

**Experiment Number:** 20614 - 01  
**Test Type:** CHRONIC  
**Route:** DOSED FEED  
**Species/Strain:** RATS/HSD

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**  
Perfluorooctanoic Acid  
**CAS Number:** 335-67-1

**Date Report Requested:** 09/16/2018  
**Time Report Requested:** 10:34:35  
**First Dose M/F:** 10/27/08 / 10/28/08  
**Lab:** BAT

Uterine section report with litter -- 0-0, 0-300, 0-1000

<b>NTP Study Number:</b>	C20614		
<b>Lock Date:</b>	01/10/2012		
<b>Cage Range:</b>	ALL		
<b>Date Range:</b>	ALL		
<b>Reasons For Removal:</b>	25021 TSAC	25020 NATD	25019 MSAC
	25016 Aborted		
<b>Removal Date Range:</b>	ALL		
<b>Treatment Groups:</b>	Include 002 0/0 ppm	Include 004 0/300 ppm	Include 008 0/1000 ppm
<b>Study Gender:</b>	Both		
<b>TDMSE Version:</b>	2.5.0.0_sfh		
<b>PWG Approval Date:</b>	07/25/2018		

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**SUMMARY OF STATISTICALLY SIGNIFICANT ( $P \leq .05$ ) RESULTS IN THE ANALYSIS OF PERFLUOROOCCTANOIC ACID**

**FEMALE RATS**

**Organ**

Uterus (Standard Evaluation)  
Uterus (Longitudinal Evaluation)  
Uterus (Standard or Longitudinal Evaluation)  
Uterus (Standard Evaluation)  
Uterus (Longitudinal Evaluation)  
Uterus (Standard or Longitudinal Evaluation)

**Morphology**

Carcinoma  
Carcinoma  
Carcinoma  
Carcinoma or Adenoma  
Carcinoma or Adenoma  
Carcinoma or Adenoma

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**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(HSD)  
TERMINAL SACRIFICE AT 107 WEEKS**

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DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Standard Evaluation)</b>			
<b>Adenoma</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)
LITTERS (b)	0/32 (0%)	1/29 (3%)	0/31 (0%)
POLY-3 RATE (c)	0/36.81	1/41.88	0/36.88
POLY-3 PERCENT (g)	0%	2.4%	0%
TERMINAL (d)	0/23 (0%)	1/28 (4%)	0/23 (0%)
FIRST INCIDENCE	---	744 (T)	---
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.699N	P=0.526	(e)
POLY 1.5	P=0.702N	P=0.516	(e)
POLY 6	P=0.693N	P=0.535	(e)
RAO-SCOTT	P=0.713N	P=0.593	(e)
LITTER C-A/FISHERS	P=0.698N	P=0.475	(e)

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**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(HSD)  
TERMINAL SACRIFICE AT 107 WEEKS**

---

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Longitudinal Evaluation)</b>			
<b>Adenoma</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)
LITTERS (b)	1/32 (3%)	0/29 (0%)	0/31 (0%)
POLY-3 RATE (c)	1/36.81	0/41.88	0/36.88
POLY-3 PERCENT (g)	2.7%	0%	0%
TERMINAL (d)	1/23 (4%)	0/28 (0%)	0/23 (0%)
FIRST INCIDENCE	744 (T)	---	---
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.440N	P=0.474N	P=0.500N
POLY 1.5	P=0.434N	P=0.484N	P=0.504N
POLY 6	P=0.448N	P=0.464N	P=0.491N
RAO-SCOTT	P=0.512N	P=0.576N	P=0.573N
LITTER C-A/FISHERS	P=0.423N	P=0.525N	P=0.508N

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**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(HSD)  
TERMINAL SACRIFICE AT 107 WEEKS**

