Test Type: MOG
Route: Dosing in Feed

Species/Strain: Rat/Sprague-Dawley

**Study Number:** 

**Study Gender:** 

**PWG Approval Date** 

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Compound: Bisphenol AF CAS Number: 1478-61-1

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Lab: RTI

MOG08002B

Both

See web page for date of PWG Approval

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Type: MOG

Route: Dosing in Feed

Test Compound: Bisphenol AF

CAS Number: 1478-61-1

Species/Strain: Rat/Sprague-Dawley

Date Report Requested: 05/27/2020
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		Treatment Gre	oups (ppm)	
	0	338	1125	3750
Disposition Summary				
Animals Initially In Study	35	35	35	35
Early Deaths				
Scheduled Deaths				
Scheduled sacrifice, terminal (GD 18 - 24, LD 0 - 28, SD 24 - 27)	35	35	35	35
Number of Animals Examined	3	2		2
ALIMENTARY SYSTEM				
LIVER	(2)	(2)	(0)	(0)
HEPATODIAPHRAGMATIC NODULE		2 (100%)		
CARDIOVASCULAR SYSTEM				
None				
ENDOCRINE SYSTEM				
None				
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
OVARY	(3)	(0)	(0)	(0)
FOLLICLE; CYST	1 (33.3%)			
UTERUS	(0)	(0)	(0)	(2)
INFLAMMATION, ACUTE				1 (50%)
PLACENTA; RETENTION				1 (50%

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Test Type: MOG

Route: Dosing in Feed

Species/Strain: Rat/Sprague-Dawley

Test Compound: Bisphenol AF **CAS Number:** 1478-61-1

	F0 Female				
		Treatment Groups (ppm)			
	0	338	1125	3750	
INTEGUMENTARY SYSTEM None					
MUSCULOSKELETAL SYSTEM None					
NERVOUS SYSTEM None					
RESPIRATORY SYSTEM None					
SPECIAL SENSES SYSTEM None					
URINARY SYSTEM None					

Test Type: MOG

Route: Dosing in Feed

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Compound: Bisphenol AF

**CAS Number:** 1478-61-1

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Lab: RTI

Species/Strain: Rat/Sprague-Dawley

## F1 Male: Subchronic Male

	Treatment Groups (ppm)			
	0	338	1125	3750
Disposition Summary				
Animals Initially In Study	10	10	10	10
Early Deaths				
Scheduled Deaths				
Scheduled sacrifice, terminal (PND 115 - 119)	10	10	10	10
Number of Animals Examined	10	10	10	10
Total number litters	10	10	10	10
ALIMENTARY SYSTEM				
LIVER	(10)	(0)	(2)	(10)
EXTRAMEDULLARY HEMATOPOIESIS	2 (20%) [2]			4 (40%) [4]
HEPATODIAPHRAGMATIC NODULE			2 (100%) [2]	
PANCREAS	(10)	(0)	(0)	(10)
ACINAR CELL; ATROPHY				1 (10%) [1]
CARDIOVASCULAR SYSTEM				
HEART	(10)	(0)	(0)	(10)
CARDIOMYOPATHY	4 (40%) [4]			4 (40%) [4]
ENDOCRINE SYSTEM				
None				
GENERAL BODY SYSTEM				
None				

**Test Type:** MOG **Route:** Dosing in Feed

None

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Compound: Bisphenol AF
CAS Number: 1478-61-1

