

TDMS No. 97003 - 07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

F_1.Rev.1_R2

C Number: C97003D
Lock Date: 03/23/2005
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
TDMSE Version: 1.8.0

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DAY ON TEST	0																									
	5	7	7	7	7	7	6	6	7	6	6	7	7	7	5	7	7	6	6	5	7	6	7	7	5	
FISCHER 344 RATS MALE 0 MG/KG	0																									
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	
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	
Hematopoietic Cell Proliferation																									1	
Hepatodiaphragmatic Nodule																										2
Inflammation	1	1	1	1	1	1																				1
Mixed Cell Focus																										1
Necrosis																										1
Bile Duct, Hyperplasia																										1
Hepatocyte, Hyperplasia																										1
Hepatocyte, Hypertrophy																										1
Mesentery																										
Inflammation																										
Necrosis																										
Pancreas																										
Inflammation																										
Acinus, Atrophy																										
Duct, Cyst																										
Salivary Glands																										
Basophilic Focus																										
Stomach, Forestomach																										
Edema																										
Inflammation																										
Ulcer																										
Stomach, Glandular																										
Edema																										
Erosion																										

males (cont...)

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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	5	7	7	7	7	7	6	6	7	6	6	7	7	7	5	7	7	6	6	5	7	6	7	7	5	
	6	2	2	2	2	2	9	7	2	7	0	2	2	2	6	2	2	0	6	5	2	5	2	2	4	
	1	8	8	8	9	8	6	5	9	2	3	8	9	8	6	9	8	5	1	4	8	0	9	9	2	
FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0 MG/KG	0	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	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	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	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	

males
(cont...)

Hyperplasia																								2		
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Pars Distalis, Cyst				1				1																		
Pars Distalis, Hyperplasia	2	1					2	3				2	2	3					3	2		3				
Pars Distalis, Pigmentation, Hemosiderin	2																									
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Infiltration Cellular, Mononuclear Cell																										
C-cell, Hyperplasia														1	1	1										
Follicular Cell, Hyperplasia																										

GENERAL BODY SYSTEM
 NONE

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation																									
Duct, Cyst																									
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Fibrosis																									

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DAY ON TEST	ANIMAL ID																									males (cont...)
	0	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	7	7	7	7	7	6	6	7	6	6	7	7	7	5	7	7	6	6	5	7	6	7	7	5	0	
6	2	2	2	2	2	9	7	2	7	0	2	2	2	6	2	2	0	6	5	2	5	2	2	4	0	
1	8	8	8	8	9	8	6	5	9	2	3	8	9	8	6	9	8	5	1	4	8	0	9	9	2	

FISCHER 344 RATS MALE

0 MG/KG

Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Mineralization																									1

INTEGUMENTARY SYSTEM

Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Inflammation																									2
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Dermis, Inflammation																									3
Epidermis, Hyperplasia																									3
Site Of Application - Epidermis, Hyperplasia																									1

MUSCULOSKELETAL SYSTEM

Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--

NERVOUS SYSTEM

Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hemorrhage																									3
Hydrocephalus																									
Cerebrum, Developmental Malformation, Focal																									
Cerebrum, Edema																									1
Cerebrum, Hemorrhage																									1

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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
	5	7	7	7	7	7	6	6	7	6	6	7	7	7	5	7	7	6	6	5	7	6	7	7	5
	6	2	2	2	2	2	9	7	2	7	0	2	2	2	6	2	2	0	6	5	2	5	2	2	4
	1	8	8	8	9	8	6	5	9	2	3	8	9	8	6	9	8	5	1	4	8	0	9	9	2
FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0 MG/KG	0	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	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	2	2	2	2	2	2
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

males (cont...)

Peripheral Nerve

Spinal Cord

RESPIRATORY SYSTEM

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation		2									2					1					3		1	
Alveolar Epithelium, Hyperplasia		1				2	2											4						
Alveolus, Infiltration Cellular, Histiocyte		1				1	1				1	1		1	1									
Serosa, Fibrosis						1																		

Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation			2			2	2			2				1	1							2	2	
Thrombosis																								

Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Fibrosis																						1		
Infiltration Cellular, Mononuclear Cell													1											
Inflammation																							2	

SPECIAL SENSES SYSTEM

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cataract																								
Retina, Atrophy																								

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	5	7	7	7	7	7	6	6	7	6	6	7	7	7	5	7	7	6	6	5	7	6	7	7	5
	6	2	2	2	2	2	9	7	2	7	0	2	2	2	6	2	2	0	6	5	2	5	2	2	4
	1	8	8	8	9	8	6	5	9	2	3	8	9	8	6	9	8	5	1	4	8	0	9	9	2
FISCHER 344 RATS MALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0 MG/KG	0	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
	0	0	0	0	0	0	0	0	0	0	0	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	2	2	2	2	2	2
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
																									males (cont...)

