

Experiment Number: 507924

Test Type: Genetic Toxicology - Bacterial  
Mutagenicity

**G06: Ames Summary Data**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 09/12/2018

Time Report Requested: 10:47:50

**NTP Study Number:**

507924

**Study Result:**

Positive

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## G06: Ames Summary Data

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

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## Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 30% Rat S9	With 30% Rat S9	With 30% Hamster S9
Vehicle Control <sup>1</sup>	153 ± 18.5	101 ± 7.3	167 ± 5.3	115 ± 7.5	157 ± 14.2
100.0		107 ± 3.8			
333.0	157 ± 2.2	125 ± 8.7	190 ± 7.5	117 ± 14.1	181 ± 10.2
666.0	159 ± 3.8				
1000.0	183 ± 6.4	157 ± 2.2	204 ± 16.7	159 ± 3.0	194 ± 22.0
1666.0		153 ± 11.2			
3333.0	201 ± 7.8	34 ± 12.0 <sup>s</sup>	213 ± 11.1	196 ± 7.2	278 ± 6.8
6666.0	6 ± 3.1 <sup>s</sup>		376 ± 14.9 <sup>p</sup>	284 ± 6.7 <sup>p</sup>	341 ± 2.3 <sup>p</sup>
10000.0			391 ± 15.3 <sup>p</sup>	322 ± 0.6 <sup>p</sup>	425 ± 45.6 <sup>p</sup>
Trial Summary	Equivocal	Equivocal	Positive	Positive	Positive
Positive Control <sup>2</sup>					728 ± 53.8
Positive Control <sup>3</sup>	443 ± 10.6	413 ± 7.3			
Positive Control <sup>4</sup>			703 ± 17.4	399 ± 13.2	

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Strain: TA100

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Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control <sup>1</sup>	105 ± 2.9
100.0	
333.0	131 ± 3.8
666.0	
1000.0	171 ± 3.5
1666.0	
3333.0	223 ± 5.8
6666.0	298 ± 12.9 <sup>p</sup>
10000.0	317 ± 8.7 <sup>p</sup>
Trial Summary	Positive
Positive Control <sup>2</sup>	649 ± 62.6
Positive Control <sup>3</sup>	
Positive Control <sup>4</sup>	

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Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	With 5% Rat S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control <sup>1</sup>	23 ± 2.8	23 ± 3.4	37 ± 5.4	27 ± 2.5	34 ± 5.0
33.0		25 ± 0.9			
100.0		27 ± 1.2			
333.0	27 ± 1.5	22 ± 2.0	36 ± 3.5	39 ± 1.8	41 ± 6.2
666.0	37 ± 4.0				
1000.0	32 ± 2.6	23 ± 1.3	39 ± 5.2	43 ± 2.4	36 ± 2.0
1666.0		21 ± 2.7			
3333.0	3 ± 1.7 <sup>s</sup>		43 ± 4.7	43 ± 3.2	41 ± 2.0
6666.0	0 ± 0.0 <sup>s</sup>		29 ± 5.8	37 ± 3.8 <sup>p</sup>	63 ± 6.0 <sup>p</sup>
10000.0			13 ± 2.3 <sup>s</sup>	20 ± 5.0 <sup>x</sup>	58 ± 4.1 <sup>p</sup>
Trial Summary	Negative	Negative	Negative	Equivocal	Equivocal
Positive Control <sup>5</sup>					
Positive Control <sup>2</sup>				503 ± 5.9	162 ± 1.2
Positive Control <sup>6</sup>			815 ± 47.6		
Positive Control <sup>7</sup>	374 ± 15.0	562 ± 5.8			

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## G06: Ames Summary Data

Test Compound: Isobutyl nitrite

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## Strain: TA98

Dose (ug/Plate)	With 30% Rat S9	With 5% Hamster S9	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control <sup>1</sup>	33 ± 4.3	32 ± 3.3	39 ± 3.8	35 ± 4.0	28 ± 2.7
33.0					
100.0					
333.0	32 ± 3.2	34 ± 5.0	34 ± 2.5	45 ± 3.5	26 ± 4.2
666.0					
1000.0	38 ± 4.0	31 ± 2.0	34 ± 6.3	45 ± 5.2	39 ± 2.7
1666.0					
3333.0	42 ± 2.2	37 ± 0.7	43 ± 1.3	42 ± 3.2	42 ± 7.5
6666.0	40 ± 3.8 <sup>p</sup>	25 ± 2.6	30 ± 3.0 <sup>p</sup>	43 ± 3.8 <sup>p</sup>	44 ± 6.0 <sup>p</sup>
10000.0	36 ± 3.6 <sup>p</sup>	14 ± 3.5 <sup>s</sup>	26 ± 3.5 <sup>p</sup>	44 ± 3.3 <sup>p</sup>	47 ± 4.0 <sup>p</sup>
Trial Summary	Negative	Negative	Negative	Negative	Equivocal
Positive Control <sup>5</sup>		1071 ± 33.0	786 ± 46.0		
Positive Control <sup>2</sup>	191 ± 27.2			318 ± 18.6	580 ± 55.8
Positive Control <sup>6</sup>					
Positive Control <sup>7</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: 0.5 ug/Plate 2-Aminoanthracene

6: 2.0 ug/Plate 2-Aminoanthracene

7: 2.5 ug/Plate 4-Nitro-O-Phenylenediamine

p: Precipitate

s: Slight Toxicity

x: Slight Toxicity and Precipitate

\*\* END OF REPORT \*\*