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Standard or Longitudinal Evaluation)</b>			
<b>Adenoma</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)
LITTERS (b)	1/32 (3%)	1/29 (3%)	0/31 (0%)
POLY-3 RATE (c)	1/36.81	1/41.88	0/36.88
POLY-3 PERCENT (g)	2.7%	2.4%	0%
TERMINAL (d)	1/23 (4%)	1/28 (4%)	0/23 (0%)
FIRST INCIDENCE	744 (T)	744 (T)	---
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.367N	P=0.732N	P=0.500N
POLY 1.5	P=0.367N	P=0.742N	P=0.504N
POLY 6	P=0.363N	P=0.720N	P=0.491N
RAO-SCOTT	P=0.374N	P=0.712N	P=0.485N
LITTER C-A/FISHERS	P=0.359N	P=0.729	P=0.508N

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**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(HSD)  
TERMINAL SACRIFICE AT 107 WEEKS**

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Standard Evaluation)</b>			
<b>Carcinoma</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	0/50 (0%)	1/50 (2%)	4/50 (8%)
LITTERS (b)	0/32 (0%)	1/29 (3%)	4/31 (13%)
POLY-3 RATE (c)	0/36.81	1/41.88	4/37.30
POLY-3 PERCENT (g)	0%	2.4%	10.7%
TERMINAL (d)	0/23 (0%)	1/28 (4%)	1/23 (4%)
FIRST INCIDENCE	---	744 (T)	652
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.024*	P=0.526	P=0.060
POLY 1.5	P=0.023*	P=0.516	P=0.058
POLY 6	P=0.026*	P=0.535	P=0.067
RAO-SCOTT	P=0.048*	P=0.554	P=0.102
LITTER C-A/FISHERS	P=0.026*	P=0.475	P=0.053

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**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(HSD)  
TERMINAL SACRIFICE AT 107 WEEKS**

---

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Longitudinal Evaluation)</b>			
<b>Carcinoma</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	1/50 (2%)	5/50 (10%)	8/50 (16%)
LITTERS (b)	1/32 (3%)	5/29 (17%)	7/31 (23%)
POLY-3 RATE (c)	1/36.81	5/42.06	8/37.58
POLY-3 PERCENT (g)	2.7%	11.9%	21.3%
TERMINAL (d)	1/23 (4%)	4/28 (14%)	4/23 (17%)
FIRST INCIDENCE	744 (T)	695	652
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.016*	P=0.134	P=0.015*
POLY 1.5	P=0.015*	P=0.121	P=0.014*
POLY 6	P=0.020*	P=0.149	P=0.019*
RAO-SCOTT	P=0.028*	P=0.164	P=0.031*
LITTER C-A/FISHERS	P=0.036*	P=0.077	P=0.024*

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DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Standard or Longitudinal Evaluation)</b>			
<b>Carcinoma</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	1/50 (2%)	5/50 (10%)	8/50 (16%)
LITTERS (b)	1/32 (3%)	5/29 (17%)	7/31 (23%)
POLY-3 RATE (c)	1/36.81	5/42.06	8/37.58
POLY-3 PERCENT (g)	2.7%	11.9%	21.3%
TERMINAL (d)	1/23 (4%)	4/28 (14%)	4/23 (17%)
FIRST INCIDENCE	744 (T)	695	652
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.016*	P=0.134	P=0.015*
POLY 1.5	P=0.015*	P=0.121	P=0.014*
POLY 6	P=0.020*	P=0.149	P=0.019*
RAO-SCOTT	P=0.028*	P=0.164	P=0.031*
LITTER C-A/FISHERS	P=0.036*	P=0.077	P=0.024*



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TERMINAL SACRIFICE AT 107 WEEKS**

