

Experiment Number: A14107

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

G06: Ames Summary Data

Test Compound: **Polystyrene**

CAS Number: **9003-53-6**

Date Report Requested: **09/16/2018**

Time Report Requested: **01:04:15**

NTP Study Number:

A14107

Study Result:

Negative

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Test Compound: Polystyrene

CAS Number: 9003-53-6

Date Report Requested: 09/16/2018

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Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control ¹	101 ± 2.0	103 ± 2.7		110 ± 1.2	124 ± 4.5
Vehicle Control ²			108 ± 2.6		
0.0					
10.0			99 ± 3.1		
33.0			108 ± 2.6		
100.0	99 ± 5.3	98 ± 3.1	98 ± 4.1	105 ± 4.3	121 ± 5.0
333.0	104 ± 1.9	101 ± 4.6	104 ± 0.6	110 ± 7.2	106 ± 10.3
1000.0	102 ± 5.0	100 ± 7.4	102 ± 3.2	112 ± 7.0	110 ± 10.4
3333.0	100 ± 2.5	106 ± 2.8	104 ± 3.1	109 ± 4.9	115 ± 4.5
10000.0	105 ± 2.3 ^P	74 ± 3.5 ^P	109 ± 0.9 ^P	112 ± 13.2 ^P	124 ± 11.7 ^P
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ³					
Positive Control ⁴				358 ± 12.4	
Positive Control ⁵					
Positive Control ⁶					327 ± 12.7
Positive Control ⁷	837 ± 10.2	855 ± 13.7	1009 ± 32.4		

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Strain: TA100

Dose (ug/Plate)	With 30% Rat S9	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹		138 ± 28.3	104 ± 0.6	
Vehicle Control ²	133 ± 6.4			147 ± 9.2
0.0		0 ± 0.0		
10.0	137 ± 2.8			135 ± 16.9
33.0	129 ± 9.9			128 ± 12.2
100.0	116 ± 3.2	101 ± 2.9	104 ± 5.8	132 ± 5.2
333.0	123 ± 6.0	109 ± 1.8	105 ± 2.6	117 ± 2.8
1000.0	121 ± 2.2	117 ± 3.5	96 ± 4.0	128 ± 6.7
3333.0	122 ± 4.1	112 ± 5.7	103 ± 2.9	123 ± 7.0
10000.0	124 ± 3.7 ^P	100 ± 8.2 ^P	109 ± 17.1 ^P	130 ± 3.5 ^P
Trial Summary	Negative	Negative	Negative	Negative
Positive Control ³		322 ± 10.6		
Positive Control ⁴				
Positive Control ⁵			352 ± 11.7	625 ± 6.7
Positive Control ⁶	1148 ± 42.7			
Positive Control ⁷				

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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	7 ± 0.3	10 ± 1.7	13 ± 0.7	9 ± 0.9	11 ± 1.0
100.0	6 ± 0.9	10 ± 2.6	11 ± 2.0	8 ± 0.6	10 ± 1.7
333.0	11 ± 2.0	15 ± 0.3	9 ± 1.5	8 ± 1.9	11 ± 1.8
1000.0	7 ± 0.7	9 ± 1.2	10 ± 1.2	8 ± 2.0	10 ± 1.5
3333.0	7 ± 0.9	13 ± 0.6	10 ± 0.6	9 ± 0.3	9 ± 1.2
10000.0	9 ± 0.0 ^p	11 ± 0.3 ^p	11 ± 1.3 ^p	9 ± 0.3 ^p	11 ± 1.5 ^p
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁴					81 ± 1.5
Positive Control ⁸			92 ± 2.6		
Positive Control ⁷	922 ± 7.5	839 ± 35.0			
Positive Control ⁶					
Positive Control ⁹				145 ± 6.8	

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Test Compound: Polystyrene
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Strain: TA1535

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	10 ± 0.9
100.0	10 ± 1.5
333.0	9 ± 1.5
1000.0	8 ± 0.6
3333.0	8 ± 0.6
10000.0	11 ± 1.2 ^p
Trial Summary	Negative
Positive Control ⁴	
Positive Control ⁸	
Positive Control ⁷	
Positive Control ⁶	223 ± 7.2
Positive Control ⁹	

