

Study Number: MOG08002B
Test Type: MOG
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

I05P: Pup Clinical Observations Summary

Test Compound: Bisphenol AF

CAS Number: 1478-61-1

Date Report Requested: 07/17/2020

Time Report Requested: 10:56:00

Lab: RTI

Study Number:

MOG08002B

Study Gender:

Both

PWG Approval Date

See web page for date of PWG Approval

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	F1 Pups			
	Treatment Groups (ppm)			
	0	338	1125	3750
Total Pups (PND 0)	329	370	388	330
No. pups post cull (PND 4)	225	227	249	206
Total Litters (PND 0)	25	28	29	25
No. litters post cull (PND 4)	23	24	25	23

Pup Clinical Observations PND 0-4

Anal Atresia	0	0	1 (0.3)	0
	0	0	1 (3.4)	0
			PND 0	
Bruising	0	0	1 (0.3)	0
Back	0	0	1 (3.4)	0
			PND 3-4	
Bruising	3 (0.9)	4 (1.1)	0	0
Face	3 (12.0)	4 (14.3)	0	0
	PND 0-2	PND 0-3		
Bruising	0	1 (0.3)	0	0
Head	0	1 (3.6)	0	0
		PND 0-1		
Bruising	1 (0.3)	1 (0.3)	0	0
Left Hind Paw	1 (4.0)	1 (3.6)	0	0
	PND 1-3	PND 0		

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	F1 Pups			
	Treatment Groups (ppm)			
	0	338	1125	3750
Bruising	0	1 (0.3)	0	0
Right Hind Paw	0	1 (3.6) PND 0	0	0
Cold To Touch	11 (3.3)	0	0	1 (0.3)
	1 (4.0) PND 4	0	0	1 (4.0) PND 0
Fell from dosing table	0	0	0	1 (0.3)
	0	0	0	1 (4.0) PND 1
Lethargic	11 (3.3)	0	0	0
	1 (4.0) PND 4	0	0	0
No Milk in Stomach	12 (3.6)	3 (0.8)	10 (2.6)	15 (4.5)
	1 (4.0) PND 3-4	1 (3.6) PND 4	5 (17.2) PND 3-4	6 (24.0) PND 0-4
Pale	2 (0.6)	1 (0.3)	0	1 (0.3)
	2 (8.0) PND 1-4	1 (3.6) PND 0	0	1 (4.0) PND 4
Pup - Found Dead	12 (3.6)	44 (11.9)	20 (5.2)	40 (12.1)
	10 (40.0) PND 0-4	12 (42.9) PND 0-4	11 (37.9) PND 0-4	16 (64.0) PND 0-4

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	F1 Pups			
	Treatment Groups (ppm)			
	0	338	1125	3750
Pup Cannibalised	3 (0.9) 3 (12.0) PND 0-1	3 (0.8) 2 (7.1) PND 0	10 (2.6) 1 (3.4) PND 0	2 (0.6) 1 (4.0) PND 0
Pup Missing - Presumed Dead	1 (0.3) 1 (4.0) PND 1	10 (2.7) 5 (17.9) PND 1-4	9 (2.3) 6 (20.7) PND 0-4	44 (13.3) 10 (40.0) PND 1-4
Respiration Audible	0 0	0 0	0 0	1 (0.3) 1 (4.0) PND 4
Respiration Labored	11 (3.3) 1 (4.0) PND 4	0 0	0 0	0 0
Sore(s) On Body Abdomen	0 0	1 (0.3) 1 (3.6) PND 0-4	0 0	0 0
Sore(s) On Body Chest	0 0	1 (0.3) 1 (3.6) PND 1-4	0 0	0 0
Sore(s) On Body Tail	1 (0.3) 1 (4.0) PND 0	0 0	0 0	0 0