Time Report Requested: 06:36:15

Lab: RTI

Date Report Requested: 05/27/2020

Species/Strain: Rat/Sprague-Dawley

F1 Male: Subchronic Male

		Treatment 0	Groups (ppm)	
	0	338	1125	3750
GENITAL SYSTEM				
EPIDIDYMIS	(10)	(10)	(10)	(10)
DUCT; EXFOLIATED GERM CELL	0 **			3 (30%) [3]
HYPOPLASIA				1 (10%) [1]
DUCT; HYPOSPERMIA				1 (10%) [1]
PENIS	(2)	(0)	(0)	(1)
DEVELOPMENTAL MALFORMATION				1 (100%) [1]
PREPUTIAL GLAND	(10)	(10)	(10)	(10)
ABSCESS	1 (10%) [1]			
DUCT; ECTASIA	2 (20%) [2]	2 (20%) [2]		2 (20%) [2]
INFLAMMATION, CHRONIC	2 (20%) [2]	4 (40%) [4]	3 (30%) [3]	
PROSTATE GLAND	(10)	(10)	(10)	(10)
HYPOPLASIA; DORSOLATERAL	0 **			10 (100%) [10] **
HYPOPLASIA; VENTRAL	0 **			10 (100%) [10] **
INFLAMMATION, CHRONIC; VENTRAL	3 (30%) [3]	5 (50%) [5]	4 (40%) [4]	4 (40%) [4]
SEMINAL VESICLE	(10)	(10)	(10)	(10)
BILATERAL; HYPOPLASIA	0 **			10 (100%) [10] *
TESTIS	(10)	(10)	(10)	(10)
GERM CELL; APOPTOSIS				1 (10%) [1]
LEYDIG CELL; ATROPHY				1 (10%) [1]
GERMINAL EPITHELIUM; DEGENERATION	0 *			2 (20%) [2]
SEMINIFEROUS TUBULE; RETENTION; SPERMATID				1 (10%) [1]
HEMATOLYMPHOID SYSTEM				
None				
NTEGUMENTARY SYSTEM				

Test Type: MOG

Route: Dosing in Feed

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Compound: Bisphenol AF CAS Number: 1478-61-1

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Lab: RTI

Species/Strain: Rat/Sprague-Dawley

F1 Male : Subchronic Male					
	Treatment Groups (ppm)				
	0	338	1125	3750	
MUSCULOSKELETAL SYSTEM None					
NERVOUS SYSTEM None					
RESPIRATORY SYSTEM None					
SPECIAL SENSES SYSTEM None					
URINARY SYSTEM  KIDNEY  CHRONIC PROGRESSIVE NEPHROPATHY  CORTICOMEDULLARY JUNCTION; MINERAL	(10) 10 (100%) [10]	(0)	(0)	(10) 5 (50%) [5] 7 (70%) [7] **	

**Test Type:** MOG **Route:** Dosing in Feed

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Compound: Bisphenol AF
CAS Number: 1478-61-1

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Lab: RTI

Species/Strain: Rat/Sprague-Dawley

F1 Female : Subchronic Females

	Treatment Groups (ppm)				
	0	338	1125	3750	
Disposition Summary					
Animals Initially In Study	10	10	10	10	
Early Deaths					
Scheduled Deaths					
Scheduled sacrifice, terminal (PND 116 - 120)	10	10	10	10	
Number of Animals Examined	10	10	10	10	
Total number litters	10	10	10	10	
ALIMENTARY SYSTEM					
INTESTINE, RECTUM	(10)	(0)	(0)	(10)	
LYMPHOID TISSUE; HYPERPLASIA				1 (10%) [1]	
LIVER	(10)	(1)	(0)	(10)	
BASOPHILIC FOCUS				1 (10%) [1]	
DEFORMITY		1 (100%) [1]			
HEPATODIAPHRAGMATIC NODULE	2 (20%) [2]				
PANCREAS	(10)	(0)	(0)	(10)	
ACINAR CELL; ATROPHY	1 (10%) [1]				
CARDIOVASCULAR SYSTEM					
HEART	(10)	(0)	(0)	(10)	
CARDIOMYOPATHY				1 (10%) [1]	
ENDOCRINE SYSTEM					
None					

Test Type: MOG

Route: Dosing in Feed

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Compound: Bisphenol AF
CAS Number: 1478-61-1

Species/Strain: Rat/Sprague-Dawley

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Lab: RTI

#### F1 Female: Subchronic Females

	Treatment Groups (ppm)				
	0	338	1125	3750	
GENITAL SYSTEM					
CLITORAL GLAND	(10)	(1)	(0)	(10)	
DUCT; ECTASIA	4 (40%) [4]	1 (100%) [1]		1 (10%) [1]	
INFLAMMATION, CHRONIC				1 (10%) [1]	
OVARY	(10)	(10)	(10)	(10)	
FOLLICLE; CYST	1 (10%) [1]			2 (20%) [2]	
BILATERAL; HYPOPLASIA	0 **			10 (100%) [10] *	
HYPOPLASIA (UNILATERAL OR BILATERAL)	0 **			10 (100%) [10] *	
UTERUS	(10)	(10)	(10)	(10)	
ENDOMETRIUM; CYST	1 (10%) [1]	1 (10%) [1]	1 (10%) [1]		
DILATION; GLANDULAR			2 (20%) [2]		
DILATION; GLANDULAR, CYSTIC	0 **			6 (60%) [6] **	
STROMA; HYALINIZATION	0 **			10 (100%) [10] *	
HYPOPLASIA	0 **			10 (100%) [10] *	
EPITHELIUM; METAPLASIA; SQUAMOUS	0 **			10 (100%) [10] *	
VAGINA	(10)	(10)	(10)	(10)	
MUCIFICATION		1 (10%) [1]			

