

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

PA18R: Non-Neoplastic Lesions with Mean Severity Grade and Litter Incidence

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

Date Report Requested: 05/18/2020
Time Report Requested: 07:52:32
Lab: RTI

Study Number:

MOG08002B

Study Gender:

Both

PWG Approval Date

See web page for date of PWG Approval

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	F0 Female			
	Treatment Groups (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
Animals Examined Microscopically	3	2		2
ALIMENTARY SYSTEM				
LIVER	(2)	(2)	(0)	(0)
HEPATODIAPHRAGMATIC NODULE		2		
CARDIOVASCULAR SYSTEM				
No Tissues/Organs Examined				
ENDOCRINE SYSTEM				
No Tissues/Organs Examined				
GENERAL BODY SYSTEM				
No Tissues/Organs Examined				
GENITAL SYSTEM				
OVARY	(3)	(0)	(0)	(0)
FOLLICLE; CYST	1			
UTERUS	(0)	(0)	(0)	(2)
INFLAMMATION, ACUTE				1 [2.0]
PLACENTA; RETENTION				1
HEMATOLYMPHOID SYSTEM				
No Tissues/Organs Examined				
INTEGUMENTARY SYSTEM				
No Tissues/Organs Examined				

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F0 Female

Treatment Groups (ppm)

0

338

1125

3750

MUSCULOSKELETAL SYSTEM
No Tissues/Organs Examined

NERVOUS SYSTEM
No Tissues/Organs Examined

RESPIRATORY SYSTEM
No Tissues/Organs Examined

SPECIAL SENSES SYSTEM
No Tissues/Organs Examined

URINARY SYSTEM
No Tissues/Organs Examined

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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
Animals Examined Microscopically	10	10	10	10
Total number litters	10	10	10	10
ALIMENTARY SYSTEM				
ESOPHAGUS	(10)	(0)	(0)	(10)
INTESTINE, CECUM	(10)	(0)	(0)	(10)
INTESTINE, COLON	(10)	(0)	(0)	(10)
INTESTINE, DUODENUM	(10)	(0)	(0)	(10)
INTESTINE, ILEUM	(10)	(0)	(0)	(10)
INTESTINE, JEJUNUM	(10)	(0)	(0)	(10)
INTESTINE, RECTUM	(10)	(0)	(0)	(10)
LIVER	(10)	(0)	(2)	(10)
EXTRAMEDULLARY HEMATOPOIESIS	2 [1.0] (2)			4 [1.0] (4)
HEPATODIAPHRAGMATIC NODULE			2 (2)	
PANCREAS	(10)	(0)	(0)	(10)
ACINAR CELL; ATROPHY				1 [1.0] (1)
SALIVARY GLAND	(10)	(0)	(0)	(10)
STOMACH	(10)	(0)	(0)	(10)
CARDIOVASCULAR SYSTEM				
AORTA	(10)	(0)	(0)	(10)
HEART	(10)	(0)	(0)	(10)
CARDIOMYOPATHY	4 [1.0] (4)			4 [1.0] (4)

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F1 Male: Subchronic Male

	Treatment Groups (ppm)			
	0	338	1125	3750
ENDOCRINE SYSTEM				
ADRENAL GLAND	(10)	(0)	(0)	(10)
PARATHYROID GLAND	(10)	(0)	(0)	(10)
PITUITARY GLAND	(10)	(0)	(0)	(10)
THYROID GLAND	(10)	(0)	(0)	(10)
GENERAL BODY SYSTEM				
No Tissues/Organs Examined				