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Standard Evaluation)</b>			
<b>Carcinoma or Adenoma</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	0/50 (0%)	2/50 (4%)	4/50 (8%)
LITTERS (b)	0/32 (0%)	2/29 (7%)	4/31 (13%)
POLY-3 RATE (c)	0/36.81	2/41.88	4/37.30
POLY-3 PERCENT (g)	0%	4.8%	10.7%
TERMINAL (d)	0/23 (0%)	2/28 (7%)	1/23 (4%)
FIRST INCIDENCE	---	744 (T)	652
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.048*	P=0.267	P=0.060
POLY 1.5	P=0.046*	P=0.256	P=0.058
POLY 6	P=0.053	P=0.279	P=0.067
RAO-SCOTT	P=0.066	P=0.292	P=0.086
LITTER C-A/FISHERS	P=0.049*	P=0.222	P=0.053

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 TERMINAL SACRIFICE AT 107 WEEKS**

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Longitudinal Evaluation)</b>			
<b>Carcinoma or Adenoma</b>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	2/50 (4%)	5/50 (10%)	8/50 (16%)
LITTERS (b)	2/32 (6%)	5/29 (17%)	7/31 (23%)
POLY-3 RATE (c)	2/36.81	5/42.06	8/37.58
POLY-3 PERCENT (g)	5.4%	11.9%	21.3%
TERMINAL (d)	2/23 (9%)	4/28 (14%)	4/23 (17%)
FIRST INCIDENCE	744 (T)	695	652
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.038*	P=0.272	P=0.045*
POLY 1.5	P=0.035*	P=0.251	P=0.041*
POLY 6	P=0.044*	P=0.297	P=0.054
RAO-SCOTT	P=0.052	P=0.289	P=0.065
LITTER C-A/FISHERS	P=0.074	P=0.173	P=0.067

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TERMINAL SACRIFICE AT 107 WEEKS**

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Standard or Longitudinal Evaluation)</b>			
<b>Carcinoma or Adenoma</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	2/50 (4%)	5/50 (10%)	8/50 (16%)
LITTERS (b)	2/32 (6%)	5/29 (17%)	7/31 (23%)
POLY-3 RATE (c)	2/36.81	5/42.06	8/37.58
POLY-3 PERCENT (g)	5.4%	11.9%	21.3%
TERMINAL (d)	2/23 (9%)	4/28 (14%)	4/23 (17%)
FIRST INCIDENCE	744 (T)	695	652
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.038*	P=0.272	P=0.045*
POLY 1.5	P=0.035*	P=0.251	P=0.041*
POLY 6	P=0.044*	P=0.297	P=0.054
RAO-SCOTT	P=0.052	P=0.289	P=0.065
LITTER C-A/FISHERS	P=0.074	P=0.173	P=0.067

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TERMINAL SACRIFICE AT 107 WEEKS**

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Standard Evaluation)</b>			
<b>Lymphoma</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)
LITTERS (b)	1/32 (3%)	1/29 (3%)	0/31 (0%)
POLY-3 RATE (c)	1/37.44	1/42.38	0/36.88
POLY-3 PERCENT (g)	2.7%	2.4%	0%
TERMINAL (d)	0/23 (0%)	0/28 (0%)	0/23 (0%)
FIRST INCIDENCE	533	589	---
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.370N	P=0.733N	P=0.503N
POLY 1.5	P=0.369N	P=0.743N	P=0.506N
POLY 6	P=0.368N	P=0.721N	P=0.497N
RAO-SCOTT	P=0.385N	P=0.720N	P=0.502N
LITTER C-A/FISHERS	P=0.359N	P=0.729	P=0.508N

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TERMINAL SACRIFICE AT 107 WEEKS**

---

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Longitudinal Evaluation)</b>			
<b>Lymphoma</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)
LITTERS (b)	1/32 (3%)	1/29 (3%)	0/31 (0%)
POLY-3 RATE (c)	1/37.44	1/42.38	0/36.88
POLY-3 PERCENT (g)	2.7%	2.4%	0%
TERMINAL (d)	0/23 (0%)	0/28 (0%)	0/23 (0%)
FIRST INCIDENCE	533	589	---
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.370N	P=0.733N	P=0.503N
POLY 1.5	P=0.369N	P=0.743N	P=0.506N
POLY 6	P=0.368N	P=0.721N	P=0.497N
RAO-SCOTT	P=0.385N	P=0.720N	P=0.502N
LITTER C-A/FISHERS	P=0.359N	P=0.729	P=0.508N

