

Experiment Number: C07040

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

C Number:

C07040

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: Perfluorobutane sulfonate

CAS Number: 375-73-5

Date Report Requested: 12/14/2016

Time Report Requested: 15:10:33

Lab: Battelle

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Lab: Battelle

Male

Treatment Groups

	Phase Day	0 mg/kg/day	62.6 mg/kg/day	125 mg/kg/day	250 mg/kg/day
Hematocrit (%)	SD 28	52.1 ± 0.7 (9) **	50.5 ± 0.4 (10) *	50.3 ± 0.6 (10) *	49.9 ± 0.5 (10) **
Percent of Control			97	97	96
Manual Hematocrit (%)	SD 28	47 ± 1 (9) *	46 ± 1 (10)	45 ± 1 (10)	45 ± 1 (10)
Percent of Control			97	96	96
Hemoglobin (g/dL)	SD 28	15.6 ± 0.2 (9) **	15.3 ± 0.1 (10)	15.1 ± 0.2 (10) *	15.0 ± 0.1 (10) *
Percent of Control			98	97	96
Red Blood Cells (M/uL)	SD 28	8.80 ± 0.08 (9) **	8.50 ± 0.08 (10) *	8.50 ± 0.10 (10) *	8.40 ± 0.12 (10) **
Percent of Control			97	97	95
Reticulocytes (K/uL)	SD 28	200.1 ± 6.3 (9) **	179.1 ± 8.4 (10)	175.2 ± 8.1 (10) *	161.0 ± 8.4 (10) **
Percent of Control			89	88	80
Mean Cell Volume (fL)	SD 28	59.1 ± 0.6 (9)	59.5 ± 0.3 (10)	59.2 ± 0.6 (10)	59.5 ± 0.5 (10)
Percent of Control			101	100	101
Mean Cell Hemoglobin (pg)	SD 28	17.7 ± 0.2 (9)	18.0 ± 0.1 (10)	17.8 ± 0.1 (10)	17.9 ± 0.1 (10)
Percent of Control			102	100	101
Mean Cell Hemoglobin Concentration (g/dL)	SD 28	29.9 ± 0.1 (9)	30.2 ± 0.1 (10) *	30.0 ± 0.1 (10)	30.1 ± 0.1 (10)
Percent of Control			101	100	101
Platelets (K/uL)	SD 28	902 ± 32 (9)	937 ± 33 (10)	897 ± 46 (10)	965 ± 19 (10)
Percent of Control			104	99	107
White Blood Cells (K/uL)	SD 28	12.26 ± 0.73 (9)	11.44 ± 0.57 (10)	11.28 ± 0.74 (10)	11.48 ± 0.67 (10)
Percent of Control			93	92	94
Neutrophils (K/uL)	SD 28	1.64 ± 0.51 (9)	1.03 ± 0.09 (10)	1.09 ± 0.09 (10)	1.17 ± 0.05 (10)
Percent of Control			63	66	71

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Treatment Groups

	Phase Day	0 mg/kg/day	62.6 mg/kg/day	125 mg/kg/day	250 mg/kg/day
Lymphocytes (K/uL)	SD 28	10.18 ± 0.38 (9)	10.08 ± 0.49 (10)	9.83 ± 0.67 (10)	9.97 ± 0.67 (10)
Percent of Control			99	97	98
Total Lymphocytes (K/uL)	SD 28	10.25 ± 0.38 (9)	10.14 ± 0.50 (10)	9.88 ± 0.67 (10)	10.03 ± 0.67 (10)
Percent of Control			99	96	98
Monocytes (K/uL)	SD 28	0.23 ± 0.02 (9)	0.19 ± 0.03 (10)	0.21 ± 0.03 (10)	0.21 ± 0.03 (10)
Percent of Control			85	91	93
Basophils (K/uL)	SD 28	0.02 ± 0.00 (9)	0.02 ± 0.00 (10)	0.02 ± 0.00 (10)	0.02 ± 0.00 (10)
Percent of Control			116	116	109
Eosinophils (K/uL)	SD 28	0.12 ± 0.01 (9) **	0.07 ± 0.01 (10) *	0.07 ± 0.01 (10) *	0.05 ± 0.01 (10) **
Percent of Control			60	61	47

