

Experiment Number: 590614

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: 3-Pentenenitrile

CAS Number: 4635-87-4

Date Report Requested: 09/14/2018

Time Report Requested: 17:58:38

NTP Study Number:

590614

Study Result:

Weakly Positive

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Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	Without S9	Without S9	Without S9
Vehicle Control ¹	97 ± 6.3	98 ± 7.5	105 ± 12.7	110 ± 11.0	122 ± 9.6
33.0		95 ± 5.6	123 ± 4.0	115 ± 5.5	
100.0	106 ± 1.0	83 ± 3.7	117 ± 6.2	119 ± 3.1	
333.0	117 ± 5.0	97 ± 11.9	114 ± 7.3	152 ± 4.2	161 ± 8.4
667.0				163 ± 1.5	178 ± 11.1
750.0					190 ± 10.5
1000.0	117 ± 5.5	133 ± 7.2	147 ± 3.8	228 ± 11.9	212 ± 6.1
1250.0					232 ± 14.1
1500.0					215 ± 20.3
2000.0				90 ± 9.0 ^s	
3333.0	85 ± 3.8 ^s	92 ± 6.7 ^s	77 ± 4.0 ^s		
6667.0	Toxic				
Trial Summary	Negative	Equivocal	Equivocal	Positive	Weakly Positive
Positive Control ²					
Positive Control ³	522 ± 8.2	383 ± 29.9	790 ± 25.0	1161 ± 51.2	835 ± 26.6
Positive Control ⁴					
Positive Control ⁵					
Positive Control ⁶					

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Strain: TA100

Dose (ug/Plate)	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	99 ± 3.5	114 ± 7.5	80 ± 1.2	108 ± 10.8	117 ± 0.9
33.0	104 ± 2.9		92 ± 4.1	114 ± 1.2	99 ± 7.0
100.0	103 ± 7.2	121 ± 4.8	98 ± 4.0	111 ± 3.3	112 ± 2.2
333.0	92 ± 8.5	116 ± 7.1	92 ± 4.1	122 ± 3.8	128 ± 3.3
667.0					108 ± 2.6
750.0					
1000.0	84 ± 7.2	122 ± 6.7	101 ± 9.3	117 ± 3.8	118 ± 1.5
1250.0					
1500.0					
2000.0					120 ± 3.5
3333.0	120 ± 8.1	118 ± 5.9	108 ± 9.2	96 ± 13.0	
6667.0		17 ± 17.0 ^s			
Trial Summary	Negative	Negative	Equivocal	Negative	Negative
Positive Control ²			315 ± 3.0	987 ± 79.6	3438 ± 90.0
Positive Control ³					
Positive Control ⁴	1098 ± 56.2				
Positive Control ⁵					
Positive Control ⁶		1505 ± 44.9			

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Strain: TA100

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	141 ± 1.5
33.0	
100.0	144 ± 6.7
333.0	156 ± 10.3
667.0	
750.0	
1000.0	127 ± 9.0
1250.0	
1500.0	
2000.0	
3333.0	78 ± 2.6
6667.0	12 ± 10.0 ^s
Trial Summary	Negative
Positive Control ²	
Positive Control ³	
Positive Control ⁴	
Positive Control ⁵	856 ± 14.0
Positive Control ⁶	

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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	27 ± 2.6	19 ± 2.5	10 ± 0.3	14 ± 2.8	15 ± 1.5
33.0	26 ± 2.1	19 ± 1.5	12 ± 2.0	12 ± 2.3	
100.0	32 ± 3.0	17 ± 3.0	17 ± 1.8	14 ± 1.7	10 ± 3.8
333.0	28 ± 2.0	22 ± 0.7	18 ± 2.7	16 ± 1.8	15 ± 1.5
667.0					19 ± 0.9
1000.0	31 ± 4.8	19 ± 1.7	16 ± 1.9	16 ± 2.2	18 ± 1.9
2000.0					19 ± 1.8
3333.0	19 ± 3.7	9 ± 0.7	13 ± 2.3	15 ± 1.8	19 ± 1.5
4000.0					
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					84 ± 1.8
Positive Control ³	354 ± 22.5	231 ± 13.0			
Positive Control ⁵					
Positive Control ⁶			257 ± 5.3	324 ± 16.6	

