

Experiment Number: 99920-99
Test Type: SPECIAL STUDY
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 10:33:14
First Dose M/F: NA / NA
Lab: NCTR

C Number:	MG96006
Lock Date:	Not Entered.
Cage Range:	All
Date Range:	All
Reasons For Removal:	All
Removal Date Range:	All
Treatment Groups:	All
Study Gender:	Both
PWG Approval Date	NONE

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CD Rat Male F0 CONTROL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*TOTALS	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
		4	4	4	4	4	4	4	4	4	3	4	4	4	4	5	5	5	5	5	5	5	5	5	5		
		0	0	0	0	0	8	8	8	8	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		3	3	4	4	4	7	7	8	8	8	9	1	2	2	2	5	6	6	6	6	9	0	0	0		
		8	9	0	1	2	8	9	0	1	2	8	9	0	1	3	9	0	1	2	3	9	0	1	2	3	

Genital System

Coagulating Gland	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	24	
Bilateral, Developmental Malformation																X			X					X	3	
Developmental Malformation									X				X	X	X	X			X			X			7	
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Atrophy																4									1 4.0	
Hypospermia																4									1 4.0	
Infiltration Cellular, Lymphocyte				1												1									2 1.0	
Prostate, Dorsal/Lateral Lobe	+			+	+	+	+	+	+	A	+	+		+	+		+	+	+	+	+	+	+	+	24	
Infiltration Cellular, Lymphocyte			1	1		2																			3 1.3	
Inflammation, Suppurative														2			1								2 1.5	
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24	
Infiltration Cellular, Lymphocyte		1	2		1	1	2	1	2	1		1	1	2	2	1	2	1			1	2	2	2	1	20 1.5
Rete Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Dilatation																3									1 3.0	
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	24	
Depletion Secretory											4	4			2										3 3.3	
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Seminif Tub, Degeneration									2						1		4		1				1	1	6 1.7	

Hematopoietic System

Bone Marrow	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Spleen	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	24

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 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 10:33:15
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F0 2.0 PPB	DAY ON TEST																								ANIMAL ID			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0		
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	0		
	0	0	0	0	0	8	8	8	8	8	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4	4	4	4	4	8	8	8	8	8	2	2	2	2	2	6	6	6	6	6	6	0	0	0	0	0		
	3	4	5	6	7	3	4	5	6	7	4	5	6	7	8	4	5	6	7	8	4	5	6	7	8			
																											*TOTALS	
Inflammation, Suppurative																											4 1.5	
Prostate, Ventral Lobe																											25	
Infiltration Cellular, Lymphocyte																											18 1.6	
Rete Testes																											23	
Dilatation																											1 2.0	
Seminal Vesicle																											25	
Depletion Secretory																											2 2.5	
Testes																											25	
Seminif Tub, Degeneration																											2 2.0	
Hematopoietic System																												
NONE																												
Integumentary System																												
Mammary Gland																											24	
Alveolus, Hyperplasia																											2 2.0	
Duct, Hyperplasia																											1 1.0	
Skin																											1	
Epidermis, Hyperplasia																											1 2.0	
Hyperkeratosis																											1 1.0	
Musculoskeletal System																												
NONE																												
Nervous System																												

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 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 10:33:16
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
 F0 10 PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5
	0	0	0	0	0	8	8	8	8	8	9	9	9	9	9	0	0	0	0	0	0	3	3	3	3	3
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
	4	4	5	5	5	8	8	9	9	9	2	3	3	3	3	6	7	7	7	7	0	1	1	1	1	1
	8	9	0	1	2	8	8	9	0	1	2	9	0	1	2	3	9	0	1	2	3	9	0	1	2	3
	*TOTALS																									

