

Experiment Number: A45391

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

**G06: Ames Summary Data**

Test Compound: **Nickel sulfate hexahydrate**

CAS Number: **10101-97-0**

Date Report Requested: **09/17/2018**

Time Report Requested: **01:09:49**

**NTP Study Number:**

A45391

**Study Result:**

Negative

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**G06: Ames Summary Data**

Date Report Requested: 09/17/2018

Test Type: **Genetic Toxicology - Bacterial Mutagenicity**Test Compound: **Nickel sulfate hexahydrate**

Time Report Requested: 01:09:49

CAS Number: 10101-97-0

**Strain: TA100**

<b>Dose (ug/Plate)</b>	<b>Without S9</b>	<b>Without S9</b>	<b>With 10% Rat S9</b>	<b>With 30% Rat S9</b>	<b>With 10% Hamster S9</b>
Vehicle Control <sup>1</sup>	113 ± 2.2	118 ± 5.5	142 ± 6.9	107 ± 5.2	131 ± 13.6
100.0	112 ± 3.3	122 ± 3.0	129 ± 5.5	101 ± 5.1	131 ± 7.6
333.0	111 ± 2.2	116 ± 3.3	133 ± 5.4	100 ± 1.7	131 ± 7.6
1000.0	108 ± 4.4	137 ± 8.3	138 ± 5.5	105 ± 7.7	129 ± 5.8
3333.0	110 ± 11.8	118 ± 9.3	129 ± 7.2	120 ± 5.7	125 ± 10.5
10000.0	96 ± 8.6	109 ± 5.5	106 ± 3.0	70 ± 9.4 <sup>s</sup>	108 ± 4.7
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>					551 ± 23.0
Positive Control <sup>3</sup>			437 ± 16.4		
Positive Control <sup>4</sup>	855 ± 24.4	949 ± 8.7			
Positive Control <sup>5</sup>				509 ± 23.5	

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**Strain: TA100**

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<b>Dose (ug/Plate)</b>	<b>With 30% Hamster S9</b>
Vehicle Control <sup>1</sup>	120 ± 3.8
100.0	96 ± 3.7
333.0	107 ± 6.5
1000.0	103 ± 5.5
3333.0	109 ± 2.0
10000.0	85 ± 10.2
Trial Summary	Negative
Positive Control <sup>2</sup>	
Positive Control <sup>3</sup>	538 ± 22.3
Positive Control <sup>4</sup>	
Positive Control <sup>5</sup>	

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## G06: Ames Summary Data

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## Strain: TA1535

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 ± 1.2	10 ± 2.3	16 ± 0.9	14 ± 1.9	11 ± 3.2
100.0	10 ± 0.9	8 ± 0.9	16 ± 1.2	10 ± 1.5	7 ± 0.7
333.0	9 ± 0.6	11 ± 1.8	8 ± 1.5	13 ± 1.0	12 ± 0.3
1000.0	10 ± 1.3	6 ± 0.7	11 ± 2.7	10 ± 0.0	8 ± 0.7
3333.0	10 ± 0.9	9 ± 2.8	9 ± 1.9	11 ± 2.0	10 ± 1.0
10000.0	11 ± 0.6	5 ± 1.2	6 ± 2.0 <sup>s</sup>	8 ± 0.9	11 ± 1.0
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>3</sup>					265 ± 25.8
Positive Control <sup>4</sup>	933 ± 16.7	1020 ± 19.0			
Positive Control <sup>5</sup>			229 ± 12.2		
Positive Control <sup>6</sup>				209 ± 3.6	

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**Strain: TA1535**

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<b>Dose (ug/Plate)</b>	<b>With 30% Hamster S9</b>
Vehicle Control <sup>1</sup>	14 ± 0.9
100.0	12 ± 2.3
333.0	9 ± 0.6
1000.0	13 ± 0.6
3333.0	10 ± 1.0
10000.0	11 ± 1.7
Trial Summary	Negative
Positive Control <sup>3</sup>	
Positive Control <sup>4</sup>	
Positive Control <sup>5</sup>	344 ± 30.7
Positive Control <sup>6</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>	125 ± 7.0	116 ± 4.5	155 ± 8.1	162 ± 6.0	138 ± 6.9
100.0	145 ± 10.5	128 ± 3.5	172 ± 2.3	169 ± 4.3	178 ± 2.8
333.0	142 ± 12.8	137 ± 0.7	178 ± 11.6	174 ± 3.5	171 ± 3.5
1000.0	133 ± 5.3	141 ± 8.1	157 ± 12.2	158 ± 13.0	169 ± 7.2
3333.0	152 ± 13.7	107 ± 3.6	169 ± 8.7	133 ± 11.0	150 ± 4.0
10000.0	145 ± 7.4	78 ± 9.8	146 ± 5.0	124 ± 11.4	125 ± 8.4
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>					966 ± 8.4
Positive Control <sup>3</sup>			734 ± 13.5		
Positive Control <sup>5</sup>				647 ± 26.6	
Positive Control <sup>7</sup>	549 ± 16.3	530 ± 10.8			

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**Strain: TA97**

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<b>Dose (ug/Plate)</b>	<b>With 30% Hamster S9</b>
Vehicle Control <sup>1</sup>	150 ± 3.7
100.0	146 ± 9.4
333.0	146 ± 4.7
1000.0	165 ± 13.8
3333.0	156 ± 5.5
10000.0	128 ± 6.4
Trial Summary	Negative
Positive Control <sup>2</sup>	
Positive Control <sup>3</sup>	573 ± 15.5
Positive Control <sup>5</sup>	
Positive Control <sup>7</sup>	

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Test Compound: Nickel sulfate hexahydrate

CAS Number: 10101-97-0

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## Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	19 ± 4.1	20 ± 2.9	24 ± 2.6	32 ± 3.7	24 ± 3.1
100.0	18 ± 5.2	24 ± 2.9	26 ± 1.2	25 ± 2.2	27 ± 2.3
333.0	21 ± 0.3	24 ± 2.2	23 ± 4.5	27 ± 1.5	24 ± 2.7
1000.0	26 ± 0.7	20 ± 1.7	25 ± 2.3	27 ± 1.8	23 ± 1.0
3333.0	24 ± 4.3	22 ± 3.8	28 ± 0.7	24 ± 1.9	24 ± 1.9
10000.0	21 ± 4.7	17 ± 2.0	21 ± 4.2	30 ± 2.0	25 ± 1.2
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>					484 ± 14.2
Positive Control <sup>3</sup>			443 ± 13.7		
Positive Control <sup>8</sup>	333 ± 7.9	521 ± 22.2			
Positive Control <sup>5</sup>				376 ± 12.7	



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**Strain: TA98**

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<b>Dose (ug/Plate)</b>	<b>With 30% Hamster S9</b>
Vehicle Control <sup>1</sup>	23 ± 1.2
100.0	30 ± 1.5
333.0	25 ± 3.2
1000.0	23 ± 4.2
3333.0	30 ± 2.5
10000.0	22 ± 7.1
Trial Summary	Negative
Positive Control <sup>2</sup>	
Positive Control <sup>3</sup>	413 ± 6.2
Positive Control <sup>8</sup>	
Positive Control <sup>5</sup>	

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## Strain: TA102

Dose (ug/Plate)	Without S9	With 30% Rat S9	With 30% Hamster S9
Vehicle Control <sup>1</sup>	183 ± 6.7	242 ± 13.7	300 ± 2.6
100.0	168 ± 1.9	264 ± 7.0	276 ± 17.0
333.0	161 ± 14.5	256 ± 13.3	286 ± 7.2
1000.0	182 ± 11.2	240 ± 5.1	286 ± 8.4
3333.0	190 ± 8.2	219 ± 5.2	288 ± 5.5
10000.0	66 ± 6.3	40 ± 6.1	96 ± 7.4
Trial Summary	Negative	Negative	Negative
Positive Control <sup>9</sup>	753 ± 3.5		
Positive Control <sup>5</sup>			684 ± 18.0
Positive Control <sup>6</sup>		576 ± 17.3	

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**Strain: TA104**

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<b>Dose (ug/Plate)</b>	<b>Without S9</b>	<b>With 30% Rat S9</b>	<b>With 30% Hamster S9</b>
Vehicle Control <sup>1</sup>	265 ± 6.2	381 ± 17.3	356 ± 0.9
100.0	254 ± 7.8	370 ± 22.9	408 ± 11.7
333.0	242 ± 4.4	360 ± 5.5	356 ± 14.5
1000.0	262 ± 27.7	380 ± 3.5	395 ± 18.8
3333.0	198 ± 12.3	396 ± 5.3	365 ± 12.0
10000.0	48 ± 18.4 <sup>s</sup>	128 ± 17.5	99 ± 18.3
Trial Summary	Negative	Negative	Negative
Positive Control <sup>10</sup>			682 ± 33.3
Positive Control <sup>5</sup>		692 ± 20.9	
Positive Control <sup>11</sup>	649 ± 17.5		

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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: Water

2: 1.0 ug/Plate 2-Aminoanthracene

3: 2.0 ug/Plate 2-Aminoanthracene

4: 5.0 ug/Plate Sodium Azide

5: 5.0 ug/Plate 2-Aminoanthracene

6: 10.0 ug/Plate 2-Aminoanthracene

7: 50.0 ug/Plate 9-Aminoacridine

8: 2.5 ug/Plate 4-Nitro-O-Phenylenediamine

9: 0.5 ug/Plate Mitomycin-C

10: 2.5 ug/Plate 2-Aminoanthracene

11: 250.0 ug/Plate Methyl Methane Sulfonate

s: Slight Toxicity

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