

Experiment Number: **G94009**

Test Type: **Genetic Toxicology - Micronucleus**

Route: **Inhalation**

Species/Strain: **Rat/Wistar Han**

G04: In Vivo Micronucleus Summary Data

Test Compound: **2,3-Butanedione**

CAS Number: **431-03-8**

Date Report Requested: **09/23/2018**

Time Report Requested: **16:27:14**

NTP Study Number:

G94009

Study Duration:

13 Weeks

Study Methodology:

Flow Cytometry

Male Study Result:

Negative

Female Study Result:

Negative

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Tissue: Blood; Sex: Male; Number of Treatments: 65; Time interval between final treatment and cell sampling: 24 h

Dose (ppm)	N	MN PCE/1000		N	MN NCE/1000		% PCE	
		Mean ± SEM	p-Value		Mean ± SEM	p-Value	Mean ± SEM	p-Value
Vehicle Control ¹	5	1.080 ± 0.140		5	0.134 ± 0.054		0.765 ± 0.094	
6.25	5	0.786 ± 0.066	1.0000	5	0.080 ± 0.013	0.7622	0.737 ± 0.047	1.0000
12.5	5	0.844 ± 0.188	1.0000	5	0.078 ± 0.015	0.8413	0.875 ± 0.040	0.4449
25.0	5	0.980 ± 0.124	1.0000	5	0.085 ± 0.016	0.8700	0.895 ± 0.100	0.4761
50.0	5	0.866 ± 0.069	1.0000	5	0.190 ± 0.069	0.4934	0.823 ± 0.060	0.4897
100.0	5	0.790 ± 0.037	1.0000	5	0.113 ± 0.026	0.5034	0.828 ± 0.085	0.4992
Trend p-Value		0.8086			0.2363		0.6414	

Trial Summary: **Negative**

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Tissue: Blood; Sex: Female; Number of Treatments: 65; Time interval between final treatment and cell sampling: 24 h

Dose (ppm)	N	MN PCE/1000		N	MN NCE/1000		% PCE	
		Mean ± SEM	p-Value		Mean ± SEM	p-Value	Mean ± SEM	p-Value
Vehicle Control ¹	5	1.130 ± 0.228		5	0.173 ± 0.036		1.072 ± 0.137	
6.25	5	0.910 ± 0.091	1.0000	5	0.094 ± 0.019	0.7364	0.977 ± 0.062	1.0000
12.5	5	0.950 ± 0.172	1.0000	5	0.210 ± 0.061	0.6615	0.961 ± 0.096	1.0000
25.0	5	0.750 ± 0.144	1.0000	5	0.164 ± 0.043	0.6958	1.091 ± 0.148	1.0000
50.0	5	1.010 ± 0.051	1.0000	5	0.109 ± 0.014	0.7147	0.936 ± 0.066	1.0000
100.0	5	1.310 ± 0.256	0.8488	5	0.264 ± 0.062	0.0990	0.774 ± 0.181	1.0000
Trend p-Value		0.1584			0.0538		0.3186	

Trial Summary: **Negative**

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LEGEND

MN = micronucleated, PCE = polychromatic erythrocyte, NCE = normochromatic erythrocyte

CAS Number = Chemical Abstracts Service registry number

N = Number of subjects

Values given as Mean or Mean \pm Standard Error Mean

Pairwise comparison with the control group; values are significant at $P \leq 0.025$ by Williams or Dunn's test

Dose-related trend; significant at $P \leq 0.025$ by linear regression or Jonckheere's test

* Statistically significant pairwise or trend test

1: Vehicle Control: Air

**** END OF REPORT ****