None

## **INTEGUMENTARY SYSTEM**

None

### **MUSCULOSKELETAL SYSTEM**

None

## **NERVOUS SYSTEM**

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Type: MOG

Route: Dosing in Feed

Test Compound: Bisphenol AF

CAS Number: 1478-61-1

Species/Strain: Rat/Sprague-Dawley

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Lab: RTI

## F1 Female : Subchronic Females

		Treatment Groups (ppm)				
	0	338	1125	3750		
RESPIRATORY SYSTEM						
None						
SPECIAL SENSES SYSTEM						
ZYMBALS GLAND	(10)	(0)	(0)	(10)		
DUCT; ECTASIA	2 (20%) [2]					
URINARY SYSTEM						
KIDNEY	(10)	(0)	(0)	(10)		
CHRONIC PROGRESSIVE NEPHROPATHY	6 (60%) [6]			4 (40%) [4]		
INFARCT, CHRONIC; MULTIPLE				1 (10%) [1]		
CORTICOMEDULLARY JUNCTION; MINERAL	9 (90%) [9]			6 (60%) [6]		
NEPHROBLASTEMATOSIS	1 (10%) [1]					
URINARY BLADDER	(10)	(0)	(0)	(9)		
HYPERPLASIA; UROTHELIAL				1 (11.1%) [1]		

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Type: MOG
Route: Dosing in Feed

Test Compound: Bisphenol AF CAS Number: 1478-61-1

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Lab: RTI

Species/Strain: Rat/Sprague-Dawley

E1	Mala	<b>Prenatal</b>	Malas
-	wate	 Prenatal	Wates

	Treatment Groups (ppm)				
	0	338	1125	3750	
Disposition Summary					
Animals Initially In Study	22	21	22	20	
Early Deaths					
Scheduled Deaths					
Scheduled sacrifice, terminal (PND 119 - 121)	22	21	22	20	
Number of Animals Examined	7	3	2	20	
Total number litters	7	3	2	20	
ALIMENTARY SYSTEM		,		,	
INTESTINE, COLON	(2)	(1)	(0)	(0)	
LYMPHOID TISSUE; PEYERS PATCH; HYPERPLASIA		1 (100%) [1]			
CARDIOVASCULAR SYSTEM					
None					

### **ENDOCRINE SYSTEM**

None

## **GENERAL BODY SYSTEM**

Species/Strain: Rat/Sprague-Dawley

Test Type: MOG Route: Dosing in Feed PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Compound: Bisphenol AF

**CAS Number:** 1478-61-1

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Lab: RTI

F1 Male: Prenatal Males

	Treatment Groups (ppm)				
	0	338	1125	3750	
GENITAL SYSTEM					
COWPERS GLAND	(2)	(0)	(0)	(12)	
HYPOPLASIA				12 (100%) [12]	
HYPOPLASIA (UNILATERAL OR BILATERAL)				12 (100%) [12]	
EPIDIDYMIS	(3)	(0)	(0)	(1)	
ASPERMIA	1 (33.3%) [1]			1 (100%) [1]	
LEVATOR ANI PLUS BULBOCAVERNOSUS MUSCLE	(2)	(0)	(1)	(18)	
HYPOPLASIA				17 (94.4%) [17]	
PREPUTIAL GLAND	(7)	(2)	(0)	(1)	
ABSCESS		1 (50%) [1]		1 (100%) [1]	
DUCT; ECTASIA	6 (85.7%) [6]	2 (100%) [2]		1 (100%) [1]	
INFLAMMATION, ACUTE	1 (14.3%) [1]				
INFLAMMATION, CHRONIC	1 (14.3%) [1]				
PROSTATE GLAND	(2)	(0)	(0)	(18)	
HYPOPLASIA; DORSOLATERAL				18 (100%) [18]	
HYPOPLASIA; VENTRAL				18 (100%) [18]	
INFLAMMATION, CHRONIC; VENTRAL				12 (66.7%) [12]	
SEMINAL VESICLE	(2)	(1)	(1)	(19)	
HYPOPLASIA		1 (100%) [1]	1 (100%) [1]	19 (100%) [19]	
TESTIS	(3)	(0)	(0)	(1)	
SEMINIFEROUS TUBULE; ATROPHY	1 (33.3%) [1]			1 (100%) [1]	
EDEMA	1 (33.3%) [1]				