NONE
Special Senses System
 NONE
Urinary System
 NONE

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Date Report Requested: 10/23/2014
 Time Report Requested: 10:33:16
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F0 50 PPB**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	
	3	0	0	0	0	0	8	8	8	8	8	9	9	9	9	0	0	0	0	0	0	3	3	3	3	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	5	5	5	5	5	9	9	9	9	9	3	3	3	3	7	7	7	7	7	1	1	1	1	1	
	1	3	4	5	6	7	3	4	5	6	7	4	5	6	7	8	4	5	6	7	8	4	5	6	7	8
																								*TOTALS		

Alimentary System

Esophagus	+																								1																			
Liver	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25																		
Basophilic Focus																									X	1																		
Infiltration Cellular, Lymphocyte							1						1	1						1	1	1	1	1	8	1.0																		
Inflammation, Chronic Active		1																								1	1						1	1	1	1	1	1	1	1	1	1	4	1.0
Pancreas	A																								0																			

Cardiovascular System

Blood Vessel	+																								1
Heart	+																								1

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26
Pituitary Gland	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Pars Distalis, Cyst							X	X																		2
Thyroid Gland	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Cyst, Squamous							X						X						X	3						
Cyst, Squamous, Multiple														X											1	

General Body System

NONE																								
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 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F0 50 PPB

DAY ON TEST	ANIMAL ID																								*TOTALS	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5		
	3	0	0	0	0	0	0	8	8	8	8	9	9	9	9	0	0	0	0	0	0	3	3	3		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	5	5	5	5	5	9	9	9	9	9	3	3	3	3	7	7	7	7	7	7	1	1	1		
	1	3	4	5	6	7	3	4	5	6	7	4	5	6	7	8	4	5	6	7	8	4	5	6		
Cortex, Cyst				X	X										X							X			4	
Hyaline Droplet										2					1			1		1	1			1	6 1.2	
Infiltration Cellular, Lymphocyte			1	1	2	1	1	2			1	2	1	1		2	1	1	1	1	1		1	1	1	19 1.2
Interstitial, Fibrosis					2																					1 2.0
Pelvis, Dilatation										1																1 1.0
Renal Tubule, Degeneration					1			1														1				3 1.0
Renal Tubule, Dilatation					1	1	2	2			1			1									1	2		9 1.3
Renal Tubule, Mineralization																1										1 1.0
Renal Tubule, Regeneration			1		1	1	1	1			1				1	1			1	1			1	2		12 1.1
Urinary Bladder																										1

END OF MALE DATA

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 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female F0 CONTROL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*TOTALS
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
		4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5		
		0	0	0	0	0	8	8	8	8	9	9	9	9	0	0	0	0	0	0	0	3	3		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		1	1	2	2	2	5	5	6	6	9	0	0	0	3	4	4	4	4	7	8	8	8		
		8	9	1	2	3	8	9	0	1	2	9	0	1	2	3	9	0	1	2	3	9	0		

Alimentary System

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Developmental Malformation			X												X					X				3
Fatty Change, Focal										2														1 2.0
Inflammation, Chronic Active						1				1	1											1		4 1.0

Cardiovascular System

NONE

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Accessory Adrenal Cortical Nodule																				X				1
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Cyst																				X				1
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25

General Body System

NONE

Genital System

Clitoral Gland												+	+											2
Distended												X	X											2
Inflammation, Chronic Active												3	3											2 3.0

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**CD Rat Female
 F0 CONTROL**

	DAY ON TEST																										
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5			
	0	0	0	0	0	8	8	8	8	8	9	9	9	9	0	0	0	0	0	0	0	0	0	0			
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	1	1	2	2	2	5	5	6	6	6	9	0	0	0	3	4	4	4	4	7	8	8	8	8			
	8	9	1	2	2	3	8	9	0	1	2	9	0	1	2	3	9	0	1	2	3	9	0	1	2	3	
																									*TOTALS		
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25		
Corpus Luteum, Cyst							X																		1		
Diestrus			X	X		X					X	X			X						X				7		
Estrus							X		X	X					X	X					X	X	X		8		
Metestrus		X															X	X					X		4		
Proestrus	X				X			X					X	X					X						6		
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	24		
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25		
Diestrus			X	X		X					X	X			X						X				7		
Estrus							X		X	X					X	X							X	X	7		
Metestrus		X															X	X					X		4		
Proestrus	X				X			X					X	X					X		X				7		
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25		
Diestrus			X	X							X	X			X						X				6		
Estrus						X		X	X						X						X	X			6		
Metestrus		X			X											X	X	X					X	X	7		
Proestrus	X				X			X				X	X						X						6		
Hematopoietic System																											
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25		
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25		
Fibrosis, Focal																							1		1	1.0	
Pigmentation																							1		1	3	1.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-99

