

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7
F_1.Rev.1_R2

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

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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Lab: BAT

ALIMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

M .. Missing tissue

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A .. Autolysis precludes evaluation

x .. Lesion present

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<http://www.westvirginia.org/legis/proj>

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GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

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males
(cont...)

HEMATOPOIETIC SYSTEM

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CARDIOVASCULAR SYSTEM

ENDOCRINE SYSTEM

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Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
.....																								
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
.....																								
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Mesothelioma Benign																								1
Bilateral, Interstitial Cell, Adenoma	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	30	
Interstitial Cell, Adenoma							X											X	X	X	X	X	7	

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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	0	0	0	0	0	
	7	7	6	7	5	5	7	6	7	6	7	7	7	6	7	7	7	7	7	7	7	7	7	4	6	7	6				
	2	2	7	0	5	6	2	1	2	7	1	2	0	7	2	2	1	2	2	2	2	2	5	0	2	3					
	9	9	1	9	2	2	8	2	8	2	3	9	9	9	8	8	4	7	8	8	8	8	1	9	9	1					
	<hr/>																														
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	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	0	0	0	0	0	
	0	0	0	0	0	0	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	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	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			

INTEGUMENTARY SYSTEM

Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Fibroadenoma																					1
<hr/>																					
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Histiocytic Sarcoma																					1
Keratoacanthoma															X		X				2
Lipoma																					1
Subcutaneous Tissue, Fibroma		X		X											X	X	X				7
Subcutaneous Tissue, Fibrous																			X		1

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAY ON TEST	7	7	6	7	5	5	7	6	7	6	7	7	7	6	7	7	7	7	7	7	4	6
	2	2	7	0	5	6	2	1	2	7	1	2	0	7	2	2	1	2	2	2	5	0
	9	9	1	9	2	2	8	2	8	2	3	9	9	9	8	8	4	7	8	8	8	1
<hr/>																						
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 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
	2	2	2	2	3	3	3	3	3	3	3	3	3	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

Histiocytoma

Subcutaneous Tissue, Schwannoma

1

Benign

Subcutaneous Tissue, Schwannoma

1

Malignant

MUSCULOSKELETAL SYSTEM

NERVOUS SYSTEM

RESPIRATORY SYSTEM

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SPECIAL SENSES SYSTEM

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Fibrous Histiocytoma, Metastatic, Skin																								1
Histiocytic Sarcoma, Metastatic, Skin																								1
Leukemia Mononuclear		X			X	X				X		X	X									X		12

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Mesenchymal Tumor Benign

X

1

Renal Tubule, Adenoma

1

Urinary Bladder

Leukemia Mononuclear

X

3

SYSTEMIC LESIONS

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+ .. Tissue examined microscopically

A .. Autolysis precludes evaluation

- + .. Tissue examined
- x Lesion present

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.. Lesion present
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**males
(cont...)**

Thymus + + + + + + + + + + + + + M + + + + + + + + + + + + + Leukemia Mononuclear X X

INTEGUMENTARY SYSTEM

Adenoma

Fibroadenoma

Basal Cell Adenoma

Subcutaneous Tissue, Fibroma

Subcutaneous Tissue, Fibrous Histiocytoma

Subcutaneous Tissue, Schwannoma

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Malignant

MUSCULOSKELETAL SYSTEM

NERVOUS SYSTEM

RESPIRATORY SYSTEM

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SPECIAL SENSES SYSTEM

Ear

Eye

Harderian Gland Adenoma

Zymbal's Gland Carcinoma

URINARY SYSTEM

Kidney

Leukemia Mononuclear

Mesenchymal Tumor Malignant

Urinary Bladder

Multiple Organ

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GENERAL BODY SYSTEM

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GENITAL SYSTEM

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HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Lymph Node																					4
Mediastinal, Schwannoma Malignant, Metastatic, Skin																					1
Pancreatic, Leukemia Mononuclear																		X			2
Renal, Leukemia Mononuclear																			X		1

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MUSCULOSKELETAL SYSTEM

NERVOUS SYSTEM

RESPIRATORY SYSTEM

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SPECIAL SENSES SYSTEM

Ear	+	+	2
Eye	+	+	50
Harderian Gland	+	+	50
Adenoma	+	+	1
Zymbal's Gland		+	1
Carcinoma	X		1

URINARY SYSTEM

SYSTEMIC LESIONS

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<http://www.w3.org/2001/sw/wiki/index.php>

