

Study Number: C08010-02
Test Type: TOX
Route: Whole-Body Inhalation
Species/Strain: Mouse/B6C3F1/N

PA43: Hematology Summary
Test Compound: 2,3-Pentanedione
CAS Number: 600-14-6

Date Report Requested: 11/07/2019
Time Report Requested: 07:46:47
Lab: NTP

C Number: C08010-02
Study Gender: Both
PWG Approval Date See web page for date of PWG Approval

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Male

	Phase Day	Treatment Groups (ppm)			
		0	6.25	12.5	25
Hematocrit (%)	SD 95	49.8 ± 0.2 (9)	49.7 ± 0.3 (10)	50.6 ± 0.3 (10)	49.7 ± 0.4 (10)
Percent of Control			99.8	101.7	99.9
Manual Hematocrit (%)	SD 95	50.9 ± 0.2 (9)	50.6 ± 0.4 (10)	51.5 ± 0.4 (10)	51.0 ± 0.3 (10)
Percent of Control			99.2	101.0	100.0
Hemoglobin (g/dL)	SD 95	16.3 ± 0.1 (9)	16.3 ± 0.1 (10)	16.5 ± 0.1 (10)	16.4 ± 0.1 (10)
Percent of Control			99.8	100.8	100.5
Erythrocytes (10 ⁶ /uL)	SD 95	10.53 ± 0.06 (9)	10.50 ± 0.06 (10)	10.66 ± 0.08 (10)	10.52 ± 0.08 (10)
Percent of Control			99.7	101.2	99.9
Reticulocytes (10 ³ /uL)	SD 95	293.6 ± 5.0 (9)	301.5 ± 6.5 (10)	297.6 ± 5.3 (10)	293.4 ± 5.8 (10)
Percent of Control			102.7	101.3	99.9
Mean Cell Volume (fL)	SD 95	47.2 ± 0.2 (9)	47.3 ± 0.2 (10)	47.5 ± 0.3 (10)	47.3 ± 0.2 (10)
Percent of Control			100.2	100.5	100.1
Mean Cell Hemoglobin (pg)	SD 95	15.5 ± 0.1 (9)	15.5 ± 0.0 (10)	15.5 ± 0.1 (10)	15.6 ± 0.1 (10)
Percent of Control			99.9	99.6	100.4
Mean Cell Hemoglobin Concentration (g/dL)	SD 95	32.9 ± 0.1 (9)	32.8 ± 0.1 (10)	32.6 ± 0.1 (10)	33.0 ± 0.2 (10)
Percent of Control			99.8	99.1	100.4
Platelets (10 ³ /uL)	SD 95	1065 ± 36 (9)	1037 ± 20 (10)	1060 ± 18 (10)	1046 ± 21 (10)
Percent of Control			97.4	99.6	98.2
White Blood Cells (10 ³ /uL)	SD 95	4.19 ± 0.38 (9)	3.36 ± 0.24 (10)	3.72 ± 0.32 (10)	3.48 ± 0.40 (10)
Percent of Control			80.2	88.8	83.2
Neutrophils (10 ³ /uL)	SD 95	0.55 ± 0.04 (9)	0.47 ± 0.04 (10)	0.47 ± 0.05 (10)	0.47 ± 0.06 (10)
Percent of Control			86.5	86.2	86.0

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	Phase Day	Treatment Groups (ppm)			
		0	6.25	12.5	25
Total Lymphocytes (10 ³ /uL)	SD 95	3.45 ± 0.32 (9)	2.74 ± 0.21 (10)	3.11 ± 0.27 (10)	2.87 ± 0.35 (10)
Percent of Control			79.5	90.3	83.1
Monocytes (10 ³ /uL)	SD 95	0.08 ± 0.01 (9)	0.06 ± 0.00 (10)	0.06 ± 0.01 (10)	0.06 ± 0.01 (10)
Percent of Control			73.0	77.0	75.7
Basophils (10 ³ /uL)	SD 95	0.02 ± 0.00 (9)	0.01 ± 0.00 (10)	0.02 ± 0.00 (10)	0.01 ± 0.00 (10)
Percent of Control			66.0	90.0	72.0
Eosinophils (10 ³ /uL)	SD 95	0.10 ± 0.01 (9)	0.07 ± 0.01 (10)	0.06 ± 0.01 (10)	0.08 ± 0.01 (10)
Percent of Control			76.4	59.7	79.5

