

**Experiment Number:** 97003-01  
**Test Type:** 14-DAY  
**Route:** SKIN APPLICATION  
**Species/Strain:** Rat/F 344/N

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

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 16:26:09  
**First Dose M/F:** NA / NA  
**Lab:** MBA

<b>C Number:</b>	C97003B
<b>Lock Date:</b>	03/31/1999
<b>Cage Range:</b>	All
<b>Date Range:</b>	All
<b>Reasons For Removal:</b>	All
<b>Removal Date Range:</b>	All
<b>Treatment Groups:</b>	All
<b>Study Gender:</b>	Both
<b>PWG Approval Date</b>	NONE

Experiment Number: 97003-01

Test Type: 14-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/19/2014

Time Report Requested: 16:26:09

First Dose M/F: NA / NA

Lab: MBA

F 344/N Rat Male  
VEHICLE CONTROL

DAY ON TEST	0	0	0	0	0	
	0	0	0	0	0	
	1	1	1	1	1	
	7	7	7	7	7	
ANIMAL ID	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	*TOTALS

Alimentary System

Liver	+					1
Hepatodiaphragmatic Nodule	X					1

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

Skin	+	+	+	+	+	5
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Musculoskeletal System

NONE

Nervous 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

Experiment Number: 97003-01  
 Test Type: 14-DAY  
 Route: SKIN APPLICATION  
 Species/Strain: Rat/F 344/N

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

Date Report Requested: 10/19/2014  
 Time Report Requested: 16:26:09  
 First Dose M/F: NA / NA  
 Lab: MBA

**F 344/N Rat Male**  
**VEHICLE CONTROL**

DAY ON TEST	0	0	0	0	0
	0	0	0	0	0
	1	1	1	1	1
	7	7	7	7	7
ANIMAL ID	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

**\*TOTALS**

NONE  
**Respiratory System**  
 NONE  
**Special Senses System**  
 NONE  
**Urinary System**  
 NONE

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

Experiment Number: 97003-01  
 Test Type: 14-DAY  
 Route: SKIN APPLICATION  
 Species/Strain: Rat/F 344/N

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

Date Report Requested: 10/19/2014  
 Time Report Requested: 16:26:09  
 First Dose M/F: NA / NA  
 Lab: MBA

**F 344/N Rat Male**  
**37.5 MG/KG**

DAY ON TEST	0	0	0	0	0
	0	0	0	0	0
	1	1	1	1	1
	7	7	7	7	7
ANIMAL ID	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	1
	6	7	8	9	0

**\*TOTALS**

**Alimentary System**

NONE

**Cardiovascular System**

NONE

**Endocrine System**

NONE

**General Body System**

NONE

**Genital System**

NONE

**Hematopoietic System**

NONE

**Integumentary System**

Skin	+	+	+	+	+	5	
Epidermis, SOA, Hyperplasia	2	3	2	2	2	5	2.2
Epidermis, SOA, Necrosis		3	3	2		3	2.7
Epidermis, SOA, Ulcer				1		1	1.0
SOA, Hyperkeratosis	1	1	1	1	2	5	1.2
SOA, Inflammation, Chronic Active	1	2	2		1	4	1.5

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 97003-01  
 Test Type: 14-DAY  
 Route: SKIN APPLICATION  
 Species/Strain: Rat/F 344/N

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

Date Report Requested: 10/19/2014  
 Time Report Requested: 16:26:09  
 First Dose M/F: NA / NA  
 Lab: MBA

**F 344/N Rat Male**  
**37.5 MG/KG**

DAY ON TEST	0	0	0	0	0	
	0	0	0	0	0	
	1	1	1	1	1	
	7	7	7	7	7	
ANIMAL ID	0	0	0	0	0	
	0	0	0	0	0	
	0	0	0	0	0	
	0	0	0	0	1	
	6	7	8	9	0	<b>*TOTALS</b>
SOA, Necrosis				2		1 2.0
SOA, Parakeratosis		2	2	1		3 1.7
SOA, Sebaceous Gl, Hyperplasia	2	3	3	2	2	5 2.4

**Musculoskeletal System**

NONE

**Nervous System**

NONE

**Respiratory System**

NONE

**Special Senses System**

NONE

**Urinary System**

NONE

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 97003-01

Test Type: 14-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/19/2014

Time Report Requested: 16:26:09

First Dose M/F: NA / NA

Lab: MBA

F 344/N Rat Male  
75 MG/KG

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

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

Skin	+	+	+	+	+	5	
Dermis, SOA, Necrosis					2	1	2.0
Epidermis, SOA, Hyperplasia	1	2	2	3	3	5	2.2
Epidermis, SOA, Necrosis				2	2	2	2.0
SOA, Hyperkeratosis	2	2	2	1	1	5	1.6
SOA, Inflammation, Chronic Active	1	1	2	2	2	5	1.6