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Histiocytic Sarcoma

1

Leukemia Mononuclear

16

Mesothelioma Malignant

1

x

X X

X

X X

16

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Lipoma

Urinary Bladder

Leukemia Mononuclear

Mesothelioma Malignant, Metastatic, Epididymis

**males
(cont...)**

SYSTEMIC LESIONS

Multiple Organ

Leukemia Mononuclear

Mesothelioma Benign

Mesothelioma Malignant

X

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Mesentery + + + + + 10

Mesothelioma Malignant X 2

Schwannoma Malignant X 1

Mesothelioma Malignant, Metastatic,
Epididymis X 1

Tooth 1

CARDIOVASCULAR SYSTEM

ENDOCRINE SYSTEM

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Tissue NOS

1

GENITAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Time Report Registered: 12:46:31

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

Lab: BAT

HEMATOPOIETIC SYSTEM

x Lesion present

.. Lesion present
 Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Registered: 08/21/2007

Time Report Registered: 12:46:31

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

Lab: BAT

INTEGUMENTARY SYSTEM

MUSCULOSKELETAL SYSTEM

NERVOUS SYSTEM

* .. Total animals with tissue examined microscopically: Total animals with tumor

+ .. Tissue examined microscopically

x ... Lesion present

| Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK - Not examined microscopically

TDMS No. 97003 - 07

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P04: NEOPLASMS BY INDIVIDUAL ANIMAL

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CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Registered: 12:46:31

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

Lab: BAT

RESPIRATORY SYSTEM

SPECIAL SENSES SYSTEM

URINARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 97003 - 07

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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

Lymphoma Malignant

ENDOCRINE SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

M .. Missing tissue

+ .. Tissue examined microscopically

A .. Autolysis precludes evaluation

x .. Lesion present

BLANK .. Not examined microscopically

| .. Insufficient tissue

[www.westminstermethodist.org](http://www.westministermethodist.org)

TDMS No. 97003 - 07

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Date Report Requested: 08/21/2007

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

Lab: BAT

NERVOUS SYSTEM

RESPIRATORY SYSTEM

SPECIAL SENSES SYSTEM

* ... Total animals with tissue examined microscopically: Total animals with tumor

+ Tissue examined microscopically

x Lesion present

| Insufficient tissue

M Missing tissue

A Autolysis precludes evaluation

BLANK Not examined microscopically

TDMS No. 97003 - 07

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Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

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

Lab: BAT

ALIMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
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TDMS No. 97003 - 07

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Date Report Reqstd: 08/21/2007

Time Report Reqstd: 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		
FISCHER 344 RATS MALE	7	4	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	7	7	7	6	6	7		
18 MG/KG	2	7	2	2	1	2	2	1	2	2	2	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	8	9	8	9	9	8	2	2	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		
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2		
		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																										
Leukemia Mononuclear		X		X		X											X		X	X	X	X	X	X	X	X	14	
Lymphoma Malignant			X																									1
Mesentery		+		+													+											9
Lymphoma Malignant		X																										1
Pancreas		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymphoma Malignant			X																									1
Salivary Glands		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymphoma Malignant			X																									1
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymphoma Malignant			X																									1
Stomach, Glandular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymphoma Malignant			X																									1
Tooth																												1

CARDIOVASCULAR SYSTEM

Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

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+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

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A .. Autolysis precludes evaluation

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TDMS No. 97003 - 07

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Route: SKIN APPLICATION

Species/Strain: RATS/F 344

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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

ENDOCRINE SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
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TDMS No. 97003 - 07

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1,2-Dibromo-2,4-dicyanobutane

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

Lab: BAT

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

* .. Total animals with tissue examined microscopically: Total animals with tumor

M .. Missing tissue

+ .. Tissue examined microscopically

A .. Autolysis precludes evaluation

x .. Lesion present

BLANK .. Not examined microscopically

x .. Lesion present
| .. Insufficient tissue

TDMS No. 97003 - 07

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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	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	7	7	7	6	6	6	7	
	2	7	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	8	2	2	2	1	1	1	2	
	9	9	8	8	7	8	8	4	8	9	8	8	9	8	8	8	8	9	9	9	8	2	2	9	0	
FISCHER 344 RATS MALE 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	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
	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	2
	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	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																									
Bilateral, Interstitial Cell, Adenoma	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	26	
Interstitial Cell, Adenoma	X	X	X	X			X	X										X				X	X	X	X	16

