

Experiment Number: 20320 - 03

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

Date Report Requested: 01/23/2013

Test Type: CHRONIC

Tetrabromobisphenol A

Time Report Requested: 15:06:23

Route: GAVAGE

CAS Number: 79-94-7

First Dose M/F: 07/25/07 / 07/26/07

Species/Strain: RATS/Wistar Han

Lab: BAT

F1\_Rev.1\_RE

**NTP Study Number:**

C20320

**Lock Date:**

03/24/2011

**Cage Range:**

ALL

**Date Range:**

ALL

**Reasons For Removal:**

25021 TSAC

25020 NATD

25019 MSAC

25018 DACC

**Removal Date Range:**

ALL

**Treatment Groups:**

Include ALL

**Study Gender:**

Both

**TDMSE Version:**

3.0.1.0\_004

**PWG Approval Date:**

NONE

Test Type: CHRONIC

Tetrabromobisphenol A

Time Report Requested: 15:06:23

Route: GAVAGE

CAS Number: 79-94-7

First Dose M/F: 07/25/07 / 07/26/07

Species/Strain: RATS/Wistar Han

Lab: BAT

Wistar Han RATS MALE	0 mg/kg	250 mg/kg	500 mg/kg	1000 mg/kg
----------------------	---------	-----------	-----------	------------

**Disposition Summary**

<b>Animals Initially In Study</b>	<b>60</b>	<b>50</b>	<b>50</b>	<b>60</b>
<b>Early Deaths</b>				
<b>Dosing Accident</b>	<b>1</b>			<b>3</b>
<b>Moribund Sacrifice</b>	<b>14</b>	<b>18</b>	<b>8</b>	<b>6</b>
<b>Natural Death</b>	<b>2</b>	<b>4</b>	<b>4</b>	<b>2</b>
<b>Survivors</b>				
<b>Moribund Sacrifice</b>	<b>1</b>			
<b>Terminal Sacrifice</b>	<b>32</b>	<b>28</b>	<b>38</b>	<b>39</b>
<b>Animals Examined Microscopically</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>

## ALIMENTARY SYSTEM

Esophagus	(50)	(50)	(50)	(50)
Inflammation	1 [3.0]			
Intestine Large, Cecum	(50)	(50)	(50)	(50)
Inflammation				1 [1.0]
Ulcer			1 [2.0]	
Intestine Large, Colon	(50)	(50)	(50)	(50)
Inflammation			1 [2.0]	
Ulcer	2 [2.0]			
Intestine Large, Rectum	(50)	(50)	(50)	(50)
Inflammation			1 [2.0]	
Parasite Metazoan	1 [1.0]	1 [1.0]	1 [1.0]	
Ulcer	1 [2.0]		1 [2.0]	
Intestine Small, Duodenum	(50)	(50)	(50)	(50)
Diverticulum				1 [3.0]
Metaplasia, Osseous				1 [2.0]
Intestine Small, Ileum	(50)	(50)	(50)	(50)
Hyperplasia				1 [4.0]
Intestine Small, Jejunum	(50)	(50)	(50)	(50)
Liver	(50)	(50)	(50)	(50)
Angiectasis	2 [1.5]	2 [1.0]		1 [1.0]
Basophilic Focus	19	26	24	13
Clear Cell Focus	34	33	43	41