Harderian Gland
 Hyperplasia
 Inflammation

+ +

URINARY SYSTEM

Kidney
 Cyst
 Mineralization
 Nephropathy
 Transitional Epithelium, Hyperplasia

+
 2
 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
 2 2 2 3 3 2 1 2 2 2 1 1 1 2 1 1 2 2 2 2 4 2 2 1

Urinary Bladder
 Inflammation
 Transitional Epithelium, Hyperplasia

+ +

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| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | 6 7 3 6 7 5 7 7 5 5 7 7 7 7 7 5 7 5 7 5 6 4 6 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS MALE
2 MG/KG | 9 2 8 8 2 7 2 2 4 2 2 2 2 2 2 8 2 1 2 0 7 3 0 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 9 4 8 9 4 8 9 1 5 9 9 8 8 9 8 2 8 9 9 6 2 3 5 9 | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 5 5 5 5 5 5 5 5 6 6 6 6 6 6 6 6 6 6 7 7 7 7 7 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 | | | | | | | | | | | | | | | | | | | | | | | | |
| | males (cont...) | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bile Duct, Hyperplasia | 3 | 2 | | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | 2 | 2 | 2 | 3 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 |
| Hepatocyte, Atypia Cellular | | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatocyte, Hypertrophy | | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Mesentery Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas Acinus, Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Duct, Cyst | | 1 | | 1 | | | 1 | | | | 3 | 1 | | | 4 | 1 | | | | | | 1 | | | |
| Salivary Glands Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Stomach, Forestomach Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ulcer | | | | | | | | | | | 2 | | | | | | | | | | | 3 | | | |
| | | | | | | | | | | | 3 | | | | | | | | | | | 4 | | | |
| Stomach, Glandular Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ulcer | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Glands, Hyperplasia | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

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| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 6 | 7 | 3 | 6 | 7 | 5 | 7 | 7 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 7 | 5 | 6 | 4 | 6 | 7 | | |
| 9 | 2 | 8 | 8 | 2 | 7 | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 8 | 2 | 1 | 2 | 0 | 7 | 3 | 0 | 2 | | |
| 3 | 9 | 4 | 8 | 9 | 4 | 8 | 9 | 1 | 5 | 9 | 9 | 8 | 8 | 9 | 8 | 2 | 8 | 9 | 9 | 6 | 2 | 3 | 5 | 9 | | |
| FISCHER 344 RATS MALE | 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 MG/KG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 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 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | |

Cardiomyopathy 3 2 2 2 2 3 2 1 2 2 2 2 2 2 1 2 1 2 1 2 1 2 1 1

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | | | | | | | | | | | | 1 | | | | | | 1 | 1 | | | | |
| Hypertrophy | | | | | | 2 | | | | 1 | | 1 | 2 | | | | | | | | | | 1 | |
| Vacuolization Cytoplasmic | | | 2 | 1 | | 1 | | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 | | 1 | | | | | 1 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | 1 | | 2 | 2 | | | | | | 1 | 1 | 2 | 1 | 3 | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | | | | | | | | | | 2 | | | | | | | | | | | | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | | | | | | 1 | | | 2 | 3 | | | 3 | | 4 | | | 3 | | 2 | | | 1 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | |
| C-cell, Hyperplasia | | 1 | | | | | 1 | 1 | | | | | | | | | 1 | 1 | 1 | | | | 1 | |

GENERAL BODY SYSTEM

* .. 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
 Page 20
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 97003 - 07
 Test Type: CHRONIC
 Route: SKIN APPLICATION
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 1,2-Dibromo-2,4-dicyanobutane
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
 Time Report Requested: 12:46:31
 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|----|-----|
| | 6 7 7 5 6 7 7 5 7 5 7 7 6 7 4 6 7 7 2 7 5 6 7 7 7 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS MALE
2 MG/KG
ANIMAL ID | 8 2 2 4 7 2 2 0 2 6 2 2 2 2 8 0 2 2 8 2 5 8 2 2 2 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 9 8 7 9 8 8 0 9 9 8 9 9 9 6 1 8 9 6 9 8 8 8 8 9 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bile Duct, Hyperplasia | 1 | 1 | 2 | 2 | 1 | | 1 | | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 2 | 45 | 1.4 |
| Hepatocyte, Atypia Cellular | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Hepatocyte, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Mesentery Necrosis | | | | | | | | | + | + | | | | | | | | | | | | | | | | 6 | 3.0 |
| Pancreas Acinus, Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1.6 |
| Duct, Cyst | | 1 | | 1 | 2 | | | | 1 | 1 | | 2 | | | 3 | 1 | | 2 | | 1 | 1 | | 1 | | | 9 | 1.2 |
| Salivary Glands Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 2.0 |
| Stomach, Forestomach Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 2.5 |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.5 |
| Stomach, Glandular Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1.7 |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Glands, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

