

Study Number: R88007B
Test Type: RACB
Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

R20: Pup Necropsy (Gross Observations for Unweaned Pups) Summary

Test Compound: Butyl Paraben
CAS Number: 94-26-8

Date Report Requested: 11/29/2018
Time Report Requested: 08:08:55
Lab: RTI

C Number:

R88007B

Study Gender:

Both

PWG Approval Date

See web page for date of PWG Approval

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	F1 Pups (Litter A)			
	Treatment Groups (ppm)			
	0	5000	15000	40000
Disposition Summary				
Pups	253	253	246	223
Litters	19	18	19	19
Scheduled Sacrifice				
Scheduled Removal (Terminal)	226 (17)	240 (18)	229 (19)	202 (19)
Early Deaths				
Cannibalized				1 (1)
Found Dead	25 (13)	12 (7)	16 (11)	16 (8)
Pup Missing - Presumed Dead	2 (2)	1 (1)	1 (1)	4 (4)
No. pups examined				
	24	12	16	17
No. Litters				
	12	7	11	8
Normal				
	0	0	0	0
ALIMENTARY SYSTEM				
Abdomen				
Liver, all lobes, Enlarged	0 (0.0)	0 (0.0)	1 (6.3)	0 (0.0)
	0 (0.0)	0 (0.0)	1 (9.1)	0 (0.0)
Stomach, Milk/food absent	18 (75.0)	12 (100.0)	11 (68.8)	13 (76.5)
	11 (91.7)	7 (100.0)	7 (63.6)	7 (87.5)
CARDIOVASCULAR SYSTEM				
Thorax (excluding heart)				
Ductus arteriosus, Closed	8 (33.3)	3 (25.0)	9 (56.3)	11 (64.7)
	6 (50.0)	1 (14.3)	8 (72.7)	7 (87.5)

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F1 Pups (Litter A)

Treatment Groups (ppm)

	0	5000	15000	40000
Ductus arteriosus, Patent	14 (58.3)	9 (75.0)	6 (37.5)	5 (29.4)
	10 (83.3)	6 (85.7)	5 (45.5)	3 (37.5)
ENDOCRINE SYSTEM				
No findings				
GENERAL BODY SYSTEM				
General				
Abdomen, Autolyzed, unable to evaluate	4 (16.7)	0 (0.0)	4 (25.0)	1 (5.9)
	4 (33.3)	0 (0.0)	4 (36.4)	1 (12.5)
General, Autolyzed, unable to evaluate	2 (8.3)	0 (0.0)	1 (6.3)	0 (0.0)
	1 (8.3)	0 (0.0)	1 (9.1)	0 (0.0)
General, Cannibalized, unable to evaluate	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.9)
	0 (0.0)	0 (0.0)	0 (0.0)	1 (12.5)
GENITAL SYSTEM				
No findings				
HEMATOPOIETIC SYSTEM				
No findings				
INTEGUMENTARY SYSTEM				
No findings				
LYMPHOID SYSTEM				
No findings				
MUSCULOSKELETAL SYSTEM				
No findings				
NERVOUS SYSTEM				
No findings				
RESPIRATORY SYSTEM				
Thorax (excluding heart)				

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F1 Pups (Litter A)

Treatment Groups (ppm)

	0	5000	15000	40000
Lung, all lobes, Air present	14 (58.3)	3 (25.0)	10 (62.5)	12 (70.6)
	9 (75.0)	1 (14.3)	9 (81.8)	7 (87.5)
Lung, all lobes, No air present	8 (33.3)	9 (75.0)	5 (31.3)	4 (23.5)
	6 (50.0)	6 (85.7)	4 (36.4)	3 (37.5)
SPECIAL SENSES SYSTEM				
No findings				
URINARY SYSTEM				
Pelvis				
Ureter, bilateral, Distended	2 (8.3)	1 (8.3)	1 (6.3)	2 (11.8)
	2 (16.7)	1 (14.3)	1 (9.1)	2 (25.0)
Ureter, left, Distended	1 (4.2)	1 (8.3)	2 (12.5)	2 (11.8)
	1 (8.3)	1 (14.3)	2 (18.2)	2 (25.0)
Ureter, right, Distended	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.9)
	0 (0.0)	0 (0.0)	0 (0.0)	1 (12.5)

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F1 Pups (Litter B)

Treatment Groups (ppm)

