

Experiment Number: 571943

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

**G06: Ames Summary Data**

Test Compound: **Isocyanatocyclohexane**

CAS Number: 3173-53-3

Date Report Requested: **09/14/2018**

Time Report Requested: **04:59:25**

**NTP Study Number:**

571943

**Study Result:**

Equivocal

Experiment Number: 571943

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## G06: Ames Summary Data

Test Compound: Isocyanatocyclohexane

CAS Number: 3173-53-3

Date Report Requested: 09/14/2018

Time Report Requested: 04:59:25

## Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	Without S9	Without S9	With 10% Rat S9
Vehicle Control <sup>1</sup>	125 ± 3.7	103 ± 9.8	117 ± 6.9	96 ± 4.0	143 ± 9.0
1.0	119 ± 6.9			115 ± 7.9	
3.3	136 ± 2.9			129 ± 3.8	129 ± 8.0
10.0	137 ± 6.1	98 ± 5.8	123 ± 11.7	108 ± 7.2	125 ± 9.8
20.0		107 ± 12.3	128 ± 15.4		
33.0	259 ± 7.7	126 ± 1.9	189 ± 5.5	175 ± 10.7	140 ± 11.2
50.0		125 ± 13.0	158 ± 9.9		
67.0		77 ± 6.1 <sup>s</sup>	64 ± 4.9 <sup>s</sup>		
100.0	0 ± 0.3 <sup>s</sup>			0 ± 0.0 <sup>s</sup>	194 ± 18.3
150.0					
200.0					
333.0					0 ± 0.0 <sup>s</sup>
Trial Summary	Equivocal	Negative	Equivocal	Equivocal	Equivocal
Positive Control <sup>2</sup>					
Positive Control <sup>3</sup>	332 ± 4.1	630 ± 39.6	533 ± 25.0	415 ± 18.5	
Positive Control <sup>4</sup>					1134 ± 73.0
Positive Control <sup>5</sup>					
Positive Control <sup>6</sup>					

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## Strain: TA100

Dose (ug/Plate)	With 30% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control <sup>1</sup>	161 ± 7.1	115 ± 9.4	194 ± 9.7	158 ± 1.2	126 ± 11.3
1.0					
3.3	178 ± 11.3	134 ± 4.3		151 ± 5.8	
10.0	179 ± 8.6	108 ± 10.7	231 ± 22.2	156 ± 3.0	
20.0					
33.0	174 ± 4.3	131 ± 17.0	269 ± 27.7	160 ± 2.4	122 ± 16.2
50.0			165 ± 11.3		133 ± 5.5
67.0					
100.0	186 ± 3.8	203 ± 7.9	11 ± 9.0 <sup>s</sup>	214 ± 4.0	136 ± 2.6
150.0			1 ± 0.7 <sup>s</sup>		137 ± 3.5
200.0			Toxic		123 ± 13.3
333.0	4 ± 1.8 <sup>s</sup>	Toxic		3 ± 1.5 <sup>s</sup>	
Trial Summary	Negative	Equivocal	Equivocal	Equivocal	Negative
Positive Control <sup>2</sup>		688 ± 13.3	640 ± 30.5		
Positive Control <sup>3</sup>					
Positive Control <sup>4</sup>					
Positive Control <sup>5</sup>				574 ± 30.5	367 ± 61.5
Positive Control <sup>6</sup>	554 ± 11.3				

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## G06: Ames Summary Data

Test Compound: Isocyanatocyclohexane

CAS Number: 3173-53-3

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## Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control <sup>1</sup>	7 ± 1.3	13 ± 0.7	8 ± 1.2	10 ± 1.7	14 ± 3.5
1.0			9 ± 2.1		
3.3		13 ± 2.2	6 ± 1.2	10 ± 0.9	12 ± 1.5
10.0	11 ± 2.0	11 ± 3.2	8 ± 0.9	11 ± 0.0	11 ± 1.8
20.0	9 ± 1.8				
33.0	7 ± 0.9	7 ± 0.9	5 ± 0.7	11 ± 1.0	13 ± 2.3
50.0	5 ± 1.5				
67.0	8 ± 1.9				
100.0		4 ± 1.9 <sup>s</sup>	0 ± 0.0 <sup>s</sup>	10 ± 2.3	13 ± 1.5
333.0		Toxic		0 ± 0.3 <sup>s</sup>	8 ± 1.5 <sup>s</sup>
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>					
Positive Control <sup>3</sup>	645 ± 20.0	252 ± 13.2	277 ± 12.2		
Positive Control <sup>5</sup>					
Positive Control <sup>6</sup>				218 ± 21.0	81 ± 0.3

