

**Study Number:** C05051-02

**Test Type:** TOX

**Route:** Dosing in Water

**Species/Strain:** Mouse/B6C3F1/N

**PA43: Hematology Summary**

**Test Compound:** 1-Butyl-1-Methylpyrrolidinium Chloride

**CAS Number:** 479500-35-1

**Date Report Requested:** 04/21/2020

**Time Report Requested:** 14:04:20

**Lab:** NTP

**C Number:**

C05051-02

**Study Gender:**

Both

**PWG Approval Date**

See web page for date of PWG Approval

**Study Number:** C05051-02

**Test Type:** TOX

**Route:** Dosing in Water

**Species/Strain:** Mouse/B6C3F1/N

**PA43: Hematology Summary**

**Test Compound:** 1-Butyl-1-Methylpyrrolidinium Chloride

**CAS Number:** 479500-35-1

**Date Report Requested:** 04/21/2020

**Time Report Requested:** 14:04:20

**Lab:** NTP

**Male**

	Phase Day	Treatment Groups (mg/mL)			
		0	1	3	10
Hematocrit (%)	SD 92	46.3 ± 0.3 (10) **	46.9 ± 0.4 (10)	47.2 ± 0.2 (10) *	47.4 ± 0.3 (10) **
Percent of Control			101.3	101.9	102.3
Manual Hematocrit (%)	SD 92	47.3 ± 0.4 (10)	47.8 ± 0.4 (10)	47.9 ± 0.3 (10)	48.1 ± 0.2 (10)
Percent of Control			101.1	101.3	101.7
Hemoglobin (g/dL)	SD 92	15.2 ± 0.1 (10) *	15.3 ± 0.1 (10)	15.4 ± 0.1 (10)	15.4 ± 0.1 (10)
Percent of Control			100.5	100.9	101.4
Erythrocytes (10 <sup>6</sup> /uL)	SD 92	10.52 ± 0.06 (10) **	10.54 ± 0.07 (10)	10.59 ± 0.03 (10)	10.78 ± 0.05 (10) **
Percent of Control			100.2	100.7	102.5
Reticulocytes (10 <sup>3</sup> /uL)	SD 92	251.5 ± 5.6 (10)	270.3 ± 3.9 (10) *	266.2 ± 6.0 (10)	255.9 ± 6.3 (10)
Percent of Control			107.5	105.9	101.8
Mean Cell Volume (fL)	SD 92	44.1 ± 0.2 (10)	44.5 ± 0.2 (10)	44.5 ± 0.1 (10)	43.9 ± 0.2 (10)
Percent of Control			101.0	101.1	99.7
Mean Cell Hemoglobin (pg)	SD 92	14.5 ± 0.1 (10)	14.5 ± 0.1 (10)	14.5 ± 0.0 (10)	14.3 ± 0.0 (10)
Percent of Control			100.3	100.4	99.0
Mean Cell Hemoglobin Concentration (g/dL)	SD 92	32.9 ± 0.2 (10)	32.7 ± 0.1 (10)	32.7 ± 0.1 (10)	32.6 ± 0.2 (10)
Percent of Control			99.4	99.2	99.1
Platelets (10 <sup>3</sup> /uL)	SD 92	1034 ± 34 (10) *	1060 ± 28 (10)	1034 ± 23 (10)	982 ± 18 (10)
Percent of Control			102.5	99.9	95.0
White Blood Cells (10 <sup>3</sup> /uL)	SD 92	4.82 ± 0.21 (10)	4.09 ± 0.38 (10)	4.18 ± 0.33 (10)	4.16 ± 0.27 (10)
Percent of Control			84.8	86.7	86.4
Neutrophils (10 <sup>3</sup> /uL)	SD 92	0.66 ± 0.04 (10)	0.63 ± 0.06 (10)	0.58 ± 0.05 (10)	0.62 ± 0.03 (10)
Percent of Control			95.3	88.3	93.9