\* ..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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Experiment Number: 97003-01

Test Type: 14-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/19/2014

Time Report Requested: 16:26:09

First Dose M/F: NA / NA

Lab: MBA

**F 344/N Rat Male  
75 MG/KG**

DAY ON TEST	0	0	0	0	0	
	0	0	0	0	0	
	1	1	1	1	1	
	7	7	7	7	7	
ANIMAL ID	0	0	0	0	0	
	0	0	0	0	0	
	0	0	0	0	0	
	1	1	1	1	1	
	1	2	3	4	5	
	<b>*TOTALS</b>					
SOA, Sebaceous GI, Hyperplasia	1	3	3	3	2	5 2.4

**Musculoskeletal System**

NONE

**Nervous System**

NONE

**Respiratory System**

NONE

**Special Senses System**

NONE

**Urinary System**

NONE

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 97003-01  
 Test Type: 14-DAY  
 Route: SKIN APPLICATION  
 Species/Strain: Rat/F 344/N

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

Date Report Requested: 10/19/2014  
 Time Report Requested: 16:26:09  
 First Dose M/F: NA / NA  
 Lab: MBA

**F 344/N Rat Male**  
**150 MG/KG**

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

\*TOTALS

**Alimentary System**

NONE

**Cardiovascular System**

NONE

**Endocrine System**

NONE

**General Body System**

NONE

**Genital System**

NONE

**Hematopoietic System**

NONE

**Integumentary System**

Skin	+	+	+	+	+	5	
Epidermis, SOA, Hyperplasia	3	2	3	2	3	5	2.6
Epidermis, SOA, Necrosis	4	2	3	2	2	5	2.6
Epidermis, SOA, Ulcer	2	4		3		3	3.0
SOA, Hyperkeratosis	1	1	1	1	1	5	1.0
SOA, Inflammation, Chronic Active	2	3	2	2	2	5	2.2

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked



Experiment Number: 97003-01

Test Type: 14-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/19/2014

Time Report Requested: 16:26:09

First Dose M/F: NA / NA

Lab: MBA

F 344/N Rat Male  
150 MG/KG

DAY ON TEST	0	0	0	0	0	
	0	0	0	0	0	
	1	1	1	1	1	
	7	7	7	7	7	
ANIMAL ID	0	0	0	0	0	
	0	0	0	0	0	
	0	0	0	0	0	
	1	1	1	1	1	
	6	7	8	9	2	
						<b>*TOTALS</b>
SOA, Parakeratosis	1		1	1		3 1.0
SOA, Sebaceous GI, Hyperplasia	3	2	3	2	2	5 2.4

**Musculoskeletal System**

NONE

**Nervous System**

NONE

**Respiratory System**

NONE

**Special Senses System**

NONE

**Urinary System**

NONE

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 97003-01

Test Type: 14-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/19/2014

Time Report Requested: 16:26:09

First Dose M/F: NA / NA

Lab: MBA

**F 344/N Rat Male  
300 MG/KG**

DAY ON TEST	0	0	0	0	0	
	0	0	0	0	0	
	1	1	1	1	1	
	7	7	7	7	7	
ANIMAL ID	0	0	0	0	0	
	0	0	0	0	0	
	0	0	0	0	0	
	2	2	2	2	2	
	1	2	3	4	5	<b>*TOTALS</b>

**Alimentary System**

NONE

**Cardiovascular System**

NONE

**Endocrine System**

NONE

**General Body System**

NONE

**Genital System**

NONE

**Hematopoietic System**

NONE

**Integumentary System**

Skin	+	+	+	+	+	5	
Epidermis, SOA, Hyperplasia	2	3	1	3	3	5	2.4
Epidermis, SOA, Necrosis	4	4		2	3	4	3.3
Epidermis, SOA, Ulcer	1	2		4	4	4	2.8
SOA, Hyperkeratosis			2	2	2	3	2.0
SOA, Inflammation, Chronic Active	2	3	1	3	3	5	2.4

