

**Experiment Number:** 99013 - 03

**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH  
AVERAGE SEVERITY GRADES[b]**

**Date Report Requested:** 08/31/2016

**Test Type:** 18-WEEK PN

Styrene-acrylonitrile trimer

**Time Report Requested:** 13:02:10

**Route:** DOSED FEED

**CAS Number:** SANTRIMER2

**First Dose M/F:** 07/17/03 / 07/18/03

**Species/Strain:** RATS/F 344/N

**Lab:** BAT

**NTP Study Number:** C99013  
**Lock Date:** 02/18/2004  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 3.0.2.3\_002  
**PWG Approval Date:** NONE

Test Type: 18-WEEK PN

Styrene-acrylonitrile trimer

Time Report Requested: 13:02:10

Route: DOSED FEED

CAS Number: SANTRIMER2

First Dose M/F: 07/17/03 / 07/18/03

Species/Strain: RATS/F 344/N

Lab: BAT

FISCHER 344 RATS MALE	0 PPM	100 PPM	200 PPM	400 PPM	800 PPM	1600 PPM
-----------------------	-------	---------	---------	---------	---------	----------

**Disposition Summary**

Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Survivors						
Terminal Sacrifice	10	10	10	10	10	10
Animals Examined Microscopically	10					10

## ALIMENTARY SYSTEM

Esophagus	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Colon	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Rectum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Duodenum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Ileum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Jejunum	(10)	(0)	(0)	(0)	(0)	(10)
Liver	(10)	(0)	(0)	(0)	(0)	(10)
Clear Cell Focus	2					
Inflammation, Chronic	10 [1.0]					10 [1.0]
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Atrophy						1 [1.0]
Basophilic Focus	1 [1.0]					
Infiltration Cellular, Mononuclear Cell	6 [1.0]					3 [1.0]
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(10)
Glands, Ectasia	1 [1.0]					

## CARDIOVASCULAR SYSTEM

Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)
Heart	(10)	(0)	(0)	(0)	(0)	(10)
Cardiomyopathy	10 [1.0]					10 [1.1]

a - Number of animals examined microscopically at site and number of animals with lesion

b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

Test Type: 18-WEEK PN

Styrene-acrylonitrile trimer

Time Report Requested: 13:02:10

Route: DOSED FEED

CAS Number: SANTRIMER2

First Dose M/F: 07/17/03 / 07/18/03

Species/Strain: RATS/F 344/N

Lab: BAT

FISCHER 344 RATS MALE	0 PPM	100 PPM	200 PPM	400 PPM	800 PPM	1600 PPM
<b>ENDOCRINE SYSTEM</b>						
Adrenal Cortex	(10)	(0)	(0)	(0)	(0)	(10)
Infiltration Cellular, Mononuclear Cell						1 [1.0]
Adrenal Medulla	(10)	(0)	(0)	(0)	(0)	(10)
Parathyroid Gland	(10)	(0)	(0)	(0)	(0)	(8)
Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Hemorrhage	1 [1.0]					
Thyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)
<b>GENERAL BODY SYSTEM</b>						
None						
<b>GENITAL SYSTEM</b>						
Epididymis	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic Active	1 [1.0]					
Preputial Gland	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation	6 [1.2]					5 [1.0]
Prostate	(10)	(0)	(0)	(0)	(0)	(10)
Seminal Vesicle	(10)	(0)	(0)	(0)	(0)	(10)
Testes	(10)	(0)	(0)	(0)	(0)	(10)
Germinal Epithelium, Degeneration	1 [1.0]					
<b>HEMATOPOIETIC SYSTEM</b>						
Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node	(1)	(0)	(0)	(0)	(0)	(0)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Granulomatous	1 [1.0]					
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Thymus	(10)	(0)	(0)	(0)	(0)	(10)

a - Number of animals examined microscopically at site and number of animals with lesion

