

Experiment Number: 606336

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Calcium chromate

CAS Number: 13765-19-0

Date Report Requested: 09/15/2018

Time Report Requested: 01:08:21

NTP Study Number:

606336

Study Result:

Positive

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G06: Ames Summary Data

Test Compound: Calcium chromate

CAS Number: 13765-19-0

Date Report Requested: 09/15/2018

Time Report Requested: 01:08:21

Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 5% Rat S9	With 5% Rat S9	With 10% Rat S9
Vehicle Control ¹	108 ± 10.2	102 ± 4.1	152 ± 4.2	95 ± 1.5	94 ± 1.5
1.0	106 ± 7.0				74 ± 2.0
3.3	140 ± 4.7	112 ± 13.9	165 ± 5.6	105 ± 3.0	82 ± 5.7
5.0		124 ± 1.8			
10.0	155 ± 3.0	168 ± 11.6	415 ± 8.7	96 ± 5.9	91 ± 12.0
16.5		190 ± 29.5			
33.0	308 ± 3.5 ^s	302 ± 7.9	703 ± 29.5 ^s	135 ± 11.1	112 ± 2.0 ^s
49.5			Toxic	226 ± 12.5	
66.0	Toxic		Toxic	218 ± 16.1	274 ± 47.5 ^s
Trial Summary	Positive	Positive	Positive	Weakly Positive	Weakly Positive
Positive Control ²					
Positive Control ³			2778 ± 90.1	2360 ± 37.5	1396 ± 23.1
Positive Control ⁴					
Positive Control ⁵	1419 ± 12.8	1154 ± 12.5			

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Strain: TA100

Dose (ug/Plate)	With 10% Rat S9	With 10% Rat S9	With 30% Rat S9	With 30% Rat S9	With 5% Hamster S9
Vehicle Control ¹	125 ± 9.8	98 ± 4.7	112 ± 2.9	132 ± 11.9	84 ± 3.4
1.0					
3.3	152 ± 8.0	106 ± 5.5	102 ± 5.8	131 ± 9.5	
5.0					
10.0	597 ± 98.9	84 ± 3.0	307 ± 98.4	120 ± 6.3	118 ± 9.5
16.5					145 ± 14.3
33.0	Toxic	98 ± 2.0	863 ± 13.2	111 ± 1.7	232 ± 15.0
49.5	Toxic	158 ± 12.7	244 ± 66.1 ^s	126 ± 21.6	365 ± 25.2
66.0	Toxic	164 ± 3.3	434 ± 154.6 ^s	102 ± 3.2	342 ± 27.0
Trial Summary	Equivocal	Equivocal	Positive	Negative	Positive
Positive Control ²					2293 ± 93.5
Positive Control ³	2023 ± 73.4	2226 ± 24.0			
Positive Control ⁴			1558 ± 113.9	1008 ± 22.0	
Positive Control ⁵					

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Strain: TA100

Dose (ug/Plate)	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	86 ± 4.4	91 ± 5.2	88 ± 4.6	100 ± 2.7	128 ± 7.5
1.0	82 ± 9.3				
3.3	91 ± 10.6				
5.0					
10.0	77 ± 4.3	178 ± 46.8	111 ± 3.7	421 ± 29.0	118 ± 3.5
16.5		357 ± 14.8	107 ± 2.7	288 ± 21.2	105 ± 2.3
33.0	198 ± 14.6	Toxic	182 ± 17.4	381 ± 86.7	129 ± 5.0
49.5		Toxic	274 ± 42.5	111 ± 17.2 ^s	351 ± 33.9
66.0	215 ± 59.4 ^s	Toxic	328 ± 31.8	452 ± 131.5 ^s	147 ± 20.2
Trial Summary	Positive	Positive	Positive	Equivocal	Equivocal
Positive Control ²	1009 ± 50.1		925 ± 53.2		
Positive Control ³		1044 ± 20.3			
Positive Control ⁴				1681 ± 12.0	1376 ± 89.0
Positive Control ⁵					