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: CHRONIC

Tetrabromobisphenol A

Time Report Requested: 15:06:23

Route: GAVAGE

CAS Number: 79-94-7

First Dose M/F: 07/25/07 / 07/26/07

Species/Strain: RATS/Wistar Han

Lab: BAT

Wistar Han RATS MALE	0 mg/kg	250 mg/kg	500 mg/kg	1000 mg/kg
Congestion			1 [1.0]	
Eosinophilic Focus		3		3
Fatty Change	28 [1.3]	35 [1.4]	30 [1.2]	27 [1.2]
Hepatodiaphragmatic Nodule	1		2	
Inflammation, Suppurative			1 [4.0]	
Mixed Cell Focus	9	10	12	16
Necrosis	1 [2.0]			
Thrombosis		1		
Artery, Vein, Necrosis		1 [1.0]		
Bile Duct, Hyperplasia	3 [1.0]	5 [1.0]	7 [1.3]	7 [1.1]
Oval Cell, Hyperplasia		1 [3.0]		
Mesentery	(3)	(3)	(0)	(2)
Inflammation, Chronic	1 [4.0]			
Fat, Necrosis	2 [2.0]	3 [2.3]		2 [2.5]
Pancreas	(50)	(50)	(50)	(50)
Atrophy	4 [1.0]	1 [1.0]	1 [1.0]	2 [1.5]
Necrosis	1 [3.0]			
Acinus, Hyperplasia	1 [2.0]			1 [1.0]
Salivary Glands	(50)	(50)	(50)	(49)
Stomach, Forestomach	(50)	(50)	(50)	(50)
Cyst			1 [2.0]	
Inflammation, Chronic	6 [2.3]	5 [2.2]		1 [1.0]
Mineralization	1 [1.0]			
Necrosis	1 [4.0]			
Ulcer	1 [3.0]	1 [3.0]	2 [1.5]	
Epithelium, Hyperplasia			1 [2.0]	
Stomach, Glandular	(50)	(50)	(50)	(50)
Inflammation, Chronic	1 [4.0]	2 [1.0]	1 [2.0]	1 [3.0]
Mineralization		3 [2.0]	4 [1.5]	1 [2.0]
Necrosis	1 [4.0]			
Ulcer	1 [2.0]		1 [2.0]	1 [1.0]
Epithelium, Glands, Hyperplasia		1 [2.0]		1 [3.0]

## CARDIOVASCULAR SYSTEM

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: CHRONIC

Tetrabromobisphenol A

Time Report Requested: 15:06:23

Route: GAVAGE

CAS Number: 79-94-7

First Dose M/F: 07/25/07 / 07/26/07

Species/Strain: RATS/Wistar Han

Lab: BAT

Wistar Han RATS MALE	0 mg/kg	250 mg/kg	500 mg/kg	1000 mg/kg
Blood Vessel	(50)	(50)	(50)	(50)
Adventitia, Aorta, Hemorrhage	1 [3.0]			
Aorta, Inflammation, Chronic	1 [3.0]			
Aorta, Mineralization				1 [3.0]
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	33 [1.4]	23 [1.2]	23 [1.4]	30 [1.2]
Mineralization				1 [3.0]
Atrium, Epicardium, Inflammation, Chronic	1 [3.0]			
Endocardium, Hyperplasia	1 [1.0]	1 [3.0]	1 [2.0]	
Epicardium, Fibrosis	1 [2.0]			

## ENDOCRINE SYSTEM

Adrenal Cortex	(50)	(50)	(49)	(50)
Cytoplasmic Alteration			1 [1.0]	
Degeneration, Cystic	1 [4.0]			
Hemorrhage		1 [2.0]		
Hyperplasia	12 [1.6]	5 [1.6]	6 [1.2]	9 [1.1]
Metaplasia, Osseous			1 [1.0]	
Necrosis		2 [2.0]	1 [3.0]	
Vacuolization Cytoplasmic	17 [1.2]	17 [1.1]	15 [1.1]	16 [1.1]
Adrenal Medulla	(49)	(50)	(49)	(50)
Hyperplasia	3 [1.0]	1 [1.0]	3 [1.7]	2 [1.0]
Necrosis		1 [3.0]	1 [3.0]	
Vacuolization Cytoplasmic				1 [1.0]
Islets, Pancreatic	(50)	(50)	(50)	(50)
Hyperplasia	1 [4.0]			
Parathyroid Gland	(45)	(48)	(47)	(49)
Hyperplasia	1 [1.0]	1 [2.0]	2 [2.0]	1 [2.0]
Pituitary Gland	(50)	(49)	(50)	(48)
Cyst	1 [1.0]	3 [1.0]		3 [1.0]
Pars Distalis, Hyperplasia	8 [1.8]	8 [1.5]	9 [1.3]	7 [2.0]
Pars Intermedia, Hyperplasia	2 [1.5]	2 [2.5]	2 [1.5]	2 [1.5]
Thyroid Gland	(50)	(50)	(50)	(50)
Cyst	1 [2.0]			

