

**Experiment Number:** C20617

**Test Type:** TOX

**Route:** Oral Gavage

**Species/Strain:** Rat/Harlan Sprague Dawley

**C Number:**

C20617

**Cage Range:**

All

**Date Range:**

All

**Reasons For Removal:**

All

**Removal Date Range:**

All

**Treatment Groups:**

All

**Study Gender:**

Both

**R07: Hormone Summary**

**Test Compound:** Perfluorooctane Sulfonate

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

**Date Report Requested:** 12/14/2016

**Time Report Requested:** 15:10:57

**Lab:** Battelle

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Male

Terminal Sacrifice	Treatment Groups (mg/kg/day)				
	0	0.312	0.625	1.25	2.5
SD 28 - 28 Testosterone (ng/mL)	3.775 ± 0.754 (10)	5.812 ± 1.602 (10)	5.074 ± 1.718 (9)	4.432 ± 1.721 (10)	5.576 ± 1.167 (10)
SD 28 - 28 Thyroid Stimulating Hormone (ng/mL)	20.390 ± 1.396 (10)	14.938 ± 1.741 (10)	14.789 ± 1.199 (9)	23.330 ± 2.942 (10)	24.190 ± 3.376 (10)
SD 28 - 28 Triiodothyronine (ng/dL)	87.370 ± 5.318 (10) **	77.810 ± 5.443 (10)	60.630 ± 4.642 (10) **	57.500 ± 2.665 (10) **	55.350 ± 2.750 (10) **
SD 28 - 28 Free Thyroxine (ng/dL)	2.534 ± 0.216 (10) **	0.952 ± 0.099 (10) **	0.469 ± 0.054 (10) **	0.398 ± 0.022 (10) **	0.355 ± 0.050 (10) **
SD 28 - 28 Total Thyroxine (ug/dL)	3.510 ± 0.301 (10) **	1.330 ± 0.193 (10) **	0.530 ± 0.087 (10) **	0.260 ± 0.070 (10) **	0.220 ± 0.042 (10) **

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**Male**

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<b>Terminal Sacrifice</b>	<b>Treatment Groups (mg/kg/day)</b>
	<b>5</b>
SD 28 - 28 Testosterone (ng/mL)	1.867 ± 0.367 (10)
SD 28 - 28 Thyroid Stimulating Hormone (ng/mL)	18.900 ± 2.394 (10)
SD 28 - 28 Triiodothyronine (ng/dL)	50.000 ± 0.000 (10) **
SD 28 - 28 Free Thyroxine (ng/dL)	0.328 ± 0.011 (10) **
SD 28 - 28 Total Thyroxine (ug/dL)	0.480 ± 0.070 (10) **

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Female

Terminal Sacrifice	Treatment Groups (mg/kg/day)				
	0	0.312	0.625	1.25	2.5
SD 28 - 28 Testosterone (ng/mL)	0.432 ± 0.121 (10) *	0.399 ± 0.042 (10)	0.510 ± 0.060 (10)	0.591 ± 0.069 (10) *	0.593 ± 0.065 (9) *
SD 28 - 28 Thyroid Stimulating Hormone (ng/mL)	12.858 ± 0.734 (10)	14.762 ± 0.875 (10)	12.764 ± 0.849 (10)	13.254 ± 1.145 (10)	14.914 ± 1.945 (9)
SD 28 - 28 Triiodothyronine (ng/dL)	93.050 ± 5.039 (10) **	81.400 ± 3.020 (10)	72.520 ± 4.267 (10) **	69.200 ± 3.632 (10) **	62.030 ± 1.776 (10) **
SD 28 - 28 Free Thyroxine (ng/dL)	1.740 ± 0.231 (10) **	1.069 ± 0.089 (10) **	0.699 ± 0.034 (10) **	0.643 ± 0.052 (10) **	0.561 ± 0.047 (10) **
SD 28 - 28 Total Thyroxine (ug/dL)	2.210 ± 0.235 (10) **	1.110 ± 0.123 (10) **	0.550 ± 0.073 (10) **	0.330 ± 0.067 (10) **	0.350 ± 0.087 (10) **

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Female

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Terminal Sacrifice	Treatment Groups (mg/kg/day)
	5
SD 28 - 28 Testosterone (ng/mL)	0.451 ± 0.051 (9)
SD 28 - 28 Thyroid Stimulating Hormone (ng/mL)	15.356 ± 0.728 (9)
SD 28 - 28 Triiodothyronine (ng/dL)	51.567 ± 1.434 (9) **
SD 28 - 28 Free Thyroxine (ng/dL)	0.479 ± 0.030 (9) **
SD 28 - 28 Total Thyroxine (ug/dL)	0.378 ± 0.046 (9) **

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LEGEND

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Data are displayed as mean  $\pm$  SEM (N)

Statistical analysis performed by Jonckheere (trend) and Shirley or Dunn (pairwise) tests

Statistical significance for a treatment group indicates a significant pairwise test compared to the vehicle control group

Statistical significance for the control group indicates a significant trend test

\* Statistically significant at  $P \leq 0.05$

\*\* Statistically significant at  $P \leq 0.01$

SD – Study Day; GD – Gestation Day; LD – Lactation Day; PND – Postnatal Day, adults post-weaning

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