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	Phase Day	Treatment Groups (ppm)	
		50	100
Hematocrit (%)	SD 95	48.7 ± 0.3 (10)	49.5 ± 0.5 (9)
Percent of Control		97.9	99.5
Manual Hematocrit (%)	SD 95	50.0 ± 0.2 (10)	50.5 ± 0.4 (10)
Percent of Control		98.0	99.1
Hemoglobin (g/dL)	SD 95	16.2 ± 0.1 (10)	16.2 ± 0.2 (9)
Percent of Control		99.0	99.0
Erythrocytes (10 ⁶ /uL)	SD 95	10.50 ± 0.08 (10)	10.87 ± 0.11 (9)
Percent of Control		99.7	103.2
Reticulocytes (10 ³ /uL)	SD 95	272.9 ± 6.3 (10)	298.7 ± 15.4 (9)
Percent of Control		92.9	101.7
Mean Cell Volume (fL)	SD 95	46.4 ± 0.2 (10)	45.6 ± 0.2 (9)
Percent of Control		98.2	96.4
Mean Cell Hemoglobin (pg)	SD 95	15.4 ± 0.1 (10)	14.9 ± 0.2 (9)
Percent of Control		99.3	96.0
Mean Cell Hemoglobin Concentration (g/dL)	SD 95	33.2 ± 0.2 (10)	32.7 ± 0.5 (9)
Percent of Control		101.1	99.5
Platelets (10 ³ /uL)	SD 95	1101 ± 33 (10)	1085 ± 53 (9)
Percent of Control		103.4	101.9
White Blood Cells (10 ³ /uL)	SD 95	4.49 ± 0.37 (10)	4.61 ± 0.42 (9)
Percent of Control		107.1	110.1
Neutrophils (10 ³ /uL)	SD 95	1.13 ± 0.24 (10)	1.50 ± 0.36 (9)
Percent of Control		205.8	274.8

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	Phase Day	Treatment Groups (ppm)	
		50	100
Total Lymphocytes (10 ³ /uL)	SD 95	3.19 ± 0.22 (10)	2.93 ± 0.26 (9)
Percent of Control		92.5	84.8
Monocytes (10 ³ /uL)	SD 95	0.08 ± 0.01 (10)	0.07 ± 0.01 (9)
Percent of Control		97.8	85.5
Basophils (10 ³ /uL)	SD 95	0.02 ± 0.01 (10)	0.01 ± 0.00 (9)
Percent of Control		126.0	80.0
Eosinophils (10 ³ /uL)	SD 95	0.07 ± 0.01 (10)	0.11 ± 0.02 (9)
Percent of Control		75.3	110.5

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	Phase Day	Treatment Groups (ppm)			
		0	6.25	12.5	25
Hematocrit (%)	SD 96	52.4 ± 0.5 (10)	52.6 ± 0.3 (9)	52.4 ± 0.3 (10)	52.2 ± 0.6 (10)
Percent of Control			100.3	99.9	99.5
Manual Hematocrit (%)	SD 96	51.9 ± 0.6 (10)	52.2 ± 0.3 (10)	51.8 ± 0.4 (10)	51.6 ± 0.7 (10)
Percent of Control			100.6	99.8	99.5
Hemoglobin (g/dL)	SD 96	16.6 ± 0.1 (10)	16.7 ± 0.1 (9)	16.6 ± 0.1 (10)	16.5 ± 0.2 (10)
Percent of Control			100.5	99.8	99.5
Erythrocytes (10 ⁶ /uL)	SD 96	10.47 ± 0.11 (10)	10.53 ± 0.06 (9)	10.48 ± 0.06 (10)	10.43 ± 0.10 (10)
Percent of Control			100.6	100.1	99.6
Reticulocytes (10 ³ /uL)	SD 96	312.6 ± 19.5 (10)	306.4 ± 9.8 (9)	283.4 ± 13.8 (10)	289.1 ± 19.5 (10)
Percent of Control			98.0	90.7	92.5
Mean Cell Volume (fL)	SD 96	50.1 ± 0.3 (10)	49.9 ± 0.2 (9)	50.0 ± 0.2 (10)	50.0 ± 0.2 (10)
Percent of Control			99.6	99.8	99.8
Mean Cell Hemoglobin (pg)	SD 96	15.9 ± 0.1 (10)	15.8 ± 0.1 (9)	15.8 ± 0.1 (10)	15.9 ± 0.1 (10)
Percent of Control			99.7	99.3	99.9
Mean Cell Hemoglobin Concentration (g/dL)	SD 96	31.7 ± 0.2 (10)	31.7 ± 0.2 (9)	31.6 ± 0.2 (10)	31.7 ± 0.2 (10)
Percent of Control			100.1	99.7	100.1
Platelets (10 ³ /uL)	SD 96	839 ± 22 (10)	904 ± 20 (9)	898 ± 27 (10)	960 ± 46 (10)
Percent of Control			107.8	107.1	114.5
White Blood Cells (10 ³ /uL)	SD 96	4.10 ± 0.36 (10)	3.90 ± 0.37 (9)	3.71 ± 0.29 (10)	4.34 ± 0.38 (10)
Percent of Control			95.1	90.6	105.9
Neutrophils (10 ³ /uL)	SD 96	0.52 ± 0.04 (10)	0.50 ± 0.06 (9)	0.45 ± 0.05 (10)	0.59 ± 0.08 (10)
Percent of Control			95.1	86.6	113.1

