

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

PA43: Hematology Summary

Test Compound: Perfluorooctane Sulfonate

CAS Number: 1763-23-1

Date Report Requested: 12/14/2016

Time Report Requested: 15:10:47

Lab: Battelle

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Lab: Battelle

Male

Treatment Groups

	Phase Day	0 mg/kg/day	0.312 mg/kg/day	0.625 mg/kg/day	1.25 mg/kg/day
Hematocrit (%)	SD 28	52.5 ± 0.5 (10)	52.9 ± 0.5 (10)	53.3 ± 0.3 (10)	52.8 ± 0.7 (10)
Percent of Control			101	102	101
Manual Hematocrit (%)	SD 28	47 ± 1 (10)	47 ± 0 (10)	47 ± 1 (10)	48 ± 1 (10)
Percent of Control			100	100	100
Hemoglobin (g/dL)	SD 28	15.8 ± 0.2 (10) *	16.0 ± 0.1 (10)	16.0 ± 0.1 (10)	16.0 ± 0.2 (10)
Percent of Control			101	102	101
Red Blood Cells (M/uL)	SD 28	8.86 ± 0.13 (10)	8.73 ± 0.13 (10)	8.87 ± 0.08 (10)	8.95 ± 0.11 (10)
Percent of Control			98	100	101
Reticulocytes (K/uL)	SD 28	181.1 ± 6.1 (10) **	169.4 ± 11.6 (9)	156.9 ± 8.0 (10)	154.2 ± 9.0 (8)
Percent of Control			94	87	85
Mean Cell Volume (fL)	SD 28	59.4 ± 0.6 (10)	60.7 ± 0.7 (10)	60.2 ± 0.5 (10)	59.0 ± 0.4 (10)
Percent of Control			102	101	99
Mean Cell Hemoglobin (pg)	SD 28	17.9 ± 0.2 (10)	18.3 ± 0.2 (10)	18.1 ± 0.2 (10)	17.9 ± 0.1 (10)
Percent of Control			103	101	100
Mean Cell Hemoglobin Concentration (g/dL)	SD 28	30.1 ± 0.1 (10)	30.1 ± 0.1 (10)	30.1 ± 0.2 (10)	30.3 ± 0.1 (10)
Percent of Control			100	100	101
Platelets (K/uL)	SD 28	852 ± 35 (10)	778 ± 26 (10)	727 ± 44 (10)	846 ± 44 (10)
Percent of Control			91	85	99
White Blood Cells (K/uL)	SD 28	12.84 ± 0.61 (10) **	14.18 ± 0.64 (10)	11.42 ± 0.64 (10)	11.15 ± 0.71 (10)
Percent of Control			110	89	87
Neutrophils (K/uL)	SD 28	1.31 ± 0.11 (10) **	1.28 ± 0.09 (9)	1.17 ± 0.06 (10)	1.22 ± 0.13 (8)
Percent of Control			98	89	93

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Male

Treatment Groups

	Phase Day	0 mg/kg/day	0.312 mg/kg/day	0.625 mg/kg/day	1.25 mg/kg/day
Lymphocytes (K/uL)	SD 28	11.15 ± 0.51 (10) *	12.42 ± 0.68 (9)	9.88 ± 0.60 (10)	10.18 ± 0.64 (8)
Percent of Control			111	89	91
Total Lymphocytes (K/uL)	SD 28	11.22 ± 0.52 (10) *	12.50 ± 0.69 (9)	9.94 ± 0.60 (10)	10.24 ± 0.65 (8)
Percent of Control			111	89	91
Monocytes (K/uL)	SD 28	0.19 ± 0.02 (10)	0.28 ± 0.04 (9)	0.20 ± 0.02 (10)	0.16 ± 0.02 (8)
Percent of Control			144	102	82
Basophils (K/uL)	SD 28	0.02 ± 0.00 (10)	0.02 ± 0.00 (9)	0.02 ± 0.00 (10)	0.02 ± 0.00 (8)
Percent of Control			124	118	88
Eosinophils (K/uL)	SD 28	0.10 ± 0.01 (10) **	0.09 ± 0.01 (9)	0.10 ± 0.01 (10)	0.09 ± 0.01 (8)
Percent of Control			92	98	87