* .. 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

TDMS No. 97003 - 07
 Test Type: CHRONIC
 Route: SKIN APPLICATION
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
 Time Report Requested: 12:46:31
 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|
| | 6 | 7 | 7 | 5 | 6 | 7 | 7 | 5 | 7 | 5 | 7 | 7 | 6 | 7 | 4 | 6 | 7 | 7 | 2 | 7 | 5 | 6 | 7 | 7 | | 7 |
| | 8 | 2 | 2 | 4 | 7 | 2 | 2 | 0 | 2 | 6 | 2 | 2 | 2 | 2 | 8 | 0 | 2 | 2 | 8 | 2 | 5 | 8 | 2 | 2 | 2 | |
| | 8 | 9 | 8 | 7 | 9 | 8 | 8 | 0 | 9 | 9 | 8 | 9 | 9 | 9 | 6 | 1 | 8 | 9 | 6 | 9 | 8 | 8 | 8 | 8 | 9 | |
| FISCHER 344 RATS MALE | 0 | 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 MG/KG | 0 | 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 | |
| | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------|
| Ear | + | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Eye | + | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Cataract | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Retinal Detachment | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Synechia | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Retina, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | 2 3.5 |
| Retina, Dysplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Harderian Gland | + | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Zymbal's Gland | + | | | | | | | | | | | | | | | | | | | | | | | | 1 |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|--------|
| Kidney | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Hydronephrosis | | | | | | | | | | | | | | | | | | | | | | | | | 2 2 1.5 | |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Mineralization | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 41 1.0 | |
| Nephropathy | 2 | 2 | 2 | 1 | 1 | 3 | 1 | 1 | 2 | 1 | 3 | 2 | 2 | 2 | | 1 | 1 | 2 | | 2 | 1 | 2 | 2 | 2 | 2 | 44 1.6 |
| Urinary Bladder | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | |

* .. 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
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TDMS No. 97003 - 07
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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 1,2-Dibromo-2,4-dicyanobutane
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
 Time Report Requested: 12:46:31
 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|--|--|--|
| | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS MALE
6 MG/KG | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 MG/KG | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | |
| Mixed Cell Focus | X | | | | | X | | | | | X | | | | | X | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bile Duct, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bile Duct, Hyperplasia | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | | | | | |
| Hepatocyte, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatocyte, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | + | + | | | | | | | | + | | | | | | | | + | + | | | |
| | | | | | | | | 3 | 3 | | | | | | | | 3 | | | | | | | | | 3 | | | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acinus, Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | |
| Acinus, Hyperplasia | 2 | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Duct, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | 3 | | | | | | | | | | | 4 | | | | | | | |
| | | | | | | | | | | | 2 | | | | | | | | | | | 3 | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tooth | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peridontal Tissue, Malformation | | | | | | | | | | | | | | | | | | | | | | | | | | + | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | |

CARDIOVASCULAR SYSTEM

* .. 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

TDMS No. 97003 - 07
 Test Type: CHRONIC
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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
 Time Report Requested: 12:46:31
 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| 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 |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 5 | 6 | 5 | 5 | 7 | 7 | 7 | 6 | 7 | 5 | 6 | 7 | 7 | 7 | 6 | 6 | 6 | 7 | |
| | 2 | 2 | 2 | 3 | 2 | 9 | 2 | 8 | 4 | 0 | 8 | 2 | 0 | 2 | 9 | 2 | 4 | 1 | 2 | 2 | 1 | 6 | 5 | 6 | 2 | |
| | 8 | 8 | 8 | 1 | 9 | 1 | 8 | 4 | 5 | 3 | 2 | 9 | 2 | 8 | 9 | 9 | 5 | 2 | 8 | 9 | 7 | 5 | 3 | 6 | 4 | |
| FISCHER 344 RATS MALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 6 MG/KG | 0 | 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 | 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 | 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 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | |

males (cont...)

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | 1 | | 4 | | 4 | | 2 | 3 | 4 | 4 | 3 | 4 | | 3 | | 3 | | | | 4 | 4 | | 3 | |
| Lymph Node | | | | | | + | | | | + | | | | | | | | | | | | | | + | |
| Mediastinal, Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hemorrhage | | | | | | | | | | 4 | 3 | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | 3 | | | | | | 3 | |
| Thymus | + | M | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + |
| Inflammation | | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Site Of Application - Dermis, Inflammation | | | | 1 | | 1 | | | | | 1 | | | | 1 | | | | | | | | | | |
| Site Of Application - Epidermis, | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | | 1 | 3 | | 2 | 2 | 3 | 1 | 3 |

* .. 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:
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TDMS No. 97003 - 07
 Test Type: CHRONIC
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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 1,2-Dibromo-2,4-dicyanobutane
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
 Time Report Requested: 12:46:31
 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| 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 |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | |
| | 2 | 2 | 2 | 2 | 5 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 2 | 7 | 2 | 2 | 2 | 9 | |
| | 8 | 8 | 8 | 9 | 4 | 1 | 9 | 9 | 8 | 8 | 9 | 8 | 9 | 7 | 8 | 8 | 9 | 7 | 9 | 9 | 9 | 9 | 8 | 9 | |
| FISCHER 344 RATS MALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 18 MG/KG | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

males
(cont...)

| | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|---|---|
| Inflammation | 1 | | | | | | | | | | 2 | | | | | | | | | | | |
| Tooth Inflammation | | | | | | | | | | | | | | | | | | | | | + | 2 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Cardiomyopathy | 2 | 2 | 2 | 2 | 1 | | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Pericardium, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Valve, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|--|--|--|---|---|--|---|---|---|---|---|---|---|--|---|---|
| Adrenal Cortex | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Hyperplasia | 2 | 2 | | | | | | | 2 | | | | 1 | | | 2 | 2 | 2 | 1 | | | | | | |
| Hypertrophy | | | 2 | | 1 | | 2 | | 1 | | | | 2 | | | | | | 1 | 1 | | 2 | | 2 | |
| Vacuolization Cytoplasmic | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | | | | | 2 | 1 | | | 1 | 1 | | | 1 | 2 | | | |
| Adrenal Medulla | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | 2 | 2 | | 1 | | 2 | | 2 | | | | | | | | | | | | 1 | | | | | |

* .. 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

TDMS No. 97003 - 07
 Test Type: CHRONIC
 Route: SKIN APPLICATION
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
 Time Report Requested: 12:46:31
 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--------------------|
| | 7 7 7 6 6 7 7 7 7 7 7 7 6 7 7 7 6 7 7 6 7 7 7 6 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS MALE
18 MG/KG | 2 2 2 2 5 2 2 2 2 2 2 2 3 2 2 2 1 2 2 7 2 2 2 9 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 8 8 9 4 1 9 9 8 8 9 8 7 8 8 9 7 9 9 9 9 9 8 8 9 | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 MG/KG | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 5 5 5 5 5 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Islets, Pancreatic
Hyperplasia | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland
Hyperplasia | + + M + + + + + + M + + M + + + + + + + + + + + + + | | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland
Pars Distalis, Cyst
Pars Distalis, Hyperplasia | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland
Inflammation
C-cell, Hyperplasia
Follicular Cell, Hyperplasia | + | | | | | | | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM
 NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Epididymis
Inflammation | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Preputial Gland
Hyperplasia
Inflammation | + | | | | | | | | | | | | | | | | | | | | | | | | |

* .. 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
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TDMS No. 97003 - 07
 Test Type: CHRONIC
 Route: SKIN APPLICATION
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
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 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|
| | 7 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 6 7 7 7 6 6 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS MALE
18 MG/KG
ANIMAL ID | 2 7 2 2 1 2 2 1 2 2 2 2 2 2 2 2 8 2 2 2 1 1 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 9 8 8 7 8 8 4 8 9 8 8 9 8 8 8 9 8 9 9 8 2 2 9 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 7 7 7 8 8 8 8 8 8 8 8 8 8 9 9 9 9 9 9 9 9 9 9 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-------|
| Eye | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Retina, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2 1.5 |
| Harderian Gland | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-------|
| Kidney | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 4 1.8 |
| Hydronephrosis | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 |
| Mineralization | 1 | | | | | | | | | | | | | | | | | | | | | | | | 26 | 1.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 |
| Nephropathy | 3 1 1 2 1 1 1 2 2 1 2 1 2 1 1 1 1 1 2 1 2 1 | | | | | | | | | | | | | | | | | | | | | | | | 47 | 1.7 |
| Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Urinary Bladder | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | |

*** END OF MALE DATA ***

* .. 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
 Page 61

TDMS No. 97003 - 07
 Test Type: CHRONIC
 Route: SKIN APPLICATION
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 1,2-Dibromo-2,4-dicyanobutane
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
 Time Report Requested: 12:46:31
 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 5 | 7 | 7 | 6 | 6 | 7 | 7 | 6 | 7 | |
| | 2 | 1 | 3 | 2 | 3 | 2 | 3 | 6 | 2 | 2 | 3 | 2 | 7 | 0 | 1 | 6 | 3 | 2 | 3 | 9 | 9 | 3 | 3 | 2 | 2 |
| | 9 | 7 | 0 | 9 | 0 | 9 | 0 | 8 | 9 | 9 | 0 | 8 | 5 | 1 | 6 | 5 | 0 | 9 | 0 | 5 | 0 | 0 | 0 | 8 | 9 |
| FISCHER 344 RATS FEMALE
0 MG/KG | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

females
(cont...)

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | 4 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | M | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | 1 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Capsule, Inflammation | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | + M + + + + | | | | | | | | | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Mammary Gland | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Galactocele | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | 2 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Dermis, Inflammation | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Epidermis, Ulcer | 3 | | | | | | | | | | | | | | | | | | | | | | | | |

