

Experiment Number: 286018

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Biurea

CAS Number: 110-21-4

Date Report Requested: 09/11/2018

Time Report Requested: 15:33:11

NTP Study Number:

286018

Study Result:

Negative

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G06: Ames Summary Data

Test Compound: Biurea

CAS Number: 110-21-4

Date Report Requested: 09/11/2018

Time Report Requested: 15:33:11

Strain: TA100

| Dose (ug/Plate) | Without S9 | Without S9 | With 10% Rat S9 | With 30% Rat S9 | With 10% Hamster S9 |
|-------------------------------|------------|------------|-----------------|-----------------|---------------------|
| Vehicle Control ¹ | 116 ± 4.3 | 94 ± 1.5 | 90 ± 5.7 | 158 ± 7.3 | 81 ± 5.9 |
| 100.0 | 109 ± 6.3 | 81 ± 9.0 | 89 ± 1.7 | 145 ± 8.1 | 87 ± 8.2 |
| 333.0 | 110 ± 2.7 | 65 ± 3.3 | 101 ± 3.8 | 115 ± 11.0 | 75 ± 2.0 |
| 1000.0 | 121 ± 3.8 | 79 ± 6.2 | 92 ± 7.0 | 130 ± 8.4 | 74 ± 3.0 |
| 3333.0 | 115 ± 5.0 | 77 ± 2.5 | 93 ± 5.5 | 137 ± 3.5 | 74 ± 1.5 |
| 5000.0 | 119 ± 3.7 | 75 ± 0.5 | 90 ± 3.1 | 118 ± 10.2 | 70 ± 5.2 |
| Trial Summary | Negative | Negative | Negative | Negative | Negative |
| Positive Control ² | | | | | 312 ± 3.5 |
| Positive Control ³ | 391 ± 7.0 | 197 ± 7.1 | | | |
| Positive Control ⁴ | | | 259 ± 2.3 | | |
| Positive Control ⁵ | | | | | |
| Positive Control ⁶ | | | | 354 ± 8.5 | |

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Strain: TA100

| Dose (ug/Plate) | With 30% Hamster S9 |
|-------------------------------|----------------------------|
| Vehicle Control ¹ | 166 ± 3.5 |
| 100.0 | 163 ± 6.6 |
| 333.0 | 144 ± 4.8 |
| 1000.0 | 114 ± 4.3 |
| 3333.0 | 121 ± 5.5 |
| 5000.0 | 159 ± 1.8 |
| Trial Summary | Negative |
| Positive Control ² | |
| Positive Control ³ | |
| Positive Control ⁴ | |
| Positive Control ⁵ | 529 ± 23.1 |
| Positive Control ⁶ | |

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CAS Number: 110-21-4

Date Report Requested: 09/11/2018

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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 ¹ | 17 ± 0.7 | 7 ± 0.9 | 5 ± 1.7 | 8 ± 0.9 | 7 ± 1.5 |
| 100.0 | 12 ± 1.7 | 8 ± 0.5 | 8 ± 0.7 | 8 ± 1.3 | 6 ± 1.2 |
| 333.0 | 17 ± 0.3 | 8 ± 0.6 | 8 ± 0.9 | 8 ± 1.0 | 6 ± 1.3 |
| 1000.0 | 11 ± 0.3 | 9 ± 1.9 | 10 ± 1.2 | 6 ± 1.2 | 7 ± 0.9 |
| 3333.0 | 17 ± 3.0 | 11 ± 2.1 | 7 ± 0.7 | 8 ± 1.7 | 4 ± 0.9 |
| 5000.0 | 13 ± 2.1 | 6 ± 0.6 | 5 ± 1.9 | 9 ± 2.3 | 7 ± 2.4 |
| Trial Summary | Negative | Negative | Negative | Negative | Negative |
| Positive Control ² | | | | | 29 ± 2.6 |
| Positive Control ³ | 143 ± 14.6 | 163 ± 20.9 | | | |
| Positive Control ⁵ | | | | | |
| Positive Control ⁶ | | | 77 ± 10.1 | 104 ± 9.0 | |

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Test Type: Genetic Toxicology - Bacterial
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G06: Ames Summary Data