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Male

	Phase Day	Treatment Groups	
		2.5 mg/kg/day	5 mg/kg/day
Hematocrit (%)	SD 28	52.0 ± 0.9 (10)	50.9 ± 0.7 (10)
Percent of Control		99	97
Manual Hematocrit (%)	SD 28	47 ± 1 (10)	46 ± 1 (10)
Percent of Control		99	97
Hemoglobin (g/dL)	SD 28	15.6 ± 0.3 (10)	15.3 ± 0.2 (10)
Percent of Control		99	97
Red Blood Cells (M/uL)	SD 28	8.65 ± 0.15 (10)	8.54 ± 0.10 (10)
Percent of Control		98	96
Reticulocytes (K/uL)	SD 28	140.0 ± 10.3 (10) **	104.4 ± 7.2 (10) **
Percent of Control		77	58
Mean Cell Volume (fL)	SD 28	60.2 ± 0.5 (10)	59.7 ± 0.4 (10)
Percent of Control		101	101
Mean Cell Hemoglobin (pg)	SD 28	18.1 ± 0.1 (10)	17.9 ± 0.1 (10)
Percent of Control		101	100
Mean Cell Hemoglobin Concentration (g/dL)	SD 28	30.0 ± 0.2 (10)	30.0 ± 0.2 (10)
Percent of Control		100	100
Platelets (K/uL)	SD 28	805 ± 27 (10)	889 ± 30 (10)
Percent of Control		94	104
White Blood Cells (K/uL)	SD 28	12.24 ± 0.63 (10)	10.72 ± 0.64 (10) *
Percent of Control		95	83
Neutrophils (K/uL)	SD 28	1.17 ± 0.05 (10)	0.97 ± 0.06 (10) *
Percent of Control		90	74

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Male

	Phase Day	Treatment Groups	
		2.5 mg/kg/day	5 mg/kg/day
Lymphocytes (K/uL)	SD 28	10.70 ± 0.57 (10)	9.49 ± 0.57 (10)
Percent of Control		96	85
Total Lymphocytes (K/uL)	SD 28	10.77 ± 0.58 (10)	9.54 ± 0.57 (10)
Percent of Control		96	85
Monocytes (K/uL)	SD 28	0.21 ± 0.02 (10)	0.15 ± 0.03 (10)
Percent of Control		112	79
Basophils (K/uL)	SD 28	0.02 ± 0.00 (10)	0.01 ± 0.00 (10)
Percent of Control		94	82
Eosinophils (K/uL)	SD 28	0.07 ± 0.01 (10)	0.04 ± 0.01 (10) **
Percent of Control		68	39

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Female

Treatment Groups

	Phase Day	0 mg/kg/day	0.312 mg/kg/day	0.625 mg/kg/day	1.25 mg/kg/day
Hematocrit (%)	SD 28	45.7 ± 0.5 (10)	46.8 ± 0.6 (10)	48.3 ± 0.5 (10) *	47.8 ± 0.4 (10)
Percent of Control			102	106	104
Manual Hematocrit (%)	SD 28	41 ± 0 (10)	43 ± 1 (10)	43 ± 0 (10) *	43 ± 0 (10) *
Percent of Control			104	106	106
Hemoglobin (g/dL)	SD 28	13.9 ± 0.1 (10)	14.2 ± 0.2 (10)	14.6 ± 0.1 (10) **	14.3 ± 0.1 (10)
Percent of Control			103	105	104
Red Blood Cells (M/uL)	SD 28	7.60 ± 0.14 (10)	7.74 ± 0.11 (10)	8.05 ± 0.10 (10)	8.07 ± 0.11 (10)
Percent of Control			102	106	106
Reticulocytes (K/uL)	SD 28	218.3 ± 25.2 (10) **	208.5 ± 14.0 (10)	214.3 ± 15.9 (10)	164.7 ± 8.7 (10)
Percent of Control			95	98	75
Mean Cell Volume (fL)	SD 28	60.3 ± 0.5 (10)	60.4 ± 0.4 (10)	60.1 ± 0.3 (10)	59.2 ± 0.4 (10)
Percent of Control			100	100	98
Mean Cell Hemoglobin (pg)	SD 28	18.3 ± 0.2 (10) *	18.4 ± 0.2 (10)	18.1 ± 0.1 (10)	17.8 ± 0.1 (10)
Percent of Control			101	99	97
Mean Cell Hemoglobin Concentration (g/dL)	SD 28	30.3 ± 0.1 (10)	30.4 ± 0.1 (10)	30.2 ± 0.1 (10)	30.0 ± 0.1 (10)
Percent of Control			100	100	99
Platelets (K/uL)	SD 28	1037 ± 46 (10)	966 ± 44 (10)	975 ± 28 (10)	1017 ± 38 (10)
Percent of Control			93	94	98
White Blood Cells (K/uL)	SD 28	8.71 ± 0.62 (10)	7.63 ± 0.51 (10)	7.50 ± 0.79 (10)	7.55 ± 0.45 (10)
Percent of Control			88	86	87
Neutrophils (K/uL)	SD 28	0.68 ± 0.07 (10)	0.62 ± 0.07 (10)	0.60 ± 0.07 (10)	0.62 ± 0.05 (10)
Percent of Control			92	89	92