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F1 Male: Subchronic Male

	Treatment Groups (ppm)			
	0	338	1125	3750
GENITAL SYSTEM				
COAGULATING GLAND	(10)	(10)	(10)	(9)
EPIDIDYMIS	(10)	(10)	(10)	(10)
DUCT; EXFOLIATED GERM CELL				3 [1.7] (3)
HYPOPLASIA				1 [2.0] (1)
DUCT; HYOSPERMIA				1 [2.0] (1)
PENIS	(2)	(0)	(0)	(1)
DEVELOPMENTAL MALFORMATION				1 (1)
PREPUTIAL GLAND	(10)	(10)	(10)	(10)
ABSCESS	1 [1.0] (1)			
DUCT; ECTASIA	2 [1.0] (2)	2 [1.0] (2)		2 [1.0] (2)
INFLAMMATION, CHRONIC	2 [1.0] (2)	4 [1.0] (4)	3 [1.0] (3)	
PROSTATE GLAND	(10)	(10)	(10)	(10)
HYPOPLASIA; DORSOLATERAL				10 [1.5] (10)
HYPOPLASIA; VENTRAL				10 [1.5] (10)
INFLAMMATION, CHRONIC; VENTRAL	3 [1.0] (3)	5 [1.0] (5)	4 [1.0] (4)	4 [1.0] (4)
SEMINAL VESICLE	(10)	(10)	(10)	(10)
BILATERAL; HYPOPLASIA				10 [1.6] (10)
TESTIS	(10)	(10)	(10)	(10)
GERM CELL; APOPTOSIS				1 [3.0] (1)
LEYDIG CELL; ATROPHY				1 [2.0] (1)
GERMINAL EPITHELIUM; DEGENERATION				2 [1.5] (2)
SEMIFEROUS TUBULE; RETENTION; SPERMATID				1 [1.0] (1)

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F1 Male: Subchronic Male

	Treatment Groups (ppm)			
	0	338	1125	3750
HEMATOLYMPHOID SYSTEM				
BONE MARROW, FEMUR	(10)	(0)	(0)	(10)
LYMPH NODE, MANDIBULAR	(10)	(0)	(0)	(10)
LYMPH NODE, MESENTERIC	(10)	(0)	(0)	(10)
SPLEEN	(10)	(0)	(0)	(10)
THYMUS	(9)	(0)	(0)	(10)
INTEGUMENTARY SYSTEM				
MAMMARY GLAND	(9)	(0)	(0)	(9)
SKIN	(10)	(0)	(0)	(10)
MUSCULOSKELETAL SYSTEM				
BONE, FEMUR	(10)	(0)	(0)	(10)
NASAL TURBINATES	(10)	(0)	(0)	(9)
NERVOUS SYSTEM				
BRAIN	(10)	(0)	(0)	(10)
RESPIRATORY SYSTEM				
LUNGS WITH BRONCHI	(10)	(0)	(0)	(10)
TRACHEA	(10)	(0)	(0)	(10)
SPECIAL SENSES SYSTEM				
EYE	(10)	(0)	(0)	(10)
HARDERIAN GLAND	(10)	(0)	(0)	(10)
ZYMBALS GLAND	(7)	(0)	(0)	(10)
URINARY SYSTEM				
KIDNEY	(10)	(0)	(0)	(10)
CHRONIC PROGRESSIVE NEPHROPATHY	10 [1.6] (10)			5 [1.0] (5)
CORTICOMEDULLARY JUNCTION; MINERAL				7 [1.1] (7)
URINARY BLADDER	(10)	(0)	(0)	(10)

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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
Animals Examined Microscopically	10	10	10	10
Total number litters	10	10	10	10
ALIMENTARY SYSTEM				
ESOPHAGUS	(10)	(0)	(0)	(10)
INTESTINE, CECUM	(10)	(0)	(0)	(10)
INTESTINE, COLON	(10)	(0)	(0)	(10)
INTESTINE, DUODENUM	(10)	(0)	(0)	(10)
INTESTINE, ILEUM	(10)	(0)	(0)	(10)
INTESTINE, JEJUNUM	(10)	(0)	(0)	(10)
INTESTINE, RECTUM	(10)	(0)	(0)	(10)
LYMPHOID TISSUE; HYPERPLASIA				1 [2.0] (1)
LIVER	(10)	(1)	(0)	(10)
BASOPHILIC FOCUS				1 [1.0] (1)
DEFORMITY		1 [1.0] (1)		
HEPATODIAPHRAGMATIC NODULE	2 (2)			
PANCREAS	(10)	(0)	(0)	(10)
ACINAR CELL; ATROPHY	1 [1.0] (1)			
SALIVARY GLAND	(10)	(0)	(0)	(10)
STOMACH	(10)	(0)	(0)	(10)

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F1 Female: Subchronic Females