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 97003-01

Test Type: 14-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/19/2014

Time Report Requested: 16:26:09

First Dose M/F: NA / NA

Lab: MBA

F 344/N Rat Male  
300 MG/KG

DAY ON TEST	0	0	0	0	0		
	0	0	0	0	0		
	1	1	1	1	1		
	7	7	7	7	7		
ANIMAL ID	0	0	0	0	0		
	0	0	0	0	0		
	0	0	0	0	0		
	2	2	2	2	2		
	1	2	3	4	5		
						<b>*TOTALS</b>	
SOA, Parakeratosis						1	1 1.0
SOA, Sebaceous GI, Hyperplasia	3	2	2	2	2	5	2.2

**Musculoskeletal System**

NONE

**Nervous System**

NONE

**Respiratory System**

NONE

**Special Senses System**

NONE

**Urinary System**

NONE

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 97003-01

Test Type: 14-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/19/2014

Time Report Requested: 16:26:09

First Dose M/F: NA / NA

Lab: MBA

**F 344/N Rat Male  
600 MG/KG**

DAY ON TEST	0	0	0	0	0	
	0	0	0	0	0	
	1	1	1	1	1	
	7	7	7	7	7	
ANIMAL ID	0	0	0	0	0	
	0	0	0	0	0	
	0	0	0	0	0	
	2	2	2	2	3	
	6	7	8	9	0	
						<b>*TOTALS</b>

**Alimentary System**

NONE

**Cardiovascular System**

NONE

**Endocrine System**

NONE

**General Body System**

NONE

**Genital System**

NONE

**Hematopoietic System**

Spleen		+				1	
Accessory Spleen		X				1	
Hematopoietic Cell Proliferation, Diffuse		2				1	2.0

**Integumentary System**

Skin		+	+	+	+	+	5	
Epidermis, SOA, Hyperplasia		2	3	3	3	3	5	2.8
Epidermis, SOA, Necrosis		2	2			2	3	2.0
Epidermis, SOA, Ulcer		3	1		4		3	2.7

\* ..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

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

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Experiment Number: 97003-01

Test Type: 14-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/19/2014

Time Report Requested: 16:26:09

First Dose M/F: NA / NA

Lab: MBA

F 344/N Rat Male  
600 MG/KG

DAY ON TEST	0	0	0	0	0		
	0	0	0	0	0		
	1	1	1	1	1		
	7	7	7	7	7		
ANIMAL ID	0	0	0	0	0		
	0	0	0	0	0		
	0	0	0	0	0		
	2	2	2	2	3		
	6	7	8	9	0		
						<b>*TOTALS</b>	
SOA, Hyperkeratosis	1	1	2	2	2	5	1.6
SOA, Inflammation, Chronic Active	3	2	2	3	2	5	2.4
SOA, Parakeratosis	1					1	1.0
SOA, Sebaceous Gl, Hyperplasia	2	2	2	1	3	5	2.0

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

\*\*\*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

Experiment Number: 97003-01  
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 Species/Strain: Rat/F 344/N

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 Test Compound: 1,2-Dibromo-2,4-dicyanobutane  
 CAS Number: 35691-65-7

Date Report Requested: 10/19/2014  
 Time Report Requested: 16:26:09  
 First Dose M/F: NA / NA  
 Lab: MBA

**F 344/N Rat Female  
 VEHICLE CONTROL**

DAY ON TEST	0	0	0	0	0
	0	0	0	0	0
	1	1	1	1	1
	7	7	7	7	7
ANIMAL ID	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	3	3	3	3	3
	1	2	3	4	5
	<b>*TOTALS</b>				

**Alimentary System**

NONE

**Cardiovascular System**

NONE

**Endocrine System**

NONE

**General Body System**

NONE

**Genital System**

NONE

**Hematopoietic System**

NONE

**Integumentary System**

Skin + + + + + 5

**Musculoskeletal System**

NONE

**Nervous System**

NONE

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 97003-01  
 Test Type: 14-DAY  
 Route: SKIN APPLICATION  
 Species/Strain: Rat/F 344/N

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

Date Report Requested: 10/19/2014  
 Time Report Requested: 16:26:09  
 First Dose M/F: NA / NA  
 Lab: MBA

**F 344/N Rat Female**  
**VEHICLE CONTROL**

DAY ON TEST	0	0	0	0	0	
	0	0	0	0	0	
	1	1	1	1	1	
	7	7	7	7	7	
ANIMAL ID	0	0	0	0	0	
	0	0	0	0	0	
	0	0	0	0	0	
	3	3	3	3	3	
	1	2	3	4	5	<b>*TOTALS</b>

**Respiratory System**

NONE

**Special Senses System**

NONE

**Urinary System**

NONE

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

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Experiment Number: 97003-01

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Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/19/2014

