested:** 12:38:00

**First Dose M/F:** 01/19/12 / 01/20/12

**Lab:** BAT

---

**ANIMAL ID:** 223

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204457

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow  
\* Ovary  
\* Thyroid Gland

\* Kidney  
\* Pancreas

\* Liver  
\* Spleen

\* Nose  
\* Thymus

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 224

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204458

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow  
\* Ovary  
\* Thyroid Gland

\* Kidney  
\* Pancreas

\* Liver  
\* Spleen

\* Nose  
\* Thymus

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 225

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204459

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Liver

\* Nose

\* Ovary

\* Pancreas

\* Spleen

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronicprogr, Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 226

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204460

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Liver

\* Nose

\* Ovary

\* Pancreas

\* Spleen

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronicprogr, Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 227

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204461

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Liver

\* Nose

\* Ovary

\* Pancreas

\* Spleen

\* Thymus

\* Thyroid Gland

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 228

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204462

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Liver

\* Nose

\* Ovary

\* Pancreas

\* Spleen

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronicprogr, Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 229

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204463

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Liver

\* Nose

\* Ovary

\* Pancreas

\* Spleen

\* Thymus

\* Thyroid Gland

---



Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 230

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 62.6mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204464

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Liver

\* Nose

\* Ovary

\* Pancreas

\* Spleen

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronicprogr, Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

ANIMAL ID: 231

TRT#: 6

SEX: Female

DAY ON TEST: 29

DOSE: 125mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204465

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Liver

\* Nose

\* Ovary

\* Pancreas

\* Spleen

\* Thymus

\* Thyroid Gland

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 232

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 125mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204466

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Liver

\* Nose

\* Ovary

\* Pancreas

\* Spleen

\* Thymus

\* Thyroid Gland

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 233

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 125mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204467

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Liver

\* Ovary

\* Pancreas

\* Spleen

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Nose

Olfactory Epi

Degeneration

Minimal

Olfactory Epi

Inflammation

Suppurative, Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

ANIMAL ID: 234

TRT#: 6

SEX: Female

DAY ON TEST: 29

DOSE: 125mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204468

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Liver

\* Ovary

\* Pancreas

\* Spleen

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Nose

Olfactory Epi

Degeneration

Minimal

---

**Experiment Number:** 07040 - 01

**Test Type:** 28-DAY

**Route:** GAVAGE

**Species/Strain:** RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

**CAS Number:** 375-73-5

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

**Time Report Requested:** 12:38:00

**First Dose M/F:** 01/19/12 / 01/20/12

**Lab:** BAT

---

**ANIMAL ID:** 235

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 125mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204469

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Liver

\* Nose

\* Ovary

\* Pancreas

\* Spleen

\* Thymus

\* Thyroid Gland

---

**Experiment Number:** 07040 - 01

**Test Type:** 28-DAY

**Route:** GAVAGE

**Species/Strain:** RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

**CAS Number:** 375-73-5

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

**Time Report Requested:** 12:38:00

**First Dose M/F:** 01/19/12 / 01/20/12

**Lab:** BAT

---

**ANIMAL ID:** 236

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 125mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204470

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow  
\* Ovary  
\* Thyroid Gland

\* Kidney  
\* Pancreas

\* Liver  
\* Spleen

\* Nose  
\* Thymus

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

ANIMAL ID: 237

TRT#: 6

SEX: Female

DAY ON TEST: 29

DOSE: 125mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204471

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow  
\* Ovary  
\* Thyroid Gland

\* Kidney  
\* Pancreas

\* Liver  
\* Spleen

\* Nose  
\* Thymus

---



Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 238

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 125mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204472

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow  
\* Ovary  
\* Thyroid Gland

\* Kidney  
\* Pancreas

\* Liver  
\* Spleen

\* Nose  
\* Thymus

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

ANIMAL ID: 239

TRT#: 6

SEX: Female

DAY ON TEST: 29

DOSE: 125mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204473

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Liver

\* Ovary

\* Pancreas

\* Spleen

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Nose

Olfactory Epi

Degeneration

Minimal

\* Uterus

Bilateral

Dilation

Mild

[ Dilation TGLs = 1 - 14 ]

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 240

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 125mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204474