HEMATOPOIETIC SYSTEM

Bone Marrow

+ 50

Lymph Node

+ 6

Mediastinal, Leukemia Mononuclear

X 2

Mediastinal, Lymphoma Malignant

1

Pancreatic, Leukemia Mononuclear

X 2

Lymph Node, Mandibular

M 0

Lymph Node, Mesenteric

+ 50

Leukemia Mononuclear

X 12

Lymphoma Malignant

2

Spleen

+ 50

Leukemia Mononuclear

X 14

Lymphoma Malignant

1

Thymus

+ + + + M + M + 44

Leukemia Mononuclear

X 4

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x .. Lesion present

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| .. Insufficient tissue

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

Lab: BAT

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| DAY ON TEST | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 6 | 7 |
| | 2 | 7 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 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 | 8 | 9 | 9 | 9 | 8 | 2 | 2 | 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 |
| 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 |
| 18 MG/KG | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | 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 |

* TOTALS

Lymphoma Malignant X 2

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma | | | | | | | | | | | | | | | | X | | | | | | | | 1 |
| Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | X | | | | | | | | | | | | | | | | | | | 1 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Basal Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | X | | | | | | | | | | | | | | | | | | | 1 |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | X | | | | | | | | | 1 |
| Subcutaneous Tissue, Fibroma | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Subcutaneous Tissue, Schwannoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Benign | | | | | | | | | | | | | | | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skeletal Muscle | + | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor

M .. Missing tissue

+ .. Tissue examined microscopically

A .. Autolysis precludes evaluation

x .. Lesion present

BLANK .. Not examined microscopically

I .. Insufficient tissue

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

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

Lab: BAT

NERVOUS SYSTEM

RESPIRATORY SYSTEM

SPECIAL SENSES SYSTEM

* ... Total animals with tissue examined microscopically: Total animals with tumor

M Missing tissue

+ Tissue examined microscopically

A Autolysis precludes evaluation

x Lesion present

BLANK Not examined microscopically

| Insufficient tissue

BLANK :: Not examined microscopically

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*** END OF MALE DATA ***

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ALIMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
! .. Insufficient tissue

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Lab: BAT

Leukemia Mononuclear

SYSTEMIC LESIONS

Multiple Organ

Leukemia Mononuclear

females (cont...)

* .. Total animals with tissue examined microscopically; Total animals with tumor
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x .. Lesion present
| .. Insufficient tissue

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* .. Total animals with tissue examined microscopically; Total animals with tumor
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First Dose M/F: 07/10/02 / 07/11/02

Lab: BAT

Tooth + 1

Odontoma

CARDIOVASCULAR SYSTEM

ENDOCRINE SYSTEM

Leukemia Mononuclear X X 5

Leukemia Mononuclear X 2

Pheochromocytoma Benign

* ... Total animals with tissue examined microscopically: Total animals with tumor

† .. Tissue examined microscopically

.. Lesion present

.. Lesion present
 Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

A .. Autolysis precludes evaluation
I ANK .. Not examined microscopically

TDMS No. 97003 - 07

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Lab: BAT

Parathyroid Gland + + + M + + + + + + + + + + + + M + M + + M + + + + + 46

Leukemia Mononuclear X X 3

FUNERAL BODY SYSTEM

NONE

GENITAL SYSTEM

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Lab: BAT

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymph Node | | | | | | | | | | | | | | | | | + | | | | | | | 4 |
| Mediastinal, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mediastinal, Pancreatic, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Pancreatic, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 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 | 0 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | X | 4 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | X | | | | | X | | | X | | | | | | | | X | 9 |
| Thymus | + | + | + | + | + | + | + | M | M | + | + | + | M | + | + | + | + | M | + | + | + | + | + | 45 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | X | | | | X | 2 |

INTEGUMENTARY SYSTEM

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RESPIRATORY SYSTEM

SPECIAL SENSES SYSTEM

URINARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

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x Lesion present

.. Lesion present
 Insufficient tissue

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Leukemia Mononuclear

X

SYSTEMIC LESIONS

Multiple Organ

Leukemia Mononuclear

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Reqstd: 08/21/2007

Time Report Reqstd: 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 | 6 | 6 | 7 | 5 | 7 | 7 | 5 | 7 | 7 | 5 | 6 | 7 | 7 | 5 | 7 | 4 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| FISCHER 344 RATS FEMALE | 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 | 2 |
| 2 MG/KG | 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 | 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 |
| | 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 |
| | 5 | 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...)