	0	5000	15000	40000
Disposition Summary				
Pups	255	238	293	224
Litters	20	17	21	19
Scheduled Sacrifice				
Scheduled Removal (Terminal)	232 (19)	210 (17)	256 (21)	202 (19)
Early Deaths				
Cannibalized	1 (1)	1 (1)	2 (2)	1 (1)
Found Dead	20 (14)	26 (12)	30 (13)	16 (9)
Pup Missing - Presumed Dead	2 (2)	1 (1)	5 (4)	5 (5)
No. pups examined				
	21	27	31	16
No. Litters				
	14	12	13	9
Normal				
				1 (1)
ALIMENTARY SYSTEM				
Abdomen				
Stomach, Milk/food absent	16 (76.2)	20 (74.1)	28 (90.3)	8 (50.0)
	11 (78.6)	10 (83.3)	12 (92.3)	6 (66.7)
CARDIOVASCULAR SYSTEM				
Thorax (excluding heart)				
Ductus arteriosus, Closed	3 (14.3)	3 (11.1)	4 (12.9)	7 (43.8)
	3 (21.4)	3 (25.0)	2 (15.4)	3 (33.3)
Ductus arteriosus, Patent	13 (61.9)	19 (70.4)	26 (83.9)	8 (50.0)
	8 (57.1)	8 (66.7)	12 (92.3)	6 (66.7)

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F1 Pups (Litter B)				
Treatment Groups (ppm)				
	0	5000	15000	40000
ENDOCRINE SYSTEM				
No findings				
GENERAL BODY SYSTEM				
General				
Abdomen, Autolyzed, unable to evaluate	0 (0.0)	3 (11.1)	1 (3.2)	6 (37.5)
	0 (0.0)	3 (25.0)	1 (7.7)	5 (55.6)
General, Autolyzed, unable to evaluate	3 (14.3)	2 (7.4)	0 (0.0)	0 (0.0)
	3 (21.4)	1 (8.3)	0 (0.0)	0 (0.0)
General, Cannibalized, unable to evaluate	1 (4.8)	1 (3.7)	1 (3.2)	0 (0.0)
	1 (7.1)	1 (8.3)	1 (7.7)	0 (0.0)
GENITAL SYSTEM				
No findings				
HEMATOPOIETIC SYSTEM				
No findings				
INTEGUMENTARY SYSTEM				
No findings				
LYMPHOID SYSTEM				
No findings				
MUSCULOSKELETAL SYSTEM				
No findings				
NERVOUS SYSTEM				
No findings				
RESPIRATORY SYSTEM				
Thorax (excluding heart)				
Lung, all lobes, Air present	2 (9.5)	4 (14.8)	4 (12.9)	7 (43.8)
	2 (14.3)	4 (33.3)	2 (15.4)	3 (33.3)

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F1 Pups (Litter B)

Treatment Groups (ppm)

	0	5000	15000	40000
Lung, all lobes, No air present	13 (61.9)	18 (66.7)	26 (83.9)	8 (50.0)
	8 (57.1)	8 (66.7)	12 (92.3)	6 (66.7)
SPECIAL SENSES SYSTEM				
No findings				
URINARY SYSTEM				
Pelvis				
Ureter, left, Distended	0 (0.0)	0 (0.0)	1 (3.2)	0 (0.0)
	0 (0.0)	0 (0.0)	1 (7.7)	0 (0.0)

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F1 Pups (Litter C)

Treatment Groups (ppm)

	0	5000	15000	40000
Disposition Summary				
Pups	228	202	272	159
Litters	20	14	20	17
Scheduled Sacrifice				
Euthanized Due to Dam Death			7 (1)	
Mammary Gland Whole Mount	18 (14)	4 (4)	9 (9)	
Pup Culled	14 (6)	13 (6)	16 (7)	5 (3)
Scheduled Removal (Terminal)	162 (20)	144 (14)	174 (19)	58 (8)
Early Deaths				
Cannibalized	1 (1)	2 (2)		2 (2)
Euthanized Humane	2 (2)		2 (2)	
Euthanized Moribund	4 (2)	5 (2)	2 (2)	13 (8)
Found Dead	23 (9)	18 (8)	12 (8)	36 (9)
Pup Missing - Presumed Dead	4 (2)	5 (4)	5 (4)	6 (4)
Unscheduled Sacrifice			1 (1)	
No. pups examined				
	22	20	11	17
No. Litters				
	8	9	7	7
Normal				
	2 (1)	2 (2)	2 (2)	3 (3)
ALIMENTARY SYSTEM				
Abdomen				
Stomach, Milk/food absent	12 (54.5)	9 (45.0)	7 (63.6)	3 (17.6)
	5 (62.5)	7 (77.8)	6 (85.7)	2 (28.6)