### **HEMATOLYMPHOID SYSTEM**

None

## **INTEGUMENTARY SYSTEM**

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence Test Compound: Bisphenol AF

Date Report Requested: 05/27/2020

Time Report Requested: 06:36:15

Test Type: MOG

None

Route: Dosing in Feed

Species/Strain: Rat/Sprague-Dawley

**CAS Number:** 1478-61-1

		-				
<b>⊢</b> 1	Male		Prenata	al I	Male	S

F1 Male : Prenatal Males						
	Treatment Groups (ppm)					
	0	338	1125	3750		
MUSCULOSKELETAL SYSTEM None						
NERVOUS SYSTEM None						
RESPIRATORY SYSTEM None						
SPECIAL SENSES SYSTEM None						
URINARY SYSTEM						

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Type: MOG

Route: Dosing in Feed

Species/Strain: Rat/Sprague-Dawley

Test Compound: Bisphenol AF CAS Number: 1478-61-1

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Lab: RTI

## F1 Female: Prenatal Females

	Treatment Groups (ppm)				
	0	338	1125	3750	
Disposition Summary					
Animals Initially In Study	22	21	22	20	
Early Deaths					
Euthanized, moribund	1				
Unscheduled Sacrifice				1	
Scheduled Deaths					
Scheduled sacrifice, terminal (GD 21, LD 0, PND 125 - 129)	21	21	22	19	
Number of Animals Examined	3		1	19	
Total number litters	3		1	19	

None

## **CARDIOVASCULAR SYSTEM**

None

## **ENDOCRINE SYSTEM**

None

#### **GENERAL BODY SYSTEM**

Test Type: MOG

Route: Dosing in Feed

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Compound: Bisphenol AF **CAS Number:** 1478-61-1

Species/Strain: Rat/Sprague-Dawley

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Lab: RTI

## F1 Female: Prenatal Females

	FI Female . Frematai Female	;5 		
	Treatment Groups (ppm)			
	0	338	1125	3750
GENITAL SYSTEM				
OVARY	(2)	(0)	(1)	(19)
FOLLICLE; CYST			1 (100%) [1]	
HYPOPLASIA			1 (100%) [1]	19 (100%) [19]
HYPOPLASIA (UNILATERAL OR BILATERAL)			1 (100%) [1]	19 (100%) [19]
UTERUS	(0)	(0)	(1)	(19)
ENDOMETRIUM; CYST			1 (100%) [1]	4 (21.1%) [4]
HYPOPLASIA			1 (100%) [1]	19 (100%) [19]
EPITHELIUM; METAPLASIA; SQUAMOUS			1 (100%) [1]	19 (100%) [19]
EPITHELIUM; NECROSIS			1 (100%) [1]	19 (100%) [19]
HEMATOLYMPHOID SYSTEM				
None				
INTEGUMENTARY SYSTEM				
None				
MUSCULOSKELETAL SYSTEM				
None				
NERVOUS SYSTEM				
None				
RESPIRATORY SYSTEM				
None				
SPECIAL SENSES SYSTEM				
None				
URINARY SYSTEM				
None				

Test Type: MOG

Route: Dosing in Feed

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

**Test Compound:** Bisphenol AF **CAS Number:** 1478-61-1

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Lab: RTI

Species/Strain: Rat/Sprague-Dawley

F1 Male: Fertility Males

0 22 22 22 22	338 24 1 23 24 24	21 21 21 21 21	20 20 20 20 20
22 22	1 23 24	21 21	20 20
22 22	1 23 24	21 21	20 20
22	23 24	21	20
22	23 24	21	20
22	24	21	20
22	24	21	20
			-
22	24	21	20
(2)	(1)	(0)	(0)
	1 (100%) [1]		

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Compound: Bisphenol AF
CAS Number: 1478-61-1