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: CHRONIC

Tetrabromobisphenol A

Time Report Requested: 15:06:23

Route: GAVAGE

CAS Number: 79-94-7

First Dose M/F: 07/25/07 / 07/26/07

Species/Strain: RATS/Wistar Han

Lab: BAT

Wistar Han RATS MALE	0 mg/kg	250 mg/kg	500 mg/kg	1000 mg/kg
C-cell, Hyperplasia	16 [1.3]	27 [1.4]	26 [1.2]	19 [1.3]
Follicle, Hyperplasia	3 [1.3]		2 [1.5]	2 [1.0]

## GENERAL BODY SYSTEM

None

## GENITAL SYSTEM

Epididymis	(50)	(50)	(50)	(50)
Atrophy	1 [4.0]	1 [4.0]		
Granuloma Sperm		1 [1.0]		
Preputial Gland	(50)	(50)	(50)	(50)
Inflammation	1 [1.0]	6 [1.0]	10 [1.0]	3 [1.0]
Prostate	(50)	(50)	(50)	(50)
Atrophy		1 [3.0]		
Fibrosis				1 [2.0]
Hyperplasia	2 [1.0]			
Inflammation	12 [1.5]	19 [1.8]	12 [1.5]	14 [1.3]
Artery, Inflammation	1 [2.0]			
Seminal Vesicle	(50)	(50)	(50)	(50)
Atrophy		1 [3.0]		
Inflammation	3 [2.3]	5 [2.0]	2 [2.5]	1 [1.0]
Testes	(50)	(50)	(50)	(50)
Edema	35 [1.5]	32 [1.4]	37 [1.4]	36 [1.2]
Arteriole, Necrosis, Fibrinoid			1 [3.0]	
Germinal Epithelium, Atrophy		4 [2.8]	1 [3.0]	2 [3.5]
Germinal Epithelium, Mineralization				2 [1.5]

## HEMATOPOIETIC SYSTEM

Bone Marrow	(50)	(50)	(50)	(50)
Lymph Node	(3)	(0)	(2)	(1)
Mediastinal, Hyperplasia, Lymphoid	1 [3.0]			

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: CHRONIC

Tetrabromobisphenol A

Time Report Requested: 15:06:23

Route: GAVAGE

CAS Number: 79-94-7

First Dose M/F: 07/25/07 / 07/26/07

Species/Strain: RATS/Wistar Han

Lab: BAT

Wistar Han RATS MALE	0 mg/kg	250 mg/kg	500 mg/kg	1000 mg/kg
Renal, Ectasia			1 [3.0]	
Lymph Node, Mandibular Atrophy	(49)	(50) 1 [2.0]	(50)	(48)
Ectasia		1 [3.0]		
Lymph Node, Mesenteric Atrophy	(50)	(50) 1 [2.0]	(50)	(50)
Ectasia			1 [3.0]	4 [3.0]
Hyperplasia, Lymphoid Necrosis		1 [2.0] 1 [1.0]		
Spleen	(50)	(50)	(50)	(50)
Angiectasis		1 [2.0]		
Congestion		1 [2.0]		
Hematopoietic Cell Proliferation Necrosis	8 [1.8] 1 [4.0]	15 [1.5]	9 [1.8]	10 [1.3]
Capsule, Fibrosis		1 [1.0]		
Lymphoid Follicle, Atrophy	6 [2.2]	5 [2.8]		2 [2.0]
Thymus	(49)	(49)	(49)	(50)
Atrophy	39 [2.8]	46 [3.0]	44 [2.9]	45 [3.2]
Hyperplasia	1 [2.0]			
Inflammation, Chronic	1 [2.0]			

## INTEGUMENTARY SYSTEM

Mammary Gland	(47)	(50)	(50)	(50)
Skin	(50)	(50)	(50)	(50)
Inflammation	1 [2.0]			
Ulcer	10 [3.1]	7 [3.1]	3 [3.0]	6 [3.0]
Epidermis, Hyperplasia		1 [1.0]		