	Treatment Groups (ppm)			
	0	338	1125	3750
CARDIOVASCULAR SYSTEM				
AORTA	(10)	(0)	(0)	(10)
HEART	(10)	(0)	(0)	(10)
CARDIOMYOPATHY				1 [1.0] (1)
ENDOCRINE SYSTEM				
ADRENAL GLAND	(10)	(0)	(0)	(10)
PARATHYROID GLAND	(7)	(0)	(0)	(8)
PITUITARY GLAND	(10)	(0)	(0)	(10)
THYROID GLAND	(10)	(0)	(0)	(10)
GENERAL BODY SYSTEM				
No Tissues/Organs Examined				
GENITAL SYSTEM				
CERVIX	(10)	(10)	(10)	(10)
CLITORAL GLAND	(10)	(1)	(0)	(10)
DUCT; ECTASIA	4 [1.0] (4)	1 [2.0] (1)		1 [1.0] (1)
INFLAMMATION, CHRONIC				1 [1.0] (1)
OVARY	(10)	(10)	(10)	(10)
FOLLICLE; CYST	1 (1)			2 (2)
BILATERAL; HYPOPLASIA				10 [2.2] (10)
UTERUS	(10)	(10)	(10)	(10)
ENDOMETRIUM; CYST	1 (1)	1 (1)	1 (1)	
DILATION; GLANDULAR			2 [1.0] (2)	
DILATION; GLANDULAR, CYSTIC				6 [1.8] (6)
STROMA; HYALINIZATION				10 [3.0] (10)
HYPOPLASIA				10 [1.4] (10)
EPITHELIUM; METAPLASIA; SQUAMOUS				10 [1.3] (10)
VAGINA	(10)	(10)	(10)	(10)
MUCIFICATION		1 [2.0] (1)		

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F1 Female: Subchronic Females

	Treatment Groups (ppm)			
	0	338	1125	3750
HEMATOLYMPHOID SYSTEM				
BONE MARROW, FEMUR	(10)	(0)	(0)	(10)
LYMPH NODE, MANDIBULAR	(10)	(0)	(0)	(10)
LYMPH NODE, MESENTERIC	(9)	(0)	(0)	(10)
SPLEEN	(10)	(0)	(0)	(10)
THYMUS	(10)	(0)	(0)	(10)
INTEGUMENTARY SYSTEM				
MAMMARY GLAND	(10)	(0)	(0)	(10)
SKIN	(10)	(0)	(0)	(10)
MUSCULOSKELETAL SYSTEM				
BONE, FEMUR	(10)	(0)	(0)	(10)
NASAL TURBINATES	(10)	(0)	(0)	(10)
NERVOUS SYSTEM				
BRAIN	(10)	(0)	(0)	(10)
RESPIRATORY SYSTEM				
LUNGS WITH BRONCHI	(10)	(0)	(0)	(10)
TRACHEA	(10)	(0)	(0)	(10)
SPECIAL SENSES SYSTEM				
EYE	(10)	(0)	(0)	(10)
HARDERIAN GLAND	(10)	(0)	(0)	(10)
ZYMBALS GLAND	(10)	(0)	(0)	(10)
DUCT; ECTASIA	2 [1.0] (2)			

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F1 Female: Subchronic Females

	Treatment Groups (ppm)			
	0	338	1125	3750
URINARY SYSTEM				
KIDNEY	(10)	(0)	(0)	(10)
CHRONIC PROGRESSIVE NEPHROPATHY	6 [1.0] (6)			4 [1.0] (4)
INFARCT, CHRONIC; MULTIPLE				1 [4.0] (1)
CORTICOMEDULLARY JUNCTION; MINERAL	9 [1.2] (9)			6 [1.0] (6)
NEPHROBLASTEMATOSIS	1 [1.0] (1)			
URINARY BLADDER	(10)	(0)	(0)	(9)
HYPERPLASIA; UROTHELIAL				1 [1.0] (1)

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F1 Male: Prenatal Males

	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
Animals Examined Microscopically	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 [3.0] (1)		
CARDIOVASCULAR SYSTEM				
No Tissues/Organs Examined				
ENDOCRINE SYSTEM				
No Tissues/Organs Examined				
GENERAL BODY SYSTEM				
No Tissues/Organs Examined				