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F1 Pups (Litter C)

Treatment Groups (ppm)

	0	5000	15000	40000
CARDIOVASCULAR SYSTEM				
Thorax (excluding heart)				
Ductus arteriosus, Closed	2 (9.1)	6 (30.0)	2 (18.2)	2 (11.8)
	1 (12.5)	3 (33.3)	2 (28.6)	1 (14.3)
Ductus arteriosus, Patent	17 (77.3)	7 (35.0)	4 (36.4)	0 (0.0)
	7 (87.5)	5 (55.6)	4 (57.1)	0 (0.0)
ENDOCRINE SYSTEM				
No findings				
GENERAL BODY SYSTEM				
General				
Abdomen, Autolyzed, unable to evaluate	8 (36.4)	6 (30.0)	1 (9.1)	8 (47.1)
	3 (37.5)	5 (55.6)	1 (14.3)	3 (42.9)
General, Autolyzed, unable to evaluate	0 (0.0)	1 (5.0)	0 (0.0)	1 (5.9)
	0 (0.0)	1 (11.1)	0 (0.0)	1 (14.3)
General, Cannibalized, unable to evaluate	0 (0.0)	2 (10.0)	0 (0.0)	2 (11.8)
	0 (0.0)	2 (22.2)	0 (0.0)	2 (28.6)
GENITAL SYSTEM				
No findings				
HEMATOPOIETIC SYSTEM				
No findings				
INTEGUMENTARY SYSTEM				
No findings				
LYMPHOID SYSTEM				
No findings				
MUSCULOSKELETAL SYSTEM				
No findings				

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F1 Pups (Litter C)

Treatment Groups (ppm)

	0	5000	15000	40000
NERVOUS SYSTEM				
No findings				
RESPIRATORY SYSTEM				
Thorax (excluding heart)				
Lung, all lobes, Air present	3 (13.6)	4 (20.0)	2 (18.2)	2 (11.8)
	1 (12.5)	2 (22.2)	2 (28.6)	1 (14.3)
Lung, all lobes, No air present	16 (72.7)	9 (45.0)	4 (36.4)	0 (0.0)
	7 (87.5)	6 (66.7)	4 (57.1)	0 (0.0)
SPECIAL SENSES SYSTEM				
No findings				
URINARY SYSTEM				
Pelvis				
Ureter, bilateral, Distended	0 (0.0)	1 (5.0)	0 (0.0)	0 (0.0)
	0 (0.0)	1 (11.1)	0 (0.0)	0 (0.0)
Ureter, left, Distended	0 (0.0)	0 (0.0)	1 (9.1)	1 (5.9)
	0 (0.0)	0 (0.0)	1 (14.3)	1 (14.3)
Ureter, right, Distended	0 (0.0)	0 (0.0)	1 (9.1)	0 (0.0)
	0 (0.0)	0 (0.0)	1 (14.3)	0 (0.0)

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F2 Pups (Litter A) F1c Parental Females

	Treatment Groups (ppm)			
	0	5000	15000	40000
Disposition Summary				
Pups	335	348	388	276
Litters	25	24	30	23
Scheduled Sacrifice				
Scheduled Removal (Terminal)	281 (25)	289 (23)	338 (29)	244 (23)
Early Deaths				
Cannibalized		3 (3)	1 (1)	1 (1)
Found Dead	48 (15)	46 (14)	37 (17)	20 (9)
Pup Missing - Presumed Dead	6 (5)	10 (4)	12 (7)	11 (10)
No. pups examined				
	47	48	37	20
No. Litters				
	15	15	17	10
Normal				
	2 (2)	1 (1)	3 (3)	
ALIMENTARY SYSTEM				
Abdomen				
Stomach, Milk/food absent	18 (38.3)	18 (37.5)	18 (48.6)	14 (70.0)
	9 (60.0)	11 (73.3)	9 (52.9)	7 (70.0)
CARDIOVASCULAR SYSTEM				
Heart				
Heart, Abnormal shape	0 (0.0)	1 (2.1)	1 (2.7)	0 (0.0)
	0 (0.0)	1 (6.7)	1 (5.9)	0 (0.0)
Thorax (excluding heart)				

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F2 Pups (Litter A) F1c Parental Females

	Treatment Groups (ppm)			
	0	5000	15000	40000
Ductus arteriosus, Closed	10 (21.3)	15 (31.3)	10 (27.0)	3 (15.0)
	7 (46.7)	5 (33.3)	7 (41.2)	2 (20.0)
Ductus arteriosus, Patent	28 (59.6)	22 (45.8)	20 (54.1)	12 (60.0)
	10 (66.7)	11 (73.3)	13 (76.5)	7 (70.0)
ENDOCRINE SYSTEM				
No findings				
GENERAL BODY SYSTEM				
General				
Abdomen, Autolyzed, unable to evaluate	16 (34.0)	12 (25.0)	6 (16.2)	4 (20.0)
	5 (33.3)	4 (26.7)	4 (23.5)	3 (30.0)
Abdomen, Cannibalized, unable to evaluate	0 (0.0)	1 (2.1)	0 (0.0)	0 (0.0)
	0 (0.0)	1 (6.7)	0 (0.0)	0 (0.0)
General, Autolyzed, unable to evaluate	2 (4.3)	4 (8.3)	1 (2.7)	0 (0.0)
	1 (6.7)	3 (20.0)	1 (5.9)	0 (0.0)
General, Cannibalized, unable to evaluate	0 (0.0)	2 (4.2)	0 (0.0)	1 (5.0)
	0 (0.0)	2 (13.3)	0 (0.0)	1 (10.0)
GENITAL SYSTEM				
No findings				
HEMATOPOIETIC SYSTEM				
No findings				
INTEGUMENTARY SYSTEM				
No findings				
LYMPHOID SYSTEM				
No findings				
MUSCULOSKELETAL SYSTEM				
No findings				

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F2 Pups (Litter A) F1c Parental Females

	Treatment Groups (ppm)			
	0	5000	15000	40000
NERVOUS SYSTEM				
No findings				
RESPIRATORY SYSTEM				
Thorax (excluding heart)				
Lung, all lobes, Air present	12 (25.5)	18 (37.5)	10 (27.0)	1 (5.0)
	7 (46.7)	7 (46.7)	7 (41.2)	1 (10.0)
Lung, all lobes, Missing part	0 (0.0)	1 (2.1)	0 (0.0)	0 (0.0)
	0 (0.0)	1 (6.7)	0 (0.0)	0 (0.0)
Lung, all lobes, No air present	25 (53.2)	18 (37.5)	20 (54.1)	14 (70.0)
	10 (66.7)	10 (66.7)	12 (70.6)	8 (80.0)
SPECIAL SENSES SYSTEM				
No findings				
URINARY SYSTEM				
Pelvis				
Ureter, bilateral, Distended	5 (10.6)	1 (2.1)	1 (2.7)	0 (0.0)
	3 (20.0)	1 (6.7)	1 (5.9)	0 (0.0)
Ureter, left, Distended	4 (8.5)	2 (4.2)	3 (8.1)	2 (10.0)
	3 (20.0)	2 (13.3)	3 (17.6)	1 (10.0)
Ureter, right, Distended	1 (2.1)	0 (0.0)	0 (0.0)	0 (0.0)
	1 (6.7)	0 (0.0)	0 (0.0)	0 (0.0)

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F2 Pups (Litter B) F1c Parental Females

	Treatment Groups (ppm)			
	0	5000	15000	40000
Disposition Summary				
Pups	437	353	370	302
Litters	33	28	30	25
Scheduled Sacrifice				
Scheduled Removal (Terminal)	354 (31)	310 (26)	321 (29)	269 (25)
Early Deaths				
Cannibalized	4 (4)	3 (2)	2 (2)	
Found Dead	70 (24)	35 (13)	32 (16)	24 (11)
Pup Missing - Presumed Dead	9 (6)	5 (4)	15 (8)	9 (7)
No. pups examined				
	72	38	32	24
No. Litters				
	25	13	16	11
Normal				
	1 (1)		1 (1)	1 (1)
ALIMENTARY SYSTEM				
Abdomen				
Stomach, Milk/food absent	43 (59.7)	17 (44.7)	20 (62.5)	18 (75.0)
	19 (76.0)	7 (53.8)	11 (68.8)	9 (81.8)
CARDIOVASCULAR SYSTEM				
Heart				
Atrial chamber, right, Enlarged	1 (1.4)	0 (0.0)	2 (6.3)	0 (0.0)
	1 (4.0)	0 (0.0)	1 (6.3)	0 (0.0)
Thorax (excluding heart)				