## MUSCULOSKELETAL SYSTEM

Bone	(50)	(50)	(50)	(50)
Osteosclerosis				1 [2.0]
Skeletal Muscle	(1)	(0)	(0)	(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: CHRONIC

Tetrabromobisphenol A

Time Report Requested: 15:06:23

Route: GAVAGE

CAS Number: 79-94-7

First Dose M/F: 07/25/07 / 07/26/07

Species/Strain: RATS/Wistar Han

Lab: BAT

Wistar Han RATS MALE	0 mg/kg	250 mg/kg	500 mg/kg	1000 mg/kg
----------------------	---------	-----------	-----------	------------

## NERVOUS SYSTEM

Brain	(50)	(50)	(50)	(50)
Compression	9 [3.6]	12 [3.3]	9 [2.2]	5 [3.0]
Gliosis				1 [3.0]
Peripheral Nerve	(0)	(2)	(1)	(0)
Axon, Degeneration		1 [1.0]	1 [2.0]	
Spinal Cord	(0)	(2)	(1)	(0)
Axon, Degeneration		1 [3.0]	1 [2.0]	

## RESPIRATORY SYSTEM

Lung	(50)	(50)	(50)	(50)
Foreign Body				1 [4.0]
Hemorrhage		1 [2.0]		
Inflammation, Granulomatous	2 [1.0]	2 [2.0]		3 [1.3]
Inflammation, Chronic	8 [1.0]	6 [1.0]	6 [1.3]	6 [1.0]
Metaplasia, Osseous				3 [1.0]
Alveolar Epithelium, Necrosis		1 [1.0]		
Alveolus, Inflammation	1 [2.0]			
Arteriole, Thrombosis		1 [1.0]		
Bronchiole, Hyperplasia	3 [1.0]	2 [1.0]	1 [1.0]	4 [1.0]
Vein, Necrosis				1 [3.0]
Nose	(50)	(50)	(50)	(50)
Inflammation	8 [1.4]	5 [1.6]	7 [1.6]	8 [1.6]
Ulcer	1 [2.0]			
Goblet Cell, Hyperplasia	1 [2.0]			1 [1.0]
Olfactory Epithelium, Degeneration			2 [2.0]	
Trachea	(50)	(50)	(50)	(50)
Inflammation	2 [1.0]			
Inflammation, Chronic		1 [1.0]		
Perforation				1 [3.0]
Peritracheal Tissue, Inflammation	1 [2.0]			

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: CHRONIC

Tetrabromobisphenol A

Time Report Requested: 15:06:23

Route: GAVAGE

CAS Number: 79-94-7

First Dose M/F: 07/25/07 / 07/26/07

Species/Strain: RATS/Wistar Han

Lab: BAT

Wistar Han RATS MALE	0 mg/kg	250 mg/kg	500 mg/kg	1000 mg/kg
----------------------	---------	-----------	-----------	------------

## SPECIAL SENSES SYSTEM

Eye	(50)	(50)	(50)	(50)
Cataract			1 [3.0]	
Inflammation	1 [3.0]			
Inflammation, Acute		1 [1.0]		
Retina, Atrophy	1 [2.0]	1 [2.0]	3 [2.3]	
Harderian Gland	(49)	(50)	(50)	(50)
Hyperplasia		1 [1.0]	1 [1.0]	2 [1.0]
Inflammation	1 [1.0]			

## URINARY SYSTEM

Kidney	(50)	(50)	(50)	(50)
Cyst	1	1	4	3
Hydronephrosis		2 [2.0]	1 [2.0]	1 [3.0]
Infarct				1
Inflammation, Suppurative, Multifocal		1 [3.0]		
Inflammation, Suppurative				1 [3.0]
Inflammation, Chronic				2 [2.0]
Metaplasia, Lipocyte			1 [1.0]	
Metaplasia, Osseous				1 [2.0]
Nephropathy	39 [1.4]	30 [1.2]	35 [1.2]	31 [1.1]
Pelvis, Inflammation, Suppurative	4 [1.8]	2 [2.0]	2 [1.5]	5 [1.6]
Renal Tubule, Accumulation, Hyaline Droplet	1 [3.0]		1 [3.0]	
Renal Tubule, Dilatation			1 [3.0]	
Urethra	(1)	(0)	(0)	(0)
Inflammation, Chronic	1 [3.0]			
Urinary Bladder	(50)	(50)	(50)	(50)
Inflammation			1 [4.0]	
Transitional Epithelium, Hyperplasia		1 [3.0]		

