

Study Number: C05051-01

Test Type: TOX

Route: Dosing in Water

Species/Strain: Rat/Harlan Sprague Dawley

C Number:

Study Gender:

PWG Approval Date

PA43: Hematology Summary

Test Compound: 1-Butyl-1-Methylpyrrolidinium Chloride

CAS Number: 479500-35-1

C05051-01

Both

See web page for date of PWG Approval

Date Report Requested: 04/21/2020

Time Report Requested: 13:48:42

Lab: NTP

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Male

	Phase Day	Treatment Groups (mg/mL)			
		0	0.3	1	3
Hematocrit (%)	SD 92	50.8 ± 0.6 (10)	50.8 ± 0.4 (10)	51.5 ± 0.7 (10)	51.1 ± 0.6 (10)
Percent of Control			100.0	101.4	100.6
Manual Hematocrit (%)	SD 92	49.5 ± 0.6 (10)	50.4 ± 0.4 (10)	51.0 ± 0.4 (10)	50.8 ± 0.5 (10)
Percent of Control			101.8	103.0	102.6
Hemoglobin (g/dL)	SD 92	17.3 ± 0.2 (10)	17.3 ± 0.1 (10)	17.4 ± 0.2 (10)	17.5 ± 0.2 (10)
Percent of Control			99.7	100.6	101.3
Erythrocytes (10 ⁶ /uL)	SD 92	9.16 ± 0.08 (10)	9.29 ± 0.11 (10)	9.13 ± 0.11 (10)	9.02 ± 0.11 (10)
Percent of Control			101.4	99.7	98.5
Reticulocytes (10 ³ /uL)	SD 92	180.8 ± 8.2 (10)	166.8 ± 5.4 (10)	192.5 ± 7.5 (10)	180.3 ± 5.4 (10)
Percent of Control			92.2	106.4	99.7
Mean Cell Volume (fL)	SD 92	55.5 ± 0.5 (10) **	54.7 ± 0.3 (10)	56.5 ± 0.6 (10)	56.7 ± 0.3 (10) *
Percent of Control			98.6	101.8	102.3
Mean Cell Hemoglobin (pg)	SD 92	18.9 ± 0.2 (10) **	18.6 ± 0.2 (10)	19.1 ± 0.2 (10)	19.4 ± 0.1 (10) *
Percent of Control			98.3	101.0	102.8
Mean Cell Hemoglobin Concentration (g/dL)	SD 92	34.1 ± 0.2 (10)	33.9 ± 0.2 (10)	33.8 ± 0.1 (10)	34.3 ± 0.2 (10)
Percent of Control			99.4	99.2	100.6
Platelets (10 ³ /uL)	SD 92	793 ± 55 (10)	716 ± 53 (10)	754 ± 25 (10)	725 ± 43 (10)
Percent of Control			90.3	95.1	91.5
White Blood Cells (10 ³ /uL)	SD 92	10.53 ± 0.57 (10)	10.48 ± 0.43 (10)	10.18 ± 0.41 (10)	10.90 ± 0.60 (10)
Percent of Control			99.5	96.6	103.5
Neutrophils (10 ³ /uL)	SD 92	1.24 ± 0.11 (10)	1.65 ± 0.29 (10)	1.57 ± 0.41 (10)	1.04 ± 0.10 (10)
Percent of Control			132.9	126.5	83.8

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Male

	Phase Day	Treatment Groups (mg/mL)			
		0	0.3	1	3
Lymphocytes (10 ³ /uL)	SD 92	8.74 ± 0.57 (10)	8.23 ± 0.21 (10)	8.06 ± 0.26 (10)	9.32 ± 0.49 (10)
Percent of Control			94.2	92.2	106.6
Total Lymphocytes (10 ³ /uL)	SD 92	8.83 ± 0.57 (10)	8.31 ± 0.21 (10)	8.16 ± 0.27 (10)	9.42 ± 0.50 (10)
Percent of Control			94.1	92.5	106.8
Monocytes (10 ³ /uL)	SD 92	0.35 ± 0.02 (10)	0.38 ± 0.05 (10)	0.30 ± 0.02 (10)	0.30 ± 0.03 (10)
Percent of Control			109.5	85.3	86.8
Basophils (10 ³ /uL)	SD 92	0.05 ± 0.03 (10)	0.02 ± 0.00 (10)	0.02 ± 0.00 (10)	0.02 ± 0.00 (10)
Percent of Control			43.8	47.9	47.9
Eosinophils (10 ³ /uL)	SD 92	0.10 ± 0.02 (10)	0.12 ± 0.01 (10)	0.13 ± 0.01 (10)	0.11 ± 0.02 (10)
Percent of Control			125.5	129.6	114.3
Large Unstained Cells (10 ³ /uL)	SD 92	0.09 ± 0.01 (10)	0.08 ± 0.02 (10)	0.10 ± 0.02 (10)	0.11 ± 0.02 (10)
Percent of Control			92.1	116.9	120.2