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Lab: RTI

Species/Strain: Rat/Sprague-Dawley

Study Number: MOG08002B

Test Type: MOG

Route: Dosing in Feed

# F1 Male : Fertility Males

	Treatment Groups (ppm)			
	0	338	1125	3750
GENITAL SYSTEM				
COAGULATING GLAND	(22)	(24)	(21)	(20)
BILATERAL; HYPOPLASIA	0 **			18 (90%) [18] **
COWPERS GLAND	(22)	(24)	(21)	(18)
BILATERAL; HYPOPLASIA	0 **			15 (83.3%) [15] **
HYPOPLASIA		1 (4.2%) [1]		
HYPOPLASIA (UNILATERAL OR BILATERAL)	0 **	1 (4.2%) [1]		15 (83.3%) [15] **
EPIDIDYMIS	(22)	(24)	(21)	(20)
ASPERMIA	1 (4.5%) [1]			
DUCT; ATROPHY	0 **			10 (50%) [10] **
DUCT; EXFOLIATED GERM CELL	0 **		1 (4.8%) [1]	5 (25%) [5] *
HYPOPLASIA				1 (5%) [1]
DUCT; HYPOSPERMIA	0 **		1 (4.8%) [1]	6 (30%) [6] **
LEVATOR ANI PLUS BULBOCAVERNOSUS MUSCLE	(22)	(24)	(21)	(20)
HYPOPLASIA	0 **		1 (4.8%) [1]	17 (85%) [17] **
PENIS, GLANS	(0)	(0)	(0)	(1)
DEVELOPMENTAL MALFORMATION	,	· /	( )	1 (100%) [1]
PREPUTIAL GLAND	(22)	(24)	(21)	(20)
ABSCESS	5 (22.7%) [5]	3 (12.5%) [3]	,	,
DUCT; ECTASIA	7 (31.8%) [7]	15 (62.5%) [15] *	12 (57.1%) [12]	6 (30%) [6]
INFLAMMATION, CHRONIC	7 (31.8%) [7]	8 (33.3%) [8]	9 (42.9%) [9]	6 (30%) [6]
PROSTATE GLAND	(22)	(24)	(21)	(20)
HYPOPLASIA; DORSOLATERAL	0 **	,	,	18 (90%) [18] **
HYPOPLASIA; VENTRAL	0 **			18 (90%) [18] **
INFLAMMATION, CHRONIC; VENTRAL	9 (40.9%) [9]	6 (25%) [6]	6 (28.6%) [6]	6 (30%) [6]
SEMINAL VESICLE	(22)	(24)	(21)	(20)
BILATERAL; HYPOPLASIA	0 **	` '	` '	18 (90%) [18] **
TESTIS	(22)	(24)	(21)	(20)

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Type: MOG

Route: Dosing in Feed

Species/Strain: Rat/Sprague-Dawley

Test Compound: Bisphenol AF CAS Number: 1478-61-1

Date Report Requested: 05/27/2020
Time Report Requested: 06:36:15

F1	Male	:	<b>Fertility</b>	Males

1 1 Maic : 1 crtiffly Maics			
Treatment Groups (ppm)			
0	338	1125	3750
			1 (5%) [1]
0 **			11 (55%) [11] *
1 (4.5%) [1]			
0 **		1 (4.8%) [1]	6 (30%) [6] **
1 (4.5%) [1]			
			1 (5%) [1]
0 **			8 (40%) [8] **
	0 ** 1 (4.5%) [1] 0 ** 1 (4.5%) [1]	0 338  0 ** 1 (4.5%) [1] 0 ** 1 (4.5%) [1]	Treatment Groups (ppm)  0 338 1125  0 ** 1 (4.5%) [1] 0 ** 1 (4.5%) [1] 1 (4.5%) [1]

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Type: MOG
Route: Dosing in Feed

Species/Strain: Rat/Sprague-Dawley

Test Compound: Bisphenol AF CAS Number: 1478-61-1

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Lab: RTI

# F1 Female : Fertility Females

	Treatment Groups (ppm)				
	0	338	1125	3750	
Disposition Summary					
Animals Initially In Study	22	24	21	20	
Early Deaths					
Unscheduled Sacrifice				1	
Scheduled Deaths					
Scheduled sacrifice, terminal (GD 46 - 50, LD 26 - 28, PND 158 - 162)	22	24	21	19	
Number of Animals Examined	22	24	21	20	
Total number litters	22	24	21	20	