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Liver

\* Ovary

\* Pancreas

\* Spleen

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Nose

Olfactory Epi

Degeneration

Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 241

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 250mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204475

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow  
\* Pancreas  
\* Thyroid Gland

\* Kidney  
\* Spleen

\* Liver  
\* Stomach, Forestomach

\* Ovary  
\* Thymus

---

**OBSERVATIONS**

\* Nose

Olfactory Epi  
Olfactory Epi

Degeneration  
Hyperplasia

Minimal  
Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 242

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 250mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204476

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow  
\* Pancreas  
\* Thyroid Gland

\* Kidney  
\* Spleen

\* Liver  
\* Stomach, Forestomach

\* Ovary  
\* Thymus

---

**OBSERVATIONS**

\* Nose

Olfactory Epi  
Olfactory Epi

Degeneration  
Hyperplasia

Mild  
Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 243

TRT#: 8

SEX: Female

DAY ON TEST: 29

DOSE: 250mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204477

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Bone Marrow

\* Kidney

\* Ovary

\* Pancreas

\* Spleen

\* Stomach, Forestomach

\* Thymus

\* Thyroid Gland

**OBSERVATIONS**

\* Liver

Bile Duct

Cyst

[ Cyst TGLs = 1 - 16 ]

\* Nose

Olfactory Epi

Degeneration

Mild

Olfactory Epi

Hyperplasia

Minimal

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 244

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 250mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204478

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow  
\* Pancreas  
\* Thyroid Gland

\* Kidney  
\* Spleen

\* Liver  
\* Stomach, Forestomach

\* Ovary  
\* Thymus

---

**OBSERVATIONS**

\* Nose

Olfactory Epi  
Olfactory Epi

Degeneration  
Hyperplasia

Minimal  
Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

ANIMAL ID: 245

TRT#: 8

SEX: Female

DAY ON TEST: 29

DOSE: 250mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204479

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Liver

\* Ovary

\* Pancreas

\* Spleen

\* Stomach, Forestomach

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronicprogr, Minimal

\* Nose

Olfactory Epi

Degeneration

Minimal

Olfactory Epi

Hyperplasia

Minimal

---



Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 246

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 250mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204480

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Ovary

\* Pancreas

\* Spleen

\* Stomach, Forestomach

\* Thymus

\* Thyroid Gland

---

**OBSERVATIONS**

\* Liver

Infiltration Cellular

Mixed Cell, Minimal

\* Nose

Olfactory Epi

Degeneration

Mild

Olfactory Epi

Hyperplasia

Mild

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 247

TRT#: 8

SEX: Female

DAY ON TEST: 29

DOSE: 250mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204481

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Bone Marrow

\* Liver

\* Ovary

\* Pancreas

\* Spleen

\* Stomach, Forestomach

\* Thymus

\* Thyroid Gland

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronicprogr, Minimal

\* Nose

Olfactory Epi

Degeneration

Minimal

Olfactory Epi

Hyperplasia

Minimal

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

---

**ANIMAL ID:** 248

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 29

**DOSE:** 250mg/kg/d F

**DISP:** Terminal Sacrifice

**HISTO:** 1204482

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Bone Marrow

\* Kidney

\* Liver

\* Nose

\* Ovary

\* Pancreas

\* Spleen

\* Stomach, Forestomach

\* Thymus

\* Thyroid Gland

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 249

TRT#: 8

SEX: Female

DAY ON TEST: 25

DOSE: 250mg/kg/d F

DISP: Natural Death

HISTO: 1204483

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Clitoral Gland            | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Liver                     | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Ovary                  |
| * Pancreas                 | * Pituitary Gland         | * Salivary Glands           | * Spleen                 |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          |
| * Trachea                  | * Urinary Bladder         | * Uterus                    | * Vagina                 |

MISSING

- \* Parathyroid Gland

OBSERVATIONS

- |          |               |              |                       |
|----------|---------------|--------------|-----------------------|
| * Kidney |               | Nephropathy  | Chronicprogr, Minimal |
| * Nose   | Olfactory Epi | Degeneration | Minimal               |
|          | Olfactory Epi | Hyperplasia  | Minimal               |
|          | Olfactory Epi | Inflammation | Suppurative, Minimal  |
| * Skin   |               | Hemorrhage   | Moderate              |

