

Study Number: C05052-01

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: N-Butylpyridinium Chloride

C05052-01

Both

See web page for date of PWG Approval

Date Report Requested: 04/21/2020

Time Report Requested: 14:11:11

Lab: NTP

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Male

	Phase Day	Treatment Groups (mg/mL)			
		0	0.3	1	3
Hematocrit (%)	SD 92	52.5 ± 0.5 (10)	51.8 ± 0.7 (10)	51.7 ± 0.7 (10)	51.1 ± 0.8 (9)
Percent of Control			98.6	98.5	97.3
Manual Hematocrit (%)	SD 92	52.4 ± 0.5 (10)	52.4 ± 0.8 (10)	52.5 ± 0.8 (10)	51.8 ± 0.6 (9)
Percent of Control			100.0	100.2	98.8
Hemoglobin (g/dL)	SD 92	16.0 ± 0.1 (10)	15.8 ± 0.2 (10)	15.9 ± 0.2 (10)	15.7 ± 0.2 (9)
Percent of Control			98.6	98.8	97.8
Erythrocytes (10 ⁶ /uL)	SD 92	9.31 ± 0.14 (10)	9.27 ± 0.11 (10)	9.23 ± 0.09 (10)	9.22 ± 0.11 (9)
Percent of Control			99.6	99.1	99.0
Reticulocytes (10 ³ /uL)	SD 92	208.1 ± 5.0 (10)	195.4 ± 9.7 (10)	183.6 ± 7.1 (10) *	196.4 ± 6.9 (9)
Percent of Control			93.9	88.2	94.4
Mean Cell Volume (fL)	SD 92	56.5 ± 0.5 (10)	55.9 ± 0.5 (10)	56.1 ± 0.6 (10)	55.5 ± 0.6 (9)
Percent of Control			99.0	99.3	98.2
Mean Cell Hemoglobin (pg)	SD 92	17.2 ± 0.2 (10)	17.0 ± 0.2 (10)	17.2 ± 0.1 (10)	17.0 ± 0.2 (9)
Percent of Control			99.0	99.7	99.0
Mean Cell Hemoglobin Concentration (g/dL)	SD 92	30.5 ± 0.1 (10)	30.5 ± 0.1 (10)	30.7 ± 0.2 (10)	30.7 ± 0.2 (9)
Percent of Control			99.9	100.4	100.7
Platelets (10 ³ /uL)	SD 92	704 ± 32 (10)	725 ± 39 (10)	657 ± 20 (10)	739 ± 30 (9)
Percent of Control			103.0	93.4	105.0
White Blood Cells (10 ³ /uL)	SD 92	10.19 ± 0.40 (10)	10.27 ± 0.59 (10)	11.51 ± 0.66 (10)	9.66 ± 0.50 (9)
Percent of Control			100.8	112.9	94.8
Neutrophils (10 ³ /uL)	SD 92	1.15 ± 0.10 (10)	1.13 ± 0.11 (10)	1.16 ± 0.08 (10)	1.14 ± 0.10 (9)
Percent of Control			98.9	101.5	99.0

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Male

	Phase Day	Treatment Groups (mg/mL)			
		0	0.3	1	3
Lymphocytes (10 ³ /uL)	SD 92	8.42 ± 0.35 (10)	8.54 ± 0.51 (10)	9.66 ± 0.61 (10)	7.94 ± 0.44 (9)
Percent of Control			101.4	114.7	94.3
Total Lymphocytes (10 ³ /uL)	SD 92	8.53 ± 0.35 (10)	8.65 ± 0.51 (10)	9.78 ± 0.61 (10)	8.05 ± 0.45 (9)
Percent of Control			101.4	114.6	94.3
Monocytes (10 ³ /uL)	SD 92	0.37 ± 0.03 (10)	0.35 ± 0.03 (10)	0.43 ± 0.03 (10)	0.35 ± 0.03 (9)
Percent of Control			94.1	114.8	94.9
Basophils (10 ³ /uL)	SD 92	0.02 ± 0.00 (10)	0.02 ± 0.00 (10)	0.03 ± 0.00 (10)	0.02 ± 0.00 (9)
Percent of Control			95.8	125.0	88.0
Eosinophils (10 ³ /uL)	SD 92	0.12 ± 0.01 (10)	0.12 ± 0.01 (10)	0.11 ± 0.01 (10)	0.11 ± 0.01 (9)
Percent of Control			100.8	95.8	88.7
Large Unstained Cells (10 ³ /uL)	SD 92	0.11 ± 0.01 (10)	0.11 ± 0.01 (10)	0.12 ± 0.01 (10)	0.11 ± 0.01 (9)
Percent of Control			96.3	111.9	98.9