* .. 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
 Page 66

TDMS No. 97003 - 07
 Test Type: CHRONIC
 Route: SKIN APPLICATION
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
 Time Report Requested: 12:46:31
 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|--|
| | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 6 | 6 | | |
| | 2 | 1 | 8 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 2 | 2 | 8 | 3 | 2 | 0 | 2 | 3 | 2 | 5 | 2 | 2 | 7 | 9 | 8 | |
| | 9 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 0 | 9 | 9 | 9 | 7 | 2 | 3 | 9 | 9 | 0 | 9 | 3 | 9 | 3 | 8 | 8 | | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 0 MG/KG | 0 | 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 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|-------|---|--------|-------|--|
| Esophagus | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Intestine Large, Cecum | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Intestine Large, Colon | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Erosion | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 | | | | |
| Parasite Metazoan | | | | | | | | | | X | | | | | | | | | | | | | | | 1 | | |
| Intestine Large, Rectum | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Parasite Metazoan | | | | | X | | | | | | | X | | | | | | | | | | | | | | 8 | |
| Intestine Small, Duodenum | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Intestine Small, Ileum | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Intestine Small, Jejunum | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Liver | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | |
| Basophilic Focus | X | | | | | | | | | | | | | | | | | | | | | | | | 43 | | |
| Clear Cell Focus | X | | | | | | | | | | | | | | | | | | | | | | | | 4 | | |
| Fatty Change | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | 5 1.2 | |
| Hepatodiaphragmatic Nodule | | | | | | | | | X | | | | | | | | | | | | | | | | 7 | | |
| Inflammation | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 2 | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 43 1.1 | | |
| Mixed Cell Focus | | | | | | | | | | X | | | | | | | | | | | | | | | 5 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
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 1,2-Dibromo-2,4-dicyanobutane
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| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|--------|
| | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 6 | 6 | | |
| | 2 | 1 | 8 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 2 | 2 | 8 | 3 | 2 | 0 | 2 | 3 | 2 | 5 | 2 | 2 | 7 | 9 | 8 | |
| | 9 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 0 | 9 | 9 | 9 | 7 | 2 | 3 | 9 | 9 | 0 | 9 | 3 | 9 | 9 | 3 | 8 | 8 | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 0 MG/KG | 0 | 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 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Bile Duct, Hyperplasia | | | | 1 | 1 | 1 | | | | | | | 1 | 1 | 1 | | | | | 1 | | 1 | 2 | | | 16 1.1 |
| Hepatocyte, Hypertrophy | | | | | | 2 | | | | | | | | | | | | | | 2 | | | | | | 4 2.0 |
| Portal, Fibrosis | | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 1.0 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | 14 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 14 3.0 |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Acinus, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 9 1.3 |
| Acinus, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Duct, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 5 1.2 |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | 3 2.3 |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Erosion | | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Glands, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Tooth | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
 I .. Insufficient tissue
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| 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 | * TOTALS |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 6 | 6 | | |
| | 2 | 1 | 8 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 2 | 2 | 8 | 3 | 2 | 0 | 2 | 3 | 2 | 5 | 2 | 2 | 7 | 9 | 8 | |
| | 9 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 0 | 9 | 9 | 9 | 7 | 2 | 3 | 9 | 9 | 0 | 9 | 3 | 9 | 9 | 3 | 8 | 8 | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 0 MG/KG | 0 | 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 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Cardiomyopathy | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 50 1.4 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 7 1.4 |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 12 1.4 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | | 17 1.7 |
| Bilateral, Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 4 1.5 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Parathyroid Gland | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | M | + | M | + | + | M | + | + | + | + | 46 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

* .. 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
 Page 71

TDMS No. 97003 - 07
 Test Type: CHRONIC
 Route: SKIN APPLICATION
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 1,2-Dibromo-2,4-dicyanobutane
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
 Time Report Requested: 12:46:31
 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| 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 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|
| | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 6 | 6 | |
| | 2 | 1 | 8 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 2 | 2 | 8 | 3 | 2 | 0 | 2 | 3 | 2 | 5 | 2 | 2 | 7 | 9 | 8 |
| | 9 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 0 | 9 | 9 | 9 | 7 | 2 | 3 | 9 | 9 | 0 | 9 | 3 | 9 | 3 | 8 | 8 | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 MG/KG | 0 | 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 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|---|----|-----|
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 | | | | |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | 1 | 7 | 1.7 | | | | |
| Pars Distalis, Hyperplasia | 3 | 3 | 3 | | | | | | | | | | | | | | | | | | | | 4 | 2 | 3 | 1 | 1 | 2 | 17 | 2.5 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 33 | 1.1 | | | |
| C-cell, Hyperplasia | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 33 | 1.1 | | | |

GENERAL BODY SYSTEM
 NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|-----|-----|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 1.0 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3 | 2.3 | |
| Duct, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 6 | 2.5 |
| Cyst | 2 | | | | | | | | | | | | | | | | | | | | 3 | 2 | 3 | 6 | 2.5 | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 3.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hydrometra | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | | 1.5 | |
| Endometrium, Hyperplasia, Cystic | 1 | | | | | | | | | | | | | | | | | | | | | | | | 2.0 | | |

HEMATOPOIETIC SYSTEM

* .. 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

TDMS No. 97003 - 07
 Test Type: CHRONIC
 Route: SKIN APPLICATION
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 1,2-Dibromo-2,4-dicyanobutane
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
 Time Report Requested: 12:46:31
 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 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 | | |
| | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 6 | 6 | |
| | 2 | 1 | 8 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 2 | 2 | 8 | 3 | 2 | 0 | 2 | 3 | 2 | 5 | 2 | 2 | 7 | 9 | 8 |
| | 9 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 0 | 9 | 9 | 9 | 7 | 2 | 3 | 9 | 9 | 0 | 9 | 3 | 9 | 3 | 8 | 8 | |
| FISCHER 344 RATS FEMALE | 0 | 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 |
| 0 MG/KG | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|------------|
| Site Of Application - Epidermis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1.0 |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|------------|