[ Hemorrhage TGLs = 1-16 ]

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

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ANIMAL ID: 250

TRT#: 8

SEX: Female

DAY ON TEST: 29

DOSE: 250mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204484

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Bone Marrow  
\* Pancreas  
\* Thyroid Gland

\* Kidney  
\* Spleen

\* Liver  
\* Stomach, Forestomach

\* Ovary  
\* Thymus

---

**OBSERVATIONS**

\* Nose

Olfactory Epi

Degeneration

Minimal

---

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 251

TRT#: 10

SEX: Female

DAY ON TEST: 29

DOSE: 500mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204485

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus
* Vagina			

**OBSERVATIONS**

* Liver	Hepatocyte	Cytoplasmic Alteration	Minimal
	Hepatocyte	Hypertrophy	Minimal
* Lung		Inflammation	Chronic Active, Minimal
* Nose	Olfactory Epi	Degeneration	Minimal
	Olfactory Epi	Hyperplasia	Minimal

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 252

TRT#: 10

SEX: Female

DAY ON TEST: 29

DOSE: 500mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204486

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Clitoral Gland            | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Kidney                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Ovary                  |
| * Pancreas                 | * Parathyroid Gland       | * Pituitary Gland           | * Salivary Glands        |
| * Skin                     | * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |
| * Uterus                   | * Vagina                  |                             |                          |

**OBSERVATIONS**

- |         |               |                        |         |
|---------|---------------|------------------------|---------|
| * Liver | Hepatocyte    | Cytoplasmic Alteration | Minimal |
| * Nose  | Olfactory Epi | Degeneration           | Minimal |
|         | Olfactory Epi | Hyperplasia            | Minimal |

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 253

TRT#: 10

SEX: Female

DAY ON TEST: 29

DOSE: 500mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204487

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Clitoral Gland            | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Kidney                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Ovary                  |
| * Pancreas                 | * Parathyroid Gland       | * Pituitary Gland           | * Salivary Glands        |
| * Skin                     | * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |
| * Uterus                   | * Vagina                  |                             |                          |

OBSERVATIONS

- |         |               |                        |                      |
|---------|---------------|------------------------|----------------------|
| * Liver | Hepatocyte    | Cytoplasmic Alteration | Minimal              |
|         | Hepatocyte    | Hypertrophy            | Minimal              |
| * Nose  | Olfactory Epi | Degeneration           | Minimal              |
|         | Olfactory Epi | Hyperplasia            | Minimal              |
|         | Olfactory Epi | Inflammation           | Suppurative, Minimal |



Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 254

TRT#: 10

SEX: Female

DAY ON TEST: 29

DOSE: 500mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204488

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus	* Vagina	

**OBSERVATIONS**

* Liver	Hepatocyte	Cytoplasmic Alteration	Minimal
	Hepatocyte	Hypertrophy	Minimal

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 255

TRT#: 10

SEX: Female

DAY ON TEST: 21

DOSE: 500mg/kg/d F

DISP: Natural Death

HISTO: 1204489

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Clitoral Gland            | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Kidney                    | * Liver                  |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Ovary                  |
| * Pancreas                 | * Parathyroid Gland       | * Pituitary Gland           | * Salivary Glands        |
| * Skin                     | * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |
| * Uterus                   | * Vagina                  |                             |                          |

**OBSERVATIONS**

- |        |               |                     |                         |
|--------|---------------|---------------------|-------------------------|
| * Lung |               | Erythrophagocytosis | Minimal                 |
|        |               | Inflammation        | Chronic Active, Minimal |
| * Nose | Olfactory Epi | Degeneration        | Mild                    |
|        | Olfactory Epi | Hyperplasia         | Minimal                 |
|        | Olfactory Epi | Inflammation        | Suppurative, Mild       |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 256

TRT#: 10

SEX: Female

DAY ON TEST: 29

DOSE: 500mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204490

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Clitoral Gland            | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric   | * Mammary Gland           | * Ovary                     | * Pancreas               |
| * Pituitary Gland          | * Salivary Glands         | * Skin                      | * Spleen                 |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          |
| * Trachea                  | * Urinary Bladder         | * Uterus                    | * Vagina                 |