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F1 Male: Prenatal Males

	Treatment Groups (ppm)			
	0	338	1125	3750
GENITAL SYSTEM				
COWPERS GLAND	(2)	(0)	(1)	(16)
HYPOPLASIA				12 [2.0] (12)
EPIDIDYMIS	(3)	(0)	(0)	(1)
ASPERMIA	1 [4.0] (1)			1 [4.0] (1)
LEVATOR ANI PLUS BULBOCAVERNOSUS MUSCLE	(2)	(0)	(1)	(18)
HYPOPLASIA				17 [1.9] (17)
PREPUTIAL GLAND	(7)	(2)	(0)	(1)
ABSCESS		1 [2.0] (1)		1 [1.0] (1)
DUCT; ECTASIA	6 [1.0] (6)	2 [2.0] (2)		1 [1.0] (1)
INFLAMMATION, ACUTE	1 [1.0] (1)			
INFLAMMATION, CHRONIC	1 [1.0] (1)			
PROSTATE GLAND	(2)	(0)	(0)	(19)
HYPOPLASIA; DORSOLATERAL				18 [2.1] (18)
HYPOPLASIA; VENTRAL				18 [2.1] (18)
INFLAMMATION, CHRONIC; VENTRAL				12 [1.4] (12)
SEMINAL VESICLE	(2)	(1)	(1)	(19)
HYPOPLASIA		1 [2.0] (1)	1 [2.0] (1)	19 [2.1] (19)
TESTIS	(3)	(0)	(0)	(1)
SEMINIFEROUS TUBULE; ATROPHY	1 [3.0] (1)			1 [4.0] (1)
EDEMA	1 [3.0] (1)			
HEMATOLYMPHOID SYSTEM				
No Tissues/Organs Examined				
INTEGUMENTARY SYSTEM				
No Tissues/Organs Examined				
MUSCULOSKELETAL SYSTEM				
No Tissues/Organs Examined				

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F1 Male: Prenatal Males

Treatment Groups (ppm)

0

338

1125

3750

NERVOUS SYSTEM

No Tissues/Organs Examined

RESPIRATORY SYSTEM

No Tissues/Organs Examined

SPECIAL SENSES SYSTEM

No Tissues/Organs Examined

URINARY SYSTEM

No Tissues/Organs Examined

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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
Animals Examined Microscopically	3		1	19
Total number litters	3		1	19

ALIMENTARY SYSTEM

No Tissues/Organs Examined

CARDIOVASCULAR SYSTEM

No Tissues/Organs Examined

ENDOCRINE SYSTEM

No Tissues/Organs Examined

GENERAL BODY SYSTEM

No Tissues/Organs Examined

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F1 Female: Prenatal Females

	Treatment Groups (ppm)			
	0	338	1125	3750
GENITAL SYSTEM				
CERVIX	(0)	(0)	(1)	(19)
OVARY	(2)	(0)	(1)	(19)
FOLLICLE; CYST			1 (1)	
HYPOPLASIA			1 [3.0] (1)	19 [2.1] (19)
UTERUS	(0)	(0)	(1)	(19)
ENDOMETRIUM; CYST			1 (1)	4 (4)
HYPOPLASIA			1 [2.0] (1)	19 [2.0] (19)
EPITHELIUM; METAPLASIA; SQUAMOUS			1 [1.0] (1)	19 [1.3] (19)
EPITHELIUM; NECROSIS			1 [1.0] (1)	19 [1.2] (19)
VAGINA	(0)	(0)	(1)	(19)
HEMATOLYMPHOID SYSTEM				
No Tissues/Organs Examined				
INTEGUMENTARY SYSTEM				
No Tissues/Organs Examined				
MUSCULOSKELETAL SYSTEM				
No Tissues/Organs Examined				
NERVOUS SYSTEM				
BRAIN	(1)	(0)	(0)	(0)
RESPIRATORY SYSTEM				
No Tissues/Organs Examined				
SPECIAL SENSES SYSTEM				
No Tissues/Organs Examined				
URINARY SYSTEM				
No Tissues/Organs Examined				

