

Experiment Number: 549472

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

**G06: Ames Summary Data**

Test Compound: **Furfural**

CAS Number: **98-01-1**

Date Report Requested: **09/13/2018**

Time Report Requested: **17:50:31**

**NTP Study Number:**

549472

**Study Result:**

Equivocal

Experiment Number: 549472

**G06: Ames Summary Data**

Date Report Requested: 09/13/2018

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

Test Compound: Furfural

Time Report Requested: 17:50:31

**Strain: TA100**

<b>Dose (ug/Plate)</b>	<b>Without S9</b>	<b>Without S9</b>	<b>With 10% Rat S9</b>	<b>With 10% Rat S9</b>	<b>With 10% Hamster S9</b>
Vehicle Control <sup>1</sup>	85 ± 6.6	91 ± 6.1	96 ± 10.0	92 ± 4.3	84 ± 6.2
33.3		92 ± 3.0			
100.0	91 ± 1.5	100 ± 2.6	84 ± 2.0	108 ± 5.9	89 ± 3.8
333.3	94 ± 8.4	105 ± 0.3	92 ± 13.9	104 ± 8.4	77 ± 10.0
1000.0	129 ± 7.2	174 ± 6.7	88 ± 6.4	159 ± 10.7	92 ± 6.7
3333.3	69 ± 3.8 <sup>s</sup>	27 ± 17.2 <sup>s</sup>	90 ± 2.0	32 ± 7.3 <sup>s</sup>	116 ± 16.9
6666.7	Toxic		67 ± 24.7 <sup>s</sup>	3 ± 1.5 <sup>s</sup>	25 ± 25.3 <sup>s</sup>
Trial Summary	Equivocal	Equivocal	Negative	Equivocal	Negative
Positive Control <sup>2</sup>			528 ± 9.3	861 ± 48.2	1383 ± 66.9
Positive Control <sup>3</sup>	413 ± 8.8	338 ± 11.6			

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Strain: TA100

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Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control <sup>1</sup>	89 ± 4.0
33.3	
100.0	111 ± 3.3
333.3	112 ± 6.0
1000.0	126 ± 17.5
3333.3	40 ± 5.7 <sup>s</sup>
6666.7	0 ± 0.0 <sup>s</sup>
Trial Summary	Negative
Positive Control <sup>2</sup>	1932 ± 40.0
Positive Control <sup>3</sup>	

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**Strain: TA1535**

<b>Dose (ug/Plate)</b>	<b>Without S9</b>	<b>Without S9</b>	<b>With 10% Rat S9</b>	<b>With 10% Rat S9</b>	<b>With 10% Hamster S9</b>
Vehicle Control <sup>1</sup>	10 ± 1.3	8 ± 0.6	9 ± 1.5	6 ± 0.9	6 ± 2.5
33.3		14 ± 1.2			
100.0	17 ± 1.2	11 ± 2.7	7 ± 1.2	6 ± 0.9	8 ± 2.3
333.3	12 ± 4.0	10 ± 2.2	9 ± 2.6	5 ± 0.3	3 ± 1.5
1000.0	10 ± 2.5	7 ± 0.7	8 ± 0.7	6 ± 1.5	7 ± 1.5
3333.3	5 ± 1.3 <sup>s</sup>	4 ± 0.3 <sup>s</sup>	8 ± 2.2	3 ± 1.0 <sup>s</sup>	5 ± 0.3
6666.7	1 ± 1.0 <sup>s</sup>		4 ± 0.3	1 ± 0.9 <sup>s</sup>	2 ± 1.2
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>3</sup>	350 ± 10.4	183 ± 10.7			
Positive Control <sup>4</sup>			313 ± 14.2	222 ± 8.2	470 ± 34.0