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------|------------|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3.0 |
| Hydrocephalus | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Peripheral Nerve | | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 2 |
| Spinal Cord | | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 1 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------|------------|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Inflammation | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | | | 14 | 1.2 |
| Alveolar Epithelium, Hyperplasia | 1 | 1 | | 3 | | | 2 | | | | | | | | | | | | | | | | | | | | | 12 | 1.8 |
| Alveolus, Infiltration Cellular, Histiocyte | 2 | 1 | 1 | 2 | 1 | 1 | 1 | | 1 | 1 | 1 | | | | | | | | | | | | | | | | | 37 | 1.1 |

* .. 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

Page 74

TDMS No. 97003 - 07
 Test Type: CHRONIC
 Route: SKIN APPLICATION
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 1,2-Dibromo-2,4-dicyanobutane
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
 Time Report Requested: 12:46:31
 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | 7 6 6 7 5 7 7 5 7 7 5 6 7 7 5 7 4 7 5 7 7 7 7 7 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE
2 MG/KG | 2 9 1 3 9 2 3 6 3 2 6 4 3 3 9 3 6 2 7 2 2 3 2 3 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 8 6 0 7 9 0 1 0 9 1 9 0 0 6 0 2 9 3 3 3 0 9 0 9 | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 5 5 5 5 5 5 5 5 6 6 6 6 6 6 6 6 6 6 7 7 7 7 7 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 | | | | | | | | | | | | | | | | | | | | | | | | |
| | females (cont...) | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Adrenal Cortex | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Hypertrophy | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | 1 1 1 2 1 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | M | | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Cyst | 1 3 3 2 3 3 3 2 2 1 2 2 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | 3 1 3 3 2 2 1 2 2 2 2 2 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | | | | | | | | | | | | | | | | | | | | | | | | |
| C-cell, Hyperplasia | 1 1 2 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. 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
 Page 78

TDMS No. 97003 - 07
 Test Type: CHRONIC
 Route: SKIN APPLICATION
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 1,2-Dibromo-2,4-dicyanobutane
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
 Time Report Requested: 12:46:31
 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | 7 6 6 7 5 7 7 5 7 7 5 6 7 7 5 7 4 7 5 7 7 7 7 7 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE
2 MG/KG | 2 9 1 3 9 2 3 6 3 2 6 4 3 3 9 3 6 2 7 2 2 3 2 3 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 8 6 0 7 9 0 1 0 9 1 9 0 0 6 0 2 9 3 3 3 0 9 0 9 | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 MG/KG | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 5 5 5 5 5 5 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 | | | | | | | | | | | | | | | | | | | | | | | | |
| | females (cont...) | | | | | | | | | | | | | | | | | | | | | | | | |

Bone +

NERVOUS SYSTEM

Brain +
 Hemorrhage
 Hydrocephalus 2 1 1 2

RESPIRATORY SYSTEM

Lung +
 Hematopoietic Cell Proliferation
 Inflammation 2 2
 Metaplasia, Squamous 2
 Alveolar Epithelium, Hyperplasia 2
 Alveolus, Infiltration Cellular, Histiocyte 1

Nose +
 Inflammation 2 1 1 3 1

Trachea +

SPECIAL SENSES SYSTEM

Eye +
 Cataract 3

* .. 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
 Page 81

TDMS No. 97003 - 07
 Test Type: CHRONIC
 Route: SKIN APPLICATION
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
 Time Report Requested: 12:46:31
 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|
| | 7 7 6 7 4 4 7 7 7 7 4 7 7 7 3 7 7 7 7 6 7 6 7 7 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE
2 MG/KG
ANIMAL ID | 2 3 4 3 6 8 3 3 3 3 6 3 2 3 9 2 3 3 3 7 3 2 2 2 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 0 3 0 6 5 0 0 0 0 7 0 9 0 0 9 0 0 0 8 0 9 9 9 9 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 7 7 7 8 8 8 8 8 8 8 8 8 8 9 9 9 9 9 9 9 9 9 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--------|
| Adrenal Cortex | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 5 1.6 |
| Hyperplasia | 1 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 1 | 12 1.3 |
| Hypertrophy | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 16 1.4 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 4.0 |
| Vacuolization Cytoplasmic | 1 | | | | | | | | | | | | | | | | | | | | | | | | 2 1 1 1 | 11 1.2 |
| Adrenal Medulla | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 1 | 3 1.0 |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 |
| Islets, Pancreatic | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Parathyroid Gland | + + + + + + + + + + + M + + + + + + + + + + + + | | | | | | | | | | | | | | | | | | | | | | | | 48 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Pituitary Gland | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 1 3 | 15 2.0 |
| Pars Distalis, Hyperplasia | 4 | | | | | | | | | | | | | | | | | | | | | | | | 1 2 2 2 2 4 1 3 2 2 3 3 | 26 2.3 |
| Thyroid Gland | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| C-cell, Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 30 1.1 |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 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