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: 20320 - 03

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

Date Report Requested: 01/23/2013

Test Type: CHRONIC

Tetrabromobisphenol A

Time Report Requested: 15:06:23

Route: GAVAGE

CAS Number: 79-94-7

First Dose M/F: 07/25/07 / 07/26/07

Species/Strain: RATS/Wistar Han

Lab: BAT

---

Wistar Han RATS MALE

0 mg/kg

250 mg/kg

500 mg/kg

1000 mg/kg

---

\*\*\* 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: CHRONIC

Tetrabromobisphenol A

Time Report Requested: 15:06:23

Route: GAVAGE

CAS Number: 79-94-7

First Dose M/F: 07/25/07 / 07/26/07

Species/Strain: RATS/Wistar Han

Lab: BAT

Wistar Han RATS FEMALE	0 mg/kg	250 mg/kg	500 mg/kg	1000 mg/kg
------------------------	---------	-----------	-----------	------------

**Disposition Summary**

<b>Animals Initially In Study</b>	<b>60</b>	<b>50</b>	<b>50</b>	<b>60</b>
<b>Early Deaths</b>				
<b>Dosing Accident</b>	<b>3</b>			<b>4</b>
<b>Moribund Sacrifice</b>	<b>8</b>	<b>14</b>	<b>15</b>	<b>10</b>
<b>Natural Death</b>	<b>4</b>	<b>2</b>	<b>6</b>	<b>3</b>
<b>Survivors</b>				
<b>Moribund Sacrifice</b>	<b>1</b>			<b>1</b>
<b>Terminal Sacrifice</b>	<b>34</b>	<b>34</b>	<b>29</b>	<b>32</b>
<b>Animals Examined Microscopically</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>

## ALIMENTARY SYSTEM

Esophagus	(50)	(49)	(50)	(50)
Inflammation	1 [2.0]			
Inflammation, Acute				1 [4.0]
Perforation	3 [3.0]			3 [4.0]
Intestine Large, Cecum	(50)	(49)	(50)	(50)
Inflammation			1 [2.0]	
Inflammation, Suppurative		1 [3.0]		
Intestine Large, Colon	(50)	(50)	(50)	(50)
Inflammation, Suppurative		1 [2.0]		
Parasite Metazoan		1 [1.0]		
Intestine Large, Rectum	(50)	(50)	(50)	(50)
Parasite Metazoan	3 [1.0]	2 [1.0]	2 [1.5]	1 [1.0]
Intestine Small	(0)	(1)	(0)	(0)
Intestine Small, Duodenum	(50)	(50)	(50)	(50)
Intestine Small, Ileum	(50)	(49)	(50)	(50)
Parasite Metazoan	1 [1.0]		1 [1.0]	
Lymphoid Tissue, Hyperplasia				1 [1.0]
Intestine Small, Jejunum	(50)	(50)	(50)	(50)
Liver	(50)	(50)	(50)	(50)
Angiectasis	1 [2.0]	1 [2.0]		
Basophilic Focus	47	38	40	47
Clear Cell Focus	24	19	19	18