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Treatment Groups

	Phase Day	500 mg/kg/day
Hematocrit (%)	SD 28	47.9 ± 0.5 (10) **
Percent of Control		92
Manual Hematocrit (%)	SD 28	44 ± 1 (10)
Percent of Control		95
Hemoglobin (g/dL)	SD 28	14.4 ± 0.2 (10) **
Percent of Control		93
Red Blood Cells (M/uL)	SD 28	8.10 ± 0.11 (10) **
Percent of Control		92
Reticulocytes (K/uL)	SD 28	137.6 ± 9.5 (10) **
Percent of Control		69
Mean Cell Volume (fL)	SD 28	59.3 ± 0.5 (10)
Percent of Control		100
Mean Cell Hemoglobin (pg)	SD 28	17.9 ± 0.1 (10)
Percent of Control		101
Mean Cell Hemoglobin Concentration (g/dL)	SD 28	30.2 ± 0.1 (10)
Percent of Control		101
Platelets (K/uL)	SD 28	850 ± 28 (10)
Percent of Control		94
White Blood Cells (K/uL)	SD 28	10.78 ± 0.47 (10)
Percent of Control		88
Neutrophils (K/uL)	SD 28	1.22 ± 0.15 (10)
Percent of Control		74

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Treatment Groups

	Phase Day	500 mg/kg/day
Lymphocytes (K/uL)	SD 28	9.21 ± 0.38 (10)
Percent of Control		90
Total Lymphocytes (K/uL)	SD 28	9.25 ± 0.38 (10)
Percent of Control		90
Monocytes (K/uL)	SD 28	0.25 ± 0.04 (10)
Percent of Control		108
Basophils (K/uL)	SD 28	0.01 ± 0.00 (10)
Percent of Control		77
Eosinophils (K/uL)	SD 28	0.05 ± 0.01 (10) **
Percent of Control		46

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Female

Treatment Groups

	Phase Day	0 mg/kg/day	62.6 mg/kg/day	125 mg/kg/day	250 mg/kg/day
Hematocrit (%)	SD 28	45.8 ± 0.3 (10)	45.1 ± 0.6 (10)	45.0 ± 0.5 (10)	45.3 ± 0.9 (9)
Percent of Control			98	98	99
Manual Hematocrit (%)	SD 28	41 ± 1 (10)	41 ± 1 (10)	41 ± 1 (10)	42 ± 1 (9)
Percent of Control			99	99	102
Hemoglobin (g/dL)	SD 28	14.0 ± 0.1 (10)	13.8 ± 0.2 (10)	13.7 ± 0.1 (10)	13.6 ± 0.3 (9)
Percent of Control			99	98	98
Red Blood Cells (M/uL)	SD 28	7.57 ± 0.07 (10)	7.55 ± 0.12 (10)	7.64 ± 0.08 (10)	7.76 ± 0.18 (9)
Percent of Control			100	101	103
Reticulocytes (K/uL)	SD 28	208.5 ± 16.6 (10) **	181.2 ± 10.5 (10)	152.1 ± 6.3 (10) **	122.4 ± 17.7 (9) **
Percent of Control			87	73	59
Mean Cell Volume (fL)	SD 28	60.6 ± 0.4 (10)	59.7 ± 0.4 (10)	59.0 ± 0.4 (10) *	58.5 ± 0.5 (9) *
Percent of Control			99	97	96
Mean Cell Hemoglobin (pg)	SD 28	18.5 ± 0.1 (10) *	18.3 ± 0.1 (10)	18.0 ± 0.1 (10)	17.6 ± 0.2 (9) **
Percent of Control			99	97	95
Mean Cell Hemoglobin Concentration (g/dL)	SD 28	30.5 ± 0.2 (10)	30.6 ± 0.1 (10)	30.5 ± 0.1 (10)	30.1 ± 0.1 (9)
Percent of Control			100	100	99
Platelets (K/uL)	SD 28	1043 ± 35 (10)	947 ± 34 (10)	1060 ± 34 (10)	1095 ± 42 (9)
Percent of Control			91	102	105
White Blood Cells (K/uL)	SD 28	8.11 ± 0.73 (10)	8.72 ± 0.59 (10)	7.46 ± 0.46 (10)	7.57 ± 0.61 (9)
Percent of Control			108	92	93
Neutrophils (K/uL)	SD 28	0.64 ± 0.12 (10)	0.66 ± 0.08 (10)	0.58 ± 0.05 (10)	0.62 ± 0.08 (9)
Percent of Control			103	90	96