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Female

	Phase Day	Treatment Groups (mg/mL)			
		0	0.3	1	3
Hematocrit (%)	SD 92	47.8 ± 0.6 (10)	47.0 ± 0.4 (10)	47.6 ± 0.4 (10)	48.3 ± 0.8 (10)
Percent of Control			98.4	99.6	101.1
Manual Hematocrit (%)	SD 92	46.7 ± 0.5 (10)	45.6 ± 0.3 (10)	46.3 ± 0.3 (10)	47.2 ± 0.8 (10)
Percent of Control			97.6	99.1	101.1
Hemoglobin (g/dL)	SD 92	14.8 ± 0.2 (10)	14.4 ± 0.1 (10) *	14.7 ± 0.1 (10)	14.8 ± 0.2 (10)
Percent of Control			97.1	98.9	99.9
Erythrocytes (10 ⁶ /uL)	SD 92	8.23 ± 0.12 (10)	8.13 ± 0.12 (10)	8.20 ± 0.11 (10)	8.26 ± 0.15 (10)
Percent of Control			98.7	99.6	100.4
Reticulocytes (10 ³ /uL)	SD 92	205.4 ± 15.4 (10)	192.5 ± 14.4 (10)	195.7 ± 14.8 (10)	235.2 ± 12.5 (10)
Percent of Control			93.7	95.3	114.5
Mean Cell Volume (fL)	SD 92	58.1 ± 0.6 (10)	57.9 ± 0.6 (10)	58.1 ± 0.6 (10)	58.5 ± 0.5 (10)
Percent of Control			99.7	100.1	100.7
Mean Cell Hemoglobin (pg)	SD 92	18.1 ± 0.2 (10)	17.7 ± 0.2 (10)	17.9 ± 0.2 (10)	18.0 ± 0.2 (10)
Percent of Control			98.3	99.1	99.6
Mean Cell Hemoglobin Concentration (g/dL)	SD 92	31.1 ± 0.1 (10)	30.7 ± 0.1 (10)	30.8 ± 0.1 (10)	30.7 ± 0.1 (10)
Percent of Control			98.7	99.0	98.9
Platelets (10 ³ /uL)	SD 92	839 ± 21 (10)	819 ± 25 (10)	796 ± 40 (10)	801 ± 19 (10)
Percent of Control			97.6	94.8	95.4
White Blood Cells (10 ³ /uL)	SD 92	7.46 ± 0.41 (10)	8.29 ± 0.65 (10)	7.44 ± 0.29 (10)	7.48 ± 0.65 (10)
Percent of Control			111.1	99.7	100.3
Neutrophils (10 ³ /uL)	SD 92	0.86 ± 0.06 (10)	1.23 ± 0.28 (10)	0.87 ± 0.10 (10)	0.81 ± 0.06 (10)
Percent of Control			141.8	100.6	93.3

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Female

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		0	0.3	1	3
Lymphocytes (10 ³ /uL)	SD 92	6.15 ± 0.41 (10)	6.57 ± 0.38 (10)	6.13 ± 0.22 (10)	6.22 ± 0.60 (10)
Percent of Control			106.8	99.7	101.1
Total Lymphocytes (10 ³ /uL)	SD 92	6.22 ± 0.42 (10)	6.66 ± 0.39 (10)	6.22 ± 0.23 (10)	6.30 ± 0.61 (10)
Percent of Control			107.0	100.0	101.2
Monocytes (10 ³ /uL)	SD 92	0.26 ± 0.02 (10)	0.29 ± 0.04 (10)	0.24 ± 0.03 (10)	0.29 ± 0.04 (10)
Percent of Control			111.1	89.7	110.3
Basophils (10 ³ /uL)	SD 92	0.01 ± 0.00 (10)	0.02 ± 0.00 (10)	0.02 ± 0.00 (10)	0.02 ± 0.00 (10)
Percent of Control			141.7	125.0	133.3
Eosinophils (10 ³ /uL)	SD 92	0.10 ± 0.01 (10)	0.09 ± 0.01 (10)	0.09 ± 0.01 (10)	0.07 ± 0.01 (10)
Percent of Control			91.9	94.9	74.7
Large Unstained Cells (10 ³ /uL)	SD 92	0.07 ± 0.01 (10)	0.09 ± 0.01 (10)	0.09 ± 0.01 (10)	0.08 ± 0.01 (10)
Percent of Control			123.9	122.5	105.6

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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 ****