Experiment Number: **A55884**
Test Type: **Genetic Toxicology - Micronucleus**
Route: **Dermal**
Species/Strain: **Mouse/B6C3F1**

G04: In Vivo Micronucleus Summary Data
Test Compound: **Diisopropylcarbodiimide**
CAS Number: **693-13-0**

Date Report Requested: **09/20/2018**
Time Report Requested: **19:40:08**

NTP Study Number:	A55884
Study Duration:	124 Days
Study Methodology:	Slide Scoring
Male Study Result:	Positive

Experiment Number: **A55884**
Test Type: **Genetic Toxicology - Micronucleus**
Route: **Dermal**
Species/Strain: **Mouse/B6C3F1**

G04: In Vivo Micronucleus Summary Data
Test Compound: **Diisopropylcarbodiimide**
CAS Number: **693-13-0**

Date Report Requested: **09/20/2018**
Time Report Requested: **19:40:08**

Tissue: Blood; Sex: Male; Number of Treatments: 56; Time interval between final treatment and cell sampling: 24 h

	MN PCE/1000			MN NCE/1000			% PCE
Dose (mg/kg)	**N**	**Mean ± SEM**	**p-Value**	**N**	**Mean ± SEM**	**p-Value**	**Mean ± SEM**
Vehicle Control[1]	5	3.50 ± 0.42		5	2.20 ± 0.37		2.06 ± 0.34
17.5	5	4.80 ± 0.80	0.0764	5	3.30 ± 0.41	0.0687	2.82 ± 0.21
35.0	5	3.50 ± 0.50	0.5000	5	3.10 ± 0.46	0.1079	2.12 ± 0.36
70.0	5	4.00 ± 0.84	0.2815	5	2.70 ± 0.51	0.2373	2.80 ± 0.24
Trend p-Value		0.4680			0.3690		

Trial Summary: Positive

Experiment Number: **A55884**
Test Type: **Genetic Toxicology - Micronucleus**
Route: **Dermal**
Species/Strain: **Mouse/B6C3F1**

G04: In Vivo Micronucleus Summary Data
Test Compound: **Diisopropylcarbodiimide**
CAS Number: **693-13-0**

Date Report Requested: **09/20/2018**
Time Report Requested: **19:40:08**

Tissue: Blood; Sex: Male; Number of Treatments: 66; Time interval between final treatment and cell sampling: 24 h

		MN PCE/1000			MN NCE/1000		% PCE
Dose (mg/kg)	**N**	**Mean ± SEM**	**p-Value**	**N**	**Mean ± SEM**	**p-Value**	**Mean ± SEM**
Vehicle Control[1]	5	3.60 ± 0.51		5	1.60 ± 0.56		1.80 ± 0.23
17.5	5	3.60 ± 0.46	0.5000	5	2.20 ± 0.46	0.1650	2.12 ± 0.31
35.0	5	3.60 ± 0.99	0.5000	5	1.70 ± 0.44	0.4308	2.08 ± 0.20
70.0	5	7.00 ± 1.05	< 0.001 *	5	3.40 ± 0.83	0.0054 *	2.16 ± 0.14
Trend p-Value		< 0.001 *			0.0050 *		

Trial Summary: Positive

Experiment Number: **A55884**
Test Type: **Genetic Toxicology - Micronucleus**
Route: **Dermal**
Species/Strain: **Mouse/B6C3F1**

G04: In Vivo Micronucleus Summary Data
Test Compound: **Diisopropylcarbodiimide**
CAS Number: **693-13-0**

Date Report Requested: **09/20/2018**
Time Report Requested: **19:40:08**

Tissue: Blood; Sex: Male; Number of Treatments: 76; Time interval between final treatment and cell sampling: 24 h

	MN PCE/1000			MN NCE/1000			% PCE
Dose (mg/kg)	**N**	**Mean ± SEM**	**p-Value**	**N**	**Mean ± SEM**	**p-Value**	**Mean ± SEM**
Vehicle Control[1]	5	2.10 ± 0.48		5	1.10 ± 0.37		1.78 ± 0.19
17.5	5	3.70 ± 0.64	0.0177	5	2.60 ± 0.24	0.0068 *	1.88 ± 0.15
35.0	5	4.50 ± 0.74	0.0015 *	5	2.10 ± 0.37	0.0384	1.94 ± 0.22
70.0	5	5.40 ± 0.93	< 0.001 *	5	1.70 ± 0.62	0.1283	1.78 ± 0.14
Trend p-Value		< 0.001 *			0.3550		

Trial Summary: Positive

Experiment Number: **A55884**
Test Type: **Genetic Toxicology - Micronucleus**
Route: **Dermal**
Species/Strain: **Mouse/B6C3F1**

G04: In Vivo Micronucleus Summary Data
Test Compound: **Diisopropylcarbodiimide**
CAS Number: **693-13-0**

Date Report Requested: **09/20/2018**
Time Report Requested: **19:40:08**

Tissue: Blood; Sex: Male; Number of Treatments: 90; Time interval between final treatment and cell sampling: 24 h

		MN PCE/1000			MN NCE/1000		% PCE
Dose (mg/kg)	**N**	**Mean ± SEM**	**p-Value**	**N**	**Mean ± SEM**	**p-Value**	**Mean ± SEM**
Vehicle Control[1]	5	2.40 ± 0.56		5	1.90 ± 0.46		1.46 ± 0.22
17.5	5	3.90 ± 0.62	0.0292	5	2.30 ± 0.37	0.2683	1.86 ± 0.22
35.0	5	3.20 ± 0.46	0.1422	5	2.70 ± 0.46	0.1188	1.64 ± 0.22
70.0	5	4.00 ± 0.59	0.0226	5	3.60 ± 0.66	0.0109	1.52 ± 0.13
Trend p-Value		0.0590			0.0070 *		

Trial Summary: Positive

Experiment Number: **A55884**
Test Type: **Genetic Toxicology - Micronucleus**
Route: **Dermal**
Species/Strain: **Mouse/B6C3F1**

G04: In Vivo Micronucleus Summary Data
Test Compound: **Diisopropylcarbodiimide**
CAS Number: **693-13-0**

Date Report Requested: **09/20/2018**
Time Report Requested: **19:40:08**

Tissue: Blood; Sex: Male; Number of Treatments: 4; Time interval between final treatment and cell sampling: 24 h

		MN PCE/1000			MN NCE/1000		% PCE
Dose (mg/kg)	**N**	**Mean ± SEM**	**p-Value**	**N**	**Mean ± SEM**	**p-Value**	**Mean ± SEM**
Vehicle Control[1]	5	3.60 ± 0.56		5	2.40 ± 0.43		2.92 ± 0.56
17.5	5	5.10 ± 0.33	0.0535	5	3.40 ± 0.29	0.0943	4.50 ± 1.13
35.0	5	4.40 ± 0.51	0.1851	5	3.20 ± 0.44	0.1422	3.14 ± 0.29
70.0	5	5.10 ± 0.97	0.0535	5	1.70 ± 0.30	0.8631	3.04 ± 0.33
Trend p-Value		0.1090			0.9180		

Trial Summary: Positive

Experiment Number: **A55884**
Test Type: **Genetic Toxicology - Micronucleus**
Route: **Dermal**
Species/Strain: **Mouse/B6C3F1**

G04: In Vivo Micronucleus Summary Data
Test Compound: **Diisopropylcarbodiimide**
CAS Number: **693-13-0**

Date Report Requested: **09/20/2018**
Time Report Requested: **19:40:08**

Tissue: Blood; Sex: Male; Number of Treatments: 9; Time interval between final treatment and cell sampling: 24 h

	MN PCE/1000			MN NCE/1000			% PCE
Dose (mg/kg)	**N**	**Mean ± SEM**	**p-Value**	**N**	**Mean ± SEM**	**p-Value**	**Mean ± SEM**
Vehicle Control[1]	5	3.60 ± 0.10		5	3.70 ± 0.68		2.72 ± 0.16
17.5	5	5.00 ± 0.65	0.0652	5	2.90 ± 0.58	0.8380	2.78 ± 0.56
35.0	5	5.40 ± 0.43	0.0286	5	3.60 ± 0.48	0.5467	3.72 ± 0.44
70.0	5	5.80 ± 0.51	0.0115	5	3.10 ± 0.43	0.7670	3.44 ± 0.45
Trend p-Value		0.0180 *			0.6750		

Trial Summary: Positive

Experiment Number: **A55884**
Test Type: **Genetic Toxicology - Micronucleus**
Route: **Dermal**
Species/Strain: **Mouse/B6C3F1**

G04: In Vivo Micronucleus Summary Data
Test Compound: **Diisopropylcarbodiimide**
CAS Number: **693-13-0**

Date Report Requested: **09/20/2018**
Time Report Requested: **19:40:08**

Tissue: Blood; Sex: Male; Number of Treatments: 14; Time interval between final treatment and cell sampling: 24 h

		MN PCE/1000			MN NCE/1000		% PCE
Dose (mg/kg)	**N**	**Mean ± SEM**	**p-Value**	**N**	**Mean ± SEM**	**p-Value**	**Mean ± SEM**
Vehicle Control[1]	5	3.50 ± 0.96		5	2.00 ± 0.47		2.84 ± 0.32
17.5	5	4.70 ± 0.64	0.0921	5	2.70 ± 0.25	0.1533	3.48 ± 0.32
35.0	5	5.60 ± 1.05	0.0137	5	4.90 ± 0.53	< 0.001 *	3.04 ± 0.75
70.0	5	5.40 ± 0.51	0.0218	5	3.00 ± 0.32	0.0784	4.06 ± 0.85
Trend p-Value		0.0280			0.0700		

Trial Summary: Positive

Experiment Number: **A55884**
Test Type: **Genetic Toxicology - Micronucleus**
Route: **Dermal**
Species/Strain: **Mouse/B6C3F1**

G04: In Vivo Micronucleus Summary Data
Test Compound: **Diisopropylcarbodiimide**
CAS Number: **693-13-0**

Date Report Requested: **09/20/2018**
Time Report Requested: **19:40:08**

Tissue: Blood; Sex: Male; Number of Treatments: 19; Time interval between final treatment and cell sampling: 24 h

	MN PCE/1000			MN NCE/1000			% PCE
Dose (mg/kg)	**N**	**Mean ± SEM**	**p-Value**	**N**	**Mean ± SEM**	**p-Value**	**Mean ± SEM**
Vehicle Control[1]	5	4.80 ± 0.96		5	3.40 ± 0.43		3.36 ± 0.37
17.5	5	4.90 ± 0.98	0.4595	5	4.40 ± 0.51	0.1283	4.50 ± 0.98
35.0	5	5.50 ± 0.76	0.2446	5	3.70 ± 0.41	0.3607	3.58 ± 0.63
70.0	5	6.70 ± 0.58	0.0378	5	3.70 ± 0.56	0.3607	3.80 ± 0.90
Trend p-Value		0.0230 *			0.5000		

Trial Summary: Positive

Experiment Number: **A55884**
Test Type: **Genetic Toxicology - Micronucleus**
Route: **Dermal**
Species/Strain: **Mouse/B6C3F1**

G04: In Vivo Micronucleus Summary Data
Test Compound: **Diisopropylcarbodiimide**
CAS Number: **693-13-0**

Date Report Requested: **09/20/2018**
Time Report Requested: **19:40:08**

Tissue: Blood; Sex: Male; Number of Treatments: 26; Time interval between final treatment and cell sampling: 24 h

		MN PCE/1000			MN NCE/1000		% PCE
Dose (mg/kg)	**N**	**Mean ± SEM**	**p-Value**	**N**	**Mean ± SEM**	**p-Value**	**Mean ± SEM**
Vehicle Control[1]	5	3.20 ± 0.66		5	3.00 ± 0.45		3.22 ± 0.37
17.5	5	5.20 ± 0.82	0.0144	5	2.90 ± 0.33	0.5519	2.78 ± 0.52
35.0	5	5.00 ± 0.22	0.0232	5	3.20 ± 0.64	0.3996	2.40 ± 0.34
70.0	5	4.40 ± 0.56	0.0839	5	3.40 ± 0.53	0.3083	4.00 ± 0.89
Trend p-Value		0.2010			0.2670		

Trial Summary: Positive

Experiment Number: **A55884**
Test Type: **Genetic Toxicology - Micronucleus**
Route: **Dermal**
Species/Strain: **Mouse/B6C3F1**

G04: In Vivo Micronucleus Summary Data
Test Compound: **Diisopropylcarbodiimide**
CAS Number: **693-13-0**

Date Report Requested: **09/20/2018**
Time Report Requested: **19:40:08**

Tissue: Blood; Sex: Male; Number of Treatments: 31; Time interval between final treatment and cell sampling: 24 h

	MN PCE/1000			MN NCE/1000			% PCE
Dose (mg/kg)	**N**	**Mean ± SEM**	**p-Value**	**N**	**Mean ± SEM**	**p-Value**	**Mean ± SEM**
Vehicle Control[1]	5	3.60 ± 0.60		5	2.60 ± 0.33		3.48 ± 0.55
17.5	5	4.50 ± 0.76	0.1582	5	3.80 ± 0.37	0.0665	2.48 ± 0.26
35.0	5	4.50 ± 0.45	0.1582	5	3.40 ± 0.43	0.1505	2.62 ± 0.64
70.0	5	5.20 ± 0.93	0.0437	5	3.10 ± 0.29	0.2536	2.72 ± 0.31
Trend p-Value		0.0550			0.4000		