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Strain: TA1535

Dose (ug/Plate)	With 30% Hamster S9	With 30% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	11 ± 1.7	14 ± 1.2	12 ± 4.3	19 ± 0.9
33.0	11 ± 1.3			
100.0	15 ± 2.2	14 ± 2.4	13 ± 0.9	
333.0	21 ± 2.4	25 ± 4.7	17 ± 1.8	20 ± 4.0
667.0		22 ± 0.9	20 ± 2.8	27 ± 2.3
1000.0	24 ± 0.7	23 ± 3.2	20 ± 3.6	19 ± 2.2
2000.0		29 ± 5.9	20 ± 0.6	25 ± 2.2
3333.0	21 ± 5.2	25 ± 1.9	20 ± 3.7	11 ± 2.8
4000.0			9 ± 4.5 ^s	
Trial Summary	Positive	Weakly Positive	Equivocal	Negative
Positive Control ²				
Positive Control ³				
Positive Control ⁵	172 ± 7.5	345 ± 8.0	226 ± 12.4	270 ± 11.4
Positive Control ⁶				

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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	98 ± 8.4	104 ± 1.0	104 ± 4.6	194 ± 5.9	108 ± 5.6
33.0	109 ± 3.2		125 ± 12.8	168 ± 4.9	118 ± 4.7
100.0	108 ± 2.7	101 ± 2.6	123 ± 3.8	183 ± 2.2	102 ± 5.5
333.0	109 ± 4.4	105 ± 7.2	129 ± 9.5	161 ± 4.7	110 ± 4.4
667.0		117 ± 8.3			
1000.0	141 ± 6.2	105 ± 1.8	119 ± 9.4	170 ± 5.0	115 ± 14.5
2000.0		153 ± 2.4			
3333.0	44 ± 22.4 ^s	116 ± 5.5	136 ± 6.8	177 ± 9.6	119 ± 4.4
Trial Summary	Equivocal	Equivocal	Negative	Negative	Negative
Positive Control ⁷	792 ± 11.1	260 ± 12.4			
Positive Control ⁴					933 ± 26.9
Positive Control ⁶			2989 ± 175.4		
Positive Control ⁸				959 ± 108.2	

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Strain: TA97

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	151 ± 4.5
33.0	146 ± 10.5
100.0	177 ± 12.9
333.0	186 ± 3.8
667.0	
1000.0	163 ± 8.8
2000.0	
3333.0	98 ± 8.9
Trial Summary	Negative
Positive Control ⁷	
Positive Control ⁴	
Positive Control ⁶	
Positive Control ⁸	1335 ± 86.5

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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 ¹	15 ± 1.5	18 ± 0.9	39 ± 0.7	24 ± 1.9	45 ± 3.3
33.0		24 ± 5.5	37 ± 2.7		37 ± 1.9
100.0	21 ± 2.7	23 ± 2.9	37 ± 3.2	24 ± 0.6	34 ± 1.7
333.0	19 ± 1.8	20 ± 4.9	37 ± 2.3	22 ± 1.5	36 ± 4.9
1000.0	17 ± 1.0	15 ± 2.0	34 ± 3.1	30 ± 2.6	33 ± 1.8
3333.0	9 ± 2.0 ^s	9 ± 1.8	32 ± 5.5	22 ± 1.2	37 ± 6.5
6667.0	Toxic			19 ± 1.7 ^s	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²			263 ± 8.8		198 ± 9.8
Positive Control ⁵				370 ± 11.0	
Positive Control ⁹	357 ± 12.7	328 ± 10.9			

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Strain: TA98

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	31 ± 1.3
33.0	
100.0	29 ± 0.7
333.0	28 ± 5.0
1000.0	22 ± 3.0
3333.0	17 ± 1.7
6667.0	0 ± 0.0 ^s
Trial Summary	Negative
Positive Control ²	
Positive Control ⁵	542 ± 2.9
Positive Control ⁹	

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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: 0.05 ug/Plate Icr-191
- 8: 2.5 ug/Plate 2-Aminoanthracene
- 9: 1.0 ug/Plate 4-Nitro-O-Phenylenediamine
- s: Slight Toxicity

** END OF REPORT **