Test Compound: Biurea

CAS Number: 110-21-4

Date Report Requested: 09/11/2018

Time Report Requested: 15:33:11

Strain: TA1535

| Dose (ug/Plate) | With 30% Hamster S9 |
|-------------------------------|----------------------------|
| Vehicle Control ¹ | 7 ± 0.6 |
| 100.0 | 6 ± 1.2 |
| 333.0 | 8 ± 1.2 |
| 1000.0 | 7 ± 1.5 |
| 3333.0 | 9 ± 0.7 |
| 5000.0 | 8 ± 1.9 |
| Trial Summary | Negative |
| Positive Control ² | |
| Positive Control ³ | |
| Positive Control ⁵ | 148 ± 14.7 |
| Positive Control ⁶ | |

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Test Type: Genetic Toxicology - Bacterial
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G06: Ames Summary Data

Test Compound: Biurea

CAS Number: 110-21-4

Date Report Requested: 09/11/2018

Time Report Requested: 15:33:11

Strain: TA1537

| Dose (ug/Plate) | Without S9 | Without S9 | With 10% Rat S9 | With 30% Rat S9 | With 10% Hamster S9 |
|-------------------------------|------------|-------------|-----------------|-----------------|---------------------|
| Vehicle Control ¹ | 6 ± 0.7 | 5 ± 0.6 | 11 ± 2.2 | 6 ± 2.0 | 6 ± 1.2 |
| 100.0 | 6 ± 0.9 | 5 ± 1.5 | 5 ± 1.3 | 7 ± 2.2 | 4 ± 1.2 |
| 333.0 | 5 ± 0.9 | 4 ± 2.0 | 7 ± 0.7 | 9 ± 1.0 | 9 ± 0.6 |
| 1000.0 | 3 ± 1.5 | 5 ± 2.6 | 6 ± 1.5 | 6 ± 0.9 | 6 ± 1.0 |
| 3333.0 | 6 ± 2.3 | 5 ± 1.5 | 4 ± 0.9 | 6 ± 1.9 | 7 ± 0.9 |
| 5000.0 | 6 ± 1.9 | 6 ± 0.7 | 4 ± 0.6 | 6 ± 1.3 | 6 ± 0.0 |
| Trial Summary | Negative | Negative | Negative | Negative | Negative |
| Positive Control ⁴ | | | | | 98 ± 1.5 |
| Positive Control ⁶ | | | 86 ± 10.5 | | |
| Positive Control ⁷ | | | | 46 ± 3.1 | |
| Positive Control ⁸ | 184 ± 15.2 | 1012 ± 51.9 | | | |

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CAS Number: 110-21-4

Date Report Requested: 09/11/2018
Time Report Requested: 15:33:11

Strain: TA1537

| Dose (ug/Plate) | With 30% Hamster S9 |
|-------------------------------|---------------------|
| Vehicle Control ¹ | 9 ± 1.5 |
| 100.0 | 4 ± 0.7 |
| 333.0 | 7 ± 2.3 |
| 1000.0 | 3 ± 0.6 |
| 3333.0 | 7 ± 1.3 |
| 5000.0 | 6 ± 1.7 |
| Trial Summary | Negative |
| Positive Control ⁴ | |
| Positive Control ⁶ | |
| Positive Control ⁷ | 146 ± 9.0 |
| Positive Control ⁸ | |

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Test Type: Genetic Toxicology - Bacterial
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G06: Ames Summary Data

Test Compound: Biurea

CAS Number: 110-21-4

Date Report Requested: 09/11/2018

Time Report Requested: 15:33:11

Strain: TA97

| Dose (ug/Plate) | Without S9 | Without S9 | With 10% Rat S9 | With 30% Rat S9 | With 10% Hamster S9 |
|-------------------------------|------------|------------|-----------------|-----------------|---------------------|
| Vehicle Control ¹ | 94 ± 4.8 | 73 ± 9.5 | 118 ± 3.2 | 121 ± 17.8 | 101 ± 4.1 |
| 100.0 | 87 ± 2.3 | 66 ± 3.8 | 128 ± 8.7 | 151 ± 6.9 | 107 ± 9.4 |
| 333.0 | 69 ± 1.5 | 64 ± 9.0 | 117 ± 6.7 | 123 ± 11.4 | 102 ± 8.2 |
| 1000.0 | 80 ± 4.7 | 80 ± 2.5 | 117 ± 7.8 | 129 ± 5.5 | 113 ± 2.0 |
| 3333.0 | 90 ± 11.2 | 75 ± 4.1 | 118 ± 8.4 | 116 ± 2.1 | 103 ± 9.5 |
| 5000.0 | 100 ± 9.7 | 78 ± 2.0 | 113 ± 6.2 | 93 ± 8.1 | 106 ± 7.6 |
| Trial Summary | Negative | Negative | Negative | Negative | Negative |
| Positive Control ⁴ | | | | | 711 ± 32.0 |
| Positive Control ⁶ | | | 747 ± 28.3 | | |
| Positive Control ⁷ | | | | 445 ± 15.6 | |
| Positive Control ⁹ | 397 ± 40.7 | 220 ± 29.0 | | | |

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Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Biurea

CAS Number: 110-21-4

Date Report Requested: 09/11/2018

Time Report Requested: 15:33:11

Strain: TA97

| Dose (ug/Plate) | With 30% Hamster S9 |
|-------------------------------|----------------------------|
| Vehicle Control ¹ | 111 ± 12.4 |
| 100.0 | 100 ± 11.1 |
| 333.0 | 114 ± 6.6 |
| 1000.0 | 100 ± 1.2 |
| 3333.0 | 109 ± 4.7 |
| 5000.0 | 112 ± 7.0 |
| Trial Summary | Negative |
| Positive Control ⁴ | |
| Positive Control ⁶ | |
| Positive Control ⁷ | 890 ± 60.4 |
| Positive Control ⁹ | |

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Test Compound: Biurea

CAS Number: 110-21-4

Date Report Requested: 09/11/2018

Time Report Requested: 15:33:11

Strain: TA98

| Dose (ug/Plate) | Without S9 | Without S9 | With 10% Rat S9 | With 30% Rat S9 | With 10% Hamster S9 |
|--------------------------------|------------|------------|-----------------|-----------------------|---------------------|
| Vehicle Control ¹ | 11 ± 3.4 | 21 ± 4.8 | 14 ± 1.3 | 16 ± 0.3 | 19 ± 0.7 |
| 100.0 | 9 ± 1.0 | 10 ± 2.5 | 21 ± 4.3 | 18 ± 2.7 | 21 ± 0.6 |
| 333.0 | 13 ± 0.3 | 12 ± 3.8 | 20 ± 1.2 | 22 ± 2.1 | 21 ± 2.3 |
| 1000.0 | 10 ± 2.3 | 10 ± 1.3 | 16 ± 0.7 | 17 ± 1.7 | 14 ± 2.3 |
| 3333.0 | 10 ± 0.9 | 17 ± 5.5 | 22 ± 0.0 | 18 ± 1.5 | 17 ± 3.2 |
| 5000.0 | 12 ± 2.6 | 15 ± 5.6 | 21 ± 1.9 | 19 ± 3.8 ^s | 14 ± 2.8 |
| Trial Summary | Negative | Negative | Negative | Negative | Negative |
| Positive Control ¹⁰ | | | | | 64 ± 5.5 |
| Positive Control ² | | | 54 ± 2.3 | | |
| Positive Control ¹¹ | 131 ± 13.2 | 121 ± 10.3 | | | |
| Positive Control ⁵ | | | | 97 ± 4.8 | |

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Strain: TA98

| Dose (ug/Plate) | With 30% Hamster S9 |
|--------------------------------|---------------------|
| Vehicle Control ¹ | 24 ± 3.3 |
| 100.0 | 19 ± 2.0 |
| 333.0 | 19 ± 3.2 |
| 1000.0 | 20 ± 1.0 |
| 3333.0 | 17 ± 1.8 |
| 5000.0 | 24 ± 4.7 |
| Trial Summary | Negative |
| Positive Control ¹⁰ | |
| Positive Control ² | 161 ± 5.5 |
| Positive Control ¹¹ | |
| Positive Control ⁵ | |

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LEGEND

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: 2.5 ug/Plate 2-Aminoanthracene

8: 4.0 ug/Plate 9-Aminoacridine

9: 8.0 ug/Plate 9-Aminoacridine

10: 0.2 ug/Plate 2-Aminoanthracene

11: 1.0 ug/Plate 4-Nitro-O-Phenylenediamine

s: Slight Toxicity

** END OF REPORT **