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Female

	Phase Day	Treatment Groups (mg/mL)			
		0	1	3	6
Hematocrit (%)	SD 92	46.4 ± 0.4 (10)	46.8 ± 0.8 (10)	46.6 ± 0.5 (10)	47.1 ± 0.5 (10)
Percent of Control			100.9	100.4	101.5
Manual Hematocrit (%)	SD 92	47.1 ± 0.6 (10)	46.7 ± 0.7 (10)	47.3 ± 0.6 (10)	47.4 ± 0.8 (10)
Percent of Control			99.2	100.4	100.6
Hemoglobin (g/dL)	SD 92	16.2 ± 0.1 (10)	16.2 ± 0.2 (10)	16.0 ± 0.2 (10)	16.3 ± 0.1 (10)
Percent of Control			100.4	99.2	101.0
Erythrocytes (10 ⁶ /uL)	SD 92	8.19 ± 0.08 (10)	8.40 ± 0.16 (10)	8.29 ± 0.06 (10)	8.43 ± 0.11 (10)
Percent of Control			102.5	101.2	102.9
Reticulocytes (10 ³ /uL)	SD 92	195.8 ± 12.9 (10)	186.7 ± 16.4 (10)	202.2 ± 8.4 (10)	189.2 ± 7.0 (10)
Percent of Control			95.3	103.3	96.6
Mean Cell Volume (fL)	SD 92	56.7 ± 0.4 (10)	55.8 ± 0.5 (10)	56.3 ± 0.5 (10)	56.0 ± 0.3 (10)
Percent of Control			98.5	99.2	98.8
Mean Cell Hemoglobin (pg)	SD 92	19.7 ± 0.2 (10)	19.4 ± 0.2 (10)	19.4 ± 0.2 (10)	19.4 ± 0.2 (10)
Percent of Control			98.0	98.0	98.3
Mean Cell Hemoglobin Concentration (g/dL)	SD 92	34.9 ± 0.2 (10)	34.7 ± 0.2 (10)	34.4 ± 0.1 (10)	34.7 ± 0.2 (10)
Percent of Control			99.5	98.7	99.5
Platelets (10 ³ /uL)	SD 92	758 ± 55 (10)	785 ± 52 (10)	716 ± 37 (10)	741 ± 48 (10)
Percent of Control			103.5	94.4	97.7
White Blood Cells (10 ³ /uL)	SD 92	6.93 ± 0.31 (10)	6.90 ± 0.43 (10)	6.71 ± 0.36 (10)	6.55 ± 0.30 (10)
Percent of Control			99.5	96.8	94.5
Neutrophils (10 ³ /uL)	SD 92	0.81 ± 0.10 (10)	0.76 ± 0.06 (10)	0.87 ± 0.10 (10)	0.71 ± 0.05 (10)
Percent of Control			94.3	107.9	87.4

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	Phase Day	Treatment Groups (mg/mL)			
		0	1	3	6
Lymphocytes (10 ³ /uL)	SD 92	5.79 ± 0.28 (10)	5.80 ± 0.38 (10)	5.50 ± 0.32 (10)	5.47 ± 0.27 (10)
Percent of Control			100.1	95.0	94.4
Total Lymphocytes (10 ³ /uL)	SD 92	5.83 ± 0.28 (10)	5.85 ± 0.38 (10)	5.55 ± 0.33 (10)	5.51 ± 0.27 (10)
Percent of Control			100.4	95.2	94.5
Monocytes (10 ³ /uL)	SD 92	0.18 ± 0.03 (10)	0.19 ± 0.03 (10)	0.19 ± 0.01 (10)	0.24 ± 0.02 (10)
Percent of Control			105.4	100.5	128.8
Basophils (10 ³ /uL)	SD 92	0.01 ± 0.00 (10)	0.01 ± 0.00 (10)	0.01 ± 0.00 (10)	0.01 ± 0.00 (10)
Percent of Control			122.2	122.2	77.8
Eosinophils (10 ³ /uL)	SD 92	0.11 ± 0.02 (10)	0.08 ± 0.01 (10)	0.09 ± 0.01 (10)	0.09 ± 0.01 (10)
Percent of Control			74.5	84.0	80.2
Large Unstained Cells (10 ³ /uL)	SD 92	0.04 ± 0.01 (10)	0.06 ± 0.01 (10)	0.05 ± 0.00 (10)	0.04 ± 0.01 (10)
Percent of Control			151.4	129.7	116.2

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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 ****