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F1 Male: Fertility Males

	Treatment Groups (ppm)			
	0	338	1125	3750
Disposition Summary				
Animals Initially In Study	22	24	21	20
Early Deaths				
Found Dead		1		
Scheduled Deaths				
Scheduled sacrifice, terminal (PND 152 - 154)	22	23	21	20
Animals Examined Microscopically	22	24	21	20
Total number litters	22	24	21	20
ALIMENTARY SYSTEM				
LIVER	(2)	(1)	(1)	(0)
HEPATODIAPHRAGMATIC NODULE		1 (1)		
CARDIOVASCULAR SYSTEM				
No Tissues/Organs Examined				
ENDOCRINE SYSTEM				
PITUITARY GLAND	(22)	(0)	(0)	(20)
GENERAL BODY SYSTEM				
No Tissues/Organs Examined				

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F1 Male: Fertility Males

	Treatment Groups (ppm)			
	0	338	1125	3750
GENITAL SYSTEM				
COAGULATING GLAND	(22)	(24)	(21)	(20)
BILATERAL; HYPOPLASIA				18 [2.6] (18)
COWPERS GLAND	(22)	(24)	(21)	(20)
BILATERAL; HYPOPLASIA				15 [2.3] (15)
HYPOPLASIA		1 [4.0] (1)		
EPIDIDYMIS	(22)	(24)	(21)	(20)
ASPERMIA	1 (1)			
DUCT; ATROPHY				10 [1.4] (10)
DUCT; EXFOLIATED GERM CELL			1 [1.0] (1)	5 [1.4] (5)
HYPOPLASIA				1 [4.0] (1)
DUCT; HYOSPERMIA			1 [1.0] (1)	6 [2.0] (6)
LEVATOR ANI PLUS BULBOCAVERNOSUS MUSCLE	(22)	(24)	(21)	(20)
HYPOPLASIA			1 [2.0] (1)	17 [2.4] (17)
PENIS	(1)	(0)	(0)	(0)
PENIS, GLANS	(0)	(0)	(0)	(1)
DEVELOPMENTAL MALFORMATION				1 (1)
PREPUTIAL GLAND	(22)	(24)	(21)	(20)
ABSCESS	5 [1.6] (5)	3 [1.3] (3)		
DUCT; ECTASIA	7 [1.6] (7)	15 [1.6] (15)	12 [1.5] (12)	6 [1.3] (6)
INFLAMMATION, CHRONIC	7 [1.1] (7)	8 [1.0] (8)	9 [1.3] (9)	6 [1.3] (6)
PROSTATE GLAND	(22)	(24)	(21)	(20)
HYPOPLASIA; DORSOLATERAL				18 [2.6] (18)
HYPOPLASIA; VENTRAL				18 [2.6] (18)
INFLAMMATION, CHRONIC; VENTRAL	9 [1.1] (9)	6 [1.5] (6)	6 [1.2] (6)	6 [1.2] (6)
SEMINAL VESICLE	(22)	(24)	(21)	(20)
BILATERAL; HYPOPLASIA				18 [2.6] (18)
TESTIS	(22)	(24)	(21)	(20)

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

PA18R: Non-Neoplastic Lesions with Mean Severity Grade and Litter Incidence
Test Compound: Bisphenol AF
CAS Number: 1478-61-1

Date Report Requested: 05/18/2020
Time Report Requested: 07:52:32
Lab: RTI

F1 Male: Fertility Males

	Treatment Groups (ppm)			
	0	338	1125	3750
GERM CELL; APOPTOSIS				1 [3.0] (1)
LEYDIG CELL; ATROPHY				11 [1.8] (11)
SEMINIFEROUS TUBULE; ATROPHY	1 [4.0] (1)			
GERMINAL EPITHELIUM; DEGENERATION			1 [2.0] (1)	6 [1.3] (6)
INTERSTITIAL CELL; HYPERPLASIA	1 [2.0] (1)			
HYPOPLASIA				1 [4.0] (1)
SEMINIFEROUS TUBULE; RETENTION; SPERMATID				8 [1.0] (8)
HEMATOLYMPHOID SYSTEM				
SPLEEN	(0)	(1)	(0)	(0)
INTEGUMENTARY SYSTEM				
No Tissues/Organs Examined				
MUSCULOSKELETAL SYSTEM				
No Tissues/Organs Examined				
NERVOUS SYSTEM				
No Tissues/Organs Examined				
RESPIRATORY SYSTEM				
No Tissues/Organs Examined				
SPECIAL SENSES SYSTEM				
No Tissues/Organs Examined				
URINARY SYSTEM				
No Tissues/Organs Examined				