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Strain: TA1535

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Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control <sup>1</sup>	6 ± 1.7
33.3	
100.0	12 ± 1.9
333.3	6 ± 2.1
1000.0	9 ± 2.5
3333.3	4 ± 2.3 <sup>s</sup>
6666.7	0 ± 0.0 <sup>s</sup>
Trial Summary	Negative
Positive Control <sup>3</sup>	
Positive Control <sup>4</sup>	285 ± 23.9

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

Test Compound: Furfural

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**Strain: TA1537**

<b>Dose (ug/Plate)</b>	<b>Without S9</b>	<b>Without S9</b>	<b>With 10% Rat S9</b>	<b>With 10% Rat S9</b>	<b>With 10% Hamster S9</b>
Vehicle Control <sup>1</sup>	7 ± 1.5	7 ± 1.3	9 ± 2.1	3 ± 1.0	7 ± 3.1
33.3		9 ± 0.6		12 ± 2.6	
100.0	7 ± 1.9	8 ± 2.1	7 ± 1.5	13 ± 1.2	11 ± 2.4
333.3	7 ± 1.2	5 ± 0.9	4 ± 0.9	12 ± 1.7	8 ± 2.3
1000.0	3 ± 1.2	9 ± 2.3	6 ± 1.2	10 ± 3.7	5 ± 0.6
3333.3	1 ± 0.7 <sup>s</sup>	6 ± 0.9 <sup>s</sup>	5 ± 0.9	0 ± 0.3 <sup>s</sup>	3 ± 0.6
6666.7	0 ± 0.3 <sup>s</sup>		3 ± 1.7		0 ± 0.3
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>4</sup>			235 ± 5.8	132 ± 18.3	445 ± 13.0
Positive Control <sup>5</sup>	124 ± 40.2	197 ± 18.6			

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Strain: TA1537

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Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control <sup>1</sup>	3 ± 0.7
33.3	9 ± 1.2
100.0	8 ± 1.9
333.3	12 ± 2.0
1000.0	9 ± 1.9
3333.3	4 ± 0.3 <sup>s</sup>
6666.7	
Trial Summary	Negative
Positive Control <sup>4</sup>	159 ± 21.9
Positive Control <sup>5</sup>	

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## G06: Ames Summary Data

Test Compound: Furfural

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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>	28 ± 1.7	23 ± 1.2	35 ± 5.9	29 ± 4.3	24 ± 1.7
33.3		24 ± 3.0			
100.0	26 ± 5.4	15 ± 1.5	36 ± 8.0	34 ± 3.8	37 ± 3.9
333.3	31 ± 2.9	18 ± 2.5	37 ± 4.7	35 ± 2.7	30 ± 4.9
1000.0	27 ± 1.2	20 ± 3.3	36 ± 2.8	31 ± 1.2	32 ± 3.8
3333.3	6 ± 0.9 <sup>s</sup>	7 ± 1.2 <sup>s</sup>	14 ± 0.7 <sup>s</sup>	25 ± 0.6	19 ± 3.3
6666.7	0 ± 0.0 <sup>s</sup>		1 ± 1.0 <sup>s</sup>	0 ± 0.0 <sup>s</sup>	0 ± 0.0 <sup>s</sup>
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>			326 ± 16.1	550 ± 17.9	1177 ± 53.5
Positive Control <sup>6</sup>	797 ± 18.8	650 ± 22.0			



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Strain: TA98

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Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control <sup>1</sup>	27 ± 2.2
33.3	
100.0	29 ± 6.8
333.3	24 ± 1.8
1000.0	28 ± 2.2
3333.3	22 ± 1.5
6666.7	2 ± 1.7 <sup>s</sup>
Trial Summary	Negative
Positive Control <sup>2</sup>	1486 ± 13.8
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: 1.0 ug/Plate 2-Aminoanthracene

3: 1.0 ug/Plate Sodium Azide

4: 2.5 ug/Plate 2-Aminoanthracene

5: 50.0 ug/Plate 9-Aminoacridine

6: 5.0 ug/Plate 4-Nitro-O-Phenylenediamine

s: Slight Toxicity

**\*\* END OF REPORT \*\***