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: CHRONIC

Tetrabromobisphenol A

Time Report Requested: 15:06:23

Route: GAVAGE

CAS Number: 79-94-7

First Dose M/F: 07/25/07 / 07/26/07

Species/Strain: RATS/Wistar Han

Lab: BAT

Wistar Han RATS FEMALE	0 mg/kg	250 mg/kg	500 mg/kg	1000 mg/kg
Congestion	1 [1.0]			
Cyst		1		
Eosinophilic Focus	1	2	3	1
Fatty Change	11 [1.3]	12 [1.3]	7 [1.6]	7 [1.0]
Hematopoietic Cell Proliferation	1 [1.0]			
Hepatodiaphragmatic Nodule	1		1	
Inflammation, Suppurative		1 [1.0]		
Mixed Cell Focus	13	22	12	20
Necrosis		1 [1.0]	4 [1.8]	2 [2.0]
Pigmentation		1 [2.0]		
Bile Duct, Cyst	2		3	1
Bile Duct, Hyperplasia	11 [1.1]	29 [1.2]	21 [1.1]	20 [1.3]
Centrilobular, Necrosis			1 [2.0]	
Oval Cell, Hyperplasia				1 [2.0]
Mesentery	(2)	(8)	(5)	(4)
Fat, Necrosis	2 [2.0]	3 [1.7]	2 [2.0]	2 [1.5]
Pancreas	(50)	(50)	(50)	(50)
Acinus, Atrophy	4 [1.5]	4 [1.0]	1 [1.0]	
Duct, Cyst	2 [2.0]			
Salivary Glands	(50)	(48)	(49)	(49)
Duct, Hyperplasia	1 [2.0]			
Duct, Metaplasia, Squamous	1 [2.0]			
Stomach, Forestomach	(50)	(50)	(50)	(50)
Inflammation, Suppurative		1 [3.0]		
Inflammation, Chronic	2 [2.0]	1 [2.0]	2 [2.0]	2 [2.0]
Ulcer	1 [3.0]		1 [2.0]	
Epithelium, Hyperplasia				1 [2.0]
Stomach, Glandular	(50)	(50)	(50)	(50)
Inflammation, Suppurative		1 [3.0]		
Inflammation, Acute			1 [2.0]	
Inflammation, Chronic	1 [2.0]	2 [1.0]		
Mineralization	6 [1.0]	1 [1.0]	1 [2.0]	2 [1.0]
Ulcer		1 [3.0]	2 [2.0]	

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: CHRONIC

Tetrabromobisphenol A

Time Report Requested: 15:06:23

Route: GAVAGE

CAS Number: 79-94-7

First Dose M/F: 07/25/07 / 07/26/07

Species/Strain: RATS/Wistar Han

Lab: BAT

Wistar Han RATS FEMALE	0 mg/kg	250 mg/kg	500 mg/kg	1000 mg/kg
<b>CARDIOVASCULAR SYSTEM</b>				
Blood Vessel	(50)	(50)	(50)	(50)
Mineralization	1 [4.0]			
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	9 [1.0]	10 [1.1]	3 [1.3]	7 [1.0]
Congestion	1 [2.0]			
Endocardium, Hyperplasia	2 [2.0]	2 [1.5]	1 [2.0]	
Myocardium, Mineralization	1 [3.0]			
Pericardium, Inflammation, Acute				1 [4.0]
<b>ENDOCRINE SYSTEM</b>				
Adrenal Cortex	(50)	(50)	(50)	(50)
Angiectasis	12 [2.0]	7 [1.9]	6 [1.8]	9 [1.8]
Degeneration, Cystic	1 [2.0]	1 [4.0]	1 [2.0]	
Fibrosis			1 [2.0]	
Hyperplasia	7 [1.6]	7 [1.9]	7 [1.7]	11 [1.3]
Inflammation, Suppurative				1 [3.0]
Mineralization				1 [2.0]
Necrosis		1 [1.0]		
Vacuolization Cytoplasmic	2 [1.0]	3 [1.0]	5 [1.4]	2 [1.0]
Capsule, Fibrosis	1 [1.0]			
Adrenal Medulla	(49)	(50)	(50)	(50)
Hemorrhage				2 [1.5]
Hyperplasia	2 [1.0]	2 [1.0]		2 [1.5]
Inflammation, Suppurative				1 [3.0]
Thrombosis			1 [3.0]	
Islets, Pancreatic	(50)	(50)	(50)	(50)
Hyperplasia	1 [2.0]	1 [2.0]	1 [2.0]	1 [1.0]
Parathyroid Gland	(48)	(39)	(48)	(49)
Pituitary Gland	(50)	(50)	(50)	(50)
Angiectasis	1 [2.0]			
Cyst	1 [1.0]	1 [1.0]	1 [2.0]	
Pars Distalis, Hyperplasia	16 [2.3]	13 [2.0]	14 [1.6]	19 [1.5]