TDMS No. 97003 - 07
 Test Type: CHRONIC
 Route: SKIN APPLICATION
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 1,2-Dibromo-2,4-dicyanobutane
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
 Time Report Requested: 12:46:31
 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| 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 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| | 7 | 7 | 6 | 7 | 4 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 |
| | 2 | 3 | 4 | 3 | 6 | 8 | 3 | 3 | 3 | 3 | 6 | 3 | 2 | 3 | 9 | 2 | 3 | 3 | 3 | 7 | 3 | 2 | 2 | 2 | 2 |
| | 9 | 0 | 3 | 0 | 6 | 5 | 0 | 0 | 0 | 0 | 7 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 8 | 0 | 9 | 9 | 9 | 9 |
| FISCHER 344 RATS FEMALE | 0 | 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 MG/KG | 0 | 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 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |

GENERAL BODY SYSTEM
 NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Duct, Cyst | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cyst | | 2 | | | | 1 | | | | | | | | | | | 1 | | | | | | 3 | | 7 2.0 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Endometrium, Hyperplasia, Cystic | | | | | | | | | | | | | | | 2 | | | | | | | | | | 1 2.0 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | 4 | | | | 4 | 3 | | | 4 | 4 | | | 4 | 4 | 4 | | | 4 | | | | | 15 3.5 |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Deep Cervical, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

* .. 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

TDMS No. 97003 - 07
 Test Type: CHRONIC
 Route: SKIN APPLICATION
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 1,2-Dibromo-2,4-dicyanobutane
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
 Time Report Requested: 12:46:31
 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|--|
| | 7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 3 | 4 | 3 | 6 | 8 | 3 | 3 | 3 | 3 | 6 | 3 | 2 | 3 | 9 | 2 | 3 | 3 | 3 | 7 | 3 | 2 | 2 | 2 | 2 | |
| | 9 | 0 | 3 | 0 | 6 | 5 | 0 | 0 | 0 | 0 | 7 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 8 | 0 | 9 | 9 | 9 | 9 | |
| FISCHER 344 RATS FEMALE | 0 | 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 MG/KG | 0 | 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 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | |
| | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-------|
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 |
| Spleen | + | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 2.0 |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 2 3.0 |
| Thymus | + | | | | | | | | | | | | | | | | | | | | | | | | | 49 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-------|
| Mammary Gland | + | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 3 3.3 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3 3.0 |
| Skin | + | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Epidermis, Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Site Of Application - Dermis, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Site Of Application - Dermis, Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 5 2.6 |
| Site Of Application - Epidermis, Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 6 1.0 |
| Site Of Application - Epidermis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1 |
| Site Of Application - Epidermis, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |
| Site Of Application - Epidermis, Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 6 1.8 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 4 1.5 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 4 2.0 |

MUSCULOSKELETAL SYSTEM

* .. 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

TDMS No. 97003 - 07
 Test Type: CHRONIC
 Route: SKIN APPLICATION
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
 Time Report Requested: 12:46:31
 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * 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 | |
| | 7 | 7 | 6 | 7 | 4 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | |
| | 2 | 3 | 4 | 3 | 6 | 8 | 3 | 3 | 3 | 3 | 6 | 3 | 2 | 3 | 9 | 2 | 3 | 3 | 3 | 7 | 3 | 2 | 2 | 2 | 2 | |
| | 9 | 0 | 3 | 0 | 6 | 5 | 0 | 0 | 0 | 0 | 7 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 8 | 0 | 9 | 9 | 9 | 9 | |
| FISCHER 344 RATS FEMALE | 0 | 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 MG/KG | 0 | 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 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | |
| | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Hydrocephalus | | | | | | | | | | | | | | | | | | | | | | | | | | 3 1.7 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|---------------|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hematopoietic Cell Proliferation | | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Inflammation | 1 | 1 | | | | | | | | | | 1 | | | | | | 1 | | 1 | | | | 1 | 8 1.3 | |
| Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Alveolar Epithelium, Hyperplasia | | | | 2 | | | | | | | | 2 | | | | | | | 1 | | | | 2 | 1 | 1 | 8 1.5 |
| Alveolus, Infiltration Cellular, Histiocyte | 1 | | 1 | 1 | | | 1 | 1 | | | 1 | 1 | | | | | | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 28 1.1 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Inflammation | | | | | | 2 | 2 | | 1 | | | | | | | | | | | 3 | | | | 1 | | 10 1.7 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cataract | | | 3 | | | | | | | | | | | | | | | | | | | | 3 | | | 3 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
 Page 88