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	F1 Pups			
	Treatment Groups (ppm)			
	0	338	1125	3750
Swelling	1 (0.3)	0	0	0
Right Hindlimb	1 (4.0)	0	0	0
	PND 0			
Tail Damaged	1 (0.3)	0	0	0
	1 (4.0)	0	0	0
	PND 0			
Tail Missing	0	0	1 (0.3)	0
	0	0	1 (3.4)	0
			PND 0	
Pup Clinical Observations PND 5-28				
Alopecia	10 (4.4)	0	0	0
Head	1 (4.3)	0	0	0
	PND 17-28			
Ataxia	0	0	0	1 (0.5)
Mild	0	0	0	1 (4.3)
				PND 15
Cold To Touch	1 (0.4)	1 (0.4)	1 (0.4)	1 (0.5)
	1 (4.3)	1 (4.2)	1 (4.0)	1 (4.3)
	PND 7	PND 8	PND 10	PND 15

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	F1 Pups			
	Treatment Groups (ppm)			
	0	338	1125	3750
Dehydrated	0	4 (1.8)	1 (0.4)	3 (1.5)
	0	2 (8.3) PND 7-13	1 (4.0) PND 12	3 (13.0) PND 9-13
Emaciated	1 (0.4)	2 (0.9)	1 (0.4)	0
	1 (4.3) PND 7	1 (4.2) PND 7	1 (4.0) PND 12	0
Eye Discharge Right; Red	0	0	1 (0.4)	0
	0	0	1 (4.0) PND 26	0
Fur Stained Abdomen; Yellow	0	0	0	9 (4.4)
	0	0	0	5 (21.7) PND 21-28
Hunched	0	0	0	1 (0.5)
	0	0	0	1 (4.3) PND 21-23
Hypoactive	0	0	0	1 (0.5)
	0	0	0	1 (4.3) PND 15
Lethargic	0	1 (0.4)	0	1 (0.5)
	0	1 (4.2) PND 8	0	1 (4.3) PND 15

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	F1 Pups			
	Treatment Groups (ppm)			
	0	338	1125	3750
Nasal Discharge	0	0	0	1 (0.5)
Brown	0	0	0	1 (4.3) PND 15
No Milk in Stomach	1 (0.4) 1 (4.3) PND 7	4 (1.8) 2 (8.3) PND 5-8	8 (3.2) 2 (8.0) PND 5-10	2 (1.0) 1 (4.3) PND 5-9
Pale	1 (0.4) 1 (4.3) PND 5-7	0 0	0 0	2 (1.0) 2 (8.7) PND 9-15
Pup - Found Dead	3 (1.3) 3 (13.0) PND 8-14	3 (1.3) 2 (8.3) PND 9-14	6 (2.4) 3 (12.0) PND 5-11	8 (3.9) 7 (30.4) PND 5-13
Pup Cannibalised	0 0	0 0	0 0	2 (1.0) 2 (8.7) PND 13-18
Pup Missing - Presumed Dead	0 0	5 (2.2) 2 (8.3) PND 7-14	9 (3.6) 4 (16.0) PND 5-13	4 (1.9) 4 (17.4) PND 5-14
Respiration	0	0	2 (0.8)	1 (0.5)
Audible	0	0	1 (4.0) PND 18-23	1 (4.3) PND 5-6

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	F1 Pups			
	Treatment Groups (ppm)			
	0	338	1125	3750
Respiration	0	0	0	2 (1.0)
Labored	0	0	0	2 (8.7) PND 15
Scab(s)	0	1 (0.4)	0	0
Abdomen	0	1 (4.2) PND 7-10	0	0
Scab(s)	0	0	1 (0.4)	0
Anus	0	0	1 (4.0) PND 20	0
Sore(s) On Body	0	1 (0.4)	0	0
Abdomen	0	1 (4.2) PND 5-6	0	0
Sore(s) On Body	0	1 (0.4)	0	0
Back	0	1 (4.2) PND 12	0	0
Sore(s) On Body	0	1 (0.4)	1 (0.4)	0
Chest	0	1 (4.2) PND 5-6	1 (4.0) PND 7-11	0
Sore(s) On Body	0	0	0	1 (0.5)
Right Hindlimb	0	0	0	1 (4.3) PND 7-15