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: CHRONIC

Tetrabromobisphenol A

Time Report Requested: 15:06:23

Route: GAVAGE

CAS Number: 79-94-7

First Dose M/F: 07/25/07 / 07/26/07

Species/Strain: RATS/Wistar Han

Lab: BAT

Wistar Han RATS FEMALE	0 mg/kg	250 mg/kg	500 mg/kg	1000 mg/kg
Pars Intermedia, Hyperplasia	2 [1.5]	3 [1.7]	2 [1.5]	1 [1.0]
Thyroid Gland	(50)	(48)	(50)	(50)
C-cell, Hyperplasia	32 [1.4]	37 [1.5]	39 [1.4]	36 [1.4]
Follicle, Hyperplasia	2 [2.5]	4 [1.8]	3 [2.0]	1 [3.0]
Follicular Cell, Hyperplasia	1 [2.0]			

## GENERAL BODY SYSTEM

None

## GENITAL SYSTEM

Clitoral Gland	(50)	(50)	(50)	(50)
Hyperplasia			1 [1.0]	
Inflammation	4 [1.0]	2 [1.0]	4 [1.0]	5 [1.2]
Ovary	(50)	(49)	(50)	(49)
Cyst	1	4	4	6
Inflammation, Acute	1 [2.0]			
Stromal Hyperplasia, Mixed Cell	1 [3.0]			
Bilateral, Cyst	1			
Bursa, Dilatation	4	2	5	8
Rete Ovarii, Cyst	1		6	6
Uterus	(50)	(50)	(50)	(50)
Adenomyosis				2 [2.0]
Cyst	1			1
Dilatation	1 [1.0]	4 [2.5]	3 [2.7]	2 [4.0]
Hyperplasia, Glandular, Focal			1 [2.0]	
Inflammation, Suppurative	7 [2.0]	3 [1.7]	2 [2.0]	3 [2.3]
Ulcer				1 [2.0]
Cervix, Hyperplasia, Stromal		1 [3.0]	4 [2.8]	2 [3.0]
Endometrium, Hyperplasia, Adenomatous				1 [2.0]
Endometrium, Hyperplasia, Cystic	8 [2.1]	13 [1.5]	11 [2.0]	18 [1.9]
Vagina	(1)	(1)	(1)	(1)
Cyst			1 [3.0]	
Necrosis	1 [3.0]			

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: CHRONIC

Tetrabromobisphenol A

Time Report Requested: 15:06:23

Route: GAVAGE

CAS Number: 79-94-7

First Dose M/F: 07/25/07 / 07/26/07

Species/Strain: RATS/Wistar Han

Lab: BAT

Wistar Han RATS FEMALE	0 mg/kg	250 mg/kg	500 mg/kg	1000 mg/kg
------------------------	---------	-----------	-----------	------------

## HEMATOPOIETIC SYSTEM

Bone Marrow	(50)	(50)	(50)	(50)
Lymph Node	(0)	(1)	(1)	(0)
Mediastinal, Congestion		1 [2.0]		
Mediastinal, Ectasia			1 [3.0]	
Lymph Node, Mandibular	(50)	(48)	(49)	(49)
Lymph Node, Mediastinal	(0)	(0)	(1)	(0)
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Hyperplasia, Plasma Cell		1 [3.0]		
Inflammation, Suppurative		1 [3.0]		
Spleen	(50)	(50)	(50)	(50)
Hematopoietic Cell Proliferation	26 [1.5]	30 [1.5]	26 [1.9]	26 [1.8]
Inflammation, Suppurative		1 [3.0]		
Lymphoid Follicle, Atrophy	3 [2.3]	2 [3.0]	2 [2.5]	1 [2.0]
Red Pulp, Atrophy		1 [2.0]		
Thymus	(50)	(50)	(49)	(50)
Atrophy	43 [2.0]	43 [2.1]	40 [1.8]	45 [1.8]
Cyst			1 [2.0]	
Hemorrhage				1 [1.0]
Hyperplasia	1 [2.0]	2 [2.5]		
Epithelial Cell, Hyperplasia		1 [3.0]		