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**Strain: TA1535**

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<b>Dose (ug/Plate)</b>	<b>With 10% Hamster S9</b>	<b>With 30% Hamster S9</b>
Vehicle Control <sup>1</sup>	8 ± 0.9	8 ± 1.0
1.0		
3.3	9 ± 1.2	7 ± 1.2
10.0	9 ± 3.8	9 ± 1.7
20.0		
33.0	9 ± 2.9	13 ± 1.5
50.0		
67.0		
100.0	10 ± 1.2	13 ± 2.3
333.0	3 ± 0.5 <sup>s</sup>	4 ± 0.7 <sup>s</sup>
Trial Summary	Negative	Negative
Positive Control <sup>2</sup>	62 ± 6.3	
Positive Control <sup>3</sup>		
Positive Control <sup>5</sup>		573 ± 4.6
Positive Control <sup>6</sup>		

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## Strain: TA1538

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	10 ± 2.0	7 ± 0.3	11 ± 0.7	9 ± 1.5	8 ± 1.5
1.0		5 ± 1.5			
3.3		8 ± 1.9	13 ± 0.6	10 ± 2.3	11 ± 2.3
10.0	7 ± 1.2	6 ± 1.7	9 ± 0.9	12 ± 1.2	14 ± 2.2
20.0	8 ± 1.8				
33.0	6 ± 0.6	6 ± 1.0	9 ± 1.2	9 ± 1.2	8 ± 2.6
50.0	6 ± 1.5				
67.0	6 ± 2.0 <sup>s</sup>				
100.0		0 ± 0.0 <sup>s</sup>	9 ± 1.2	8 ± 0.7	6 ± 1.2
333.0			Toxic	5 ± 0.7	Toxic
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>			809 ± 48.4		921 ± 17.8
Positive Control <sup>5</sup>				322 ± 5.3	
Positive Control <sup>7</sup>	233 ± 6.1	344 ± 22.1			

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**Strain: TA1538**

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<b>Dose (ug/Plate)</b>	<b>With 30% Hamster S9</b>
Vehicle Control <sup>1</sup>	11 ± 1.2
1.0	
3.3	9 ± 1.8
10.0	7 ± 1.8
20.0	
33.0	10 ± 0.6
50.0	
67.0	
100.0	10 ± 0.9
333.0	10 ± 1.2 <sup>s</sup>
Trial Summary	Negative
Positive Control <sup>2</sup>	
Positive Control <sup>5</sup>	49 ± 4.4
Positive Control <sup>7</sup>	

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## Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	203 ± 9.2	155 ± 8.3	175 ± 3.2	220 ± 2.9	157 ± 13.7
1.0	182 ± 7.0	134 ± 8.6			
3.3	202 ± 3.2	135 ± 15.2	187 ± 4.5	211 ± 8.7	148 ± 11.1
10.0	230 ± 7.9	160 ± 9.3	172 ± 10.9	222 ± 8.6	157 ± 0.9
20.0					
33.0	153 ± 8.6	185 ± 5.5	185 ± 8.9	204 ± 8.1	179 ± 10.7
50.0					
67.0					
100.0	Toxic	5 ± 2.0 <sup>s</sup>	183 ± 7.2	182 ± 10.7	216 ± 6.5
150.0					
200.0					
333.0			Toxic	159 ± 3.8	2 ± 1.7 <sup>s</sup>
Trial Summary	Negative	Negative	Negative	Negative	Equivocal
Positive Control <sup>4</sup>					1430 ± 41.5
Positive Control <sup>6</sup>			2267 ± 74.1	786 ± 35.4	
Positive Control <sup>8</sup>	412 ± 10.0	419 ± 34.2			



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Strain: TA97

Dose (ug/Plate)	With 10% Hamster S9	With 30% Hamster S9
Vehicle Control <sup>1</sup>	167 ± 9.5	155 ± 7.1
1.0		
3.3		158 ± 2.8
10.0	174 ± 3.0	160 ± 5.7
20.0		
33.0	196 ± 11.0	149 ± 8.5
50.0	206 ± 4.8	
67.0		
100.0	7 ± 1.0 <sup>s</sup>	175 ± 10.1
150.0	2 ± 1.2 <sup>s</sup>	
200.0	3 ± 3.3 <sup>s</sup>	
333.0		70 ± 25.1 <sup>s</sup>
Trial Summary	Equivocal	Negative
Positive Control <sup>4</sup>	1212 ± 40.1	
Positive Control <sup>6</sup>		1457 ± 18.7
Positive Control <sup>8</sup>		

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## Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	Without S9	Without S9	With 10% Rat S9
Vehicle Control <sup>1</sup>	15 ± 3.0	16 ± 1.8	21 ± 0.9	15 ± 1.3	20 ± 1.2
1.0	14 ± 0.9			12 ± 3.2	
3.3	18 ± 3.3			14 ± 1.5	20 ± 1.9
10.0	17 ± 3.0	19 ± 0.7	22 ± 3.9	22 ± 1.2	20 ± 2.1
20.0		18 ± 2.6	25 ± 1.5		
33.0	57 ± 1.9	31 ± 3.8	30 ± 3.0	33 ± 5.9	19 ± 2.1
50.0		23 ± 1.5	23 ± 1.3		
67.0		9 ± 1.7 <sup>s</sup>	13 ± 2.1 <sup>s</sup>		
100.0	2 ± 1.2 <sup>s</sup>			0 ± 0.0 <sup>s</sup>	32 ± 2.3
150.0					
200.0					
333.0					1 ± 0.7 <sup>s</sup>
Trial Summary	Equivocal	Equivocal	Negative	Equivocal	Negative
Positive Control <sup>2</sup>					813 ± 86.0
Positive Control <sup>5</sup>					
Positive Control <sup>9</sup>	266 ± 10.5	236 ± 5.2	285 ± 2.1	328 ± 20.5	

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## Strain: TA98

Dose (ug/Plate)	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 30% Hamster S9
Vehicle Control <sup>1</sup>	42 ± 8.0	24 ± 2.0	18 ± 3.0	47 ± 2.1	28 ± 3.2
1.0					
3.3		25 ± 1.7	14 ± 3.2		23 ± 3.4
10.0	52 ± 4.0	20 ± 1.0	21 ± 1.2	62 ± 9.1	22 ± 0.3
20.0					
33.0	47 ± 4.1	19 ± 0.6	18 ± 3.0	79 ± 3.5	23 ± 1.9
50.0	17 ± 4.6 <sup>s</sup>			43 ± 1.3	
67.0					
100.0	5 ± 2.5 <sup>s</sup>	19 ± 3.2	29 ± 3.7	0 ± 0.0 <sup>s</sup>	30 ± 2.5
150.0	5 ± 2.6 <sup>s</sup>			0 ± 0.0 <sup>s</sup>	
200.0	4 ± 4.0 <sup>s</sup>			0 ± 0.0 <sup>s</sup>	
333.0		0 ± 0.3 <sup>s</sup>	Toxic		4 ± 3.5 <sup>s</sup>
Trial Summary	Negative	Negative	Negative	Equivocal	Negative
Positive Control <sup>2</sup>	713 ± 15.5		788 ± 61.2	575 ± 27.9	
Positive Control <sup>5</sup>		245 ± 3.4			516 ± 33.2
Positive Control <sup>9</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: 0.4 ug/Plate 2-Aminoanthracene

3: 0.5 ug/Plate Sodium Azide

4: 0.75 ug/Plate 2-Aminoanthracene

5: 1.0 ug/Plate 2-Aminoanthracene

6: 2.0 ug/Plate 2-Aminoanthracene

7: 1.0 ug/Plate 2-Nitrofluorene

8: 24.0 ug/Plate 9-Aminoacridine

9: 1.0 ug/Plate 4-Nitro-O-Phenylenediamine

s: Slight Toxicity

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