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Strain: TA1535

Dose (ug/Plate)	Without S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	17 ± 5.9	9 ± 1.8	12 ± 2.3
1.0	25 ± 6.4	14 ± 0.9	13 ± 1.5
3.3	22 ± 1.5	12 ± 2.3	13 ± 0.3
10.0	32 ± 2.0	10 ± 0.9	11 ± 0.9
33.0	Toxic	13 ± 2.0 ^s	18 ± 4.0 ^s
66.0	Toxic	18 ± 2.5 ^s	Toxic
Trial Summary	Equivocal	Negative	Negative
Positive Control ²			97 ± 6.1
Positive Control ³		111 ± 5.2	
Positive Control ⁵	1099 ± 38.9		

Experiment Number: 606336

Test Type: Genetic Toxicology - Bacterial
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Date Report Requested: 09/15/2018

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Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	With 5% Rat S9	With 5% Rat S9	With 10% Rat S9
Vehicle Control ¹	106 ± 11.3	104 ± 6.4	179 ± 4.9	128 ± 5.2	125 ± 7.7
1.0	98 ± 2.5				134 ± 7.3
3.3	138 ± 6.4	130 ± 2.5	309 ± 47.4	124 ± 3.4	122 ± 13.3
5.0		127 ± 1.5			
10.0	172 ± 5.0	208 ± 5.2	691 ± 68.4	116 ± 6.7	125 ± 7.2
16.5		231 ± 18.3			
33.0	170 ± 28.5 ^s	253 ± 15.1 ^s	Toxic	142 ± 11.8	136 ± 8.0
49.5			Toxic	270 ± 10.4	
66.0	Toxic		Toxic	263 ± 17.0	302 ± 11.0 ^s
Trial Summary	Equivocal	Positive	Positive	Weakly Positive	Equivocal
Positive Control ²					
Positive Control ³			1811 ± 5.2	1816 ± 6.4	1194 ± 42.2
Positive Control ⁴					
Positive Control ⁶	1235 ± 166.7	674 ± 15.4			

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Strain: TA97

Dose (ug/Plate)	With 10% Rat S9	With 10% Rat S9	With 30% Rat S9	With 30% Rat S9	With 5% Hamster S9
Vehicle Control ¹	158 ± 2.9	156 ± 7.3	152 ± 6.4	184 ± 2.9	119 ± 2.7
1.0					
3.3	215 ± 22.1	151 ± 3.1	214 ± 34.3	180 ± 3.5	
5.0					
10.0	546 ± 22.1	151 ± 2.4	343 ± 44.0	185 ± 0.6	145 ± 11.2
16.5					158 ± 12.8
33.0	Toxic	144 ± 12.3	Toxic	212 ± 9.9	214 ± 5.3
49.5	Toxic	200 ± 26.7	Toxic	213 ± 15.5	302 ± 12.9
66.0	Toxic	200 ± 17.8	Toxic	146 ± 2.6	397 ± 30.3
Trial Summary	Positive	Equivocal	Positive	Negative	Positive
Positive Control ²					1744 ± 92.1
Positive Control ³	1195 ± 11.3	1945 ± 65.9			
Positive Control ⁴			801 ± 64.9	1021 ± 22.2	
Positive Control ⁶					

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Strain: TA97

Dose (ug/Plate)	With 10% Hamster S9	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	106 ± 5.9	141 ± 2.0	124 ± 4.7	160 ± 6.6
1.0	111 ± 7.6			
3.3	110 ± 17.0			
5.0				
10.0	126 ± 16.0	147 ± 1.0	496 ± 28.8	131 ± 8.3
16.5		190 ± 4.3	432 ± 30.8	165 ± 1.2
33.0	229 ± 14.7 ^s	270 ± 35.3	519 ± 154.2	165 ± 7.8
49.5		299 ± 34.7	449 ± 233.5 ^s	383 ± 28.8
66.0	Toxic	382 ± 13.9	Toxic	281 ± 43.7
Trial Summary	Equivocal	Positive	Equivocal	Weakly Positive
Positive Control ²	828 ± 66.8	829 ± 43.8		
Positive Control ³				
Positive Control ⁴			962 ± 38.4	1245 ± 27.2
Positive Control ⁶				