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	F1 Pups			
	Treatment Groups (ppm)			
	0	338	1125	3750
Sore(s) On Body	0	0	0	1 (0.5)
Right Shoulder	0	0	0	1 (4.3) PND 13
Swelling	0	1 (0.4)	0	0
Left Hindlimb	0	1 (4.2) PND 7-18	0	0
Swelling	1 (0.4)	0	0	0
Right Ear	1 (4.3) PND 10-11	0	0	0
Vaginal Thread	0	0	3 (1.2)	1 (0.5)
	0	0	3 (12.0) PND 27-28	1 (4.3) PND 26-28

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F2 Pups - Fertility Females

	Treatment Groups (ppm)		
	0	338	1125
Total Pups (PND 0)	211	239	67
No. pups post cull (PND 4)	131	150	51
Total Litters (PND 0)	18	20	9
No. litters post cull (PND 4)	18	19	9

Pup Clinical Observations PND 0-4

Bruising	0	1 (0.4)	0
Face	0	1 (5.0)	0
		PND 0-2	
Cold To Touch	0	0	1 (1.5)
	0	0	1 (11.1)
			PND 1
Pale	0	0	2 (3.0)
	0	0	2 (22.2)
			PND 0-3
Pup - Found Dead	7 (3.3)	21 (8.8)	9 (13.4)
	5 (27.8)	13 (65.0)	4 (44.4)
	PND 0	PND 0	PND 0
Pup Cannibalised	3 (1.4)	3 (1.3)	0
	3 (16.7)	3 (15.0)	0
	PND 0	PND 0	

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F2 Pups - Fertility Females

	Treatment Groups (ppm)		
	0	338	1125
Pup Missing - Presumed Dead	3 (1.4)	5 (2.1)	0
	2 (11.1)	3 (15.0)	0
	PND 1	PND 0-1	
Skin Discolored	1 (0.5)	0	0
Bluish	1 (5.6)	0	0
	PND 0		
Tail Tip Missing	0	1 (0.4)	3 (4.5)
	0	1 (5.0)	1 (11.1)
		PND 1-4	PND 0-4
Pup Clinical Observations PND 5-28			
Alopecia	0	0	1 (2.0)
Chest	0	0	1 (11.1)
			PND 20-28
Cold To Touch	0	1 (0.7)	0
	0	1 (5.3)	0
		PND 11	
Dehydrated	0	1 (0.7)	0
	0	1 (5.3)	0
		PND 11	

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F2 Pups - Fertility Females

	Treatment Groups (ppm)		
	0	338	1125
Eye Discharge	1 (0.8)	0	0
Right; Clear	1 (5.6) PND 25	0	0
Eye Discharge	1 (0.8)	0	0
Right; Red	1 (5.6) PND 26	0	0
No Milk in Stomach	1 (0.8)	5 (3.3)	0
	1 (5.6) PND 9-10	1 (5.3) PND 7	0
Pup - Found Dead	1 (0.8)	1 (0.7)	0
	1 (5.6) PND 11	1 (5.3) PND 9	0
Pup Missing - Presumed Dead	0	2 (1.3)	4 (7.8)
	0	2 (10.5) PND 6-12	1 (11.1) PND 8-12
Tail Tip Missing	0	1 (0.7)	2 (3.9)
	0	1 (5.3) PND 5-28	1 (11.1) PND 5-28
Vaginal Thread	0	0	1 (2.0)
	0	0	1 (11.1) PND 23-28

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LEGEND

Animals exhibiting clinical observations "within normal limits" were recorded as scheduled but are omitted from the table for clarity.

Upper row denotes the pup incidence N (%)

Middle row denotes the litter incidence N (%)

Lower row denotes the range of postnatal days the finding was seen for the group

F1 litter incidence based on the number of F0 dams; F2 litter incidence based on number of F1 dams.

No. live litters includes litters with ≥ 1 live pup

Percent incidence calculated using number of live pups or litters on PND 0 (pre cull) or PND 4 (post cull)

PND - Postnatal Day, pups pre-weaning

The F1 3750 ppm animals were unable to produce a F2 generation, hence this group was not evaluated.

**** END OF REPORT ****