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 10:33:17

First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Female
F0 CONTROL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Integumentary System																										
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Alveolus, Hyperplasia																									1 1.0	
Skin																									2	
Inflammation, Chronic, Focal																									1 3.0	
Musculoskeletal System																										
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Nervous System																										
NONE																										
Respiratory System																										
NONE																										
Special Senses System																										
NONE																										
Urinary System																										
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Cortex, Cyst																									3	
Infarct																									1	
Nephropathy																									2 1.0	
*TOTALS																										

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-99

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 10:33:17

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F0 CONTROL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	
	0	0	0	0	0	8	8	8	8	8	9	9	9	9	9	0	0	0	0	0	3	3	3	3	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	1	1	2	2	2	5	5	6	6	6	9	0	0	0	3	4	4	4	4	7	8	8	8	8	
	8	9	1	2	3	8	9	0	1	2	9	0	1	2	3	9	0	1	2	3	9	0	1	2	3
	*TOTALS																								
Renal Tubule, Mineralization																								20	1.8

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-99
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 10:33:17
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F0 2.0 PPB

DAY ON TEST	ANIMAL ID																								*TOTALS
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	
	0	0	0	0	0	8	8	8	8	8	9	9	9	9	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	2	6	6	6	6	6	0	0	0	0	4	4	4	4	4	4	4	4	4	4	
	0	4	5	6	7	3	4	5	6	7	4	5	6	7	8	4	5	6	7	8	4	5	6	7	
Proestrus			X			X		X		X		X		X		X		X		X		X		7	
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Mucosa, Hyperplasia																						2		1 2.0	
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Diestrus	X	X	X	X								X		X									X	7	
Endometrial Gl, Dilatation											3													1 3.0	
Estrus					X	X				X		X			X	X				X				7	
Metestrus							X		X								X		X					4	
Proestrus						X		X		X				X			X		X		X	X		7	
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Diestrus	X	X		X							X												X	5	
Estrus					X	X	X						X		X	X			X		X			8	
Metestrus							X		X	X							X		X					5	
Proestrus			X					X		X		X		X	X			X		X				7	
Hematopoietic System																									
NONE																									
Integumentary System																									
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Alveolus, Hyperplasia								1							2			1			1			4 1.3	
Skin				+											+			+						3	
Hyperkeratosis, Focal															3									1 3.0	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically
 1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99920-99
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 10:33:18
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F0 10 PPB

DAY ON TEST	ANIMAL ID																									*TOTALS
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	25
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	9
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Diestrus	X	X			X							X		X	X				X			X	X			9
Endometrial GI, Hyperplasia																						1				1 1.0
Estrus				X					X	X	X									X				X		6
Metestrus						X	X									X										3
Proestrus			X					X					X			X	X			X				X		7
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Diestrus	X	X			X							X		X	X											6
Estrus				X					X	X	X										X			X		6
Metestrus						X	X									X										3
Proestrus			X					X					X			X	X		X	X		X	X	X		10
Hematopoietic System																										
NONE																										
Integumentary System																										
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Alveolus, Hyperplasia													1	1										1		3 1.0
Skin	+																									1
Musculoskeletal System																										
NONE																										
Nervous System																										
NONE																										

