

Experiment Number: 434999

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

**G06: Ames Summary Data**

Test Compound: 1,4-Butanediol diglycidyl ether

CAS Number: 2425-79-8

Date Report Requested: 09/10/2018

Time Report Requested: 21:09:02

**NTP Study Number:**

434999

**Study Result:**

Positive

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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 <sup>1</sup>	172 ± 5.7	125 ± 10.7	156 ± 2.7	129 ± 4.5	138 ± 9.8
33.0	184 ± 17.3	147 ± 6.6			
100.0	206 ± 7.5	179 ± 3.3	160 ± 7.6	128 ± 4.5	136 ± 8.3
333.0	317 ± 6.6	323 ± 5.5	243 ± 9.8	205 ± 9.5	152 ± 8.5
1000.0	544 ± 18.2	731 ± 4.7 <sup>s</sup>	473 ± 17.4	465 ± 21.4	245 ± 12.6
2000.0					
3333.0	1136 ± 14.2 <sup>s</sup>	1462 ± 35.4 <sup>s</sup>	1217 ± 36.4	1324 ± 10.8	995 ± 33.8
10000.0			2051 ± 26.7 <sup>s</sup>	2799 ± 46.9 <sup>s</sup>	2329 ± 48.8 <sup>s</sup>
Trial Summary	Positive	Positive	Positive	Positive	Positive
Positive Control <sup>2</sup>					1065 ± 23.1
Positive Control <sup>3</sup>			1064 ± 6.5	606 ± 12.7	
Positive Control <sup>4</sup>	1186 ± 29.0	1280 ± 22.6			

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**Strain: TA100**

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<b>Dose (ug/Plate)</b>	<b>With 10% Hamster S9</b>
Vehicle Control <sup>1</sup>	127 ± 0.3
33.0	
100.0	
333.0	145 ± 7.2
1000.0	304 ± 9.3
2000.0	706 ± 29.5
3333.0	1200 ± 62.4
10000.0	2559 ± 50.4 <sup>s</sup>
Trial Summary	Positive
Positive Control <sup>2</sup>	665 ± 34.8
Positive Control <sup>3</sup>	
Positive Control <sup>4</sup>	

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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 <sup>1</sup>	29 ± 2.0	26 ± 2.6	22 ± 1.8	20 ± 5.2	19 ± 1.2
33.0	28 ± 6.1	23 ± 3.2			
100.0	48 ± 6.4	33 ± 3.6	35 ± 3.9	26 ± 0.9	13 ± 2.5
333.0	55 ± 5.4	54 ± 2.0	97 ± 3.6	67 ± 5.2	20 ± 3.1
1000.0	98 ± 9.8	159 ± 7.9	345 ± 7.4	254 ± 16.3	69 ± 1.8
2000.0					
3333.0	193 ± 15.4 <sup>s</sup>	293 ± 5.6 <sup>s</sup>	717 ± 14.8	727 ± 28.6 <sup>s</sup>	586 ± 12.2
10000.0			326 ± 8.4 <sup>s</sup>	395 ± 8.5 <sup>s</sup>	714 ± 29.9 <sup>s</sup>
Trial Summary	Positive	Positive	Positive	Positive	Positive
Positive Control <sup>2</sup>					62 ± 4.7
Positive Control <sup>3</sup>			73 ± 3.8	105 ± 4.8	
Positive Control <sup>4</sup>	799 ± 45.0	958 ± 32.4			

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**Strain: TA1535**

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<b>Dose (ug/Plate)</b>	<b>With 10% Hamster S9</b>
Vehicle Control <sup>1</sup>	22 ± 1.9
33.0	
100.0	
333.0	27 ± 1.5
1000.0	86 ± 6.4
2000.0	338 ± 19.4
3333.0	555 ± 10.7 <sup>s</sup>
10000.0	849 ± 5.4 <sup>s</sup>
Trial Summary	Positive
Positive Control <sup>2</sup>	104 ± 6.3
Positive Control <sup>3</sup>	
Positive Control <sup>4</sup>	