TDMS No. 97003 - 07
 Test Type: CHRONIC
 Route: SKIN APPLICATION
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 1,2-Dibromo-2,4-dicyanobutane
 CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
 Time Report Requested: 12:46:31
 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | females (cont...) |
|--------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 6 | 5 | 7 | 6 | 7 | 6 | 6 | 6 | 4 | 5 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 5 | 5 | | |
| 3 | 6 | 1 | 2 | 2 | 1 | 6 | 1 | 5 | 3 | 3 | 3 | 2 | 3 | 2 | 4 | 3 | 2 | 2 | 0 | 3 | 2 | 8 | 8 | 1 | | |
| 2 | 1 | 6 | 6 | 9 | 7 | 4 | 7 | 3 | 0 | 0 | 0 | 9 | 0 | 9 | 2 | 0 | 9 | 9 | 3 | 0 | 9 | 7 | 1 | 3 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 6 MG/KG | 0 | 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 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cardiomyopathy | 2 | 1 | 1 | 2 | 1 | 1 | | 2 | 2 | 2 | 3 | 1 | 1 | 1 | 1 | | 2 | 1 | 2 | 3 | 1 | | 2 | 1 | 1 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | 1 | | | | | | | 2 | | | | | 1 | | | | | | 1 | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Hypertrophy | 1 | | 2 | | 1 | 1 | 1 | | | | | | 1 | | 2 | | | | 2 | | 2 | | 2 | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | 1 | 1 | 1 | | | | 1 | 2 | | | 3 | | | | 2 | | 1 | | 1 | | | | 1 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Pars Distalis, Cyst | | 2 | | | 1 | | | 1 | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | 2 | 1 | 1 | | | | | 3 | | | | 3 | | | 3 | | | | | | 4 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| C-cell, Hyperplasia | 1 | | | | | 1 | 1 | | | | | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | | | 1 | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 x .. Lesion present
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 M .. Missing tissue
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 1) Minimal 3) Moderate
 2) Mild 4) Marked

TDMS No. 97003 - 07
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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 1,2-Dibromo-2,4-dicyanobutane
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 Lab: BAT

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|
| | 6 7 6 6 5 7 5 7 7 7 7 6 7 7 7 6 7 7 7 7 4 5 7 7
3 2 5 8 5 8 3 9 3 2 2 3 4 1 3 2 0 2 3 3 2 9 6 3 2
0 9 7 7 2 9 0 6 0 9 9 0 6 3 0 9 2 9 0 0 6 6 1 0 9 | | | | | | | | | | | | | | | | | | | | | | | | |
| FISCHER 344 RATS FEMALE | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 MG/KG | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 2 2 2 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--------|
| Heart | + | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Cardiomyopathy | 2 2 2 2 2 1 2 1 1 1 2 2 3 1 2 2 1 2 2 2 2 2 3 1 | | | | | | | | | | | | | | | | | | | | | | | | 46 1.7 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--------|
| Adrenal Cortex | + | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Degeneration, Cystic | 1 | | | | | | | | | | | | | | | | | | | | | | | | 5 1.2 |
| Hyperplasia | 1 | | | | | | | | | | | | | | | | | | | | | | | | 3 1.0 |
| Hypertrophy | 2 1 1 1 1 | | | | | | | | | | | | | | | | | | | | | | | | 18 1.4 |
| Necrosis | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Vacuolization Cytoplasmic | 3 2 1 1 2 2 1 | | | | | | | | | | | | | | | | | | | | | | | | 17 1.5 |
| Adrenal Medulla | + | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Islets, Pancreatic | + | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Parathyroid Gland | + + + + + + + + M + + + + + + + + + + + + + + | | | | | | | | | | | | | | | | | | | | | | | | 48 |
| Pituitary Gland | + | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Pars Distalis, Cyst | 2 2 3 1 | | | | | | | | | | | | | | | | | | | | | | | | 11 1.7 |
| Pars Distalis, Hyperplasia | 3 3 2 1 2 3 | | | | | | | | | | | | | | | | | | | | | | | | 20 2.6 |
| Thyroid Gland | + | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| C-cell, Hyperplasia | 1 1 1 1 | | | | | | | | | | | | | | | | | | | | | | | | 20 1.1 |

* .. 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

TDMS No. 97003 - 07
 Test Type: CHRONIC
 Route: SKIN APPLICATION
 Species/Strain: RATS/F 344

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007
 Time Report Requested: 12:46:31
 First Dose M/F: 07/10/02 / 07/11/02
 Lab: BAT

| 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 |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 4 | 4 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 3 | 6 | 5 | 2 | 7 | 7 | 7 | 1 | 7 | 6 | 7 | 7 | 7 | 7 | |
| | 2 | 8 | 6 | 3 | 3 | 9 | 3 | 3 | 3 | 2 | 2 | 0 | 9 | 6 | 4 | 2 | 1 | 2 | 1 | 3 | 4 | 2 | 3 | 2 | 3 | |
| | 9 | 9 | 7 | 0 | 0 | 6 | 0 | 0 | 0 | 5 | 9 | 9 | 8 | 1 | 6 | 9 | 6 | 9 | 2 | 0 | 2 | 9 | 0 | 9 | 0 | |
| FISCHER 344 RATS FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 18 MG/KG | 0 | 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 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | |

females (cont...)

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | 2 | | 2 | | | | | | | | | | | | | | | | | | 2 |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Duct, Cyst | | | | | | | 4 | | | | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst | | | | | | | | | | | | | | | 2 | | | | | | | | 3 | | 1 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hydrometra | | | | | | | | | | 2 | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | 3 | | | | | | | | 3 | | | 4 | 4 | 3 | | | | | 1 | | 4 |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. 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