Trial Summary: Positive

Experiment Number: **A55884**
Test Type: **Genetic Toxicology - Micronucleus**
Route: **Dermal**
Species/Strain: **Mouse/B6C3F1**

G04: In Vivo Micronucleus Summary Data
Test Compound: **Diisopropylcarbodiimide**
CAS Number: **693-13-0**

Date Report Requested: **09/20/2018**
Time Report Requested: **19:40:08**

Tissue: Blood; Sex: Male; Number of Treatments: 36; Time interval between final treatment and cell sampling: 24 h

		MN PCE/1000			MN NCE/1000		% PCE
Dose (mg/kg)	**N**	**Mean ± SEM**	**p-Value**	**N**	**Mean ± SEM**	**p-Value**	**Mean ± SEM**
Vehicle Control[1]	5	2.90 ± 1.07		5	2.20 ± 0.46		2.16 ± 0.17
17.5	5	3.90 ± 0.60	0.1122	5	2.40 ± 0.29	0.3839	1.72 ± 0.21
35.0	5	1.90 ± 0.29	0.9258	5	2.20 ± 0.58	0.5000	1.76 ± 0.11
70.0	5	4.90 ± 0.64	0.0116	5	2.60 ± 0.24	0.2816	2.04 ± 0.10
Trend p-Value		0.0210 *			0.3000		

Trial Summary: Positive

Experiment Number: **A55884**
Test Type: **Genetic Toxicology - Micronucleus**
Route: **Dermal**
Species/Strain: **Mouse/B6C3F1**

G04: In Vivo Micronucleus Summary Data
Test Compound: **Diisopropylcarbodiimide**
CAS Number: **693-13-0**

Date Report Requested: **09/20/2018**
Time Report Requested: **19:40:08**

Tissue: Blood; Sex: Male; Number of Treatments: 46; Time interval between final treatment and cell sampling: 24 h

	MN PCE/1000			MN NCE/1000			% PCE
Dose (mg/kg)	**N**	**Mean ± SEM**	**p-Value**	**N**	**Mean ± SEM**	**p-Value**	**Mean ± SEM**
Vehicle Control[1]	5	3.10 ± 0.53		5	2.10 ± 0.53		2.46 ± 0.20
17.5	5	4.10 ± 0.58	0.1189	5	2.70 ± 0.56	0.1930	2.10 ± 0.21
35.0	5	5.20 ± 0.77	0.0104	5	3.00 ± 0.59	0.1035	1.84 ± 0.22
70.0	5	4.60 ± 0.58	0.0434	5	3.50 ± 0.71	0.0305	2.00 ± 0.25
Trend p-Value		0.0510			0.0310		

Trial Summary: Positive

Experiment Number: **A55884**
Test Type: **Genetic Toxicology - Micronucleus**
Route: **Dermal**
Species/Strain: **Mouse/B6C3F1**

G04: In Vivo Micronucleus Summary Data
Test Compound: **Diisopropylcarbodiimide**
CAS Number: **693-13-0**

Date Report Requested: **09/20/2018**
Time Report Requested: **19:40:08**

Tissue: Bone marrow; Sex: Male; Number of Treatments: 90; Time interval between final treatment and cell sampling: 24 h

		MN PCE/1000		% PCE
Dose (mg/kg)	**N**	**Mean ± SEM**	**p-Value**	**Mean ± SEM**
Vehicle Control[1]	5	1.10 ± 0.24		54.20 ± 1.62
17.5	5	0.60 ± 0.10	0.8875	52.60 ± 3.79
35.0	5	0.90 ± 0.19	0.6727	52.90 ± 3.23
70.0	5	1.30 ± 0.30	0.3415	54.80 ± 3.85
Trend p-Value		0.2010		

Trial Summary: Positive

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 ± Standard Error Mean
Results were tabulated as the mean of the pooled results from all animals within a treatment group, plus or minus the standard error of the mean
Pairwise comparison to the concurrent control, dosed groups significant at p = 0.025/number of treatment groups; positive control value is significant at p = 0.05
Cochran-Armitage trend test, significant at p = 0.025
* Statistically significant pairwise or trend test
1: Vehicle Control: Ethanol

** END OF REPORT **