Experiment Number: **421729**

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

G06: Ames Summary Data

Test Compound: **4-(2-Naphthylamino)phenol**

CAS Number: **93-45-8**

Date Report Requested: **09/15/2018**

Time Report Requested: **05:28:54**

NTP Study Number: 421729

Study Result: Equivocal

Experiment Number: **421729**

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

G06: Ames Summary Data

Test Compound: **4-(2-Naphthylamino)phenol**

CAS Number: **93-45-8**

Date Report Requested: **09/15/2018**

Time Report Requested: **05:28:54**

Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control[1]	67 ± 1.9	93 ± 8.2	148 ± 2.6	76 ± 5.2	103 ± 3.8
0.3			130 ± 5.2		108 ± 2.9
1.0	73 ± 7.0	93 ± 11.9	136 ± 1.5		106 ± 4.7
3.3	70 ± 5.2	82 ± 12.0	134 ± 1.2		102 ± 6.6
10.0	70 ± 4.6	101 ± 2.2	133 ± 4.7	75 ± 3.8	100 ± 3.5
33.0	61 ± 11.6[s]	87 ± 6.4[s]	101 ± 8.1[s]	80 ± 7.0	105 ± 7.0
67.0	Toxic			69 ± 10.7	
100.0		Toxic		72 ± 3.8	
200.0				43 ± 2.5[s]	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control[2]					
Positive Control[3]	286 ± 8.3	369 ± 15.0	350 ± 12.3		
Positive Control[4]				323 ± 22.8	
Positive Control[5]					
Positive Control[6]					396 ± 7.1

Experiment Number: **421729**

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CAS Number: **93-45-8**

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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]	144 ± 11.1	81 ± 2.9	123 ± 3.4	183 ± 9.8
0.3			130 ± 6.1	
1.0	146 ± 6.7		111 ± 6.5	159 ± 10.8
3.3	153 ± 5.7		104 ± 1.5	172 ± 4.0
10.0	142 ± 5.8	81 ± 1.7	134 ± 3.8	184 ± 11.5
33.0	152 ± 3.3	81 ± 6.9	132 ± 4.3	192 ± 4.4
67.0		78 ± 3.5		
100.0	136 ± 10.6	89 ± 4.5		190 ± 4.2
200.0		56 ± 5.5[s]		
Trial Summary	Negative	Negative	Negative	Negative
Positive Control[2]		393 ± 43.1		
Positive Control[3]				
Positive Control[4]				
Positive Control[5]			315 ± 7.7	383 ± 3.2
Positive Control[6]	406 ± 9.7			

Experiment Number: **421729**

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

G06: Ames Summary Data

Test Compound: **4-(2-Naphthylamino)phenol**

CAS Number: **93-45-8**

Date Report Requested: **09/15/2018**

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Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control[1]	13 ± 0.6	20 ± 1.0	20 ± 1.2	8 ± 1.2	12 ± 3.5
0.3			15 ± 3.2		12 ± 1.5
1.0	17 ± 4.5	18 ± 2.4	13 ± 1.3		11 ± 1.7
3.3	18 ± 1.2	24 ± 4.4	16 ± 2.4		20 ± 0.9
10.0	18 ± 1.2	18 ± 0.6	16 ± 2.3	9 ± 0.0	11 ± 1.2
33.0	10 ± 1.5[s]	16 ± 1.5[s]	9 ± 1.7[s]	6 ± 1.3	14 ± 4.9
67.0	Toxic			9 ± 1.2	
100.0		Toxic		8 ± 1.2	
200.0				Toxic	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control[2]					
Positive Control[3]	181 ± 4.4	252 ± 9.5	175 ± 10.3		
Positive Control[5]					
Positive Control[6]				90 ± 9.2	95 ± 1.9

Experiment Number: **421729**

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

G06: Ames Summary Data

Test Compound: **4-(2-Naphthylamino)phenol**

CAS Number: **93-45-8**

Date Report Requested: **09/15/2018**

Time Report Requested: **05:28:54**

Strain: TA1535

Dose (ug/Plate)	With 30% Rat S9	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control[1]	12 ± 2.4	8 ± 1.7	12 ± 0.3	15 ± 3.8
0.3			9 ± 2.1	
1.0	12 ± 1.7		13 ± 1.3	10 ± 2.0
3.3	15 ± 1.5		11 ± 2.0	11 ± 0.9
10.0	16 ± 2.0	16 ± 4.1	19 ± 3.2	15 ± 2.4
33.0	16 ± 3.4	11 ± 0.6	23 ± 0.6	12 ± 3.0
67.0		8 ± 0.7		
100.0	15 ± 2.4	7 ± 1.2		22 ± 2.5
200.0		6 ± 0.7[s]		
Trial Summary	Negative	Negative	Negative	Negative
Positive Control[2]		57 ± 3.2		
Positive Control[3]				
Positive Control[5]			92 ± 5.2	107 ± 1.7
Positive Control[6]	84 ± 7.6			

Experiment Number: **421729**

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

G06: Ames Summary Data

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Date Report Requested: **09/15/2018**