## INTEGUMENTARY SYSTEM

Mammary Gland	(50)	(50)	(50)	(50)
Galactocele	3	1	2	2
Hyperplasia	1 [3.0]	2 [2.0]		
Inflammation, Suppurative				1 [4.0]
Skin	(50)	(50)	(50)	(50)
Inflammation			1 [2.0]	
Ulcer			1 [2.0]	
Epidermis, Hyperplasia				1 [2.0]
Vein, Cyst				1 [3.0]

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: CHRONIC

Tetrabromobisphenol A

Time Report Requested: 15:06:23

Route: GAVAGE

CAS Number: 79-94-7

First Dose M/F: 07/25/07 / 07/26/07

Species/Strain: RATS/Wistar Han

Lab: BAT

Wistar Han RATS FEMALE	0 mg/kg	250 mg/kg	500 mg/kg	1000 mg/kg
<b>MUSCULOSKELETAL SYSTEM</b>				
Bone	(50)	(50)	(50)	(50)
Fracture				1 [4.0]
Hyperplasia			1 [2.0]	
Skeletal Muscle	(0)	(2)	(1)	(1)
Inflammation, Acute				1 [3.0]
<b>NERVOUS SYSTEM</b>				
Brain	(50)	(50)	(50)	(50)
Compression	11 [2.8]	10 [2.7]	9 [3.3]	6 [3.3]
Hippocampus, Necrosis	1 [3.0]			
Meninges, Inflammation, Acute	1 [3.0]			
Peripheral Nerve	(0)	(1)	(0)	(0)
Spinal Cord	(0)	(1)	(0)	(0)
<b>RESPIRATORY SYSTEM</b>				
Lung	(50)	(50)	(50)	(50)
Congestion			1 [1.0]	
Inflammation, Granulomatous	1 [1.0]	2 [1.5]		4 [1.3]
Inflammation, Chronic	2 [1.0]		3 [1.0]	1 [1.0]
Alveolar Epithelium, Hyperplasia	1 [2.0]	2 [1.5]	1 [1.0]	
Bronchiole, Hyperplasia	1 [1.0]	1 [1.0]		1 [1.0]
Serosa, Inflammation, Suppurative				1 [3.0]
Nose	(50)	(50)	(50)	(50)
Inflammation	11 [1.8]	8 [1.4]	7 [1.3]	9 [1.7]
Trachea	(50)	(49)	(50)	(50)
Inflammation	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)

Test Type: CHRONIC

Tetrabromobisphenol A

Time Report Requested: 15:06:23

Route: GAVAGE

CAS Number: 79-94-7

First Dose M/F: 07/25/07 / 07/26/07

Species/Strain: RATS/Wistar Han

Lab: BAT

Wistar Han RATS FEMALE	0 mg/kg	250 mg/kg	500 mg/kg	1000 mg/kg
<b>SPECIAL SENSES SYSTEM</b>				
Eye	(50)	(48)	(49)	(49)
Cataract			2 [3.0]	1 [3.0]
Degeneration	1 [4.0]			1 [4.0]
Malformation	1 [3.0]			
Cornea, Inflammation		1 [1.0]		
Retina, Atrophy		2 [1.5]	3 [2.3]	4 [2.0]
Harderian Gland	(50)	(48)	(49)	(49)
Inflammation		1 [1.0]		1 [1.0]
<b>URINARY SYSTEM</b>				
Kidney	(50)	(50)	(50)	(50)
Accumulation, Hyaline Droplet				1 [3.0]
Cyst	2	1	2	
Hydronephrosis	1 [3.0]	1 [4.0]		2 [3.0]
Infarct		1 [2.0]	1	
Inflammation, Suppurative		2 [2.5]		1 [2.0]
Inflammation, Chronic	1 [3.0]			
Nephropathy	9 [1.3]	15 [1.1]	13 [1.3]	9 [1.2]
Thrombosis		2		
Pelvis, Inflammation, Suppurative	2 [2.0]	4 [1.5]	3 [1.7]	1 [2.0]
Renal Tubule, Autolysis	1 [3.0]	1 [3.0]	1 [3.0]	
Urinary Bladder	(50)	(50)	(50)	(50)
Inflammation	1 [3.0]			1 [1.0]

\*\*\* 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)