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Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	With 5% Rat S9	With 5% Rat S9	With 10% Rat S9
Vehicle Control ¹	18 ± 0.3	14 ± 2.4	44 ± 1.9	34 ± 4.9	28 ± 1.9
1.0	19 ± 2.0				29 ± 3.5
3.3	25 ± 2.8	22 ± 3.0	55 ± 3.0	38 ± 2.4	30 ± 1.2
5.0		22 ± 0.7			
10.0	30 ± 2.6	36 ± 5.0	103 ± 2.5	33 ± 4.0	30 ± 6.4
16.5		45 ± 3.8			
33.0	35 ± 6.1 ^s	20 ± 3.5	Toxic	34 ± 3.0	34 ± 0.6
49.5			Toxic	48 ± 4.1	
66.0	Toxic		Toxic	40 ± 1.5	72 ± 13.0 ^s
Trial Summary	Weakly Positive	Positive	Equivocal	Negative	Equivocal
Positive Control ²					
Positive Control ³			2939 ± 83.1	2199 ± 129.7	787 ± 121.7
Positive Control ⁴					
Positive Control ⁷	1827 ± 21.3	1536 ± 17.9			

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Strain: TA98

Dose (ug/Plate)	With 10% Rat S9	With 10% Rat S9	With 30% Rat S9	With 30% Rat S9	With 5% Hamster S9
Vehicle Control ¹	39 ± 2.3	37 ± 7.3	25 ± 4.9	27 ± 3.4	35 ± 2.9
1.0					
3.3	48 ± 1.7	37 ± 3.5	30 ± 6.9	35 ± 4.7	
5.0					
10.0	112 ± 17.2	36 ± 1.2	50 ± 6.6	34 ± 2.6	41 ± 1.8
16.5					50 ± 4.8
33.0	Toxic	35 ± 2.2	Toxic	32 ± 3.8	54 ± 4.6
49.5	Toxic	59 ± 13.9	Toxic	45 ± 4.5	70 ± 8.0
66.0	Toxic	55 ± 2.7 ^s	Toxic	38 ± 1.9	62 ± 3.0
Trial Summary	Equivocal	Equivocal	Equivocal	Equivocal	Weakly Positive
Positive Control ²					2127 ± 34.4
Positive Control ³	1892 ± 29.3	1703 ± 45.1			
Positive Control ⁴			1354 ± 20.6	1148 ± 17.7	
Positive Control ⁷					

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Strain: TA98

Dose (ug/Plate)	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	27 ± 1.3	30 ± 3.5	32 ± 0.9	32 ± 0.7	34 ± 5.7
1.0	26 ± 3.4				
3.3	26 ± 2.7				
5.0					
10.0	30 ± 0.6	23 ± 3.5 ^s	37 ± 0.9	58 ± 18.0	31 ± 3.3
16.5		48 ± 6.9 ^s	39 ± 1.9	69 ± 2.5	35 ± 2.3
33.0	67 ± 3.5 ^s	Toxic	47 ± 4.8	Toxic	41 ± 0.9
49.5		Toxic	25 ± 7.0	Toxic	45 ± 1.9
66.0	69 ± 6.9 ^s	Toxic	63 ± 5.2	Toxic	42 ± 4.5
Trial Summary	Weakly Positive	Equivocal	Weakly Positive	Equivocal	Negative
Positive Control ²	837 ± 19.4		857 ± 17.9		
Positive Control ³		1076 ± 56.8			
Positive Control ⁴				1711 ± 183.5	
Positive Control ⁷					1134 ± 12.5

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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: 0.75 ug/Plate 2-Aminoanthracene

3: 1.5 ug/Plate 2-Aminoanthracene

4: 2.0 ug/Plate 2-Aminoanthracene

5: 2.5 ug/Plate Sodium Azide

6: 4.0 ug/Plate 9-Aminoacridine

7: 12.0 ug/Plate 4-Nitro-O-Phenylenediamine

s: Slight Toxicity

**** END OF REPORT ****