ALIMENTARY SYSTEM

Esophagus

+ +

Intestine Large, Cecum

+ +

Intestine Large, Colon

+ +

Intestine Large, Rectum

+ +

Intestine Small, Duodenum

+ +

Intestine Small, Ileum

+ +

Intestine Small, Jejunum

+ +

Liver

+ +

Hepatocellular Adenoma

X X X X

Leukemia Mononuclear

Mesentery

+ +

Pancreas

+ +

Salivary Glands

+ +

* .. Total animals with tissue examined microscopically; Total animals with tumor

M .. Missing tissue

+ .. Tissue examined microscopically

A .. Autolysis precludes evaluation

x .. Lesion present

BLANK .. Not examined microscopically

I .. Insufficient tissue

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Reqstd: 08/21/2007

Time Report Reqstd: 12:46:31

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

Lab: BAT

| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| DAY ON TEST | 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 | 7 | 7 | 7 | 7 | 7 | | | |
| | 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 | 3 | 2 | 3 | 2 | 3 | | | |
| | 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 | 0 | 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 | 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 | | | |
| 2 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 | 2 | | | |
| | 5 | 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 | 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 | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Deep Cervical, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | M | M | M | M | M | | | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Leukemia Mononuclear | | | | | | | | | | | | X | | X | X | | | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

| .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Reqstd: 08/21/2007

Time Report Reqstd: 12:46:31

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

Lab: BAT

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| DAY ON TEST | 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 | 7 | 7 |
| | 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 | 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 | 0 | 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 | 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 |
| 2 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 |
| | 5 | 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 | 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...) | |

Subcutaneous Tissue, Schwannoma
Malignant

X

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Osteosarcoma | | | | | | | | | | | | | | | X | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Alveolar/Bronchiolar Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | X | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

SPECIAL SENSES SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
l .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Reqstd: 08/21/2007

Time Report Reqstd: 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 | 6 | 7 | 4 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 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 | 2 |
| | 9 | 0 | 3 | 0 | 6 | 5 | 0 | 0 | 0 | 0 | 7 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 8 | 0 | 9 | 9 | 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 | 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 |
| 2 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 | 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 | 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 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | X | | | | | | | | | | | | | | | | | | | 13 |
| Mesentery | + | + | + | | | | | | | | | | | | | | | | | | | | | | 12 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Registered: 12:46:31

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

Lab: BAT

CARDIOVASCULAR SYSTEM

ENDOCRINE SYSTEM

Leukemia Mononuclear X X X 8

Leukemia Mononuclear X X X 5

* .. Total animals with tissue examined microscopically: Total animals with tumor

† .. Tissue examined microscopically

- ✗ Lesion present

.. Lesion present

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK Not examined microscopically

TDMS No. 97003 - 07

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

Lab: BAT

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|
| Clitoral Gland
Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| <hr/> | | | | | | | | | | | | | | | | | | | | | | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Polyp Stromal | | | | | | | | | | | | | | | | | X | | | | | | | 6 |
| Sarcoma Stromal | | | | | | | | | | | | | | | | | | X | | | | | | 1 |
| | | | | | | | | | | | | | | | | | | X | | | | | | |

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 97003 - 07

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1,2-Dibromo-2,4-dicyanobutane

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Lab: BAT

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

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TDMS No. 97003 - 07

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Lab: BAT

Subcutaneous Tissue, Schwannoma
Malignant

1

MUSCULOSKELETAL SYSTEM

NERVOUS SYSTEM

RESPIRATORY SYSTEM

Alveolar/Bronchiolar Adenoma X 2

Leukemia Mononuclear X X 4

SPECIAL SENSES SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
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TDMS No. 97003 - 07

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

Lab: BAT

Zymbal's Gland +

Adenoma X 2

URINARY SYSTEM

Leukemia Mononuclear X X X 5

Renal Tubule, Carcinoma X 1

Leukemia Mononuclear X 1

SYSTEMIC LESIONS

Leukemia Mononuclear X X X X X X X X 18

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

- + .. Tissue examined
- x Lesion present

| Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

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1,2-Dibromo-2,4-dicyanobutane

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M .. Missing tissue

+ .. Tissue examined microscopically

A .. Autolysis precludes evaluation

x .. Lesion present

I .. Insufficient tissue

BLANK .. Not examined microscopically

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TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

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Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

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

Lab: BAT

Urinary Bladder

Leukemia Mononuclear

SYSTEMIC LESIONS

Multiple Organ

Histiocytic Sarcoma

X X X

X

females (cont...)