---

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TERMINAL SACRIFICE AT 107 WEEKS**

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Standard or Longitudinal Evaluation)</b>			
<b>Lymphoma</b>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)
LITTERS (b)	1/32 (3%)	1/29 (3%)	0/31 (0%)
POLY-3 RATE (c)	1/37.44	1/42.38	0/36.88
POLY-3 PERCENT (g)	2.7%	2.4%	0%
TERMINAL (d)	0/23 (0%)	0/28 (0%)	0/23 (0%)
FIRST INCIDENCE	533	589	---
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.370N	P=0.733N	P=0.503N
POLY 1.5	P=0.369N	P=0.743N	P=0.506N
POLY 6	P=0.368N	P=0.721N	P=0.497N
RAO-SCOTT	P=0.385N	P=0.720N	P=0.502N
LITTER C-A/FISHERS	P=0.359N	P=0.729	P=0.508N

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TERMINAL SACRIFICE AT 107 WEEKS**

---

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Standard Evaluation)</b>			
<b>Polyp, Stromal</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	6/50 (12%)	4/50 (8%)	5/50 (10%)
LITTERS (b)	5/32 (16%)	4/29 (14%)	5/31 (16%)
POLY-3 RATE (c)	6/37.44	4/42.06	5/37.09
POLY-3 PERCENT (g)	16%	9.5%	13.5%
TERMINAL (d)	4/23 (17%)	3/28 (11%)	3/23 (13%)
FIRST INCIDENCE	574	695	695
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.547N	P=0.296N	P=0.507N
POLY 1.5	P=0.546N	P=0.322N	P=0.518N
POLY 6	P=0.537N	P=0.271N	P=0.482N
RAO-SCOTT	P=0.530N	P=0.307N	P=0.494N
LITTER C-A/FISHERS	P=0.552	P=0.565N	P=0.613

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---

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm

---

**Uterus (Longitudinal Evaluation)**  
**Polyp, Stromal**

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TUMOR RATES	#	#	#
OVERALL (a)	16/50 (32%)	11/50 (22%)	13/50 (26%)
LITTERS (b)	13/32 (41%)	10/29 (34%)	12/31 (39%)
POLY-3 RATE (c)	16/38.62	11/43.02	13/37.80
POLY-3 PERCENT (g)	41.4%	25.6%	34.4%
TERMINAL (d)	9/23 (39%)	9/28 (32%)	9/23 (39%)
FIRST INCIDENCE	574	250	540

---

**STATISTICAL TESTS**

POLY 3	P=0.445N	P=0.095N	P=0.342N
POLY 1.5	P=0.443N	P=0.118N	P=0.357N
POLY 6	P=0.431N	P=0.081N	P=0.318N
RAO-SCOTT	P=0.434N	P=0.110N	P=0.343N
LITTER C-A/FISHERS	P=0.550N	P=0.410N	P=0.541N

---



Experiment Number: 20614 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 09/16/2018

Time Report Requested: 10:34:35

First Dose M/F: 10/27/08 / 10/28/08

Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(HSD)  
TERMINAL SACRIFICE AT 107 WEEKS**

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Standard or Longitudinal Evaluation)</b>			
<b>Polyp, Stromal</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	16/50 (32%)	11/50 (22%)	13/50 (26%)
LITTERS (b)	13/32 (41%)	10/29 (34%)	12/31 (39%)
POLY-3 RATE (c)	16/38.62	11/43.02	13/37.80
POLY-3 PERCENT (g)	41.4%	25.6%	34.4%
TERMINAL (d)	9/23 (39%)	9/28 (32%)	9/23 (39%)
FIRST INCIDENCE	574	250	540
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.445N	P=0.095N	P=0.342N
POLY 1.5	P=0.443N	P=0.118N	P=0.357N
POLY 6	P=0.431N	P=0.081N	P=0.318N
RAO-SCOTT	P=0.434N	P=0.110N	P=0.343N
LITTER C-A/FISHERS	P=0.550N	P=0.410N	P=0.541N

Experiment Number: 20614 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 09/16/2018

Time Report Requested: 10:34:35

First Dose M/F: 10/27/08 / 10/28/08

Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(HSD)  
TERMINAL SACRIFICE AT 107 WEEKS**

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Standard Evaluation)</b>			
<b>Sarcoma Stromal</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)
LITTERS (b)	0/32 (0%)	0/29 (0%)	1/31 (3%)
POLY-3 RATE (c)	0/36.81	0/41.88	1/37.15
POLY-3 PERCENT (g)	0%	0%	2.7%
TERMINAL (d)	0/23 (0%)	0/28 (0%)	0/23 (0%)
FIRST INCIDENCE	---	---	669
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.302	(e)	P=0.502
POLY 1.5	P=0.298	(e)	P=0.497
POLY 6	P=0.310	(e)	P=0.511
RAO-SCOTT	P=0.409	(e)	P=0.578
LITTER C-A/FISHERS	P=0.302	(e)	P=0.492

Experiment Number: 20614 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 09/16/2018

Time Report Requested: 10:34:35

First Dose M/F: 10/27/08 / 10/28/08

Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(HSD)  
TERMINAL SACRIFICE AT 107 WEEKS**

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Longitudinal Evaluation)</b>			
<b>Sarcoma Stromal</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	2/50 (4%)
LITTERS (b)	1/32 (3%)	0/29 (0%)	2/31 (6%)
POLY-3 RATE (c)	1/37.07	0/41.88	2/37.15
POLY-3 PERCENT (g)	2.7%	0%	5.4%
TERMINAL (d)	0/23 (0%)	0/28 (0%)	1/23 (4%)
FIRST INCIDENCE	673	---	669
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.301	P=0.476N	P=0.501
POLY 1.5	P=0.301	P=0.484N	P=0.494
POLY 6	P=0.305	P=0.467N	P=0.515
RAO-SCOTT	P=0.332	P=0.500N	P=0.502
LITTER C-A/FISHERS	P=0.311	P=0.525N	P=0.488

Experiment Number: 20614 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 09/16/2018

Time Report Requested: 10:34:35

First Dose M/F: 10/27/08 / 10/28/08

Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(HSD)  
TERMINAL SACRIFICE AT 107 WEEKS**

---

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Standard or Longitudinal Evaluation)</b>			
<b>Sarcoma Stromal</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	2/50 (4%)
LITTERS (b)	1/32 (3%)	0/29 (0%)	2/31 (6%)
POLY-3 RATE (c)	1/37.07	0/41.88	2/37.15
POLY-3 PERCENT (g)	2.7%	0%	5.4%
TERMINAL (d)	0/23 (0%)	0/28 (0%)	1/23 (4%)
FIRST INCIDENCE	673	---	669
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.301	P=0.476N	P=0.501
POLY 1.5	P=0.301	P=0.484N	P=0.494
POLY 6	P=0.305	P=0.467N	P=0.515
RAO-SCOTT	P=0.332	P=0.500N	P=0.502
LITTER C-A/FISHERS	P=0.311	P=0.525N	P=0.488

---

Experiment Number: 20614 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 09/16/2018

Time Report Requested: 10:34:35

First Dose M/F: 10/27/08 / 10/28/08

Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(HSD)  
TERMINAL SACRIFICE AT 107 WEEKS**