### **ALIMENTARY SYSTEM**

None

### **CARDIOVASCULAR SYSTEM**

None

#### **ENDOCRINE SYSTEM**

None

### **GENERAL BODY SYSTEM**

Study Number: MOG08002B Test Type: MOG

Route: Dosing in Feed

Species/Strain: Rat/Sprague-Dawley

# PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Compound: Bisphenol AF **CAS Number:** 1478-61-1

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Lab: RTI

# F1 Female : Fertility Females

		Treatment 0	Groups (ppm)	
	0	338	1125	3750
GENITAL SYSTEM				
CERVIX	(22)	(24)	(21)	(20)
CYST; SQUAMOUS	1 (4.5%) [1]		1 (4.8%) [1]	1 (5%) [1]
INFLAMMATION, ACUTE				1 (5%) [1]
OVARY	(22)	(24)	(21)	(20)
FOLLICLE; CYST	2 (9.1%) [2]		1 (4.8%) [1]	
BILATERAL; HYPOPLASIA	0 **	1 (4.2%) [1]		20 (100%) [20] **
HYPOPLASIA		2 (8.3%) [2]		, , ,
HYPOPLASIA (UNILATERAL OR BILATERAL)	0 **	3 (12.5%) [3]		20 (100%) [20] **
UTERUS	(22)	(24)	(21)	(20)
EPITHELIUM; APOPTOSIS; INCREASED	0 *	, ,	1 (4.8%) [1]	3 (15%) [3]
CERVIX; CYST			1 (4.8%) [1]	
DECIDUAL REACTION	1 (4.5%) [1]			
DILATION; GLANDULAR	2 (9.1%) [2]			
DILATION; GLANDULAR, CYSTIC	0 **			8 (40%) [8] **
DILATION		1 (4.2%) [1]		, , ,
STROMA; HYALINIZATION	0 **	, ,,	8 (38.1%) [8] **	18 (90%) [18] **
HYPOPLASIA	0 **			18 (90%) [18] **
CERVIX; INFLAMMATION, ACUTE				1 (5%) [1]
INFLAMMATION, ACUTE				1 (5%) [1]
EPITHELIUM; METAPLASIA; SQUAMOUS	0 **			20 (100%) [20] **
POLYP STROMAL			1 (4.8%) [1]	, ,, ,
VAGINA	(22)	(24)	(21)	(20)
CYST	1 (4.5%) [1]	,	. ,	. ,
DEVELOPMENTAL MALFORMATION	, ,,,,			1 (5%) [1]

#### HEMATOLYMPHOID SYSTEM

Route: Dosing in Feed

**URINARY SYSTEM** 

None

Test Type: MOG

Species/Strain: Rat/Sprague-Dawley

# PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Compound: Bisphenol AF CAS Number: 1478-61-1

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

F1 Female : Fertility Females				
	Treatment Groups (ppm)			
	0	338	1125	3750
INTEGUMENTARY SYSTEM None				
MUSCULOSKELETAL SYSTEM None				
NERVOUS SYSTEM None				
RESPIRATORY SYSTEM None				
SPECIAL SENSES SYSTEM None				

**Test Type:** MOG **Route:** Dosing in Feed

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Compound: Bisphenol AF
CAS Number: 1478-61-1

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Lab: RTI

Species/Strain: Rat/Sprague-Dawley

F1 Male: F1 Extra Males

	F1 Male : F1 Extra Males			
	Treatment Groups (ppm)			
	0	338	1125	3750
Disposition Summary				
Animals Initially In Study	21	46	46	40
Early Deaths				
Scheduled Deaths				
Scheduled sacrifice, terminal (PND 28)	21	46	46	40
Number of Animals Examined	3		8	20
Total number litters	2		5	9
ALIMENTARY SYSTEM				
None				
CARDIOVASCULAR SYSTEM				
None				
ENDOCRINE SYSTEM				
None				
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
EPIDIDYMIS	(2)	(0)	(8)	(17)
BILATERAL; IMMATURE			8 (100%) [5]	16 (94.1%) [7]
IMMATURE				1 (5.9%) [1]
IMMATURE (UNILATERAL OR BILATERAL)			8 (100%) [5]	17 (100%) [7]
TESTIS	(2)	(0)	(8)	(20)
BILATERAL; IMMATURE			8 (100%) [5]	17 (85%) [8]
IMMATURE				3 (15%) [2]
IMMATURE (UNILATERAL OR BILATERAL)			8 (100%) [5]	20 (100%) [9]

PELVIS; DILATION

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence Test Compound: Bisphenol AF