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Female

Treatment Groups

	Phase Day	0 mg/kg/day	0.312 mg/kg/day	0.625 mg/kg/day	1.25 mg/kg/day
Lymphocytes (K/uL)	SD 28	7.73 ± 0.56 (10)	6.77 ± 0.43 (10)	6.66 ± 0.69 (10)	6.67 ± 0.40 (10)
Percent of Control			88	86	86
Total Lymphocytes (K/uL)	SD 28	7.78 ± 0.56 (10)	6.81 ± 0.43 (10)	6.69 ± 0.70 (10)	6.71 ± 0.40 (10)
Percent of Control			87	86	86
Monocytes (K/uL)	SD 28	0.16 ± 0.02 (10)	0.14 ± 0.02 (10)	0.14 ± 0.02 (10)	0.14 ± 0.02 (10)
Percent of Control			90	90	89
Basophils (K/uL)	SD 28	0.01 ± 0.00 (10)	0.00 ± 0.00 (10)	0.01 ± 0.00 (10)	0.01 ± 0.00 (10)
Percent of Control			67	117	83
Eosinophils (K/uL)	SD 28	0.09 ± 0.01 (10)	0.06 ± 0.01 (10)	0.06 ± 0.01 (10)	0.07 ± 0.01 (10)
Percent of Control			62	67	79

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Female

	Phase Day	Treatment Groups	
		2.5 mg/kg/day	5 mg/kg/day
Hematocrit (%)	SD 28	47.3 ± 0.6 (10)	46.0 ± 1.3 (9)
Percent of Control		103	101
Manual Hematocrit (%)	SD 28	43 ± 1 (10)	41 ± 1 (9)
Percent of Control		104	101
Hemoglobin (g/dL)	SD 28	14.3 ± 0.2 (10)	14.0 ± 0.4 (9)
Percent of Control		103	101
Red Blood Cells (M/uL)	SD 28	7.94 ± 0.09 (10)	7.79 ± 0.23 (9)
Percent of Control		105	103
Reticulocytes (K/uL)	SD 28	132.8 ± 11.2 (10) **	112.0 ± 10.3 (9) **
Percent of Control		61	51
Mean Cell Volume (fL)	SD 28	59.6 ± 0.6 (10)	59.1 ± 0.5 (9)
Percent of Control		99	98
Mean Cell Hemoglobin (pg)	SD 28	18.0 ± 0.2 (10)	18.0 ± 0.2 (9)
Percent of Control		99	98
Mean Cell Hemoglobin Concentration (g/dL)	SD 28	30.3 ± 0.1 (10)	30.4 ± 0.1 (9)
Percent of Control		100	100
Platelets (K/uL)	SD 28	1019 ± 48 (10)	904 ± 40 (9)
Percent of Control		98	87
White Blood Cells (K/uL)	SD 28	7.07 ± 0.44 (10)	7.57 ± 0.63 (9)
Percent of Control		81	87
Neutrophils (K/uL)	SD 28	0.54 ± 0.08 (10)	0.64 ± 0.10 (9)
Percent of Control		80	95

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Female

	Phase Day	Treatment Groups	
		2.5 mg/kg/day	5 mg/kg/day
Lymphocytes (K/uL)	SD 28	6.28 ± 0.38 (10)	6.67 ± 0.59 (9)
Percent of Control		81	86
Total Lymphocytes (K/uL)	SD 28	6.32 ± 0.39 (10)	6.70 ± 0.59 (9)
Percent of Control		81	86
Monocytes (K/uL)	SD 28	0.13 ± 0.02 (10)	0.15 ± 0.03 (9)
Percent of Control		85	98
Basophils (K/uL)	SD 28	0.01 ± 0.00 (10)	0.01 ± 0.00 (9)
Percent of Control		100	111
Eosinophils (K/uL)	SD 28	0.06 ± 0.01 (10)	0.06 ± 0.01 (9)
Percent of Control		67	65

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LEGEND

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

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

Hematology for gestation phase includes pregnant females only

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

Statistical significance for the control group indicates a significant trend test

* Statistically significant at $P \leq 0.05$

** Statistically significant at $P \leq 0.01$

**** END OF REPORT ****