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Standard Evaluation)</b>			
<b>Sarcoma Stromal or Polyp Stromal</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	6/50 (12%)	4/50 (8%)	6/50 (12%)
LITTERS (b)	5/32 (16%)	4/29 (14%)	5/31 (16%)
POLY-3 RATE (c)	6/37.44	4/42.06	6/37.36
POLY-3 PERCENT (g)	16%	9.5%	16.1%
TERMINAL (d)	4/23 (17%)	3/28 (11%)	3/23 (13%)
FIRST INCIDENCE	574	695	669
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.494	P=0.296N	P=0.622
POLY 1.5	P=0.490	P=0.322N	P=0.607
POLY 6	P=0.511	P=0.271N	P=0.596N
RAO-SCOTT	P=0.498	P=0.323N	P=0.605
LITTER C-A/FISHERS	P=0.552	P=0.565N	P=0.613

Experiment Number: 20614 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 09/16/2018

Time Report Requested: 10:34:35

First Dose M/F: 10/27/08 / 10/28/08

Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(HSD)  
TERMINAL SACRIFICE AT 107 WEEKS**

---

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm

---

**Uterus (Longitudinal Evaluation)**  
**Sarcoma Stromal or Polyp Stromal**

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TUMOR RATES	#	#	#
OVERALL (a)	16/50 (32%)	11/50 (22%)	15/50 (30%)
LITTERS (b)	13/32 (41%)	10/29 (34%)	13/31 (42%)
POLY-3 RATE (c)	16/38.62	11/43.02	15/38.07
POLY-3 PERCENT (g)	41.4%	25.6%	39.4%
TERMINAL (d)	9/23 (39%)	9/28 (32%)	10/23 (44%)
FIRST INCIDENCE	574	250	540

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**STATISTICAL TESTS**

POLY 3	P=0.481	P=0.095N	P=0.521N
POLY 1.5	P=0.479	P=0.118N	P=0.537N
POLY 6	P=0.502	P=0.081N	P=0.488N
RAO-SCOTT	P=0.483	P=0.114N	P=0.509N
LITTER C-A/FISHERS	P=0.477	P=0.410N	P=0.560

---

Experiment Number: 20614 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 09/16/2018

Time Report Requested: 10:34:35

First Dose M/F: 10/27/08 / 10/28/08

Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(HSD)  
TERMINAL SACRIFICE AT 107 WEEKS**

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Uterus (Standard or Longitudinal Evaluation)</b>			
<b>Sarcoma Stromal or Polyp Stromal</b>			
<b>TUMOR RATES</b>			
	#	#	#
OVERALL (a)	16/50 (32%)	11/50 (22%)	15/50 (30%)
LITTERS (b)	13/32 (41%)	10/29 (34%)	13/31 (42%)
POLY-3 RATE (c)	16/38.62	11/43.02	15/38.07
POLY-3 PERCENT (g)	41.4%	25.6%	39.4%
TERMINAL (d)	9/23 (39%)	9/28 (32%)	10/23 (44%)
FIRST INCIDENCE	574	250	540
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.481	P=0.095N	P=0.521N
POLY 1.5	P=0.479	P=0.118N	P=0.537N
POLY 6	P=0.502	P=0.081N	P=0.488N
RAO-SCOTT	P=0.483	P=0.114N	P=0.509N
LITTER C-A/FISHERS	P=0.477	P=0.410N	P=0.560

Experiment Number: 20614 - 01  
 Test Type: CHRONIC  
 Route: DOSED FEED  
 Species/Strain: RATS/HSD

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Perfluorooctanoic Acid  
 CAS Number: 335-67-1

Date Report Requested: 09/16/2018  
 Time Report Requested: 10:34:35  
 First Dose M/F: 10/27/08 / 10/28/08  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(HSD)  
 TERMINAL SACRIFICE AT 107 WEEKS**