MISSING

- \* Parathyroid Gland

OBSERVATIONS

- |          |               |                        |                       |
|----------|---------------|------------------------|-----------------------|
| * Kidney |               | Nephropathy            | Chronicprogr, Minimal |
| * Liver  | Hepatocyte    | Cytoplasmic Alteration | Minimal               |
|          | Hepatocyte    | Hypertrophy            | Minimal               |
| * Nose   | Olfactory Epi | Degeneration           | Moderate              |
|          | Olfactory Epi | Hyperplasia            | Mild                  |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 257

TRT#: 10

SEX: Female

DAY ON TEST: 29

DOSE: 500mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204491

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel           | * Bone                     |
| * Bone Marrow             | * Brain                     | * Clitoral Gland         | * Eye                      |
| * Harderian Gland         | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Kidney                    | * Lung                   | * Lymph Node, Mandibular   |
| * Lymph Node, Mesenteric  | * Mammary Gland             | * Ovary                  | * Pancreas                 |
| * Parathyroid Gland       | * Pituitary Gland           | * Salivary Glands        | * Skin                     |
| * Spleen                  | * Stomach, Glandular        | * Thymus                 | * Thyroid Gland            |
| * Trachea                 | * Urinary Bladder           | * Uterus                 | * Vagina                   |

**OBSERVATIONS**

- |                        |               |                        |                  |
|------------------------|---------------|------------------------|------------------|
| * Esophagus            |               | Inflammation           | Chronic, Minimal |
| * Liver                | Hepatocyte    | Cytoplasmic Alteration | Minimal          |
|                        | Hepatocyte    | Hypertrophy            | Minimal          |
| * Nose                 | Olfactory Epi | Degeneration           | Moderate         |
|                        | Olfactory Epi | Hyperplasia            | Mild             |
| * Stomach, Forestomach |               | Ulcer                  | Mild             |

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 258

TRT#: 10

SEX: Female

DAY ON TEST: 29

DOSE: 500mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204492

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Clitoral Gland            | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Kidney                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Ovary                  |
| * Pancreas                 | * Parathyroid Gland       | * Pituitary Gland           | * Salivary Glands        |
| * Skin                     | * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |
| * Uterus                   | * Vagina                  |                             |                          |

**OBSERVATIONS**

- |         |               |                        |          |
|---------|---------------|------------------------|----------|
| * Liver | Hepatocyte    | Cytoplasmic Alteration | Minimal  |
|         | Hepatocyte    | Hypertrophy            | Minimal  |
| * Nose  | Olfactory Epi | Degeneration           | Marked   |
|         | Olfactory Epi | Hyperplasia            | Moderate |

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 259

TRT#: 10

SEX: Female

DAY ON TEST: 29

DOSE: 500mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204493

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus	* Vagina		

**OBSERVATIONS**

* Liver	Hepatocyte	Cytoplasmic Alteration	Minimal
	Hepatocyte	Hypertrophy	Minimal
* Nose	Olfactory Epi	Degeneration	Minimal
	Olfactory Epi	Hyperplasia	Minimal

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 260

TRT#: 10

SEX: Female

DAY ON TEST: 29

DOSE: 500mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204494

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Clitoral Gland            | * Esophagus              |
| * Eye                      | * Harderian Gland         | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Kidney                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Ovary                  |
| * Pancreas                 | * Parathyroid Gland       | * Pituitary Gland           | * Salivary Glands        |
| * Skin                     | * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |
| * Uterus                   | * Vagina                  |                             |                          |

**OBSERVATIONS**

- |         |               |                        |         |
|---------|---------------|------------------------|---------|
| * Liver | Hepatocyte    | Cytoplasmic Alteration | Minimal |
|         | Hepatocyte    | Hypertrophy            | Minimal |
| * Nose  | Olfactory Epi | Degeneration           | Minimal |
|         | Olfactory Epi | Hyperplasia            | Minimal |