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Female

	Phase Day	Treatment Groups			
		0 mg/kg/day	62.6 mg/kg/day	125 mg/kg/day	250 mg/kg/day
Lymphocytes (K/uL)	SD 28	7.20 ± 0.64 (10)	7.79 ± 0.53 (10)	6.64 ± 0.40 (10)	6.67 ± 0.54 (9)
Percent of Control			108	92	93
Total Lymphocytes (K/uL)	SD 28	7.25 ± 0.65 (10)	7.85 ± 0.53 (10)	6.68 ± 0.40 (10)	6.72 ± 0.55 (9)
Percent of Control			108	92	93
Monocytes (K/uL)	SD 28	0.13 ± 0.02 (10)	0.12 ± 0.02 (10)	0.12 ± 0.02 (10)	0.16 ± 0.03 (9)
Percent of Control			96	96	121
Basophils (K/uL)	SD 28	0.01 ± 0.00 (10)	0.01 ± 0.00 (10)	0.01 ± 0.00 (10)	0.01 ± 0.00 (9)
Percent of Control			129	86	111
Eosinophils (K/uL)	SD 28	0.09 ± 0.01 (10) *	0.08 ± 0.01 (10)	0.07 ± 0.01 (10)	0.07 ± 0.01 (9)
Percent of Control			89	81	81

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Female

	Phase Day	Treatment Groups	
		500 mg/kg/day	1000 mg/kg/day
Hematocrit (%)	SD 28	45.3 ± 0.6 (9)	46.4 ± 0.1 (2)
Percent of Control		99	101
Manual Hematocrit (%)	SD 28	41 ± 0 (9)	44 ± 1 (2)
Percent of Control		99	106
Hemoglobin (g/dL)	SD 28	13.7 ± 0.2 (9)	14.2 ± 0.2 (2)
Percent of Control		98	101
Red Blood Cells (M/uL)	SD 28	7.55 ± 0.11 (9)	7.91 ± 0.16 (2)
Percent of Control		100	104
Reticulocytes (K/uL)	SD 28	110.9 ± 15.8 (9) **	182.0 ± 9.5 (2) *
Percent of Control		53	87
Mean Cell Volume (fL)	SD 28	60.1 ± 0.6 (9)	58.7 ± 1.1 (2)
Percent of Control		99	97
Mean Cell Hemoglobin (pg)	SD 28	18.2 ± 0.2 (9)	18.0 ± 0.2 (2)
Percent of Control		99	97
Mean Cell Hemoglobin Concentration (g/dL)	SD 28	30.3 ± 0.1 (9)	30.6 ± 0.3 (2)
Percent of Control		99	100
Platelets (K/uL)	SD 28	914 ± 46 (9)	872 ± 77 (2)
Percent of Control		88	84
White Blood Cells (K/uL)	SD 28	7.67 ± 0.51 (9)	9.82 ± 5.00 (2)
Percent of Control		95	121
Neutrophils (K/uL)	SD 28	0.55 ± 0.05 (9)	1.54 ± 0.03 (2)
Percent of Control		85	239

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	Phase Day	500 mg/kg/day	1000 mg/kg/day
Lymphocytes (K/uL)	SD 28	6.88 ± 0.47 (9)	7.96 ± 4.85 (2)
Percent of Control		96	111
Total Lymphocytes (K/uL)	SD 28	6.92 ± 0.47 (9)	8.01 ± 4.88 (2)
Percent of Control		95	111
Monocytes (K/uL)	SD 28	0.15 ± 0.01 (9)	0.18 ± 0.08 (2)
Percent of Control		114	140
Basophils (K/uL)	SD 28	0.01 ± 0.00 (9)	0.02 ± 0.01 (2)
Percent of Control		111	214
Eosinophils (K/uL)	SD 28	0.05 ± 0.01 (9)	0.08 ± 0.07 (2)
Percent of Control		63	88

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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 ****