**CAS Number:** 1478-61-1

Date Report Requested: 05/27/2020

Time Report Requested: 06:36:15

Lab: RTI

Route: Dosing in Feed

Test Type: MOG

Species/Strain: Rat/Sprague-Dawley

F1 Male: F1 Extra Males

	F1 Maie : F1 Extra Maies					
		Treatment Groups (ppm)				
	0	338	1125	3750		
HEMATOLYMPHOID SYSTEM None						
NTEGUMENTARY SYSTEM None						
MUSCULOSKELETAL SYSTEM None						
NERVOUS SYSTEM None						
RESPIRATORY SYSTEM None						
SPECIAL SENSES SYSTEM None						
URINARY SYSTEM KIDNEY	(2)	(0)	(0)	(0)		

1 (50%) [1]

Test Type: MOG

Route: Dosing in Feed

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Compound: Bisphenol AF CAS Number: 1478-61-1

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Lab: RTI

Species/Strain: Rat/Sprague-Dawley

F1 Female: F1 Extra Females

		Treatment Groups (ppm)			
	0	338	1125	3750	
Disposition Summary					
Animals Initially In Study	45	29	48	17	
Early Deaths					
Scheduled Deaths					
Scheduled sacrifice, terminal (PND 28)	45	29	48	17	
Number of Animals Examined	1				
Total number litters	1				
ALIMENTARY SYSTEM					
None					
CARDIOVASCULAR SYSTEM					
None					
ENDOCRINE SYSTEM					
None					
GENERAL BODY SYSTEM					
None					
GENITAL SYSTEM					
None					
HEMATOLYMPHOID SYSTEM					
None					
INTEGUMENTARY SYSTEM					
None					
MUSCULOSKELETAL SYSTEM					
None					

Test Type: MOG

Route: Dosing in Feed

None

Species/Strain: Rat/Sprague-Dawley

## PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Compound: Bisphenol AF **CAS Number:** 1478-61-1

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<b>F</b> 1	Female	: 1-1	-xtra	Females

F1 Female : F1 Extra Females					
		Treatment Groups (ppm)			
	0	338	1125	3750	
NERVOUS SYSTEM None					
RESPIRATORY SYSTEM None					
SPECIAL SENSES SYSTEM None					
URINARY SYSTEM					

Test Type: MOG

Route: Dosing in Feed

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Compound: Bisphenol AF
CAS Number: 1478-61-1

Species/Strain: Rat/Sprague-Dawley

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

I I Maic . I MDZO BIOGINOWN Maic	F1	Male	:	PND28	<b>Bio&amp;MGWM Male</b>
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F1 Maie : PND28 BIO&MIGWM Maie						
		Treatment Groups (ppm)				
	0	338	1125	3750		
Disposition Summary						
Animals Initially In Study	12	12	12	12		
Early Deaths						
Scheduled Deaths						
Scheduled sacrifice, terminal (PND 28)	12	12	12	12		
Number of Animals Examined			1	3		
Total number litters			1	3		
ALIMENTARY SYSTEM						
None						
CARDIOVASCULAR SYSTEM						
None						
ENDOCRINE SYSTEM	·					
None						
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM	·					
EPIDIDYMIS	(0)	(0)	(0)	(3)		
BILATERAL; IMMATURE				3 (100%) [3]		
IMMATURE (UNILATERAL OR BILATERAL)				3 (100%) [3]		
TESTIS	(0)	(0)	(1)	(3)		
BILATERAL; IMMATURE				3 (100%) [3]		
IMMATURE			1 (100%) [1]			
IMMATURE (UNILATERAL OR BILATERAL)			1 (100%) [1]	3 (100%) [3]		

Test Type: MOG

Route: Dosing in Feed Species/Strain: Rat/Sprague-Dawley

# PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Compound: Bisphenol AF **CAS Number:** 1478-61-1

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

	F1 Male : PND28 Bio&MGW	M Male			
		Treatment Groups (ppm)			
	0	338	1125	3750	
HEMATOLYMPHOID SYSTEM None					
INTEGUMENTARY SYSTEM None					
MUSCULOSKELETAL SYSTEM None					
NERVOUS SYSTEM None					
RESPIRATORY SYSTEM None					
SPECIAL SENSES SYSTEM None					
URINARY SYSTEM None					

Test Type: MOG

Route: Dosing in Feed

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Compound: Bisphenol AF
CAS Number: 1478-61-1