**Study Number:** C05051-02

**Test Type:** TOX

**Route:** Dosing in Water

**Species/Strain:** Mouse/B6C3F1/N

**PA43: Hematology Summary**

**Test Compound:** 1-Butyl-1-Methylpyrrolidinium Chloride

**CAS Number:** 479500-35-1

**Date Report Requested:** 04/21/2020

**Time Report Requested:** 14:04:20

**Lab:** NTP

**Male**

	<b>Phase Day</b>	<b>Treatment Groups (mg/mL)</b>			
		<b>0</b>	<b>1</b>	<b>3</b>	<b>10</b>
Lymphocytes ( $10^3/\mu\text{L}$ )	SD 92	3.91 ± 0.18 (10)	3.26 ± 0.31 (10)	3.38 ± 0.27 (10)	3.34 ± 0.25 (10)
Percent of Control			83.2	86.4	85.2
Total Lymphocytes ( $10^3/\mu\text{L}$ )	SD 92	3.96 ± 0.18 (10)	3.29 ± 0.31 (10)	3.42 ± 0.28 (10)	3.37 ± 0.25 (10)
Percent of Control			83.1	86.4	85.1
Monocytes ( $10^3/\mu\text{L}$ )	SD 92	0.12 ± 0.01 (10)	0.11 ± 0.02 (10)	0.11 ± 0.01 (10)	0.11 ± 0.01 (10)
Percent of Control			92.5	93.3	87.5
Basophils ( $10^3/\mu\text{L}$ )	SD 92	0.01 ± 0.00 (10) *	0.00 ± 0.00 (10)	0.00 ± 0.00 (10)	0.00 ± 0.00 (10)
Percent of Control			66.7	33.3	33.3
Eosinophils ( $10^3/\mu\text{L}$ )	SD 92	0.08 ± 0.01 (10)	0.05 ± 0.01 (10)	0.05 ± 0.01 (10)	0.07 ± 0.01 (10)
Percent of Control			69.3	70.7	96.0
Large Unstained Cells ( $10^3/\mu\text{L}$ )	SD 92	0.05 ± 0.01 (10)	0.03 ± 0.01 (10)	0.04 ± 0.01 (10)	0.03 ± 0.01 (10)
Percent of Control			71.1	91.1	71.1

**Study Number:** C05051-02

**Test Type:** TOX

**Route:** Dosing in Water

**Species/Strain:** Mouse/B6C3F1/N

**PA43: Hematology Summary**

**Test Compound:** 1-Butyl-1-Methylpyrrolidinium Chloride

**CAS Number:** 479500-35-1

**Date Report Requested:** 04/21/2020

**Time Report Requested:** 14:04:20

**Lab:** NTP

**Female**

	Phase Day	Treatment Groups (mg/mL)			
		0	1	3	6
Hematocrit (%)	SD 92	47.2 ± 0.6 (10)	46.0 ± 0.7 (10)	48.2 ± 1.2 (10)	46.9 ± 0.5 (10)
Percent of Control			97.4	102.1	99.3
Manual Hematocrit (%)	SD 92	46.8 ± 0.7 (10)	46.4 ± 0.7 (10)	47.3 ± 0.5 (9)	47.4 ± 0.6 (10)
Percent of Control			99.1	101.1	101.3
Hemoglobin (g/dL)	SD 92	16.0 ± 0.2 (10)	15.7 ± 0.2 (9)	16.4 ± 0.4 (10)	15.8 ± 0.2 (10)
Percent of Control			97.9	102.1	98.3
Erythrocytes (10 <sup>6</sup> /uL)	SD 92	10.81 ± 0.12 (10)	10.57 ± 0.16 (10)	11.05 ± 0.22 (10)	10.72 ± 0.12 (10)
Percent of Control			97.8	102.2	99.2
Reticulocytes (10 <sup>3</sup> /uL)	SD 92	247.7 ± 19.4 (10)	228.5 ± 14.7 (10)	248.0 ± 13.4 (10)	250.4 ± 14.2 (10)
Percent of Control			92.2	100.1	101.1
Mean Cell Volume (fL)	SD 92	43.7 ± 0.2 (10)	43.5 ± 0.2 (10)	43.6 ± 0.2 (10)	43.8 ± 0.1 (10)
Percent of Control			99.6	99.7	100.1
Mean Cell Hemoglobin (pg)	SD 92	14.8 ± 0.1 (10)	14.8 ± 0.1 (9)	14.8 ± 0.1 (10)	14.7 ± 0.1 (10)
Percent of Control			100.1	99.9	99.3
Mean Cell Hemoglobin Concentration (g/dL)	SD 92	33.9 ± 0.2 (10)	34.1 ± 0.1 (9)	34.0 ± 0.1 (10)	33.6 ± 0.1 (10)
Percent of Control			100.4	100.1	98.9
Platelets (10 <sup>3</sup> /uL)	SD 92	640 ± 38 (10)	687 ± 36 (10)	522 ± 58 (10)	647 ± 43 (10)
Percent of Control			107.4	81.5	101.1
White Blood Cells (10 <sup>3</sup> /uL)	SD 92	3.51 ± 0.46 (10)	2.73 ± 0.21 (10)	2.75 ± 0.16 (10)	2.97 ± 0.26 (10)
Percent of Control			77.9	78.3	84.5
Neutrophils (10 <sup>3</sup> /uL)	SD 92	0.44 ± 0.07 (10)	0.33 ± 0.04 (10)	0.32 ± 0.06 (10)	0.34 ± 0.05 (10)
Percent of Control			74.3	73.6	78.2