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Vagina (Longitudinal Evaluation)</b>			
<b>Granular Cell Tumor</b>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	2/50 (4%)	1/50 (2%)	4/50 (8%)
LITTERS (b)	2/32 (6%)	1/29 (3%)	4/31 (13%)
POLY-3 RATE (c)	2/36.96	1/41.88	4/37.67
POLY-3 PERCENT (g)	5.4%	2.4%	10.6%
TERMINAL (d)	1/23 (4%)	1/28 (4%)	2/23 (9%)
FIRST INCIDENCE	705	744 (T)	505
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.189	P=0.456N	P=0.344
POLY 1.5	P=0.187	P=0.472N	P=0.332
POLY 6	P=0.196	P=0.441N	P=0.366
RAO-SCOTT	P=0.206	P=0.449N	P=0.344
LITTER C-A/FISHERS	P=0.194	P=0.537N	P=0.321



Experiment Number: 20614 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 09/16/2018

Time Report Requested: 10:34:35

First Dose M/F: 10/27/08 / 10/28/08

Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(HSD)  
TERMINAL SACRIFICE AT 107 WEEKS**

---

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Vagina (Standard or Longitudinal Evaluation)</b>			
<b>Granular Cell Tumor</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	2/50 (4%)	1/50 (2%)	4/50 (8%)
LITTERS (b)	2/32 (6%)	1/29 (3%)	4/31 (13%)
POLY-3 RATE (c)	2/36.96	1/41.88	4/37.67
POLY-3 PERCENT (g)	5.4%	2.4%	10.6%
TERMINAL (d)	1/23 (4%)	1/28 (4%)	2/23 (9%)
FIRST INCIDENCE	705	744 (T)	505
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.189	P=0.456N	P=0.344
POLY 1.5	P=0.187	P=0.472N	P=0.332
POLY 6	P=0.196	P=0.441N	P=0.366
RAO-SCOTT	P=0.206	P=0.449N	P=0.344
LITTER C-A/FISHERS	P=0.194	P=0.537N	P=0.321

---

Experiment Number: 20614 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 09/16/2018

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First Dose M/F: 10/27/08 / 10/28/08

Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(HSD)  
TERMINAL SACRIFICE AT 107 WEEKS**

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Vagina (Standard Evaluation)</b>			
<b>Squamous Cell Carcinoma</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)
LITTERS (b)	0/32 (0%)	0/29 (0%)	1/31 (3%)
POLY-3 RATE (c)	0/36.81	0/41.88	1/37.15
POLY-3 PERCENT (g)	0%	0%	2.7%
TERMINAL (d)	0/23 (0%)	0/28 (0%)	0/23 (0%)
FIRST INCIDENCE	---	---	669
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.302	(e)	P=0.502
POLY 1.5	P=0.298	(e)	P=0.497
POLY 6	P=0.310	(e)	P=0.511
RAO-SCOTT	P=0.409	(e)	P=0.578
LITTER C-A/FISHERS	P=0.302	(e)	P=0.492

Experiment Number: 20614 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 09/16/2018

Time Report Requested: 10:34:35

First Dose M/F: 10/27/08 / 10/28/08

Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(HSD)  
TERMINAL SACRIFICE AT 107 WEEKS**

---

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Vagina (Standard or Longitudinal Evaluation)</b>			
<b>Squamous Cell Carcinoma</b>			
<hr/>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)
LITTERS (b)	0/32 (0%)	0/29 (0%)	1/31 (3%)
POLY-3 RATE (c)	0/36.81	0/41.88	1/37.15
POLY-3 PERCENT (g)	0%	0%	2.7%
TERMINAL (d)	0/23 (0%)	0/28 (0%)	0/23 (0%)
FIRST INCIDENCE	---	---	669
<hr/>			
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.302	(e)	P=0.502
POLY 1.5	P=0.298	(e)	P=0.497
POLY 6	P=0.310	(e)	P=0.511
RAO-SCOTT	P=0.409	(e)	P=0.578
LITTER C-A/FISHERS	P=0.302	(e)	P=0.492