b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

Test Type: 18-WEEK PN

Styrene-acrylonitrile trimer

Time Report Requested: 13:02:10

Route: DOSED FEED

CAS Number: SANTRIMER2

First Dose M/F: 07/17/03 / 07/18/03

Species/Strain: RATS/F 344/N

Lab: BAT

FISCHER 344 RATS MALE	0 PPM	100 PPM	200 PPM	400 PPM	800 PPM	1600 PPM
<b>INTEGUMENTARY SYSTEM</b>						
Mammary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Skin	(10)	(0)	(0)	(0)	(0)	(10)
<b>MUSCULOSKELETAL SYSTEM</b>						
Bone	(10)	(0)	(0)	(0)	(0)	(10)
<b>NERVOUS SYSTEM</b>						
Brain	(10)	(0)	(0)	(0)	(0)	(10)
<b>RESPIRATORY SYSTEM</b>						
Lung	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic	5 [1.0]					3 [1.0]
Nose	(10)	(0)	(0)	(0)	(0)	(10)
Trachea	(10)	(0)	(0)	(0)	(0)	(10)
<b>SPECIAL SENSES SYSTEM</b>						
Eye	(10)	(0)	(0)	(0)	(0)	(10)
Retina, Cyst	1 [1.0]					
Harderian Gland	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation	1 [1.0]					1 [1.0]
<b>URINARY SYSTEM</b>						
Kidney	(10)	(0)	(0)	(0)	(0)	(10)
Nephropathy	9 [1.0]					10 [1.0]

a - Number of animals examined microscopically at site and number of animals with lesion

b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

Experiment Number: 99013 - 03

**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH  
AVERAGE SEVERITY GRADES[b]**

Date Report Requested: 08/31/2016

Test Type: 18-WEEK PN

Styrene-acrylonitrile trimer

Time Report Requested: 13:02:10

Route: DOSED FEED

CAS Number: SANTRIMER2

First Dose M/F: 07/17/03 / 07/18/03

Species/Strain: RATS/F 344/N

Lab: BAT

---

<b>FISCHER 344 RATS MALE</b>	<b>0 PPM</b>	<b>100 PPM</b>	<b>200 PPM</b>	<b>400 PPM</b>	<b>800 PPM</b>	<b>1600 PPM</b>
Renal Tubule, Cyst	1					
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

---

\*\*\* END OF MALE \*\*\*

a - Number of animals examined microscopically at site and number of animals with lesion

b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

Test Type: 18-WEEK PN

Styrene-acrylonitrile trimer

Time Report Requested: 13:02:10

Route: DOSED FEED

CAS Number: SANTRIMER2

First Dose M/F: 07/17/03 / 07/18/03

Species/Strain: RATS/F 344/N

Lab: BAT

FISCHER 344 RATS FEMALE	0 PPM	100 PPM	200 PPM	400 PPM	800 PPM	1600 PPM
-------------------------	-------	---------	---------	---------	---------	----------

**Disposition Summary**

Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Survivors						
Terminal Sacrifice	10	10	10	10	10	10
Animals Examined Microscopically	10	2	1	1	2	10

## ALIMENTARY SYSTEM

Esophagus	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Colon	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Rectum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Duodenum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Ileum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Jejunum	(10)	(0)	(0)	(0)	(0)	(10)
Liver	(10)	(2)	(0)	(1)	(1)	(10)
Hepatodiaphragmatic Nodule	1	2		1	1	1
Inflammation, Chronic	10 [1.0]	2 [1.0]		1 [1.0]		10 [1.0]
Mesentery	(0)	(0)	(1)	(0)	(0)	(0)
Fat, Necrosis			1 [1.0]			
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Infiltration Cellular, Mononuclear Cell						4 [1.0]
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation						1 [1.0]
Glands, Ectasia						1 [1.0]

## CARDIOVASCULAR SYSTEM

Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)
Heart	(10)	(0)	(0)	(0)	(0)	(10)
Cardiomyopathy	6 [1.0]					7 [1.0]

a - Number of animals examined microscopically at site and number of animals with lesion

b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

Test Type: 18-WEEK PN

Styrene-acrylonitrile trimer

Time Report Requested: 13:02:10

Route: DOSED FEED

CAS Number: SANTRIMER2

First Dose M/F: 07/17/03 / 07/18/03

Species/Strain: RATS/F 344/N

Lab: BAT

FISCHER 344 RATS FEMALE	0 PPM	100 PPM	200 PPM	400 PPM	800 PPM	1600 PPM
-------------------------	-------	---------	---------	---------	---------	----------