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 261

TRT#: 12

SEX: Female

DAY ON TEST: 27

DOSE: 1000mg/kg/d F

DISP: Natural Death

HISTO: 1204495

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel           | * Bone                     |
| * Bone Marrow             | * Brain                     | * Clitoral Gland         | * Eye                      |
| * Harderian Gland         | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Kidney                    | * Lung                   | * Lymph Node, Mandibular   |
| * Lymph Node, Mesenteric  | * Mammary Gland             | * Nose                   | * Ovary                    |
| * Pancreas                | * Parathyroid Gland         | * Pituitary Gland        | * Salivary Glands          |
| * Skin                    | * Spleen                    | * Stomach, Forestomach   | * Stomach, Glandular       |
| * Thymus                  | * Thyroid Gland             | * Trachea                | * Urinary Bladder          |
| * Uterus                  | * Vagina                    |                          |                            |

OBSERVATIONS

- |             |            |                        |               |
|-------------|------------|------------------------|---------------|
| * Esophagus |            | Inflammation           | Chronic, Mild |
| * Liver     | Hepatocyte | Cytoplasmic Alteration | Mild          |
|             | Hepatocyte | Hypertrophy            | Mild          |

PRIMARY CAUSE OF DEATH

- UNCERTAIN



Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 262

TRT#: 12

SEX: Female

DAY ON TEST: 22

DOSE: 1000mg/kg/d F

DISP: Natural Death

HISTO: 1204496

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Brain                     | * Clitoral Gland         | * Eye                      | * Harderian Gland         |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Kidney                    | * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  |
| * Mammary Gland             | * Ovary                  | * Pancreas                 | * Parathyroid Gland       |
| * Pituitary Gland           | * Salivary Glands        | * Skin                     | * Spleen                  |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thyroid Gland            | * Trachea                 |
| * Urinary Bladder           | * Uterus                 | * Vagina                   |                           |

OBSERVATIONS

- |               |               |                        |                       |
|---------------|---------------|------------------------|-----------------------|
| * Bone Marrow |               | Hypocellularity        | Mild                  |
| * Esophagus   |               | Inflammation           | Chronic, Minimal      |
| * Liver       | Hepatocyte    | Cytoplasmic Alteration | Moderate              |
|               | Hepatocyte    | Hypertrophy            | Moderate              |
| * Nose        | Olfactory Epi | Degeneration           | Mild                  |
|               | Olfactory Epi | Inflammation           | Suppurative, Moderate |
|               | Olfactory Epi | Necrosis               | Mild                  |
| * Thymus      |               | Atrophy                | Mild                  |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 263

TRT#: 12

SEX: Female

DAY ON TEST: 20

DOSE: 1000mg/kg/d F

DISP: Natural Death

HISTO: 1204497

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel           | * Bone                     |
| * Brain                   | * Clitoral Gland            | * Esophagus              | * Eye                      |
| * Harderian Gland         | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lung                      | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   |
| * Mammary Gland           | * Ovary                     | * Pancreas               | * Parathyroid Gland        |
| * Pituitary Gland         | * Salivary Glands           | * Skin                   | * Spleen                   |
| * Stomach, Forestomach    | * Stomach, Glandular        | * Thyroid Gland          | * Trachea                  |
| * Urinary Bladder         | * Uterus                    | * Vagina                 |                            |

OBSERVATIONS

- |               |               |                        |                       |
|---------------|---------------|------------------------|-----------------------|
| * Bone Marrow |               | Hypocellularity        | Moderate              |
| * Kidney      | Papilla       | Necrosis               | Mild                  |
|               |               | Nephropathy            | Chronicprogr, Minimal |
| * Liver       | Hepatocyte    | Cytoplasmic Alteration | Minimal               |
|               | Hepatocyte    | Hypertrophy            | Minimal               |
| * Nose        | Olfactory Epi | Degeneration           | Mild                  |
|               | Olfactory Epi | Inflammation           | Suppurative, Mild     |
|               | Olfactory Epi | Necrosis               | Minimal               |
| * Thymus      |               | Atrophy                | Moderate              |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 264

TRT#: 12

SEX: Female

DAY ON TEST: 29

DOSE: 1000mg/kg/d F

DISP: Terminal Sacrifice

HISTO: 1204498

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel           | * Bone                     |
| * Brain                   | * Clitoral Gland            | * Esophagus              | * Eye                      |
| * Harderian Gland         | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Kidney                    | * Lung                   | * Lymph Node, Mandibular   |
| * Lymph Node, Mesenteric  | * Mammary Gland             | * Ovary                  | * Pancreas                 |
| * Parathyroid Gland       | * Pituitary Gland           | * Salivary Glands        | * Skin                     |
| * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        | * Uterus                   |
| * Vagina                  |                             |                          |                            |