---

Experiment Number: 20614 - 01  
 Test Type: CHRONIC  
 Route: DOSED FEED  
 Species/Strain: RATS/HSD

P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS  
 Perfluorooctanoic Acid  
 CAS Number: 335-67-1

Date Report Requested: 09/16/2018  
 Time Report Requested: 10:34:35  
 First Dose M/F: 10/27/08 / 10/28/08  
 Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(HSD)  
 TERMINAL SACRIFICE AT 107 WEEKS**

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm
<b>Vagina (Longitudinal Evaluation)</b>			
<b>Squamous Cell Papilloma</b>			
<b>TUMOR RATES</b>	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)
LITTERS (b)	0/32 (0%)	0/29 (0%)	1/31 (3%)
POLY-3 RATE (c)	0/36.81	0/41.88	1/36.88
POLY-3 PERCENT (g)	0%	0%	2.7%
TERMINAL (d)	0/23 (0%)	0/28 (0%)	1/23 (4%)
FIRST INCIDENCE	---	---	744 (T)
<b>STATISTICAL TESTS</b>			
POLY 3	P=0.300	(e)	P=0.500
POLY 1.5	P=0.298	(e)	P=0.496
POLY 6	P=0.307	(e)	P=0.509
RAO-SCOTT	P=0.417	(e)	P=0.586
LITTER C-A/FISHERS	P=0.302	(e)	P=0.492

Experiment Number: 20614 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 09/16/2018

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First Dose M/F: 10/27/08 / 10/28/08

Lab: BAT

**STATISTICAL ANALYSIS OF PRIMARY TUMORS IN RATS(HSD)  
TERMINAL SACRIFICE AT 107 WEEKS**

---

DOSE	Females		
	0/0 ppm	0/300 ppm	0/1000 ppm

---

Vagina (Standard or Longitudinal Evaluation)  
Squamous Cell Papilloma

---

TUMOR RATES	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)
LITTERS (b)	0/32 (0%)	0/29 (0%)	1/31 (3%)
POLY-3 RATE (c)	0/36.81	0/41.88	1/36.88
POLY-3 PERCENT (g)	0%	0%	2.7%
TERMINAL (d)	0/23 (0%)	0/28 (0%)	1/23 (4%)
FIRST INCIDENCE	---	---	744 (T)

---

**STATISTICAL TESTS**

POLY 3	P=0.300	(e)	P=0.500
POLY 1.5	P=0.298	(e)	P=0.496
POLY 6	P=0.307	(e)	P=0.509
RAO-SCOTT	P=0.417	(e)	P=0.586
LITTER C-A/FISHERS	P=0.302	(e)	P=0.492

---

Experiment Number: 20614 - 01

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P08: STATISTICAL ANALYSIS OF PRIMARY TUMORS**

Perfluorooctanoic Acid

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Date Report Requested: 09/16/2018

Time Report Requested: 10:34:35

First Dose M/F: 10/27/08 / 10/28/08

Lab: BAT

**LEGEND**

- (a) Number of tumor-bearing animals/number of animals examined at site.
- (b) Number of litters with tumor-bearing animals/number of litters examined at site
- (c) Number of tumor-bearing animals/Poly-3 number
- (d) Observed incidence at terminal kill.
- (e) Value of statistic cannot be computed.
- (f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group.
- (g) Poly-3 adjusted lifetime tumor incidence.
- (I) Interim sacrifice
- (T) Terminal sacrifice
- # Tumor rates based on numbers of animals necropsied.
- \* To the right of any statistical result, indicates significance at ( $P \leq 0.05$ ).
- \*\* To the right of any statistical result, indicates significance at ( $P \leq 0.01$ ).
- N Indicates a negative trend for all tests  
The Rao-Scott statistic performs the Poly-3 test with an adjustment for within-litter correlation.  
The Litter C-A/Fishers statistic compares directly the litter incidence rates.

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