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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 ¹	119 ± 6.2	120 ± 4.3	143 ± 9.6	142 ± 3.5	135 ± 7.1
100.0	110 ± 8.5	118 ± 10.1	148 ± 5.2	142 ± 2.0	137 ± 9.3
333.0	116 ± 3.8	131 ± 11.1	137 ± 0.3	129 ± 6.2	146 ± 4.9
1000.0	120 ± 10.7	117 ± 6.2	138 ± 4.4	124 ± 11.7	137 ± 5.2
3333.0	107 ± 3.8	122 ± 7.3	159 ± 8.6	129 ± 7.2	129 ± 2.6
10000.0	105 ± 4.8 ^p	112 ± 5.5 ^p	134 ± 3.6 ^p	127 ± 9.7 ^p	135 ± 8.8 ^p
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ³					319 ± 11.7
Positive Control ⁴			330 ± 16.4		
Positive Control ⁵					
Positive Control ⁶				352 ± 10.4	
Positive Control ¹⁰	407 ± 19.1	453 ± 32.4			

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Strain: TA97

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	141 ± 26.7
100.0	119 ± 4.9
333.0	110 ± 14.0
1000.0	118 ± 8.5
3333.0	123 ± 4.9
10000.0	143 ± 29.2 ^p
Trial Summary	Negative
Positive Control ³	
Positive Control ⁴	
Positive Control ⁵	391 ± 3.8
Positive Control ⁶	
Positive Control ¹⁰	

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Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control ¹	15 ± 2.8	13 ± 2.6		18 ± 3.0	16 ± 2.0
Vehicle Control ²			23 ± 2.9		
10.0			16 ± 2.2		
33.0			16 ± 0.9		
100.0	14 ± 0.3	14 ± 3.6	16 ± 1.0	12 ± 3.3	12 ± 4.0
333.0	12 ± 2.0	11 ± 1.3	12 ± 2.6	16 ± 2.6	19 ± 3.8
1000.0	12 ± 2.0	13 ± 0.9	14 ± 3.8	16 ± 2.2	14 ± 0.6
3333.0	11 ± 1.5	16 ± 0.3	12 ± 1.2	15 ± 1.0	16 ± 0.9
10000.0	13 ± 2.3 ^p	12 ± 1.8 ^p	15 ± 0.7 ^p	15 ± 2.2 ^p	16 ± 1.2 ^p
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ³					
Positive Control ⁴				272 ± 27.0	
Positive Control ⁵					
Positive Control ¹¹	318 ± 8.4	317 ± 3.6	356 ± 12.7		
Positive Control ⁶					245 ± 4.3

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Strain: TA98

Dose (ug/Plate)	With 30% Rat S9	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹		18 ± 1.7	19 ± 0.7	
Vehicle Control ²	21 ± 2.1			22 ± 5.2
10.0	20 ± 2.6			17 ± 1.7
33.0	22 ± 2.5			16 ± 1.9
100.0	13 ± 2.3	21 ± 3.7	12 ± 2.7	15 ± 1.3
333.0	13 ± 0.3	15 ± 3.8	13 ± 1.0	16 ± 1.8
1000.0	18 ± 1.7	14 ± 2.0	13 ± 3.2	13 ± 1.0
3333.0	13 ± 0.7	16 ± 2.1	15 ± 1.8	16 ± 0.6
10000.0	15 ± 1.2 ^p	16 ± 2.0 ^p	13 ± 2.6 ^p	16 ± 0.9 ^p
Trial Summary	Negative	Negative	Negative	Negative
Positive Control ³		331 ± 6.2		
Positive Control ⁴				
Positive Control ⁵			263 ± 7.8	367 ± 23.6
Positive Control ¹¹				
Positive Control ⁶	785 ± 22.8			

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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: Vehicle Control: Methyl Ethyl Ketone

3: 0.5 ug/Plate 2-Aminoanthracene

4: 1.0 ug/Plate 2-Aminoanthracene

5: 2.0 ug/Plate 2-Aminoanthracene

6: 5.0 ug/Plate 2-Aminoanthracene

7: 5.0 ug/Plate Sodium Azide

8: 2.5 ug/Plate 2-Aminoanthracene

9: 10.0 ug/Plate 2-Aminoanthracene

10: 50.0 ug/Plate 9-Aminoacridine

11: 2.5 ug/Plate 4-Nitro-O-Phenylenediamine

p: Precipitate

** END OF REPORT **