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically
 1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99920-99
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 10:33:18
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
 F0 10 PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5
	0	0	0	0	0	8	8	8	8	9	9	9	9	9	0	0	0	0	0	0	3	3	3	3	3
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2	2	3	3	3	6	6	7	7	0	1	1	1	1	4	5	5	5	5	8	9	9	9	9	9
	8	9	0	1	2	8	9	0	1	2	9	0	1	2	3	9	0	1	2	3	9	0	1	2	3

*TOTALS

NONE
 Respiratory System

NONE
 Special Senses System

NONE
 Urinary System

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Infarct																			X							1
Renal Tubule, Dilatation, Focal											2					2										2 2.0
Renal Tubule, Mineralization	1	1	1	1		1	1	1	2	1	1	1	1	2	1	1	1	1	1	2	1	1	3		24 1.2	

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 + ..Tissue examined microscopically
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 1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99920-99
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 10:33:18
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
 F0 50 PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	
	0	0	0	0	0	8	8	8	8	8	9	9	9	9	0	0	0	0	0	0	3	3	3	3	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	3	3	3	3	3	7	7	7	7	7	1	1	1	1	1	5	5	5	5	5	9	9	9	9	
	3	4	5	6	7	3	4	5	6	7	4	5	6	7	8	4	5	6	7	8	4	5	6	7	8
	*TOTALS																								

Alimentary System

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Inflammation, Chronic Active	1										1										1				3 1.0

Cardiovascular System

NONE

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Unilateral, Accessory Adrenal Cortical Nodule		X																							1
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25

General Body System

NONE

Genital System

Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Corpus Luteum, Depletion			3																						1 3.0
Diestrus					X	X			X	X	X	X													6
Estrus	X	X		X	X			X	X						X			X	X	X		X			11
Follicle, Cyst, Multiple			X																						1

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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X ..Lesion present

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Experiment Number: 99920-99
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 10:33:18
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F0 50 PPB

DAY ON TEST	ANIMAL ID																									*TOTALS	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5		
	0	0	0	0	0	8	8	8	8	8	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	3	3	3	3	3	7	7	7	7	7	1	1	1	1	1	5	5	5	5	5	5	9	9	9	9		
	3	4	5	6	7	3	4	5	6	7	4	5	6	7	8	4	5	6	7	8	4	5	6	7	8		
Metestrus																X										1	
Proestrus														X	X		X		X	X				X		6	
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Diestrus							X			X	X	X	X													5	
Estrus	X	X	X	X	X			X	X								X			X	X	X		X	12		
Metestrus															X											1	
Proestrus						X							X	X		X		X	X				X		7		
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Diestrus						X	X			X	X	X	X													6	
Epithelium, Hyperplasia				2																						1	2.0
Estrus	X	X		X	X			X	X							X			X			X			9		
Metestrus															X					X	X			X	4		
Proestrus													X	X			X	X					X		5		
Hematopoietic System																											
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Pigmentation			2			2						2			1							1	1			6	1.5
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Integumentary System																											
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Alveolus, Hyperplasia						1		1			1				1											4	1.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
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 1-4 ..Lesion qualified as:
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 2) Mild 4) Marked

Experiment Number: 99920-99
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 10:33:18
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F0 50 PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5
	0	0	0	0	0	8	8	8	8	8	9	9	9	9	0	0	0	0	0	0	3	3	3	3	3
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	3	3	3	3	3	7	7	7	7	7	1	1	1	1	5	5	5	5	5	5	9	9	9	9	9
	3	4	5	6	7	3	4	5	6	7	4	5	6	7	8	4	5	6	7	8	4	5	6	7	8
																								*TOTALS	

Musculoskeletal System

Bone + 25

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

Kidney + 25

Arteriole, Nuclear Alteration 3 1 3.0

Nephropathy 1 1 1 3 1.0

Renal Tubule, Mineralization 1 2 3 2 1 3 1 1 2 1 1 1 2 1 1 1 17 1.5

**** END OF REPORT ****

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked