

**Experiment Number:** C91070B

**Test Type:** TOX

**Route:** Oral Gavage

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

**PA41: Clinical Chemistry Summary**

**Test Compound:** Perfluorooctanoic Acid

**CAS Number:** 335-67-1

**Date Report Requested:** 04/04/2018

**Time Report Requested:** 13:53:27

**Lab:** Battelle

**C Number:**

C91070B

**Cage Range:**

All

**Date Range:**

All

**Reasons For Removal:**

All

**Removal Date Range:**

All

**Treatment Groups:**

All

**Study Gender:**

Male

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**Male**

	Phase Day	Treatment Groups (mg/kg/day)									
		0	0.625	1.25	2.5	5					
Urea Nitrogen (mg/dL)	SD 28	16.6 ± 0.4 (10) **	15.9 ± 0.7 (10)	20.3 ± 0.5 (10) **	19.6 ± 1.0 (10) **	18.1 ± 0.9 (10) *					
Percent of Control			95.8	122.3	118.1	109.0					
Creatinine (mg/dL)	SD 28	0.77 ± 0.04 (10) **	0.70 ± 0.00 (10) *	0.69 ± 0.01 (10) **	0.70 ± 0.01 (10) *	0.65 ± 0.02 (10) **					
Percent of Control			90.91	89.61	90.91	84.42					
Glucose (mg/dL)	SD 28	195.7 ± 8.4 (10) **	183.4 ± 9.0 (10)	186.5 ± 8.0 (10)	168.2 ± 8.0 (10) *	155.8 ± 3.9 (10) **					
Percent of Control			93.7	95.3	85.9	79.6					
Total Protein (g/dL)	SD 28	6.64 ± 0.09 (10) **	6.00 ± 0.09 (10) **	5.92 ± 0.05 (10) **	5.98 ± 0.06 (10) **	5.79 ± 0.08 (10) **					
Percent of Control			90.36	89.16	90.06	87.20					
Globulin (g/dL)	SD 28	2.30 ± 0.06 (10) **	1.70 ± 0.05 (10) **	1.57 ± 0.06 (10) **	1.52 ± 0.04 (10) **	1.34 ± 0.05 (10) **					
Percent of Control			73.91	68.26	66.09	58.26					
A/G Ratio	SD 28	1.89 ± 0.04 (10) **	2.54 ± 0.06 (10) **	2.81 ± 0.13 (10) **	2.95 ± 0.08 (10) **	3.36 ± 0.14 (10) **					
Percent of Control			134.23	148.50	155.64	177.49					
Albumin (g/dL)	SD 28	4.34 ± 0.04 (10) *	4.30 ± 0.05 (10)	4.35 ± 0.05 (10)	4.46 ± 0.06 (10)	4.45 ± 0.08 (10)					
Percent of Control			99.08	100.23	102.76	102.53					
Total Bilirubin (mg/dL)	SD 28	0.157 ± 0.010 (10)	0.129 ± 0.006 (10)	0.119 ± 0.005 (10) *	0.150 ± 0.021 (10)	0.122 ± 0.005 (10) *					
Percent of Control			82.077	75.690	95.746	77.670					
Direct Bilirubin (mg/dL)	SD 28	0.021 ± 0.002 (10) **	0.017 ± 0.001 (10)	0.021 ± 0.002 (10)	0.022 ± 0.003 (10)	0.026 ± 0.002 (10)					
Percent of Control			80.288	101.442	103.365	123.077					
Indirect Bilirubin (mg/dL)	SD 28	0.136 ± 0.008 (10) *	0.112 ± 0.007 (10)	0.097 ± 0.005 (10) **	0.128 ± 0.020 (10)	0.096 ± 0.006 (10) **					
Percent of Control			82.351	71.744	94.579	70.713					
Cholesterol (mg/dL)	SD 28	113.9 ± 6.4 (10)	71.8 ± 2.3 (10) **	78.8 ± 3.9 (10) **	76.2 ± 3.2 (10) **	79.9 ± 4.5 (10) **					
Percent of Control			63.0	69.2	66.9	70.1					

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	Phase Day	Treatment Groups (mg/kg/day)									
		0	0.625	1.25	2.5	5					
Triglyceride (mg/dL)	SD 28	138.3 ± 12.3 (10) **	100.7 ± 7.5 (10) *	82.5 ± 6.6 (10) **	81.7 ± 5.7 (10) **	82.0 ± 5.4 (10) **					
Percent of Control			72.8		59.7		59.1		59.3		
Alanine Aminotransferase (IU/L)	SD 28	57.40 ± 3.18 (10) **	68.10 ± 3.48 (10) *	64.60 ± 2.87 (10) *	73.20 ± 4.73 (10) **	70.40 ± 2.46 (10) **					
Percent of Control			118.64		112.54		127.53		122.65		
Alkaline Phosphatase (IU/L)	SD 28	207.3 ± 9.1 (10) **	233.2 ± 7.8 (10) *	237.6 ± 12.2 (10) *	316.0 ± 10.6 (10) **	356.4 ± 11.9 (10) **					
Percent of Control			112.5		114.6		152.4		171.9		
Aspartate Aminotransferase (U/L)	SD 28	66.50 ± 2.58 (10) **	70.70 ± 2.28 (10)	67.70 ± 2.21 (10)	82.40 ± 4.74 (10) **	74.20 ± 2.50 (10) *					
Percent of Control			106.32		101.80		123.91		111.58		
Creatine Kinase (IU/L)	SD 28	125.1 ± 9.1 (10) **	124.7 ± 8.4 (10)	104.9 ± 4.9 (10)	100.9 ± 4.7 (10) *	96.5 ± 6.0 (10) **					
Percent of Control			99.7		83.9		80.7		77.1		
Sorbitol Dehydrogenase (IU/L)	SD 28	11.8 ± 1.6 (10)	11.4 ± 0.5 (10)	11.8 ± 1.2 (10)	12.7 ± 1.0 (10)	9.7 ± 0.8 (10)					
Percent of Control			96.6		100.0		107.6		82.2		
Bile salt/acids (umol/L)	SD 28	12.3 ± 2.8 (10) **	9.6 ± 2.4 (10)	22.5 ± 3.5 (10)	22.0 ± 3.6 (10)	28.0 ± 3.6 (10) **					
Percent of Control			78.0		182.9		178.9		227.6		

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	Phase Day	Treatment Groups		
		10		
Urea Nitrogen (mg/dL)	SD 28	20.1	± 1.2	(10) *
Percent of Control		121.1		
Creatinine (mg/dL)	SD 28	0.65	± 0.02	(10) **
Percent of Control		84.42		
Glucose (mg/dL)	SD 28	141.4	± 5.2	(10) **
Percent of Control		72.3		
Total Protein (g/dL)	SD 28	5.81	± 0.16	(10) **
Percent of Control		87.50		
Globulin (g/dL)	SD 28	1.35	± 0.06	(10) **
Percent of Control		58.70		
A/G Ratio	SD 28	3.34	± 0.11	(10) **
Percent of Control		176.40		
Albumin (g/dL)	SD 28	4.46	± 0.11	(10)
Percent of Control		102.76		
Total Bilirubin (mg/dL)	SD 28	0.145	± 0.012	(10)
Percent of Control		92.552		
Direct Bilirubin (mg/dL)	SD 28	0.032	± 0.004	(10) *
Percent of Control		154.808		
Indirect Bilirubin (mg/dL)	SD 28	0.113	± 0.010	(10)
Percent of Control		83.014		
Cholesterol (mg/dL)	SD 28	99.8	± 4.5	(10)
Percent of Control		87.6		

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**Male**

**Treatment Groups**

**Phase Day**

**10**

Triglyceride (mg/dL)	SD 28	78.1	$\pm$	5.4	(10) **
Percent of Control		56.5			
Alanine Aminotransferase (IU/L)	SD 28	83.50	$\pm$	11.21	(10) **
Percent of Control		145.47			
Alkaline Phosphatase (IU/L)	SD 28	391.9	$\pm$	40.4	(10) **
Percent of Control		189.0			
Aspartate Aminotransferase (U/L)	SD 28	93.30	$\pm$	13.71	(10) **
Percent of Control		140.30			
Creatine Kinase (IU/L)	SD 28	106.3	$\pm$	5.8	(10) *
Percent of Control		85.0			
Sorbitol Dehydrogenase (IU/L)	SD 28	16.3	$\pm$	4.4	(10)
Percent of Control		138.1			
Bile salt/acids (umol/L)	SD 28	55.4	$\pm$	16.1	(10) **
Percent of Control		450.4			

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#### LEGEND

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Values given as mean  $\pm$  SEM (N) with Percent of Control calculated by (dosed group mean / control group mean)  $\times$  100

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

Clinical Chemistry for gestation phase includes pregnant females only

Statistical analysis performed by Jonckheere (trend) and Shirley or Dunn (pairwise) tests (unless otherwise noted).

Statistical significance for the control group indicates a significant trend test

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

\* Statistically significant at  $P \leq 0.05$

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

Indirect Bilirubin calculated as Total Bilirubin - Direct Bilirubin.

\*\* END OF REPORT \*\*