**OBSERVATIONS**

- |               |               |                        |          |
|---------------|---------------|------------------------|----------|
| * Bone Marrow |               | Hypocellularity        | Mild     |
| * Liver       | Hepatocyte    | Cytoplasmic Alteration | Moderate |
|               | Hepatocyte    | Hypertrophy            | Moderate |
| * Nose        | Olfactory Epi | Degeneration           | Minimal  |



Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 266

TRT#: 12

SEX: Female

DAY ON TEST: 22

DOSE: 1000mg/kg/d F

DISP: Natural Death

HISTO: 1204500

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Brain                     | * Clitoral Gland         | * Esophagus                | * Eye                     |
| * Harderian Gland           | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Kidney                    | * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  |
| * Mammary Gland             | * Ovary                  | * Pancreas                 | * Parathyroid Gland       |
| * Pituitary Gland           | * Salivary Glands        | * Skin                     | * Spleen                  |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        | * Uterus                   | * Vagina                  |

OBSERVATIONS

- |               |               |                        |                       |
|---------------|---------------|------------------------|-----------------------|
| * Bone Marrow |               | Hypocellularity        | Moderate              |
| * Heart       |               | Cardiomyopathy         | Minimal               |
| * Liver       | Hepatocyte    | Cytoplasmic Alteration | Mild                  |
|               | Hepatocyte    | Hypertrophy            | Mild                  |
| * Nose        | Olfactory Epi | Degeneration           | Marked                |
|               | Olfactory Epi | Inflammation           | Suppurative, Moderate |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 267

TRT#: 12

SEX: Female

DAY ON TEST: 16

DOSE: 1000mg/kg/d F

DISP: Natural Death

HISTO: 1204501

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                             |                      |                     |
|--------------------------|-----------------------------|----------------------|---------------------|
| * Adrenal Cortex         | * Adrenal Medulla           | * Blood Vessel       | * Bone              |
| * Brain                  | * Esophagus                 | * Eye                | * Harderian Gland   |
| * Heart                  | * Intestine Small, Duodenum | * Islets, Pancreatic | * Lung              |
| * Lymph Node, Mandibular | * Mammary Gland             | * Pancreas           | * Parathyroid Gland |
| * Pituitary Gland        | * Salivary Glands           | * Skin               | * Spleen            |
| * Stomach, Forestomach   | * Stomach, Glandular        | * Thyroid Gland      | * Trachea           |

MISSING

- |                          |                            |                          |                           |
|--------------------------|----------------------------|--------------------------|---------------------------|
| * Clitoral Gland         | * Intestine Large, Cecum   | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lymph Node, Mesenteric | * Ovary                   |
| * Urinary Bladder        | * Uterus                   | * Vagina                 |                           |

OBSERVATIONS

- |               |               |                        |                       |
|---------------|---------------|------------------------|-----------------------|
| * Bone Marrow |               | Hypocellularity        | Marked                |
| * Kidney      | Papilla       | Necrosis               | Mild                  |
|               |               | Nephropathy            | Chronicprogr, Minimal |
| * Liver       | Hepatocyte    | Cytoplasmic Alteration | Minimal               |
|               | Hepatocyte    | Hypertrophy            | Minimal               |
| * Nose        | Olfactory Epi | Inflammation           | Suppurative, Moderate |
|               | Olfactory Epi | Necrosis               | Moderate              |
| * Thymus      |               | Atrophy                | Marked                |

[ Atrophy TGLs = 1 - 6 ]

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 268

TRT#: 12

SEX: Female

DAY ON TEST: 23

DOSE: 1000mg/kg/d F

DISP: Natural Death

HISTO: 1204502

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel           | * Bone                     |
| * Brain                   | * Clitoral Gland            | * Esophagus              | * Eye                      |
| * Harderian Gland         | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lung                      | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   |
| * Mammary Gland           | * Ovary                     | * Pancreas               | * Parathyroid Gland        |
| * Pituitary Gland         | * Salivary Glands           | * Skin                   | * Spleen                   |
| * Stomach, Forestomach    | * Stomach, Glandular        | * Thyroid Gland          | * Trachea                  |
| * Urinary Bladder         | * Uterus                    | * Vagina                 |                            |