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		0	6.25	12.5	25
Total Lymphocytes (10 ³ /uL)	SD 96	3.42 ± 0.31 (10)	3.28 ± 0.31 (9)	3.14 ± 0.23 (10)	3.61 ± 0.30 (10)
Percent of Control			95.9	91.6	105.6
Monocytes (10 ³ /uL)	SD 96	0.06 ± 0.01 (10)	0.05 ± 0.01 (9)	0.05 ± 0.01 (10)	0.07 ± 0.01 (10)
Percent of Control			95.2	91.1	119.6
Basophils (10 ³ /uL)	SD 96	0.01 ± 0.00 (10)	0.02 ± 0.01 (9)	0.03 ± 0.01 (10)	0.02 ± 0.00 (10)
Percent of Control			150.8	178.6	164.3
Eosinophils (10 ³ /uL)	SD 96	0.08 ± 0.02 (10)	0.05 ± 0.01 (9)	0.06 ± 0.01 (10)	0.05 ± 0.01 (10)
Percent of Control			63.5	67.9	61.9

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		50	100
Hematocrit (%)	SD 96	51.7 ± 0.3 (10)	50.4 ± 0.8 (10)
Percent of Control		98.6	96.1
Manual Hematocrit (%)	SD 96	51.5 ± 0.5 (10)	50.4 ± 0.7 (10)
Percent of Control		99.2	97.2
Hemoglobin (g/dL)	SD 96	16.5 ± 0.1 (10)	16.2 ± 0.2 (10)
Percent of Control		99.2	97.7
Erythrocytes (10 ⁶ /uL)	SD 96	10.47 ± 0.08 (10)	10.51 ± 0.16 (10)
Percent of Control		100.0	100.4
Reticulocytes (10 ³ /uL)	SD 96	284.3 ± 15.9 (10)	300.0 ± 31.5 (10)
Percent of Control		91.0	96.0
Mean Cell Volume (fL)	SD 96	49.4 ± 0.1 (10)	48.0 ± 0.2 (10)
Percent of Control		98.5	95.8
Mean Cell Hemoglobin (pg)	SD 96	15.7 ± 0.1 (10)	15.4 ± 0.1 (10)
Percent of Control		99.1	97.3
Mean Cell Hemoglobin Concentration (g/dL)	SD 96	31.8 ± 0.2 (10)	32.2 ± 0.2 (10)
Percent of Control		100.5	101.6
Platelets (10 ³ /uL)	SD 96	980 ± 35 (10)	999 ± 27 (10)
Percent of Control		116.9	119.2
White Blood Cells (10 ³ /uL)	SD 96	4.08 ± 0.42 (10)	4.14 ± 0.38 (10)
Percent of Control		99.5	101.1
Neutrophils (10 ³ /uL)	SD 96	0.88 ± 0.11 (10)	1.37 ± 0.22 (10)
Percent of Control		167.9	262.4

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		50	100
Total Lymphocytes (10 ³ /uL)	SD 96	3.06 ± 0.35 (10)	2.63 ± 0.20 (10)
Percent of Control		89.4	76.9
Monocytes (10 ³ /uL)	SD 96	0.05 ± 0.00 (10)	0.05 ± 0.01 (10)
Percent of Control		94.6	92.9
Basophils (10 ³ /uL)	SD 96	0.02 ± 0.00 (10)	0.01 ± 0.00 (10)
Percent of Control		121.4	92.9
Eosinophils (10 ³ /uL)	SD 96	0.08 ± 0.01 (10)	0.08 ± 0.02 (10)
Percent of Control		91.7	92.9

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LEGEND

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

SD – Study Day

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

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 $P \leq 0.01$

**** END OF REPORT ****