Time Report Requested: 16:26:09

First Dose M/F: NA / NA

Lab: MBA

F 344/N Rat Female  
37.5 MG/KG

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

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

Skin	+	+	+	+	+	5	
Epidermis, SOA, Hyperplasia	2	3	2	2	1	5	2.0
Epidermis, SOA, Necrosis		1		1		2	1.0
SOA, Hyperkeratosis	2	2	3	2	1	5	2.0
SOA, Inflammation, Chronic Active	1	2	1	1	1	5	1.2
SOA, Parakeratosis		1	1	1		3	1.0

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked



Experiment Number: 97003-01

Test Type: 14-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/19/2014

Time Report Requested: 16:26:09

First Dose M/F: NA / NA

Lab: MBA

**F 344/N Rat Female  
37.5 MG/KG**

DAY ON TEST	0	0	0	0	0	
	0	0	0	0	0	
	1	1	1	1	1	
	7	7	7	7	7	
ANIMAL ID	0	0	0	0	0	
	0	0	0	0	0	
	0	0	0	0	0	
	3	3	3	3	4	
	6	7	8	9	0	
	<b>*TOTALS</b>					
SOA, Sebaceous GI, Hyperplasia	2	1	1	2	1	5 1.4

**Musculoskeletal System**

NONE

**Nervous System**

NONE

**Respiratory System**

NONE

**Special Senses System**

NONE

**Urinary System**

NONE

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 97003-01

Test Type: 14-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/19/2014

Time Report Requested: 16:26:09

First Dose M/F: NA / NA

Lab: MBA

**F 344/N Rat Female  
75 MG/KG**

DAY ON TEST	0	0	0	0	0	
	0	0	0	0	0	
	1	1	1	1	1	
	7	7	7	7	7	
ANIMAL ID	0	0	0	0	0	
	0	0	0	0	0	
	0	0	0	0	0	
	4	4	4	4	4	
	1	2	3	4	5	<b>*TOTALS</b>

**Alimentary System**

NONE

**Cardiovascular System**

NONE

**Endocrine System**

NONE

**General Body System**

NONE

**Genital System**

NONE

**Hematopoietic System**

NONE

**Integumentary System**

Skin	+	+	+	+	+	5	
Epidermis, SOA, Hyperplasia	2	2	2	2	1	5	1.8
Epidermis, SOA, Necrosis	3	2	2	3		4	2.5
Epidermis, SOA, Ulcer	1		1	1		3	1.0
SOA, Hyperkeratosis	1	2	1		2	4	1.5
SOA, Inflammation, Chronic Active	2	2	2	2		4	2.0

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 97003-01

Test Type: 14-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/19/2014

Time Report Requested: 16:26:09

First Dose M/F: NA / NA

Lab: MBA

F 344/N Rat Female  
75 MG/KG

DAY ON TEST	0	0	0	0	0	
	0	0	0	0	0	
	1	1	1	1	1	
	7	7	7	7	7	
ANIMAL ID	0	0	0	0	0	
	0	0	0	0	0	
	0	0	0	0	0	
	4	4	4	4	4	
	1	2	3	4	5	<b>*TOTALS</b>
SOA, Parakeratosis	1	1	1			3 1.0
SOA, Sebaceous GI, Hyperplasia	1	2	1	1	1	5 1.2

**Musculoskeletal System**

NONE

**Nervous System**

NONE

**Respiratory System**

NONE

**Special Senses System**

NONE

**Urinary System**

NONE

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 97003-01

Test Type: 14-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/19/2014

Time Report Requested: 16:26:09

First Dose M/F: NA / NA

Lab: MBA

**F 344/N Rat Female  
150 MG/KG**

DAY ON TEST	0	0	0	0	0	
	0	0	0	0	0	
	1	1	1	1	1	
	7	7	7	7	7	
ANIMAL ID	0	0	0	0	0	
	0	0	0	0	0	
	0	0	0	0	0	
	4	4	4	4	5	
	6	7	8	9	0	
						<b>*TOTALS</b>

**Alimentary System**

NONE

**Cardiovascular System**

NONE

**Endocrine System**

NONE

**General Body System**

NONE

**Genital System**

NONE

**Hematopoietic System**

NONE

**Integumentary System**

Skin	+	+	+	+	+	5	
Epidermis, SOA, Hyperplasia	1	3	2	3	3	5	2.4
Epidermis, SOA, Necrosis		1	2	1	2	4	1.5
Epidermis, SOA, Ulcer			2			1	2.0
SOA, Hyperkeratosis	1	1	1	2	2	5	1.4
SOA, Inflammation, Chronic Active	2	1	3	2	3	5	2.2