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F2 Pups (Litter B) F1c Parental Females

	Treatment Groups (ppm)			
	0	5000	15000	40000
Ductus arteriosus, Closed	22 (30.6)	12 (31.6)	3 (9.4)	4 (16.7)
	9 (36.0)	5 (38.5)	3 (18.8)	4 (36.4)
Ductus arteriosus, Patent	41 (56.9)	20 (52.6)	24 (75.0)	17 (70.8)
	18 (72.0)	11 (84.6)	12 (75.0)	8 (72.7)
ENDOCRINE SYSTEM				
No findings				
GENERAL BODY SYSTEM				
General				
Abdomen, Autolyzed, unable to evaluate	19 (26.4)	13 (34.2)	6 (18.8)	4 (16.7)
	9 (36.0)	5 (38.5)	3 (18.8)	4 (36.4)
Abdomen, Cannibalized, unable to evaluate	0 (0.0)	1 (2.6)	0 (0.0)	0 (0.0)
	0 (0.0)	1 (7.7)	0 (0.0)	0 (0.0)
General, Autolyzed, unable to evaluate	0 (0.0)	1 (2.6)	0 (0.0)	1 (4.2)
	0 (0.0)	1 (7.7)	0 (0.0)	1 (9.1)
General, Cannibalized, unable to evaluate	2 (2.8)	5 (13.2)	1 (3.1)	0 (0.0)
	2 (8.0)	4 (30.8)	1 (6.3)	0 (0.0)
GENITAL SYSTEM				
No findings				
HEMATOPOIETIC SYSTEM				
No findings				
INTEGUMENTARY SYSTEM				
No findings				
LYMPHOID SYSTEM				
No findings				
MUSCULOSKELETAL SYSTEM				
No findings				

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	Treatment Groups (ppm)			
	0	5000	15000	40000
NERVOUS SYSTEM				
No findings				
RESPIRATORY SYSTEM				
Thorax (excluding heart)				
Lung, all lobes, Air present	24 (33.3)	11 (28.9)	5 (15.6)	5 (20.8)
	10 (40.0)	6 (46.2)	5 (31.3)	4 (36.4)
Lung, all lobes, Missing part	0 (0.0)	0 (0.0)	1 (3.1)	0 (0.0)
	0 (0.0)	0 (0.0)	1 (6.3)	0 (0.0)
Lung, all lobes, No air present	39 (54.2)	21 (55.3)	20 (62.5)	16 (66.7)
	18 (72.0)	11 (84.6)	12 (75.0)	7 (63.6)
SPECIAL SENSES SYSTEM				
No findings				
URINARY SYSTEM				
Pelvis				
Ureter, bilateral, Distended	1 (1.4)	0 (0.0)	2 (6.3)	2 (8.3)
	1 (4.0)	0 (0.0)	2 (12.5)	1 (9.1)
Ureter, left, Distended	0 (0.0)	2 (5.3)	1 (3.1)	3 (12.5)
	0 (0.0)	2 (15.4)	1 (6.3)	2 (18.2)
Ureter, right, Distended	2 (2.8)	0 (0.0)	1 (3.1)	1 (4.2)
	2 (8.0)	0 (0.0)	1 (6.3)	1 (9.1)

Study Number: R88007B
 Test Type: RACB
 Route: Dosing in Feed
 Species/Strain: Rat/Sprague-Dawley

R20: Pup Necropsy (Gross Observations for Unweaned Pups) Summary
 Test Compound: Butyl Paraben
 CAS Number: 94-26-8