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Lab: RTI

Species/Strain: Rat/Sprague-Dawley

F1 Female: Bio&MGWM @ VO

		Treatment Groups (ppm)			
	0	338	1125	3750	
Disposition Summary					
Animals Initially In Study	12	12	12	12	
Early Deaths					
Unscheduled Sacrifice				1	
Scheduled Deaths					
Scheduled sacrifice, terminal (PND 26 - 39)	12	12	12	11	
Number of Animals Examined	12	12	12	12	
Total number litters	12	11	9	12	
ALIMENTARY SYSTEM					
None					

### **CARDIOVASCULAR SYSTEM**

None

### **ENDOCRINE SYSTEM**

None

### **GENERAL BODY SYSTEM**

Test Type: MOG

Route: Dosing in Feed

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Compound: Bisphenol AF

Time Report Requested: 06:36:15 **CAS Number:** 1478-61-1

Lab: RTI

Date Report Requested: 05/27/2020

Species/Strain: Rat/Sprague-Dawley

F1 Female : Bio&MGWM @ VO

	Treatment Groups (ppm)			
	0	338	1125	3750
GENITAL SYSTEM				
OVARY	(12)	(12)	(12)	(12)
HYPOPLASIA			1 (8.3%) [1]	
HYPOPLASIA (UNILATERAL OR BILATERAL)			1 (8.3%) [1]	
INFLAMMATION, ACUTE				1 (8.3%) [1]
OVIDUCT	(0)	(0)	(0)	(1)
INFLAMMATION, ACUTE				1 (100%) [1]
UTERUS	(2)	(0)	(0)	(1)
INFLAMMATION, ACUTE				1 (100%) [1]
VAGINA	(2)	(0)	(0)	(1)
DEVELOPMENTAL MALFORMATION				1 (100%) [1]
HEMATOLYMPHOID SYSTEM				
None				
INTEGUMENTARY SYSTEM				
None				
MUSCULOSKELETAL SYSTEM				
None				
NERVOUS SYSTEM				
None				
RESPIRATORY SYSTEM				
None				
SPECIAL SENSES SYSTEM				
None				

PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Date Report Requested: 05/27/2020 Time Report Requested: 06:36:15

Test Type: MOG

Route: Dosing in Feed

Species/Strain: Rat/Sprague-Dawley

Test Compound: Bisphenol AF CAS Number: 1478-61-1

Lab: RTI

F1 Female : Bio&MGWM @ VO

Treatment Groups (ppm)
0 338 1125 3750

**URINARY SYSTEM** 

Study Number: MOG08002B PA10R: Statistical Analysis of Non-Neoplastic Lesions with Litter Incidence

Test Type: MOG Route: Dosing in Feed

Species/Strain: Rat/Sprague-Dawley

Test Compound: Bisphenol AF

CAS Number: 1478-61-1

Lab: RTI

Date Report Requested: 05/27/2020

Time Report Requested: 06:36:15

#### LEGEND

Number of animals examined for each tissue shown in parentheses. If none of the animals examined have the specific lesion then there is a blank for that dose group for that specific lesion. The exception to this is if statistical significance is found for a lesion and the control group has no animals with the lesion then a 0 is included for the control group on the table for that lesion.

Number of animals with observation reported with percent incidence in parentheses

Number of litters with observations shown in square brackets for F1 and F2 animals. F1 litter incidence based on the number of F0 dams; F2 litter incidence based on number of F1 dams.

Statistical analysis performed by Cochran-Armitage test with poly-3 adjustment for both trend and pairwise tests for cohorts where all organs were fully examined. This included F1 subchronic (all organs), F1 Fertility (reproductive organs), and F1 Bio&MGWM@VO (ovaries only).

For the F0, F1 Prenatal, and F1 Extra cohorts, histopathology was limited to gross lesions only, so no statistical testing was performed.

All trend and pairwise p-values are reported as one-sided.

Statistical significance for the control group indicates a significant trend test

Statistical significance for a treatment group indicates a significant pairwise test compared to the vehicle control group

\* Statistically significant at P <= 0.05

\*\* Statistically significant at P <= 0.01

Non-pregnant females from the F0 and F1 generations are included in the analysis.

SD - Study Day; GD - Gestation Day; LD - Lactation Day; PND - Postnatal Day, adults post-weaning

\*\* END OF REPORT \*\*