**Study Number:** C05051-02

**Test Type:** TOX

**Route:** Dosing in Water

**Species/Strain:** Mouse/B6C3F1/N

**PA43: Hematology Summary**

**Test Compound:** 1-Butyl-1-Methylpyrrolidinium Chloride

**CAS Number:** 479500-35-1

**Date Report Requested:** 04/21/2020

**Time Report Requested:** 14:04:20

**Lab:** NTP

**Female**

	Phase Day	Treatment Groups (mg/mL)			
		0	1	3	6
Lymphocytes ( $10^3/\mu\text{L}$ )	SD 92	2.90 ± 0.38 (10)	2.28 ± 0.18 (10)	2.33 ± 0.15 (10)	2.49 ± 0.23 (10)
Percent of Control			78.6	80.3	86.0
Total Lymphocytes ( $10^3/\mu\text{L}$ )	SD 92	2.91 ± 0.39 (10)	2.30 ± 0.18 (10)	2.33 ± 0.16 (10)	2.51 ± 0.23 (10)
Percent of Control			79.0	80.1	86.2
Monocytes ( $10^3/\mu\text{L}$ )	SD 92	0.09 ± 0.01 (10)	0.05 ± 0.00 (10) **	0.06 ± 0.01 (10)	0.07 ± 0.01 (10)
Percent of Control			56.7	71.1	76.7
Basophils ( $10^3/\mu\text{L}$ )	SD 92	0.00 ± 0.00 (10)	0.00 ± 0.00 (10)	0.00 ± 0.00 (10)	0.00 ± 0.00 (10)
Percent of Control			66.7	100.0	66.7
Eosinophils ( $10^3/\mu\text{L}$ )	SD 92	0.07 ± 0.01 (10) *	0.05 ± 0.01 (10)	0.02 ± 0.01 (10) **	0.05 ± 0.01 (10)
Percent of Control			80.3	34.8	68.2
Large Unstained Cells ( $10^3/\mu\text{L}$ )	SD 92	0.01 ± 0.00 (10)	0.02 ± 0.00 (10)	0.01 ± 0.00 (10)	0.02 ± 0.00 (10)
Percent of Control			150.0	57.1	121.4

**Study Number:** C05051-02

**Test Type:** TOX

**Route:** Dosing in Water

**Species/Strain:** Mouse/B6C3F1/N

**PA43: Hematology Summary**

**Test Compound:** 1-Butyl-1-Methylpyrrolidinium Chloride

**CAS Number:** 479500-35-1

**Date Report Requested:** 04/21/2020

**Time Report Requested:** 14:04:20

**Lab:** NTP

**LEGEND**

---

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