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 97003-01

Test Type: 14-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/19/2014

Time Report Requested: 16:26:10

First Dose M/F: NA / NA

Lab: MBA

**F 344/N Rat Female  
150 MG/KG**

DAY ON TEST	0	0	0	0	0	
	0	0	0	0	0	
	1	1	1	1	1	
	7	7	7	7	7	
ANIMAL ID	0	0	0	0	0	
	0	0	0	0	0	
	0	0	0	0	0	
	4	4	4	4	5	
	6	7	8	9	0	<b>*TOTALS</b>
SOA, Parakeratosis	1	1	1	1	2	5 1.2
SOA, Sebaceous GI, Hyperplasia	1	2	1	1	1	5 1.2

**Musculoskeletal System**

NONE

**Nervous System**

NONE

**Respiratory System**

NONE

**Special Senses System**

NONE

**Urinary System**

NONE

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 97003-01

Test Type: 14-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/19/2014

Time Report Requested: 16:26:10

First Dose M/F: NA / NA

Lab: MBA

**F 344/N Rat Female  
300 MG/KG**

DAY ON TEST	0	0	0	0	0	
	0	0	0	0	0	
	1	1	1	1	1	
	7	7	7	7	7	
ANIMAL ID	0	0	0	0	0	
	0	0	0	0	0	
	0	0	0	0	0	
	5	5	5	5	5	
	1	2	3	4	5	<b>*TOTALS</b>

**Alimentary System**

NONE

**Cardiovascular System**

NONE

**Endocrine System**

NONE

**General Body System**

NONE

**Genital System**

NONE

**Hematopoietic System**

NONE

**Integumentary System**

Skin	+	+	+	+	+	5	
Dermis, SOA, Necrosis		1				1	1.0
Epidermis, SOA, Hyperplasia	2	2	2	2	2	5	2.0
Epidermis, SOA, Necrosis	2	2	3	2		4	2.3
Epidermis, SOA, Ulcer	3					1	3.0
SOA, Hyperkeratosis	1	1	1	2	2	5	1.4

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 97003-01

Test Type: 14-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/19/2014

Time Report Requested: 16:26:10

First Dose M/F: NA / NA

Lab: MBA

F 344/N Rat Female  
300 MG/KG

DAY ON TEST	0	0	0	0	0	
	0	0	0	0	0	
	1	1	1	1	1	
	7	7	7	7	7	
ANIMAL ID	0	0	0	0	0	
	0	0	0	0	0	
	0	0	0	0	0	
	5	5	5	5	5	
	1	2	3	4	5	
	<b>*TOTALS</b>					
SOA, Inflammation, Chronic Active	3	2	2	2	1	5 2.0
SOA, Parakeratosis	1	2	1	2	2	5 1.6
SOA, Sebaceous Gl, Hyperplasia	2	3	2	1	2	5 2.0

**Musculoskeletal System**

NONE

**Nervous System**

NONE

**Respiratory System**

NONE

**Special Senses System**

NONE

**Urinary System**

NONE

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 97003-01

Test Type: 14-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/19/2014

Time Report Requested: 16:26:10

First Dose M/F: NA / NA

Lab: MBA

F 344/N Rat Female  
600 MG/KG

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

\*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

Skin	+	+	+	+	+	5	
Epidermis, SOA, Hyperplasia	3	3	2	3	2	5	2.6
Epidermis, SOA, Necrosis	1	2	2	1		4	1.5
Epidermis, SOA, Ulcer	2	3	2	2		4	2.3
SOA, Hyperkeratosis	3	2	2	2	1	5	2.0
SOA, Inflammation, Chronic Active	2	3	2	2	2	5	2.2

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked



Experiment Number: 97003-01

Test Type: 14-DAY

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/19/2014

Time Report Requested: 16:26:10

First Dose M/F: NA / NA

Lab: MBA

**F 344/N Rat Female  
600 MG/KG**

DAY ON TEST	0	0	0	0	0	
	0	0	0	0	0	
	1	1	1	1	1	
	7	7	7	7	7	
ANIMAL ID	0	0	0	0	0	
	0	0	0	0	0	
	0	0	0	0	0	
	5	5	5	5	6	
	6	7	8	9	0	
	<b>*TOTALS</b>					
SOA, Parakeratosis	3	1		1	1	4 1.5
SOA, Sebaceous GI, Hyperplasia	2	2	2	2		4 2.0

**Musculoskeletal System**

NONE

**Nervous System**

NONE

**Respiratory System**

NONE

**Special Senses System**

NONE

**Urinary System**

NONE

**\*\* END OF REPORT \*\***

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked