

Experiment Number: **245998**

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

G06: Ames Summary Data

Test Compound: **Nitrogen mustard hydrochloride**

CAS Number: **55-86-7**

Date Report Requested: **09/10/2018**

Time Report Requested: **20:03:01**

NTP Study Number:

245998

Study Result:

Positive

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Test Compound: Nitrogen mustard hydrochloride

CAS Number: 55-86-7

Date Report Requested: 09/10/2018

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Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 5% Rat S9	With 10% Rat S9
Vehicle Control ¹	140 ± 3.0	168 ± 9.3	116 ± 10.2	137 ± 4.8	137 ± 7.3
3.0			127 ± 6.3		
10.0	145 ± 8.1	170 ± 7.6	133 ± 4.5	155 ± 21.5	165 ± 7.6
33.0	116 ± 6.2	178 ± 3.5	158 ± 8.4	159 ± 10.0	179 ± 9.6
66.0		170 ± 9.2			
100.0	196 ± 19.6	149 ± 13.8	132 ± 3.2	167 ± 4.9	142 ± 5.0
166.0		124 ± 14.2	85 ± 7.5		
333.0	162 ± 8.1		18 ± 3.4 ^s	121 ± 3.3	138 ± 16.8
666.0			0 ± 0.0 ^s		
1000.0	85 ± 4.9 ^s			124 ± 24.7	76 ± 12.2 ^s
3333.0					
Trial Summary	Equivocal	Negative	Equivocal	Negative	Equivocal
Positive Control ²					
Positive Control ³				1027 ± 16.3	579 ± 6.5
Positive Control ⁴	414 ± 6.0	367 ± 3.0	343 ± 5.8		
Positive Control ⁵					

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Strain: TA100

Dose (ug/Plate)	With 30% Rat S9	With 30% Rat S9	With 5% Hamster S9	With 10% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	171 ± 2.5	151 ± 5.7	118 ± 10.7	137 ± 12.1	167 ± 8.7
3.0					
10.0		161 ± 3.0	150 ± 7.4	188 ± 19.1	
33.0	194 ± 12.9	192 ± 15.0	167 ± 14.5	195 ± 15.6	204 ± 4.2
66.0					
100.0	219 ± 2.2	232 ± 28.7	179 ± 5.5	200 ± 5.4	227 ± 7.1
166.0					
333.0	233 ± 6.8	177 ± 3.8	136 ± 8.7	151 ± 13.5	265 ± 1.7
666.0					
1000.0	216 ± 10.7	144 ± 20.3 ^s	37 ± 0.5 ^s	37 ± 19.4 ^s	261 ± 8.2
3333.0	154 ± 16.2 ^s				195 ± 24.3 ^s
Trial Summary	Equivocal	Weakly Positive	Equivocal	Equivocal	Weakly Positive
Positive Control ²			1072 ± 31.6	827 ± 36.0	
Positive Control ³					491 ± 45.0
Positive Control ⁴					
Positive Control ⁵	421 ± 9.1	334 ± 20.5			

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Strain: TA100

Dose (ug/Plate)	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	164 ± 4.0	123 ± 12.0
3.0		
10.0	164 ± 11.7	182 ± 4.0
33.0	171 ± 7.2	248 ± 6.2
66.0		
100.0	190 ± 14.4	282 ± 13.3
166.0		
333.0	191 ± 4.8	273 ± 11.9
666.0		257 ± 36.4
1000.0	118 ± 59.7 ^s	
3333.0		
Trial Summary	Negative	Positive
Positive Control ²		
Positive Control ³		696 ± 13.9
Positive Control ⁴		
Positive Control ⁵	645 ± 40.0	

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Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	With 5% Rat S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control ¹	11 ± 1.3	13 ± 2.3	10 ± 3.0	15 ± 0.3	14 ± 3.4
1.0		12 ± 1.2			
3.0		18 ± 0.3			
10.0	24 ± 1.2	22 ± 1.9	19 ± 3.0	24 ± 4.4	30 ± 2.0
33.0	27 ± 1.2	36 ± 0.9	24 ± 2.7	32 ± 2.6	51 ± 3.6
66.0	28 ± 2.0	38 ± 1.2			
100.0	10 ± 5.2		38 ± 6.4	43 ± 2.4	80 ± 15.6
166.0	14 ± 2.3				
333.0			48 ± 4.4	37 ± 3.2	44 ± 27.1 ^s
666.0					
1000.0			26 ± 1.2 ^s	25 ± 5.7	25 ± 12.5 ^s
Trial Summary	Weakly Positive	Positive	Positive	Positive	Positive
Positive Control ³					
Positive Control ⁴	450 ± 30.3				
Positive Control ⁵			98 ± 3.9	61 ± 6.6	
Positive Control ⁶					62 ± 9.2
Positive Control ⁷		1248 ± 103.4			

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Strain: TA1535

Dose (ug/Plate)	With 30% Rat S9	With 5% Hamster S9	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	15 ± 2.5	7 ± 0.6	13 ± 1.5	15 ± 2.5	14 ± 2.3
1.0					
3.0					
10.0	33 ± 3.8	23 ± 4.4	26 ± 3.1	25 ± 2.7	30 ± 4.0
33.0	48 ± 3.0	30 ± 2.7	47 ± 3.1	50 ± 0.9	57 ± 5.7
66.0					
100.0	66 ± 5.5	58 ± 8.6	59 ± 7.1	86 ± 4.0	77 ± 9.3
166.0					
333.0	68 ± 3.1	45 ± 4.9	50 ± 6.8	111 ± 15.6	70 ± 8.4
666.0	76 ± 3.2				92 ± 32.0 ^s
1000.0		50 ± 7.0 ^s	36 ± 10.6 ^s	115 ± 28.0 ^s	
Trial Summary	Positive	Positive	Positive	Positive	Positive
Positive Control ³		92 ± 8.1	96 ± 2.1		
Positive Control ⁴					
Positive Control ⁵				215 ± 16.3	291 ± 47.0
Positive Control ⁶	90 ± 7.1				
Positive Control ⁷					

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Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	With 30% Rat S9	With 30% Hamster S9
Vehicle Control ¹	28 ± 3.6	17 ± 0.0	45 ± 0.0	37 ± 1.2
3.0		22 ± 3.2		
10.0	28 ± 2.2	21 ± 4.9		
33.0	35 ± 7.0	21 ± 3.2	36 ± 4.3	40 ± 2.0
100.0	30 ± 2.5	13 ± 0.9	52 ± 2.3	29 ± 6.4
333.0	Toxic	0 ± 0.0 ^s	36 ± 2.8	16 ± 1.2
1000.0	0 ± 0.0 ^s		31 ± 10.4 ^s	35 ± 2.2 ^s
3333.0			15 ± 9.7 ^s	5 ± 5.3 ^s
Trial Summary	Negative	Negative	Negative	Negative
Positive Control ³			89 ± 4.1	300 ± 22.8
Positive Control ⁸	709 ± 22.2	349 ± 59.5		

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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: 0.5 ug/Plate 2-Aminoanthracene

3: 1.0 ug/Plate 2-Aminoanthracene

4: 1.0 ug/Plate Sodium Azide

5: 2.5 ug/Plate 2-Aminoanthracene

6: 5.0 ug/Plate 2-Aminoanthracene

7: 5.0 ug/Plate Sodium Azide

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

s: Slight Toxicity

**** END OF REPORT ****