## ENDOCRINE SYSTEM

Adrenal Cortex	(10)	(0)	(0)	(0)	(0)	(10)
Adrenal Medulla	(10)	(0)	(0)	(0)	(0)	(10)
Parathyroid Gland	(6)	(0)	(0)	(0)	(0)	(10)
Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Thyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)

## GENERAL BODY SYSTEM

None

## GENITAL SYSTEM

Clitoral Gland	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation	4 [1.0]					4 [1.0]
Ovary	(10)	(0)	(0)	(0)	(1)	(10)
Inflammation, Granulomatous Periovarian Tissue, Cyst					1 [1.0]	1 [2.0]
Uterus	(10)	(0)	(0)	(0)	(0)	(10)
Endometrium, Hyperplasia, Cystic						1 [2.0]

## HEMATOPOIETIC SYSTEM

Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Granulomatous						1 [2.0]
Lymph Node	(0)	(0)	(0)	(0)	(0)	(1)
Pancreatic, Hemorrhage						1 [1.0]
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Granulomatous	2 [1.0]					2 [1.0]
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Thymus	(10)	(0)	(0)	(0)	(0)	(10)

a - Number of animals examined microscopically at site and number of animals with lesion

b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

Test Type: 18-WEEK PN

Styrene-acrylonitrile trimer

Time Report Requested: 13:02:10

Route: DOSED FEED

CAS Number: SANTRIMER2

First Dose M/F: 07/17/03 / 07/18/03

Species/Strain: RATS/F 344/N

Lab: BAT

FISCHER 344 RATS FEMALE	0 PPM	100 PPM	200 PPM	400 PPM	800 PPM	1600 PPM
<b>INTEGUMENTARY SYSTEM</b>						
Mammary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Skin	(10)	(0)	(0)	(0)	(0)	(10)
<b>MUSCULOSKELETAL SYSTEM</b>						
Bone	(10)	(0)	(0)	(0)	(0)	(10)
<b>NERVOUS SYSTEM</b>						
Brain	(10)	(0)	(0)	(0)	(0)	(10)
<b>RESPIRATORY SYSTEM</b>						
Lung	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation, Chronic	3 [1.0]					6 [1.2]
Nose	(10)	(0)	(0)	(0)	(0)	(10)
Olfactory Epithelium, Inflammation, Suppurative						1 [1.0]
Trachea	(10)	(0)	(0)	(0)	(0)	(10)
<b>SPECIAL SENSES SYSTEM</b>						
Eye	(10)	(0)	(0)	(0)	(0)	(10)
Harderian Gland	(10)	(0)	(0)	(0)	(0)	(10)
Inflammation						3 [1.7]
<b>URINARY SYSTEM</b>						
Kidney	(10)	(0)	(0)	(0)	(0)	(10)
Nephropathy	2 [1.0]					2 [1.0]

a - Number of animals examined microscopically at site and number of animals with lesion

b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

Experiment Number: 99013 - 03

**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH  
AVERAGE SEVERITY GRADES[b]**

Date Report Requested: 08/31/2016

Test Type: 18-WEEK PN

Styrene-acrylonitrile trimer

Time Report Requested: 13:02:10

Route: DOSED FEED

CAS Number: SANTRIMER2

First Dose M/F: 07/17/03 / 07/18/03

Species/Strain: RATS/F 344/N

Lab: BAT

---

<b>FISCHER 344 RATS FEMALE</b>	<b>0 PPM</b>	<b>100 PPM</b>	<b>200 PPM</b>	<b>400 PPM</b>	<b>800 PPM</b>	<b>1600 PPM</b>
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

---

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

a - Number of animals examined microscopically at site and number of animals with lesion

b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)