

Experiment Number: 178715

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

G06: Ames Summary Data

Test Compound: **Manganese sulfate monohydrate**

CAS Number: **10034-96-5**

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

Time Report Requested: **18:32:21**

NTP Study Number:

178715

Study Result:

Negative

Experiment Number: 178715

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Manganese sulfate monohydrate
CAS Number: 10034-96-5

Date Report Requested: 09/13/2018

Time Report Requested: 18:32:21

Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	114 ± 6.7	104 ± 6.1	113 ± 1.5	113 ± 7.1	101 ± 3.5
100.0	113 ± 6.9	115 ± 7.2	110 ± 2.8	107 ± 8.2	108 ± 3.9
333.0	108 ± 5.8	113 ± 14.2	113 ± 5.0	110 ± 10.4	106 ± 9.4
1000.0	110 ± 9.3	118 ± 12.9	105 ± 5.5	126 ± 11.5	119 ± 5.3
3333.0	108 ± 3.7	117 ± 5.5	127 ± 8.2	98 ± 1.2	111 ± 11.4
10000.0	89 ± 6.8	86 ± 5.8	84 ± 3.2	88 ± 5.9	105 ± 3.5
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²	364 ± 3.3	334 ± 24.2			
Positive Control ³			384 ± 8.7	894 ± 7.1	342 ± 27.0

Experiment Number: 178715

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Manganese sulfate monohydrate

CAS Number: 10034-96-5

Date Report Requested: 09/13/2018

Time Report Requested: 18:32:21

Strain: TA100

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	105 ± 5.2
100.0	103 ± 11.4
333.0	106 ± 13.4
1000.0	115 ± 7.8
3333.0	114 ± 6.4
10000.0	78 ± 1.5
Trial Summary	Negative
Positive Control ²	
Positive Control ³	1394 ± 23.9

Experiment Number: 178715

Test Type: Genetic Toxicology - Bacterial
Mutagenicity**G06: Ames Summary Data**Test Compound: Manganese sulfate monohydrate
CAS Number: 10034-96-5

Date Report Requested: 09/13/2018

Time Report Requested: 18:32:21

Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	17 ± 1.2	21 ± 1.8	10 ± 2.6	9 ± 2.5	12 ± 2.0
100.0	21 ± 2.9	25 ± 4.0	12 ± 2.9	10 ± 2.2	12 ± 1.7
333.0	24 ± 5.0	21 ± 4.4	10 ± 2.3	10 ± 1.2	8 ± 1.9
1000.0	18 ± 1.7	28 ± 1.9	6 ± 0.7	9 ± 1.7	7 ± 0.9
3333.0	26 ± 4.6	18 ± 0.9	12 ± 1.5	7 ± 0.6	8 ± 1.2
10000.0	23 ± 3.8	14 ± 2.6	8 ± 1.5	8 ± 0.9	7 ± 1.5
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²	455 ± 23.8	370 ± 17.9			
Positive Control ⁴			150 ± 5.0	191 ± 5.5	448 ± 27.6

Experiment Number: 178715

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

G06: Ames Summary Data

Test Compound: **Manganese sulfate monohydrate**

CAS Number: 10034-96-5

Date Report Requested: 09/13/2018

Time Report Requested: 18:32:21

Strain: TA1535

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	9 ± 2.1
100.0	10 ± 1.2
333.0	9 ± 1.8
1000.0	7 ± 1.2
3333.0	6 ± 1.2
10000.0	8 ± 0.9
Trial Summary	Negative
Positive Control ²	
Positive Control ⁴	359 ± 26.0

Experiment Number: 178715

Test Type: Genetic Toxicology - Bacterial Mutagenicity

G06: Ames Summary Data

Test Compound: Manganese sulfate monohydrate

CAS Number: 10034-96-5

Date Report Requested: 09/13/2018

Time Report Requested: 18:32:21

Strain: TA1537

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	10 ± 1.2	6 ± 1.5	5 ± 0.9	6 ± 0.9	7 ± 1.0
100.0	5 ± 1.5	7 ± 1.7	7 ± 0.3	6 ± 1.9	8 ± 2.3
333.0	6 ± 0.3	8 ± 2.3	7 ± 0.9	7 ± 0.9	11 ± 0.7
1000.0	7 ± 2.3	5 ± 0.9	10 ± 1.5	8 ± 0.7	9 ± 1.5
3333.0	4 ± 1.9	6 ± 1.3	6 ± 1.2	7 ± 0.3	9 ± 1.0
10000.0	7 ± 0.9	5 ± 0.3	5 ± 0.3	5 ± 1.7	6 ± 1.5
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁴			141 ± 4.6	236 ± 15.3	243 ± 18.6
Positive Control ⁵	150 ± 6.2	151 ± 12.4			

Experiment Number: 178715

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Manganese sulfate monohydrate
CAS Number: 10034-96-5

Date Report Requested: 09/13/2018

Time Report Requested: 18:32:21

Strain: TA1537

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	6 ± 0.9
100.0	8 ± 1.9
333.0	7 ± 1.5
1000.0	7 ± 1.5
3333.0	3 ± 0.9
10000.0	5 ± 2.0
Trial Summary	Negative
Positive Control ⁴	213 ± 20.1
Positive Control ⁵	

Experiment Number: 178715

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Manganese sulfate monohydrate
CAS Number: 10034-96-5

Date Report Requested: 09/13/2018

Time Report Requested: 18:32:21

Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	24 ± 6.0	14 ± 1.2	22 ± 1.3	19 ± 0.7	19 ± 5.3
100.0	14 ± 1.2	14 ± 2.7	22 ± 2.3	17 ± 0.3	25 ± 0.6
333.0	16 ± 4.0	19 ± 3.7	19 ± 0.9	16 ± 1.2	21 ± 1.5
1000.0	15 ± 1.8	14 ± 1.2	26 ± 2.3	19 ± 4.4	23 ± 3.2
3333.0	13 ± 0.9	12 ± 0.9	25 ± 4.9	17 ± 2.6	21 ± 0.7
10000.0	12 ± 1.5	13 ± 1.5	17 ± 2.1	10 ± 0.3	24 ± 0.6
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ³			297 ± 38.2	849 ± 44.4	611 ± 71.3
Positive Control ⁶	871 ± 13.9	975 ± 28.7			

Experiment Number: 178715

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Manganese sulfate monohydrate
CAS Number: 10034-96-5

Date Report Requested: 09/13/2018

Time Report Requested: 18:32:21

Strain: TA98

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	25 ± 3.8
100.0	15 ± 2.2
333.0	16 ± 2.2
1000.0	18 ± 1.3
3333.0	17 ± 1.7
10000.0	14 ± 1.9
Trial Summary	Negative
Positive Control ³	1362 ± 95.8
Positive Control ⁶	

Experiment Number: 178715

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

G06: Ames Summary Data

Test Compound: **Manganese sulfate monohydrate**

CAS Number: **10034-96-5**

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

Time Report Requested: **18:32:21**

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: Water

2: 1.0 ug/Plate Sodium Azide

3: 1.0 ug/Plate 2-Aminoanthracene

4: 2.5 ug/Plate 2-Aminoanthracene

5: 50.0 ug/Plate 9-Aminoacridine

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

**** END OF REPORT ****