

Experiment Number: 993435

Test Type: **Genetic Toxicology - Bacterial
Mutagenicity**

G06: Ames Summary Data

Test Compound: **1,3-Dioxane**

CAS Number: **505-22-6**

Date Report Requested: **09/18/2018**

Time Report Requested: **08:10:23**

NTP Study Number:

993435

Study Result:

Equivocal

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Test Compound: 1,3-Dioxane

CAS Number: 505-22-6

Date Report Requested: 09/18/2018

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Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	136 ± 5.5	133 ± 9.7	109 ± 12.1	127 ± 4.2	105 ± 6.6
100.0	131 ± 5.9	137 ± 3.8	111 ± 5.2	115 ± 7.5	105 ± 11.3
333.0	143 ± 7.0	138 ± 7.0	92 ± 7.3	121 ± 6.4	107 ± 7.0
1000.0	147 ± 4.9	153 ± 7.4	103 ± 3.0	125 ± 3.8	113 ± 16.9
3333.0	144 ± 3.6	145 ± 0.9	126 ± 4.8	126 ± 1.2	112 ± 8.8
10000.0	117 ± 14.0 ^s	161 ± 6.2 ^s	132 ± 4.7	120 ± 8.2	113 ± 6.6
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					2409 ± 19.5
Positive Control ³			1107 ± 51.1	1310 ± 89.6	
Positive Control ⁴	2224 ± 53.7	3046 ± 43.7			

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Strain: TA100

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	110 ± 8.9
100.0	102 ± 19.6
333.0	107 ± 7.5
1000.0	98 ± 6.8
3333.0	115 ± 4.7
10000.0	90 ± 5.7
Trial Summary	Negative
Positive Control ²	1565 ± 26.2
Positive Control ³	
Positive Control ⁴	

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Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	32 ± 1.5	21 ± 1.2	12 ± 2.0	10 ± 1.8	12 ± 2.0
100.0	34 ± 1.5	24 ± 2.0	10 ± 0.9	12 ± 1.5	12 ± 1.2
333.0	36 ± 2.0	29 ± 5.2	10 ± 1.7	10 ± 1.2	10 ± 0.9
1000.0	31 ± 4.1	28 ± 2.3	10 ± 1.2	10 ± 0.3	14 ± 0.9
3333.0	35 ± 6.8	21 ± 3.5	9 ± 1.2	10 ± 1.2	10 ± 1.9
10000.0	26 ± 4.2 ^s	14 ± 2.2 ^s	13 ± 2.6	10 ± 1.7	12 ± 0.9
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					158 ± 8.5
Positive Control ³			111 ± 12.0	93 ± 11.8	
Positive Control ⁴	1484 ± 81.8	2368 ± 50.0			

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Strain: TA1535

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	8 ± 1.3
100.0	11 ± 0.3
333.0	8 ± 0.6
1000.0	7 ± 2.2
3333.0	7 ± 2.0
10000.0	6 ± 0.6
Trial Summary	Negative
Positive Control ²	86 ± 8.7
Positive Control ³	
Positive Control ⁴	

Experiment Number: 993435

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Test Compound: 1,3-Dioxane

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Strain: TA1537

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9
Vehicle Control ¹	6 ± 1.2	9 ± 0.3	4 ± 1.5	10 ± 3.5	4 ± 1.3
100.0	6 ± 0.3		3 ± 1.2	10 ± 1.3	7 ± 0.9
333.0	9 ± 2.6		5 ± 0.7	7 ± 1.5	6 ± 1.2
1000.0	11 ± 0.9	5 ± 0.7	6 ± 0.0	11 ± 3.2	8 ± 2.1
2000.0		10 ± 1.3			
2500.0		12 ± 3.6			
3333.0	14 ± 2.2 ^s	13 ± 2.9 ^s	10 ± 1.0 ^s	10 ± 2.0	7 ± 2.0
4444.0		8 ± 2.2 ^s			
10000.0	9 ± 0.7 ^s		5 ± 0.6 ^s	9 ± 1.8	6 ± 1.5
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					
Positive Control ³				114 ± 7.5	80 ± 7.3
Positive Control ⁵	300 ± 43.7	957 ± 78.8	453 ± 17.5		

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Strain: TA1537

Dose (ug/Plate)	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	4 ± 1.7	8 ± 0.3	9 ± 1.2	7 ± 0.3
100.0	5 ± 1.3	13 ± 0.3	10 ± 0.9	6 ± 1.2
333.0	6 ± 1.2	8 ± 2.1	6 ± 0.3	5 ± 0.6
1000.0	4 ± 0.0	10 ± 3.2	6 ± 2.1	7 ± 1.8
2000.0				
2500.0				
3333.0	9 ± 1.5	10 ± 0.9	8 ± 2.2	4 ± 0.6
4444.0				
10000.0	8 ± 1.2	9 ± 1.9	9 ± 2.7	8 ± 1.5
Trial Summary	Negative	Negative	Negative	Negative
Positive Control ²		203 ± 11.6	287 ± 23.4	167 ± 8.1
Positive Control ³	136 ± 11.7			
Positive Control ⁵				

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Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9
Vehicle Control ¹	21 ± 1.2	16 ± 2.6	11 ± 1.2	32 ± 1.5	34 ± 3.2
100.0	19 ± 0.9		12 ± 3.0	34 ± 3.5	30 ± 2.8
333.0	21 ± 1.2		12 ± 1.2	34 ± 2.1	28 ± 1.5
1000.0	23 ± 6.0	17 ± 0.0	20 ± 1.7	37 ± 5.2	31 ± 3.2
2000.0		31 ± 1.7			
2500.0		30 ± 3.4			
3333.0	43 ± 3.8 ^s	22 ± 6.1	10 ± 1.2 ^s	36 ± 3.8	32 ± 3.3
4444.0		27 ± 0.9 ^s			
10000.0	17 ± 0.9 ^s		10 ± 1.5 ^s	31 ± 2.9	31 ± 3.8
Trial Summary	Equivocal	Equivocal	Negative	Negative	Negative
Positive Control ²					
Positive Control ³				946 ± 25.5	1043 ± 78.9
Positive Control ⁶	2981 ± 106.6	1469 ± 31.6	1331 ± 25.5		

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Mutagenicity**G06: Ames Summary Data**

Test Compound: 1,3-Dioxane

CAS Number: 505-22-6

Date Report Requested: 09/18/2018

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Strain: TA98

Dose (ug/Plate)	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	16 ± 0.9	32 ± 1.0	21 ± 2.0	16 ± 1.3
100.0	19 ± 2.3	26 ± 3.8	30 ± 3.5	22 ± 1.5
333.0	21 ± 1.9	33 ± 3.2	35 ± 6.1	18 ± 1.7
1000.0	21 ± 2.5	31 ± 1.5	30 ± 4.9	17 ± 0.9
2000.0				
2500.0				
3333.0	19 ± 0.7	33 ± 3.4	33 ± 3.5	19 ± 2.9
4444.0				
10000.0	19 ± 2.0	38 ± 1.2	26 ± 0.6	19 ± 1.5
Trial Summary	Negative	Negative	Negative	Negative
Positive Control ²		1857 ± 42.3	2686 ± 114.6	1051 ± 133.6
Positive Control ³	1079 ± 13.9			
Positive Control ⁶				

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LEGEND

Values given as Mean or Mean \pm Standard Error Mean

The number of samples = 3, unless samples marked toxic or contaminated were excluded from mean and SEM calculations

CAS Number = Chemical Abstracts Service registry number

1: Vehicle Control: Water

2: 0.75 ug/Plate 2-Aminoanthracene

3: 1.5 ug/Plate 2-Aminoanthracene

4: 2.5 ug/Plate Sodium Azide

5: 80.0 ug/Plate 9-Aminoacridine

6: 12.0 ug/Plate 4-Nitro-O-Phenylenediamine

s: Slight Toxicity

**** END OF REPORT ****