Study Number: MOG08002B
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Date Report Requested: 05/18/2020
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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
Animals Examined Microscopically	22	24	21	20
Total number litters	22	24	21	20
ALIMENTARY SYSTEM				
No Tissues/Organs Examined				
CARDIOVASCULAR SYSTEM				
No Tissues/Organs Examined				
ENDOCRINE SYSTEM				
PITUITARY GLAND	(22)	(0)	(0)	(19)
GENERAL BODY SYSTEM				
No Tissues/Organs Examined				

Study Number: MOG08002B
 Test Type: MOG
 Route: Dosing in Feed
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Date Report Requested: 05/18/2020
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F1 Female: Fertility Females

	Treatment Groups (ppm)			
	0	338	1125	3750
GENITAL SYSTEM				
CERVIX	(22)	(24)	(21)	(20)
CYST; SQUAMOUS	1 (1)		1 (1)	1 (1)
INFLAMMATION, ACUTE				1 [1.0] (1)
OVARY	(22)	(24)	(21)	(20)
FOLLICLE; CYST	2 (2)		1 (1)	
BILATERAL; HYPOPLASIA		1 [1.0] (1)		20 [2.6] (20)
HYPOPLASIA		2 [1.0] (2)		
OVIDUCT	(1)	(0)	(0)	(1)
UTERUS	(22)	(24)	(21)	(20)
EPITHELIUM; APOPTOSIS; INCREASED			1 (1)	3 (3)
CERVIX; CYST			1 (1)	
DECIDUAL REACTION	1 [2.0] (1)			
DILATION; GLANDULAR	2 [1.0] (2)			
DILATION; GLANDULAR, CYSTIC				8 [1.1] (8)
DILATION		1 [3.0] (1)		
STROMA; HYALINIZATION			8 [1.4] (8)	18 [3.0] (18)
HYPOPLASIA				18 [1.4] (18)
CERVIX; INFLAMMATION, ACUTE				1 [2.0] (1)
INFLAMMATION, ACUTE				1 [2.0] (1)
EPITHELIUM; METAPLASIA; SQUAMOUS				20 [1.0] (20)
POLYP STROMAL			1 [1.0] (1)	
VAGINA	(22)	(24)	(21)	(20)
CYST	1 (1)			
DEVELOPMENTAL MALFORMATION				1 (1)
HEMATOLYMPHOID SYSTEM				
No Tissues/Organs Examined				

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

PA18R: Non-Neoplastic Lesions with Mean Severity Grade and Litter Incidence
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Date Report Requested: 05/18/2020
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 Lab: RTI

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
Animals Examined Microscopically	3		8	20
Total number litters	2		5	9
ALIMENTARY SYSTEM				
No Tissues/Organs Examined				
CARDIOVASCULAR SYSTEM				
No Tissues/Organs Examined				
ENDOCRINE SYSTEM				
No Tissues/Organs Examined				
GENERAL BODY SYSTEM				
No Tissues/Organs Examined				
GENITAL SYSTEM				
EPIDIDYMIS	(2)	(0)	(8)	(18)
BILATERAL; IMMATURE			8 [2.4] (5)	16 [1.9] (7)
IMMATURE				1 [2.0] (1)
TESTIS	(2)	(0)	(8)	(20)
BILATERAL; IMMATURE			8 [2.4] (5)	17 [1.9] (8)
IMMATURE				3 [1.7] (2)
HEMATOLYMPHOID SYSTEM				
No Tissues/Organs Examined				
INTEGUMENTARY SYSTEM				
No Tissues/Organs Examined				

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

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Date Report Requested: 05/18/2020
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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
Animals Examined Microscopically	1			
Total number litters	1			