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 97003 - 07

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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 |
|--------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6 | 7 | 6 | 6 | 6 | 5 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 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 |
| | <hr/> | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | 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 | 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 |
| | | 2 | 2 | 2 | 2 | 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 |

ALIMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

M .. Missing tissue

+ .. Tissue examined microscopically

A .. Autolysis precludes evaluation

x .. Lesion present

BLANK .. Not examined microscopically

x .. Lesion present
| .. Insufficient tissue

BEANK ... Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Registered: 08/21/2007

Time Report Registered: 12:46:31

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

Lab: BAT

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

| Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK - Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Registered: 12:46:31

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

Lab: BAT

Leukemia Mononuclear

X

3

INTEGUMENTARY SYSTEM

MUSCULOSKELETAL SYSTEM

NERVOUS SYSTEM

* .. Total animals with tissue examined microscopically: Total animals with tumor

† .. Tissue examined microscopically

x Lesion present

| Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS 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

RESPIRATORY SYSTEM

SPECIAL SENSES SYSTEM

URINARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS 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

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | X | 1 | |
| Leukemia Mononuclear | X | | X | X | | | | | | | | | | X | X | X | | | | | X | X | 13 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
| .. Insufficient tissue

M .. Missing tissue
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TDMS No. 97003 - 07

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Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

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

Lab: BAT

ALIMENTARY SYSTEM

- * .. Total animals with tissue examined microscopically; Total animals with tumor
- + .. Tissue examined microscopically
- x .. Lesion present
- | .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

P04: NEOPLASMS 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

Peripheral Nerve

Spinal Cord

RESPIRATORY SYSTEM

SPECIAL SENSES SYSTEM

URINARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x ... Lesion present

| Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

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1,2-Dibromo-2,4-dicyanobutane

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Date Report Requested: 08/21/2007

Time Report Requested: 12:46:31

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

Lab: BAT

Leukemia Mononuclear

x

X X

Urinary Bladder

Leukemia Mononuclear

SYSTEMIC LESIONS

Multiple Organ

Leukemia Mononuclear

- * .. Total animals with tissue examined microscopically; Total animals with tumor
- + .. Tissue examined microscopically
- x .. Lesion present
- | .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 97003 - 07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: RATS/F 344

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

Lab: BAT

ALIMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
x .. Lesion present
! .. Insufficient tissue

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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 |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 4 | 7 | 7 | 6 | 7 | 4 | 7 | 7 | 5 | 6 | 7 | 6 | 7 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 5 | 9 | 3 | 2 | 5 | 3 | 9 | 3 | 3 | 6 | 5 | 3 | 6 | 2 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 3 | 9 | 0 | 9 | 6 | 0 | 6 | 0 | 9 | 2 | 0 | 4 | 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 |
| ANIMAL ID | 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 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 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 |

CARDIOVASCULAR SYSTEM

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | X | | | | | | | | X | | | | | | X | | X | X | X | | | | 9 |

Islets_Pancreatic

Berthyroid Gland **M**ucous cells located in the mucous layer of the thyroid gland.

* ... Total animals with tissue examined microscopically: Total animals with tumor

† ... Tissue examined microscopically

x .. Lesion present

| Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK - Not examined microscopically

TDMS No. 97003 - 07

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Species/Strain: RATS/F 344

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1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 08/21/2007

Time Report Registered: 12:46:31

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

Lab: BAT

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

* = Total animals with tissue examined microscopically; Total animals with tumor

† .. Tissue examined microscopically

x ... Lesion present

| Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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

Lab: BAT

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lymph Node | | | | | | | | | | | | | | | | | + | | | | | | 5 | |
| Deep Cervical, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | X | 1 | |
| Mediastinal, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | X | X | 2 | |
| Pancreatic, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | X | X | 3 | |
| 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 | 0 | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | | X | X | 9 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | X | X | X | 15 |
| Thymus | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | M | + | + | 45 | |
| Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | X | | | 5 |

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

x .. Lesion present

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Lab: BAT

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | X | | | | | | | X | X | | | | X | | X | X | X | X | X | X | X | 15 | |

*** END OF REPORT ***

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+ .. Tissue examined microscopically
x .. Lesion present
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