OBSERVATIONS

- |               |               |                        |                       |
|---------------|---------------|------------------------|-----------------------|
| * Bone Marrow |               | Hypocellularity        | Moderate              |
| * Kidney      | Papilla       | Necrosis               | Minimal               |
|               |               | Nephropathy            | Chronicprogr, Minimal |
| * Liver       | Hepatocyte    | Cytoplasmic Alteration | Mild                  |
|               | Hepatocyte    | Hypertrophy            | Minimal               |
|               |               | Necrosis               | Minimal               |
| * Nose        | Olfactory Epi | Degeneration           | Mild                  |
|               | Olfactory Epi | Hyperplasia            | Minimal               |
|               | Olfactory Epi | Inflammation           | Suppurative, Moderate |
|               | Olfactory Epi | Necrosis               | Minimal               |
| * Thymus      |               | Atrophy                | Moderate              |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 269

TRT#: 12

SEX: Female

DAY ON TEST: 21

DOSE: 1000mg/kg/d F

DISP: Natural Death

HISTO: 1204503

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel           | * Bone                     |
| * Brain                   | * Clitoral Gland            | * Esophagus              | * Eye                      |
| * Harderian Gland         | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lung                      | * Lymph Node, Mesenteric | * Mammary Gland            |
| * Ovary                   | * Pancreas                  | * Parathyroid Gland      | * Pituitary Gland          |
| * Salivary Glands         | * Skin                      | * Spleen                 | * Stomach, Forestomach     |
| * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          | * Trachea                  |
| * Urinary Bladder         | * Uterus                    | * Vagina                 |                            |

OBSERVATIONS

- |                          |               |                        |                       |
|--------------------------|---------------|------------------------|-----------------------|
| * Bone Marrow            |               | Hypocellularity        | Mild                  |
| * Kidney                 | Papilla       | Necrosis               | Minimal               |
| * Liver                  | Hepatocyte    | Cytoplasmic Alteration | Minimal               |
|                          | Hepatocyte    | Hypertrophy            | Minimal               |
| * Lymph Node, Mandibular |               | Necrosis               | Lymphoid, Minimal     |
| * Nose                   | Olfactory Epi | Hyperplasia            | Mild                  |
|                          | Olfactory Epi | Inflammation           | Suppurative, Moderate |
|                          | Olfactory Epi | Necrosis               | Moderate              |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 07040 - 01

Test Type: 28-DAY

Route: GAVAGE

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Perfluorobutane sulfonate (PFBS)

CAS Number: 375-73-5

Date Report Requested: 02/06/2018

Time Report Requested: 12:38:00

First Dose M/F: 01/19/12 / 01/20/12

Lab: BAT

ANIMAL ID: 270

TRT#: 12

SEX: Female

DAY ON TEST: 27

DOSE: 1000mg/kg/d F

DISP: Natural Death

HISTO: 1204504

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel           | * Bone                     |
| * Brain                   | * Clitoral Gland            | * Esophagus              | * Eye                      |
| * Harderian Gland         | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Kidney                    | * Lung                   | * Lymph Node, Mandibular   |
| * Lymph Node, Mesenteric  | * Mammary Gland             | * Ovary                  | * Pancreas                 |
| * Parathyroid Gland       | * Pituitary Gland           | * Salivary Glands        | * Skin                     |
| * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        | * Uterus                   |
| * Vagina                  |                             |                          |                            |

OBSERVATIONS

- |               |               |                        |                   |
|---------------|---------------|------------------------|-------------------|
| * Bone Marrow |               | Hypocellularity        | Marked            |
| * Liver       | Hepatocyte    | Cytoplasmic Alteration | Marked            |
|               | Hepatocyte    | Hypertrophy            | Marked            |
|               |               | Necrosis               | Minimal           |
| * Nose        | Olfactory Epi | Degeneration           | Minimal           |
|               | Olfactory Epi | Hyperplasia            | Minimal           |
|               | Olfactory Epi | Inflammation           | Suppurative, Mild |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

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