ALIMENTARY SYSTEM

No Tissues/Organs Examined

CARDIOVASCULAR SYSTEM

No Tissues/Organs Examined

ENDOCRINE SYSTEM

No Tissues/Organs Examined

GENERAL BODY SYSTEM

No Tissues/Organs Examined

GENITAL SYSTEM

No Tissues/Organs Examined

HEMATOLYMPHOID SYSTEM

No Tissues/Organs Examined

INTEGUMENTARY SYSTEM

No Tissues/Organs Examined

MUSCULOSKELETAL SYSTEM

No Tissues/Organs Examined

NERVOUS SYSTEM

No Tissues/Organs Examined

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

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Date Report Requested: 05/18/2020
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 Lab: RTI

F1 Male: PND28 Bio&MGWM Male

	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
Animals Examined Microscopically			1	3
Total number litters			1	3
ALIMENTARY SYSTEM				
No Tissues/Organs Examined				
CARDIOVASCULAR SYSTEM				
No Tissues/Organs Examined				
ENDOCRINE SYSTEM				
No Tissues/Organs Examined				
GENERAL BODY SYSTEM				
No Tissues/Organs Examined				
GENITAL SYSTEM				
EPIDIDYMIS	(0)	(0)	(0)	(3)
BILATERAL; IMMATURE				3 [2.0] (3)
TESTIS	(0)	(0)	(1)	(3)
BILATERAL; IMMATURE				3 [2.0] (3)
IMMATURE			1 [2.0] (1)	
HEMATOLYMPHOID SYSTEM				
No Tissues/Organs Examined				
INTEGUMENTARY SYSTEM				
No Tissues/Organs Examined				

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

PA18R: Non-Neoplastic Lesions with Mean Severity Grade and Litter Incidence
Test Compound: Bisphenol AF
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Date Report Requested: 05/18/2020
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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
Animals Examined Microscopically	12	12	12	12
Total number litters	12	11	9	12

ALIMENTARY SYSTEM

No Tissues/Organs Examined

CARDIOVASCULAR SYSTEM

No Tissues/Organs Examined

ENDOCRINE SYSTEM

No Tissues/Organs Examined

GENERAL BODY SYSTEM

No Tissues/Organs Examined

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

PA18R: Non-Neoplastic Lesions with Mean Severity Grade and Litter Incidence
Test Compound: Bisphenol AF
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Date Report Requested: 05/18/2020
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Lab: RTI

F1 Female: Bio&MGWM @ VO

	Treatment Groups (ppm)			
	0	338	1125	3750
GENITAL SYSTEM				
CERVIX	(2)	(0)	(0)	(0)
OVARY	(12)	(12)	(12)	(12)
HYPOPLASIA			1 [2.0] (1)	
INFLAMMATION, ACUTE				1 [2.0] (1)
OVIDUCT	(0)	(0)	(0)	(1)
INFLAMMATION, ACUTE				1 [2.0] (1)
UTERUS	(2)	(0)	(0)	(1)
INFLAMMATION, ACUTE				1 [3.0] (1)
VAGINA	(2)	(0)	(0)	(1)
DEVELOPMENTAL MALFORMATION				1 (1)
HEMATOLYMPHOID SYSTEM				
No Tissues/Organs Examined				
INTEGUMENTARY SYSTEM				
No Tissues/Organs Examined				
MUSCULOSKELETAL SYSTEM				
No Tissues/Organs Examined				
NERVOUS SYSTEM				
No Tissues/Organs Examined				
RESPIRATORY SYSTEM				
No Tissues/Organs Examined				
SPECIAL SENSES SYSTEM				
No Tissues/Organs Examined				
URINARY SYSTEM				
No Tissues/Organs Examined				

Study Number: MOG08002B
Test Type: MOG
Route: Dosing in Feed
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LEGEND

Number of animals examined given for each tissue. If none of the animals examined have the specific lesion then there is a blank for that dose group for that specific lesion. Mean severity grade denoted by 1 - minimal, 2 - mild, 3 - moderate, 4 - marked.

Number of animals with observation reported with mean severity grade in square brackets. The number of litters is shown in parentheses to the right of the severity grade for the F1 and F2 animals. F1 litter incidence based on the number of F0 dams; F2 litter incidence based on number of F1 dams.

Phase day range of terminal sacrifice shown in parentheses in disposition summary

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

**** END OF REPORT ****