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Strain: TA1537

Dose (ug/Plate)	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control[1]	4 ± 0.6	4 ± 0.9
3.3	8 ± 0.9	11 ± 1.8
10.0	14 ± 2.2	9 ± 0.6
33.0	14 ± 1.2	12 ± 0.7
100.0	13 ± 0.9	11 ± 2.1
150.0	14 ± 1.0	11 ± 2.1
200.0	15 ± 1.5	8 ± 1.2[s]
Trial Summary	Equivocal	Negative
Positive Control[7]	134 ± 4.3	123 ± 8.7

Experiment Number: **421729**

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

G06: Ames Summary Data

Test Compound: **4-(2-Naphthylamino)phenol**

CAS Number: **93-45-8**

Date Report Requested: **09/15/2018**

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Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control[1]	66 ± 2.5	131 ± 7.2	84 ± 6.3	198 ± 6.3	188 ± 10.2
0.3	81 ± 3.8		79 ± 2.3		
1.0	71 ± 6.8	155 ± 9.0	86 ± 5.0		181 ± 16.0
3.3	73 ± 6.8	151 ± 1.3	75 ± 3.2		156 ± 7.2
10.0	71 ± 3.2	165 ± 6.1	74 ± 3.3	175 ± 9.7	166 ± 5.8
33.0	77 ± 6.7[s]	162 ± 10.0[s]	101 ± 15.4[s]	179 ± 12.4	225 ± 13.4
67.0				135 ± 2.3	
100.0		Toxic		82 ± 7.5	255 ± 34.4
200.0				Toxic	
Trial Summary	Negative	Negative	Negative	Negative	Equivocal
Positive Control[4]					
Positive Control[6]				534 ± 12.7	
Positive Control[7]					375 ± 6.5
Positive Control[8]		321 ± 29.8			
Positive Control[9]	803 ± 66.2		319 ± 5.9		

Experiment Number: **421729**

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

G06: Ames Summary Data

Test Compound: **4-(2-Naphthylamino)phenol**

CAS Number: **93-45-8**

Date Report Requested: **09/15/2018**

Time Report Requested: **05:28:54**

Strain: TA97

Dose (ug/Plate)	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control[1]	178 ± 6.4	212 ± 4.6	181 ± 15.4
0.3			
1.0		231 ± 16.3	177 ± 1.7
3.3		199 ± 13.9	166 ± 10.5
10.0	168 ± 40.2	252 ± 17.6	185 ± 11.0
33.0	186 ± 9.5	305 ± 15.7	171 ± 7.2
67.0	161 ± 6.6		
100.0	109 ± 3.9	351 ± 19.3	240 ± 17.7
200.0	39 ± 1.5[s]		
Trial Summary	Negative	Equivocal	Equivocal
Positive Control[4]	529 ± 31.0		
Positive Control[6]			
Positive Control[7]		727 ± 67.9	648 ± 10.9
Positive Control[8]			
Positive Control[9]			

Experiment Number: **421729**

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

G06: Ames Summary Data

Test Compound: **4-(2-Naphthylamino)phenol**

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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]	36 ± 6.4	21 ± 4.1	20 ± 4.3	45 ± 3.0	21 ± 4.7
0.3			16 ± 4.5		33 ± 1.0
1.0	34 ± 1.7	19 ± 0.9	13 ± 1.5		26 ± 4.6
3.3	31 ± 4.5	21 ± 2.3	16 ± 1.2		33 ± 1.5
10.0	27 ± 3.4	18 ± 1.5	17 ± 1.0	41 ± 6.5	27 ± 4.0
33.0	27 ± 4.4	15 ± 4.5[s]	15 ± 0.9[s]	46 ± 1.9	31 ± 1.9[s]
67.0	Toxic			37 ± 2.5	
100.0		Toxic		33 ± 0.7	
200.0				Toxic	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control[10]					
Positive Control[2]				176 ± 10.0	
Positive Control[5]					142 ± 12.1
Positive Control[11]	103 ± 3.5	118 ± 10.2	113 ± 5.5		

Experiment Number: **421729**

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

G06: Ames Summary Data

Test Compound: **4-(2-Naphthylamino)phenol**

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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]	25 ± 1.5	43 ± 2.9	26 ± 4.0	27 ± 2.2
0.3			36 ± 3.2	
1.0	29 ± 4.9		28 ± 2.3	21 ± 1.2
3.3	28 ± 4.3		37 ± 2.5	28 ± 3.3
10.0	32 ± 4.2	51 ± 4.3	35 ± 2.3	31 ± 1.8
33.0	25 ± 3.5	39 ± 1.5	32 ± 2.0	34 ± 4.4
67.0		29 ± 3.2		
100.0	25 ± 1.2	37 ± 3.5		30 ± 5.0
200.0		19 ± 3.5[s]		
Trial Summary	Negative	Negative	Negative	Negative
Positive Control[10]		105 ± 4.1		
Positive Control[2]			103 ± 6.6	107 ± 3.8
Positive Control[5]	110 ± 4.7			
Positive Control[11]				

LEGEND

Values given as Mean or Mean ± 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: 2.5 ug/Plate 2-Aminoanthracene
8: 3.5 ug/Plate 9-Aminoacridine
9: 4.0 ug/Plate 9-Aminoacridine
10: 0.2 ug/Plate 2-Aminoanthracene
11: 1.0 ug/Plate 4-Nitro-O-Phenylenediamine
s: Slight Toxicity

** END OF REPORT **