Date Report Requested: 11/29/2018
 Time Report Requested: 08:08:55
 Lab: RTI

F2 Pups (Litter C) F1c Parental Females

	Treatment Groups (ppm)			
	0	5000	15000	40000
Disposition Summary				
Pups	326	346	310	223
Litters	28	30	30	24
Scheduled Sacrifice				
Euthanized Due to Dam Death	6 (1)			
Pup Culled	21 (8)	38 (11)	7 (5)	1 (1)
Scheduled Removal (Terminal)	238 (27)	265 (30)	244 (29)	176 (24)
Early Deaths				
Cannibalized	4 (3)	5 (3)	3 (2)	3 (3)
Euthanized Moribund		2 (2)	3 (1)	1 (1)
Found Dead	46 (19)	27 (10)	29 (12)	22 (13)
Pup Missing - Presumed Dead	11 (7)	9 (7)	24 (10)	20 (12)
No. pups examined				
	49	32	33	25
No. Litters				
	20	11	14	13
Normal				
	2 (2)		5 (4)	1 (1)
ALIMENTARY SYSTEM				
Abdomen				
Intestine, Enlarged	0 (0.0)	0 (0.0)	0 (0.0)	1 (4.0)
	0 (0.0)	0 (0.0)	0 (0.0)	1 (7.7)
Liver, median lobe, Pale	0 (0.0)	0 (0.0)	0 (0.0)	1 (4.0)
	0 (0.0)	0 (0.0)	0 (0.0)	1 (7.7)

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F2 Pups (Litter C) F1c Parental Females

	Treatment Groups (ppm)			
	0	5000	15000	40000
Stomach, Milk/food absent	33 (67.3) 17 (85.0)	16 (50.0) 8 (72.7)	22 (66.7) 12 (85.7)	16 (64.0) 10 (76.9)
CARDIOVASCULAR SYSTEM				
Thorax (excluding heart)				
Ductus arteriosus, Closed	3 (6.1) 2 (10.0)	2 (6.3) 2 (18.2)	2 (6.1) 2 (14.3)	1 (4.0) 1 (7.7)
Ductus arteriosus, Patent	35 (71.4) 18 (90.0)	21 (65.6) 9 (81.8)	20 (60.6) 10 (71.4)	11 (44.0) 9 (69.2)
ENDOCRINE SYSTEM				
No findings				
GENERAL BODY SYSTEM				
General				
Abdomen, Autolyzed, unable to evaluate	9 (18.4) 7 (35.0)	12 (37.5) 6 (54.5)	3 (9.1) 2 (14.3)	6 (24.0) 5 (38.5)
General, Anasarca	0 (0.0) 0 (0.0)	0 (0.0) 0 (0.0)	1 (3.0) 1 (7.1)	0 (0.0) 0 (0.0)
General, Autolyzed, unable to evaluate	3 (6.1) 3 (15.0)	0 (0.0) 0 (0.0)	1 (3.0) 1 (7.1)	0 (0.0) 0 (0.0)
General, Cannibalized, unable to evaluate	2 (4.1) 2 (10.0)	4 (12.5) 2 (18.2)	1 (3.0) 1 (7.1)	2 (8.0) 2 (15.4)
General, Hematoma	0 (0.0) 0 (0.0)	0 (0.0) 0 (0.0)	1 (3.0) 1 (7.1)	0 (0.0) 0 (0.0)
GENITAL SYSTEM				
No findings				

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F2 Pups (Litter C) F1c Parental Females

	Treatment Groups (ppm)			
	0	5000	15000	40000
HEMATOPOIETIC SYSTEM				
No findings				
INTEGUMENTARY SYSTEM				
Ears				
Pinna, bilateral, Small	0 (0.0)	0 (0.0)	1 (3.0)	0 (0.0)
	0 (0.0)	0 (0.0)	1 (7.1)	0 (0.0)
LYMPHOID SYSTEM				
No findings				
MUSCULOSKELETAL SYSTEM				
Limbs				
Limb, bilateral hind, Malpositioned	0 (0.0)	1 (3.1)	0 (0.0)	0 (0.0)
	0 (0.0)	1 (9.1)	0 (0.0)	0 (0.0)
NERVOUS SYSTEM				
No findings				
RESPIRATORY SYSTEM				
Thorax (excluding heart)				
Lung, all lobes, Air present	4 (8.2)	4 (12.5)	3 (9.1)	1 (4.0)
	3 (15.0)	3 (27.3)	3 (21.4)	1 (7.7)
Lung, all lobes, No air present	34 (69.4)	19 (59.4)	19 (57.6)	11 (44.0)
	17 (85.0)	9 (81.8)	9 (64.3)	9 (69.2)
SPECIAL SENSES SYSTEM				
Eyes				
Eye bulge, bilateral, Absent	0 (0.0)	0 (0.0)	1 (3.0)	0 (0.0)
	0 (0.0)	0 (0.0)	1 (7.1)	0 (0.0)

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LEGEND

Disposition Summary is Number of pups (litters represented)

Upper row denotes number of affected pups (%) and lower row the number of affected litters (%)

In multiple breeding/littering studies Litter A is the default designation for the first litter; subsequent litters would be B, C etc.

**** END OF REPORT ****