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**Strain: TA1537**

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	5 ± 1.0	6 ± 1.7	8 ± 1.2	6 ± 1.8	8 ± 2.2
33.0	9 ± 2.7				
100.0	7 ± 2.0		11 ± 1.3		7 ± 1.7
333.0	9 ± 0.7	8 ± 2.2	9 ± 1.0	11 ± 2.2	6 ± 1.5
1000.0	10 ± 4.0	11 ± 2.4	11 ± 1.8	9 ± 0.3	9 ± 3.0
3333.0	11 ± 1.2	17 ± 0.6	8 ± 0.7	16 ± 0.9	11 ± 2.0
4000.0		13 ± 2.6 <sup>S</sup>			
5000.0		18 ± 2.2 <sup>S</sup>		19 ± 1.0	
7500.0				22 ± 2.2	
10000.0			22 ± 3.2 <sup>S</sup>	28 ± 5.0	25 ± 2.6 <sup>S</sup>
Trial Summary	Negative	Equivocal	Equivocal	Positive	Equivocal
Positive Control <sup>2</sup>					80 ± 4.4
Positive Control <sup>3</sup>			92 ± 10.9	37 ± 3.3	
Positive Control <sup>5</sup>	233 ± 19.2	330 ± 35.6			

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**Strain: TA1537**

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<b>Dose (ug/Plate)</b>	<b>With 10% Hamster S9</b>
Vehicle Control <sup>1</sup>	14 ± 1.5
33.0	
100.0	
333.0	8 ± 1.3
1000.0	9 ± 0.9
3333.0	12 ± 2.6
4000.0	
5000.0	15 ± 2.3
7500.0	25 ± 3.8
10000.0	26 ± 2.1
Trial Summary	Equivocal
Positive Control <sup>2</sup>	49 ± 5.5
Positive Control <sup>3</sup>	
Positive Control <sup>5</sup>	

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## Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	25 ± 3.5	12 ± 3.3	28 ± 7.0	21 ± 0.6	30 ± 5.5
33.0	17 ± 3.3				
100.0	20 ± 2.5		32 ± 2.6		25 ± 2.6
333.0	19 ± 1.0	21 ± 3.3	34 ± 3.0	27 ± 1.5	25 ± 1.2
1000.0	26 ± 0.3	29 ± 4.4	31 ± 1.8	27 ± 2.8	28 ± 2.0
2000.0		37 ± 1.2			
2500.0		46 ± 5.3			
3333.0	50 ± 5.0	51 ± 0.9	41 ± 3.2	104 ± 65.3	40 ± 3.8
4000.0		56 ± 7.5			
5000.0		58 ± 5.8		56 ± 0.9	
7500.0				70 ± 8.1	
10000.0			65 ± 3.7 <sup>s</sup>	104 ± 4.3	60 ± 6.0 <sup>s</sup>
Trial Summary	Equivocal	Positive	Weakly Positive	Positive	Equivocal
Positive Control <sup>2</sup>					960 ± 18.7
Positive Control <sup>3</sup>			858 ± 20.1	307 ± 9.0	
Positive Control <sup>6</sup>	1065 ± 23.9	1472 ± 19.3			



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**Strain: TA98**

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<b>Dose (ug/Plate)</b>	<b>With 10% Hamster S9</b>
Vehicle Control <sup>1</sup>	20 ± 1.0
33.0	
100.0	
333.0	30 ± 1.5
1000.0	31 ± 4.0
2000.0	
2500.0	
3333.0	46 ± 5.9
4000.0	
5000.0	54 ± 5.2
7500.0	70 ± 0.9
10000.0	94 ± 2.3
Trial Summary	Positive
Positive Control <sup>2</sup>	529 ± 27.9
Positive Control <sup>3</sup>	
Positive Control <sup>6</sup>	

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**LEGEND**

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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: Dimethyl Sulfoxide

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 \*\***